

PUB. 141
SAILING DIRECTIONS
(ENROUTE)



SCOTLAND



Prepared and published by the
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
Springfield, Virginia

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2015



FIFTEENTH EDITION

7500 Geoint Drive
Springfield VA 22150-7500

Preface

Pub. 141, Sailing Directions (Enroute) Scotland, Fifteenth Edition, 2015, is issued for use in conjunction with Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean and Adjacent Seas. Companion volumes are Pubs. 142, 143, 145, 146, 147, and 148.

Digital Nautical Charts 19 and 20 provide electronic chart coverage for the area covered by this publication.

This publication has been corrected to 28 November 2015, including Notice to Mariners No. 48 of 2015. Subsequent updates have corrected this publication to 20 August 2016, including Notice to Mariners No. 34 of 2016

Explanatory Remarks

Sailing Directions are published by the National Geospatial-Intelligence Agency (NGA), under the authority of Department of Defense Directive 5105.40, dated 12 December 1988, and pursuant to the authority contained in U. S. Code Title 10, Sections 2791 and 2792 and Title 44, Section 1336. Sailing Directions, covering the harbors, coasts, and waters of the world, provide information that cannot be shown graphically on nautical charts and is not readily available elsewhere.

Sailing Directions (Enroute) include detailed coastal and port approach information which supplements the largest scale chart produced by the National Geospatial-Intelligence Agency. This publication is divided into geographic areas called "Sectors."

Bearings.—Bearings are true, and are expressed in degrees from 000° (north) to 360°, measured clockwise. General bearings are expressed by initial letters of points of the compass (e.g. N, NNE, NE, etc.). Adjective and adverb endings have been discarded. Wherever precise bearings are intended degrees are used.

Charts.—Reference to charts made throughout this publication refer to both the paper chart and the Digital Nautical Chart (DNC).

Coastal Features.—It is assumed that the majority of ships have radar. Available coastal descriptions and views, useful for radar and visual piloting are included in geographic sequence in each Sector.

Corrective Information.—Users should refer corrections, additions, and comments to NGA's Maritime Operations Desk, as follows:

1. Toll free: 1-800-362-6289
2. Commercial: 571-557-5455
3. DSN: 547-5455
4. DNC web site: <http://dnc.nga.mil/NGAPortal/DNC.portal>
5. Maritime Domain web site: <http://msi.nga.mil/NGAPortal/MSI.portal>
6. E-mail: navsafety@nga.mil
7. Mailing address: Maritime Safety Office
National Geospatial-Intelligence Agency
Mail Stop N64-SFH

New editions of Sailing Directions are corrected through the date of the publication shown above. Important information to amend material in the publication is available as a Publication Data Update (PDU) from the NGA Maritime Domain web site.

NGA Maritime Domain Website
<http://msi.nga.mil/NGAPortal/MSI.portal>

Courses.—Courses are true, and are expressed in the same manner as bearings. The directives "steer" and "make good" a course mean, without exception, to proceed from a point of origin along a track having the identical meridional angle as the designated course. Vessels following the directives must allow for every influence tending to cause deviation from such track, and navigate so that the designated course is continuously being made good.

Currents.—Current directions are the true directions toward which currents set.

Dangers.—As a rule outer dangers are fully described, but inner dangers which are well-charted are, for the most part, omitted. Numerous offshore dangers, grouped together, are mentioned only in general terms. Dangers adjacent to a coastal passage or fairway are described.

Distances.—Distances are expressed in nautical miles of 1 minute of latitude. Distances of less than 1 mile are expressed in meters, or tenths of miles.

Geographic Names.—Geographic names are generally those used by the nation having sovereignty. Names in parentheses following another name are alternate names that may appear on some charts. In general, alternate names are quoted only in the principal description of the place. Diacritical marks, such as accents, cedillas, and circumflexes, which are related to specific letters in certain foreign languages, are not used in the interest of typographical simplicity. Geographic names or their spellings do not necessarily reflect recognition of the political status of an area by the United States Government.

Heights.—Heights are referred to the plane of reference used for that purpose on the charts and are expressed in meters.

Index-Gazetteer.—Navigational features and place-names are listed alphabetically in the back of the book. The approximate position, along with the Sector and paragraph numbers (e.g. 1.1), facilitate location in the text.

Internet Links.—This publication provides internet links to web sites concerned with maritime navigational safety, including but not limited to, Federal government sites, foreign Hydrographic Offices, and foreign public/private port facilities. NGA makes no claims, promises, or guarantees concerning the accuracy, completeness, or adequacy of the contents of the web sites and expressly disclaims any liability for errors and omissions of these web sites.

Light and Fog Signals.—Lights and fog signals are not described, and light sectors are not usually defined. The Light Lists should be consulted for complete information.

Ports.—Directions for entering ports are depicted where appropriate by means of chartlets, sketches, and photos, which facilitate positive identification of landmarks and navigational aids. These chartlets and sketches are not always to scale, how-

ever, and should be used only as a general informational guide in conjunction with the best scale chart. Specific port facilities are omitted from the standard format. They are tabulated in Pub. 150, World Port Index.

Radio Navigational Aids.—Radio navigational aids are not described in detail. Publication No. 117 Radio Navigational Aids and NOAA Publication, Selected Worldwide Marine Broadcasts, should be consulted.

Soundings.—Soundings are referred to the datum of the charts and are expressed in meters.

Special Warnings.—A Special Warning may be in force for the geographic area covered by this publication. Special Warnings are printed in the weekly Notice to Mariners upon promulgation and are reprinted annually in Notice to Mariners No. 1. A listing of Special Warnings currently in force is printed in each weekly Notice to Mariners, Section III, Broadcast Warnings, along with the notice number of promulgation. Special Warnings are also available on the Maritime Division website.

Wind Directions.—Wind directions are the true directions from which winds blow.

Reference List

The principal sources examined in the preparation of this publication were:

British Hydrographic Department Sailing Directions.

Various port handbooks.

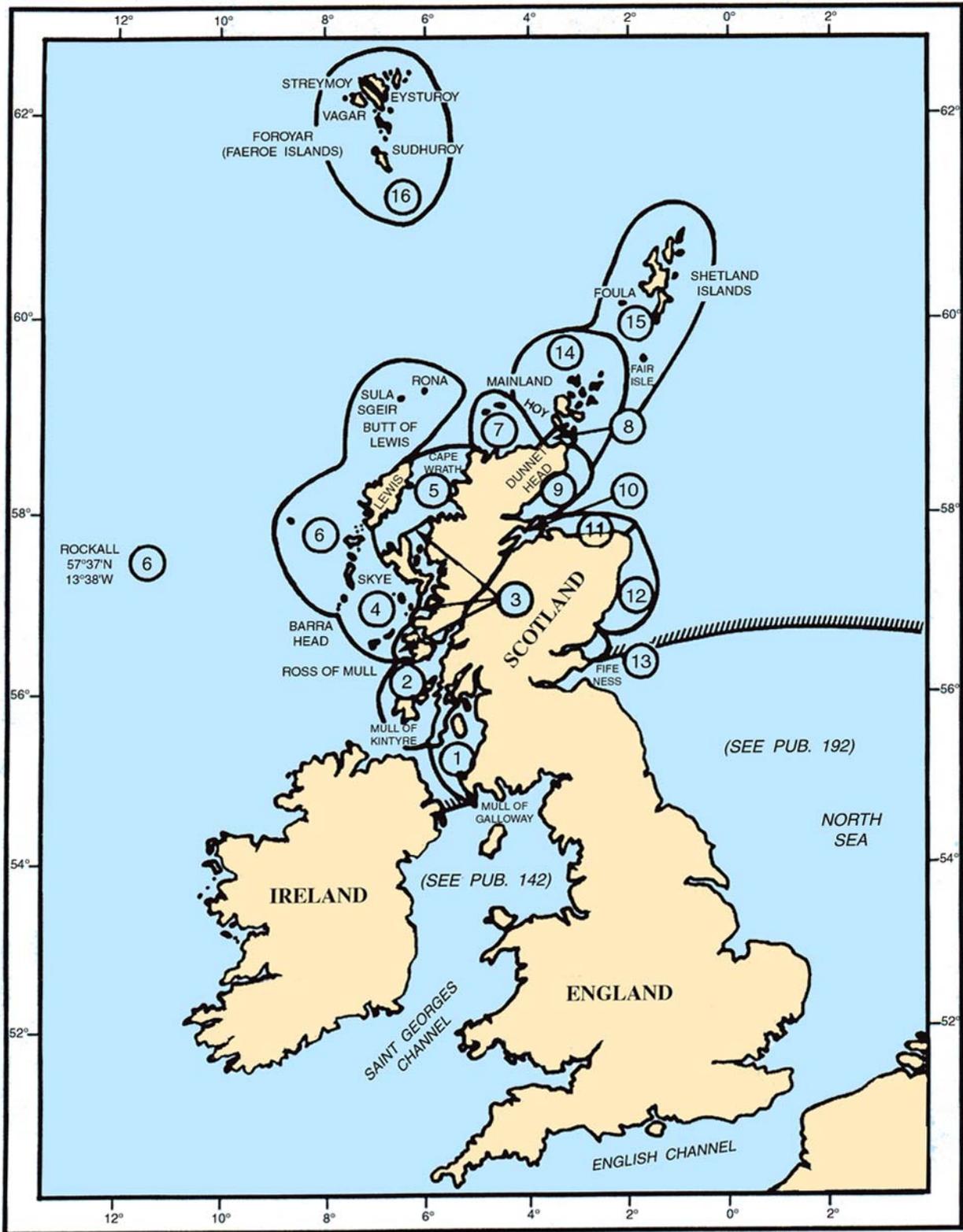
Reports from United States Naval and merchant vessels and various shipping companies.

Other U.S. Government publications, reports, and documents.

Charts, light lists, tide and current tables, and other documents in possession of the Agency.

Internet web sites, as follows:

1. Courtie, Liz
<http://www.isle-of-man.com/galleries/index.htm>
2. Lighthouse Beacons from Scotland
<http://claymore.wisemagic.com/scotradiance/light.htm>



SECTOR LIMITS — PUB. 141

Conversion Tables

Feet to Meters

Feet	0	1	2	3	4	5	6	7	8	9
0	0.00	0.30	0.61	0.91	1.22	1.52	1.83	2.13	2.44	2.74
10	3.05	3.35	3.66	3.96	4.27	4.57	4.88	5.18	5.49	5.79
20	6.10	6.40	6.71	7.01	7.32	7.62	7.92	8.23	8.53	8.84
30	9.14	9.45	9.75	10.06	10.36	10.67	10.97	11.28	11.58	11.89
40	12.19	12.50	12.80	13.11	13.41	13.72	14.02	14.33	14.63	14.93
50	15.24	15.54	15.85	16.15	16.46	16.76	17.07	17.37	17.68	17.98
60	18.29	18.59	18.90	19.20	19.51	19.81	20.12	20.42	20.73	21.03
70	21.34	21.64	21.95	22.25	22.55	22.86	23.16	23.47	23.77	24.08
80	24.38	24.69	24.99	25.30	25.60	25.91	26.21	26.52	26.82	27.13
90	27.43	27.74	28.04	28.35	28.65	28.96	29.26	29.57	29.87	30.17

Fathoms to Meters

Fathoms	0	1	2	3	4	5	6	7	8	9
0	0.00	1.83	3.66	5.49	7.32	9.14	10.97	12.80	14.63	16.46
10	18.29	20.12	21.95	23.77	25.60	27.43	29.26	31.09	32.92	34.75
20	36.58	38.40	40.23	42.06	43.89	45.72	47.55	49.38	51.21	53.03
30	54.86	56.69	58.52	60.35	62.18	64.01	65.84	67.67	69.49	71.32
40	73.15	74.98	76.81	78.64	80.47	82.30	84.12	85.95	87.78	89.61
50	91.44	93.27	95.10	96.93	98.75	100.58	102.41	104.24	106.07	107.90
60	109.73	111.56	113.39	115.21	117.04	118.87	120.70	122.53	124.36	126.19
70	128.02	129.85	131.67	133.50	135.33	137.16	138.99	140.82	142.65	144.47
80	146.30	148.13	149.96	151.79	153.62	155.45	157.28	159.11	160.93	162.76
90	164.59	166.42	168.25	170.08	171.91	173.74	175.56	177.39	179.22	181.05

Meters to Feet

Meters	0	1	2	3	4	5	6	7	8	9
0	0.00	3.28	6.56	9.84	13.12	16.40	19.68	22.97	26.25	29.53
10	32.81	36.09	39.37	42.65	45.93	49.21	52.49	55.77	59.06	62.34
20	65.62	68.90	72.18	75.46	78.74	82.02	85.30	88.58	91.86	95.14
30	98.42	101.71	104.99	108.27	111.55	114.83	118.11	121.39	124.67	127.95
40	131.23	134.51	137.80	141.08	144.36	147.64	150.92	154.20	157.48	160.76
50	164.04	167.32	170.60	173.88	177.16	180.45	183.73	187.01	190.29	193.57
60	196.85	200.13	203.41	206.69	209.97	213.25	216.54	219.82	223.10	226.38
70	229.66	232.94	236.22	239.50	242.78	246.06	249.34	252.62	255.90	259.19
80	262.47	265.75	269.03	272.31	275.59	278.87	282.15	285.43	288.71	291.99
90	295.28	298.56	301.84	305.12	308.40	311.68	314.96	318.24	321.52	324.80

Meters to Fathoms

Meters	0	1	2	3	4	5	6	7	8	9
0	0.00	0.55	1.09	1.64	2.19	2.73	3.28	3.83	4.37	4.92
10	5.47	6.01	6.56	7.11	7.66	8.20	8.75	9.30	9.84	10.39
20	10.94	11.48	12.03	12.58	13.12	13.67	14.22	14.76	15.31	15.86
30	16.40	16.95	17.50	18.04	18.59	19.14	19.68	20.23	20.78	21.33
40	21.87	22.42	22.97	23.51	24.06	24.61	25.15	25.70	26.25	26.79
50	27.34	27.89	28.43	28.98	29.53	30.07	30.62	31.17	31.71	32.26
60	32.81	33.36	33.90	34.45	35.00	35.54	36.09	36.64	37.18	37.73
70	38.28	38.82	39.37	39.92	40.46	41.01	41.56	42.10	42.65	43.20
80	43.74	44.29	44.84	45.38	45.93	46.48	47.03	47.57	48.12	48.67
90	49.21	49.76	50.31	50.85	51.40	51.95	52.49	53.04	53.59	54.13

Abbreviations

The following abbreviations may be used in the text:

Units

°C	degree(s) Centigrade	km	kilometer(s)
cm	centimeter(s)	m	meter(s)
cu.m.	cubic meter(s)	mb	millibars
dwt	deadweight tons	MHz	megahertz
FEU	forty-foot equivalent units	mm	millimeter(s)
grt	gross registered tons	nrt	net registered tons
kHz	kilohertz	TEU	twenty-foot equivalent units

Directions

N	north	S	south
NNE	northeast	SSW	southsouthwest
NE	northeast	SW	southwest
ENE	eastnortheast	WSW	westsouthwest
E	east	W	west
ESE	eastsoutheast	WNW	westnorthwest
SE	southeast	NW	northwest
SSE	southsoutheast	NNW	northnorthwest

Vessel types

LASH	Lighter Aboard Ship	Ro-Ro	Roll-on Roll-off
LNG	Liquified Natural Gas	ULCC	Ultra Large Crude Carrier
LPG	Liquified Petroleum Gas	VLCC	Very Large Crude Carrier
OBO	Ore/Bulk/Oil	VLOC	Very Large Ore Carrier
Lo-Lo	Lift-on Lift-off	FSO	Floating Storage and Offloading Vessels (System)

Time

ETA	estimated time of arrival	GMT	Greenwich Mean Time
ETD	estimated time of departure	UTC	Coordinated Universal Time

Water level

MSL	mean sea level	LWS	low water springs
HW	high water	MHWN	mean high water neaps
LW	low water	MHWS	mean high water springs
MHW	mean high water	MLWN	mean low water neaps
MLW	mean low water	MLWS	mean low water springs
HWN	high water neaps	HAT	highest astronomical tide
HWS	high water springs	LAT	lowest astronomical tide
LWS	low water springs		
LWN	low water neaps		

Communications

D/F	direction finder	MF	medium frequency
R/T	radiotelephone	HF	high frequency
GMDSS	Global Maritime Distress and Safety System	VHF	very high frequency
LF	low frequency	UHF	ultra high frequency

Navigation

LANBY	Large Automatic Navigation Buoy	SBM	Single Buoy Mooring
NAVSAT	Navigation Satellite	SPM	Single Point Mooring
ODAS	Ocean Data Acquisition System	TSS	Traffic Separation Scheme
CBM	Conventional Buoy Mooring System	VTC	Vessel Traffic Center
MBM	Multi-Buoy Mooring System	VTS	Vessel Traffic Service

VIII

The following abbreviations may be used in the text:

Miscellaneous

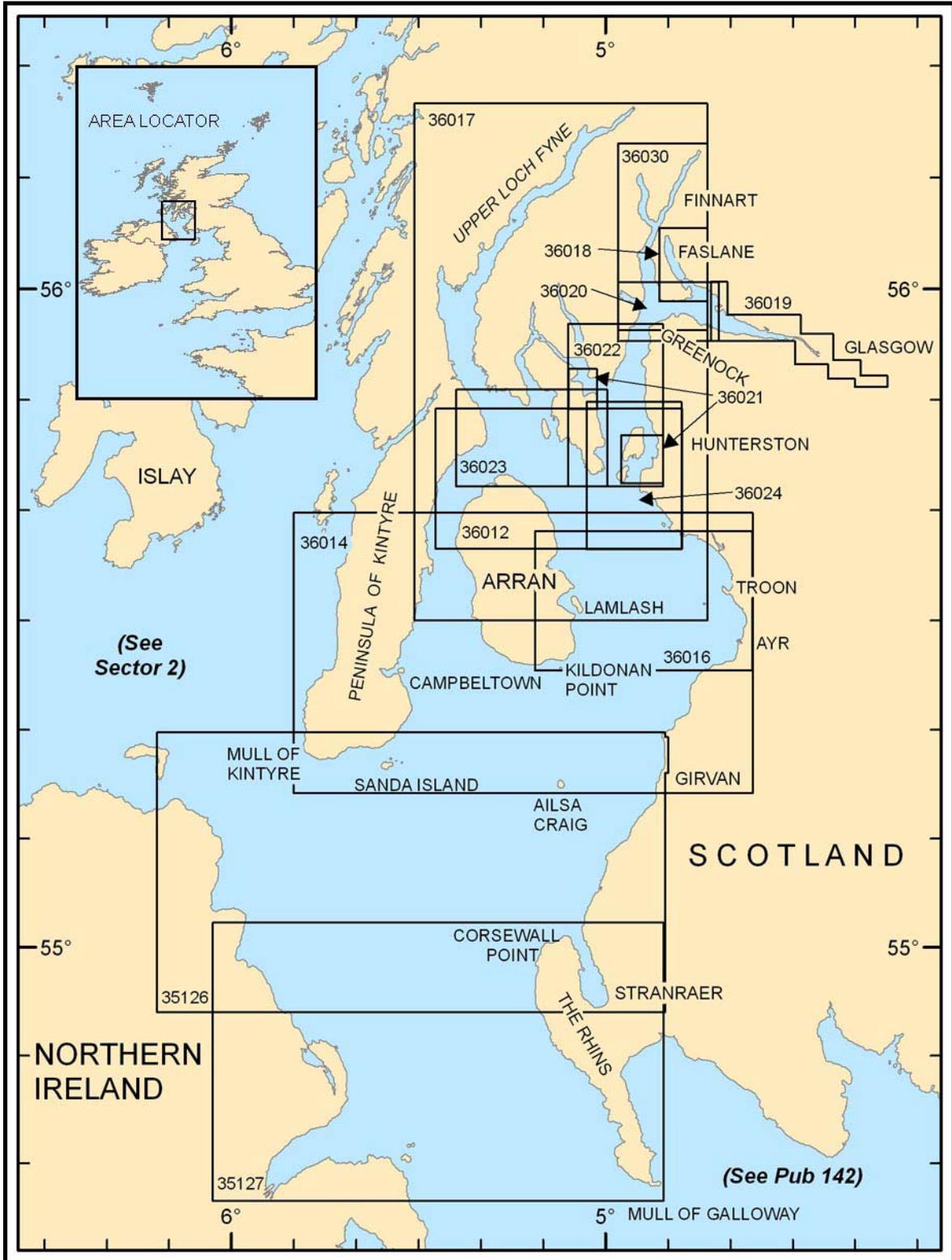
AIS	Automatic Identification System	MMSI	Maritime Mobile Service Identity Code
COLREGS	Collision Regulations	No./Nos.	Number/Numbers
IALA	International Association of Lighthouse Authorities	PA	Position approximate
IHO	International Hydrographic Organization	PD	Position doubtful
IMO	International Maritime Organization	Pub.	Publication
LOA	length overall	SOLAS	International Convention for Safety of Life at Sea
UKC	Under keel clearance	St./Ste.	Saint/Sainte
		ISPS	International Ship and Port facility Security

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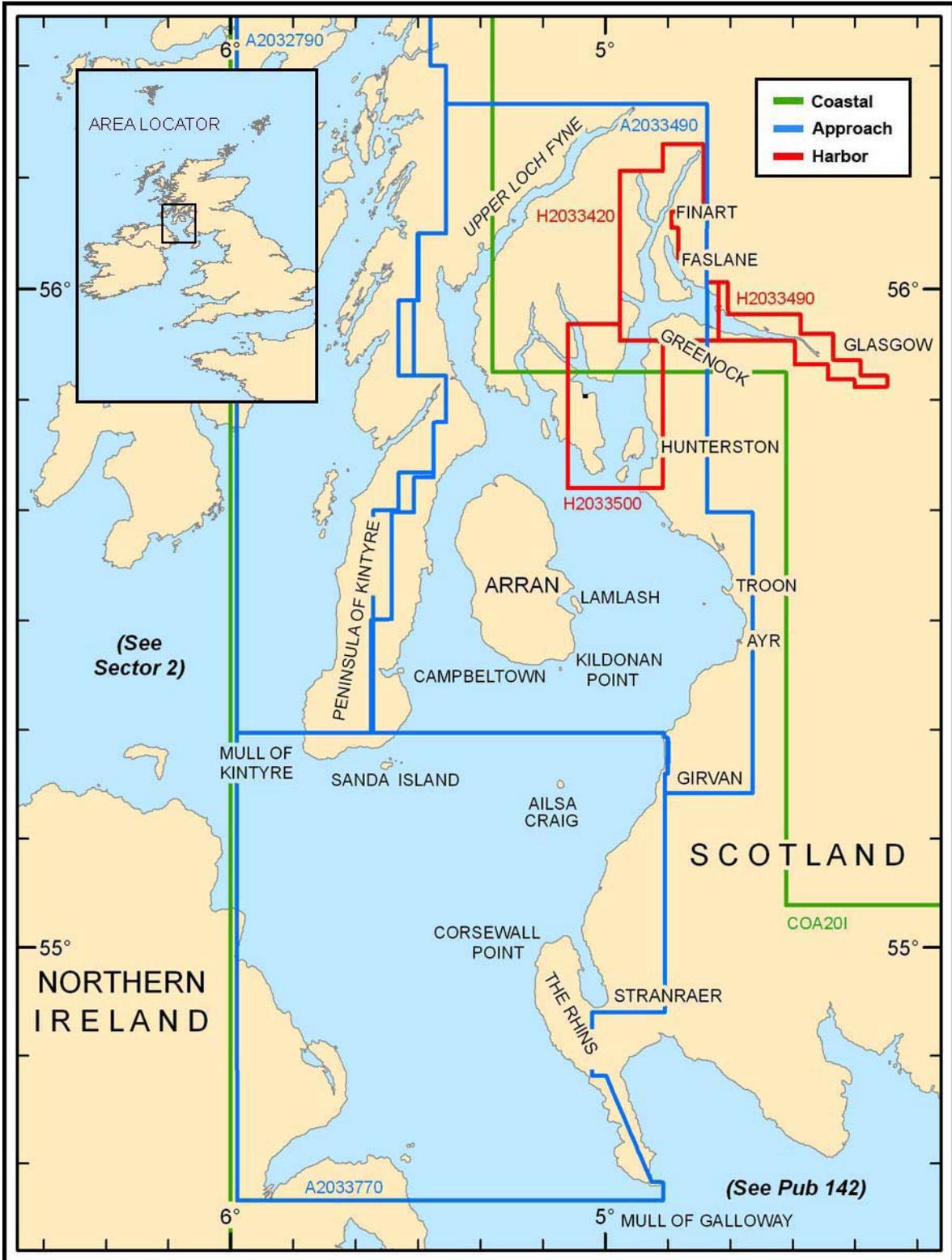
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Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 1 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.
SECTOR 1 — DNC LIBRARY INFORMATION

SECTOR 1

WEST COAST—THE MULL OF GALLOWAY TO THE MULL OF KINTYRE

Plan.—This sector describes the coast, lochs, and sounds between the Mull of Galloway and the Mull of Kintyre, including the Firth of Clyde. The descriptive sequence is from S to N.

General Remarks

1.1 The coast between the Mull of Galloway and the Mull of Kintyre, two salient promontories, is steep and rocky. Bold cliffs and headlands are prevalent. Navigable arms of the sea, known as lochs and firths, indent this coast. The Firth of Clyde, the most important of the arms, leads into the River Clyde which fronts the Clydeport area, including Glasgow. Local harbors are situated along the shores of the lochs. Ferries ply between many of these harbors. Extensive harbors are few within the deepwater lochs because of the mountainous terrain backing the coast.

Tides—Currents.—Information on tides and tidal currents is shown on charts of the area. The tidal currents close inshore along this stretch of coast set S on the flood and N on the ebb and at springs may attain a maximum velocity of 4.5 knots. Offshore the velocity of the current decreases, until in the middle of North Channel the rate is about 2.5 knots at springs. Overfalls and tide rips occur at several places along this coast.

Caution.—There are few off-lying dangers. Buoys mark isolated rocks and detached patches, as well as shoals in inner reaches and narrows. Several islands lying close offshore provide a lee for anchorage of small vessels. Anchorages for large ships are few within the deep-water lochs. There are numerous mooring buoys. Designated anchorages, clear of dangers, have been established in the Firth of Clyde for deep-draft ships.

Fishing for herring is conducted throughout the Firth of Clyde and adjacent areas by ring net vessels and pair trawlers. The fishing vessels are concentrated at the S end of Arran and the Ballantrae Banks from June to December. It may be impossible to avoid the fishing nets, but the vessels should be given as wide a berth as safe navigation permits. Propellers should be stopped, if possible, when passing between pairs or groups of fishing vessels.

Marine farms and farming equipments are established in most sounds, lochs, and inlets, and their approximate positions are charted when known. Additional farms are being established in rapid phase and those may not be reported.

Submarine exercises are conducted, both surfaced and submerged, in the waters within this sector. Vessels should endeavor to pass at least 1000m astern of surfaced submarines to avoid deployed towed array sonars.

The Mull of Galloway to the Firth of Clyde

1.2 The **Mull of Galloway** (54°38'N., 4°51'W.), a bold promontory forming the S extremity of the Rhins of Galloway, is the S point of Scotland. The promontory, steep-to on its S and W sides, is connected to The Rhins by a narrow isthmus. A light, frequently obscured by haze or low-lying clouds, is



Courtesy of Ian Britton

Mull of Galloway Light

shown from a tower at the SE end of the promontory.

Rhins of Galloway (The Rhins) (54°50'N., 5°00'W.), a hilly peninsula forming the SW extremity of Scotland, extends 28 miles NNW from the Mull of Galloway to Loch Ryan. The coast is steep-to and free from known dangers except close NW of Salt Pans Bay (54°55'N., 5°11'W.), and in the vicinity of Craig Laggan (54°58'N., 5°11'W.); it should be given a wide berth if only to avoid adverse currents and tide rips in the vicinity of headlands. Mariners are cautioned that hydrographic data is based on old leadline surveys and uncharted dangers may exist.

Beauforts Dyke (54°40'N., 5°10'W.) is a charted deep-water trench lying in North Channel W of The Rhins with depths of up to 315m.

Tidal currents run parallel to the Rhins of Galloway as far as its N extremity, where the outgoing current from the Firth of Clyde is encountered. The main current then runs toward the Mull of Kintyre and in the opposite direction when the current is reversed in the Firth of Clyde.

Caution.—An explosives dumping ground area, the limits of which are shown on the chart, lies in the vicinity of the trench. Unexploded ordnance also is reported to lie on the seabed in the vicinity of the explosives dumping ground area, as noted on the chart, and in the vicinity of the gas pipeline.

1.3 **Crammag Head** (54°40'N., 4°58'W.), from which a light is shown, is located 4.2 miles WNW of the Mull of Galloway. A conspicuous ruined tower stands on a breakwater which is situated on the S side of Port Logan Bay, about 3.5 miles N

of Crammag Head.

Portpatrick (54°51'N., 5°07'W.), a small shallow harbor, is difficult to enter due to strong tidal currents setting across the constricted entrance. With moderate to strong SW winds, entry is impracticable. It is used by fishing vessels and yachts. The channel has a width of 35m between drying shoals and a least depth of 0.3m lying close NW of the range line established from the head of the harbor.

A hotel standing close N of the entrance is conspicuous. The building of a radio station and adjacent masts standing 0.3 mile NW of the harbor entrance are conspicuous. The ruins of a castle stand near the coast, 0.5 mile SE of the entrance. Cairn Pat, the highest eminence on the peninsula, rises to an elevation of 180m about 3.7 miles ENE of Portpatrick.

Caution.—Submarine cables extend seaward from a point on the coast about 0.7 mile NW of Portpatrick and are shown on the chart.

Unexploded ordnance is charted 6.5 miles WSW of Portpatrick.

1.4 Black Head is located 1.7 miles NW of Portpatrick. Killantringan Light is shown from a conspicuous lighthouse standing on the point. Four prominent masts stand 3.5 miles N of Black Head. Kinsale Tower, 146m high, stands 0.7 mile ESE of the masts and is almost hidden by trees. A prominent monument, 123m high, stands 1.7 miles ENE of the masts and is sometimes mistaken for the tower.



Courtesy of Scottish Radianance

Killantringan Light

Corsewall Point (55°00'N., 5°10'W.) is the NW extremity of Rhins of Galloway. A fringing reef in the vicinity of the point extends as far as Craig Laggan with a drying rock marked by a beacon, lying 2.2 miles SSW. A light is shown from a conspicuous tower standing on the point. A helicopter landing area is situated close to the light. A prominent radio mast stands about 1 mile SSW of Corsewall Point.

Caution.—Potentially hazardous unexploded ordnance is



Courtesy of Scottish Radianance

Corsewall Point Light

reported to exist on the seabed both along the route of the charted gas pipeline and also in the areas indicated to the N and NE of Beaufort's Dyke Explosives Dumping Grounds. Any activity that may disturb the seabed should not be carried out in these areas.

1.5 **Loch Ryan** (54°58'N., 5°02'W.) is entered between Milleur Point (55°01'N., 5°06'W.) and Finnarts Point, about 1.5 miles ENE. The E side of the entrance is formed by steep cliffs and the W side is low, as is the head of the loch. The port authority for the loch is situated at Stranraer, at the head of Loch Ryan.

A monument, atop a high hill within the W side of the loch, and a church tower, at the head of the loch, are both conspicuous. A radio mast stands 0.7 mile SSW of Milleur Point and is prominent. A lighted buoy, moored about 0.2 mile NE of Milleur Point, marks foul ground extending seaward from the point.

Tidal currents are rotary in the loch entrance. Within the entrance the current runs parallel to the fairway. Northwest gales raise a sea at the entrance and in the outer part of the loch while within the loch winds from the N and NE may be most dangerous.

Loch Ryan Port Home Page

<http://www.lochryanport.co.uk>

Loch Ryan, 7.5 miles long, has a width of about 2 miles throughout its inner half. There is a least depth of 7.3m in the fairway to a position off Cairnryan Ferry Terminal. South of the terminal, a least depth of 5.2m exists in the fairway to a position off the entrance to the dredged channel. A new ferry ter-

terminal (2012) is in operation 0.7 mile NNW of Cairn Point. The fairway in the vicinity of Cairn Point (54°58'N., 4°02'W.), from which a light is shown, is restricted to a width of 300m by fringing shoals which become quite extensive as far as Leffnoll Point, 2 miles SSE of Cairn Point. A channel, 100m wide, and the basin between East Pier and Ross Pier have been dredged to 5m for a distance of 2.5 miles N from Stranraer Harbor entrance. Three lighted beacons mark its W side. Anchoring is prohibited in its vicinity.

The Spit (54°57'N., 5°02'W.), a partly-drying tongue, extends SE to the fairway from Kirkcolm Point (54°58'N., 5°03'W.), located opposite Cairn Point. A lighted buoy marks the SE end of The Spit.

1.6 Cairnryan (54°58'N., 5°01'W.) (World Port Index No. 33575), a jetty extending 570m SSE from Cairn Point, has depths of 3.0 to 8.3m along its SW side. The jetty is in a state of disrepair and is unsafe for berthing. The seabed is foul from shipbreaking activity in this area.

Tidal currents in the vicinity of the wharf set obliquely on or off the wharf.

Two ferry terminals are situated about 0.7 mile SSE and 0.7 mile NNW, respectively of Cairn Point.

The S terminal is protected from the N by a short breakwater. There are two berths on the SW and NW sides of the terminal, each of which provides a ro-ro facility.

Pilotage is not compulsory, nor are licensed pilots available. A navigating officer with local knowledge is available and can be contacted through Stranraer Port Radio Station. Ships are met NE of Milleur Point.

1.7 Stranraer (54°54'N., 5°02'W.) (World Port Index No. 33570), a resort town, is situated at the head of Loch Ryan. Its shallow drying harbor, which is enclosed by two converging piers, has a navigable entrance 100m wide.

During NW winds, the heaviest seas develop close seaward of the entrance, off Milleur Point, especially during the N tidal current. Within the loch, winds from the N and NE are reported to be the most dangerous.

Tides—Currents.—Tides rise about 2.8m at springs and 1.9m at neaps.

Depths—Limitations.—Ross Pier lies within the harbor, 100m SW of East Pier. The approach to the harbor entrance and the basin between East Pier and Ross Pier are dredged to a depth of 5m. The harbor SW of Ross Pier was dredged to depth of 5m.

East Pier has a dredged depth of 5m alongside the outer 130m on its SW side. Another berth exists on the NE side of the pier, where an area 120m long and 15m wide, has been dredged to a depth of 4.5m.

Ross Pier is 175m long and can accommodate ferry vessels up to 7,000 tons. There is a ro-ro terminal at the root of the pier.

West Pier has a berth on its E side, about 70m long, which is generally used for fishing vessels.

The port can accommodate vessels of up to 128m in length with drafts up to 5m at East Pier.

Aspect.—A prominent church tower stands on the W side of the town. Agnew Monument stands on the skyline to the W of the loch.

Pilotage.—Pilotage is not compulsory. Licensed pilots are not available, but a local navigating officer can be made available on request and boards near Milleur Point Lighted Buoy.

Regulations.—Special regulations are in force for vessels carrying petroleum and carbide of calcium. The port authority should be contacted with regard to these regulations prior to arrival.

Anchorage.—Anchorage can be taken, in a depth of 4.1m, mud, about 0.5 mile N of East Pier.

Lady Bay (55°00'N., 5°05'W.) is sheltered from all except NE winds.

Caution.—Foul ground is located in position 55°00'18"N, 5°03'42"W.

The Firth of Clyde and Approaches

1.8 The Firth of Clyde (55°19'N., 5°00'W.) is approached between Corsewall Point and the Mull of Kintyre, 28 miles NW. About 20 miles within the entrance lies Arran Island (55°30'N., 5°13'W.), dividing the waterway into the Firth of Clyde and Kilbrannan Sound. At the inner end of the sound lies Inchmarnoch Water, which is connected to the Firth of Clyde by Bute Sound. The entrance to the firth lies between Turnberry Point (55°19'N., 4°51'W.) and the SE end of Arran Island. Pilotage is

Ailsa Craig (55°15'N., 5°07'W.), a rocky steep islet accessible only on its NE side, lies in the seaward approach to the Firth of Clyde. It rises to an elevation of 337m and is a good radar target. A light is shown from a prominent tower standing on a spit at the E side of the islet. A small pier is situated close NW of the tower.

Winds—Weather.—Strong S and W winds raise the water level in the Firth of Clyde; N and E winds lower the level. These changes are greatest in the inner firth and entrance to the River Clyde, especially with SW winds. It was reported (2010) that, even in clear weather, a haze was observed obscuring all but the most prominent navigational aids beyond a range of 7 miles.

Tides—Currents.—The flood current expands after passing the Mull of Kintyre and its NE part impinges on Bennane Head (55°08'N., 5°00'W.), where it divides. One branch sets NNE along the Ayrshire coast where it is rather weak in the outer firth, becoming stronger within the firth as it runs parallel to the coast. Velocities increase during springs off salient points and in constricted channels. The currents divide around the Cumbrae Islands, becoming weak to the head of the firth. Detailed information is shown on charts of the area.

Depths—Limitations.—There are few charted dangers. Rocky ledges fringe the coasts for as far as 0.5 mile in places. Depths in the firth will permit entry of deep-draft vessels. The upper firth is constricted at its entrance by the Cumbrae Islands.

Caution.—Submarines carry out maneuvers in the Firth of Clyde and the approaches to adjacent lochs and sounds.

Vessels navigating in the recommended channels should be considered to be in "narrow channel" within Rule 9 of "Navigational Rules (72 COLREGS)."

Skelmorlie Channel is a one-way channel northbound for vessels with drafts greater than 15m.



Pladda (foreground) and Ailsa Craig (background) from NW

The Firth of Clyde—East Side

1.9 Finnarts Point (55°02'N., 5°03'W.) marks the E entrance of Loch Ryan. The coast NNE of the point is steep and cliffy. Two towers and a bridge about 4.5 miles NNE of the point are conspicuous.

Bennane Head (55°08'N., 5°00'W.) is a salient, rounded, and steep-to headland off which tidal currents converge, causing tide rips which extend at least 1 mile off the head. Detached shoal patches lie as far as 3.5 miles offshore. A prominent silo stands 0.2 mile ESE of the point.

Girvan Harbor (55°15'N., 4°52'W.) is shallow, formed by breakwaters, and fronted by foul ground. Coasters with local knowledge, fishing vessels, and pleasure craft use the harbor in which silting occurs. The entrance channel has a controlling depth of 2.6m, however, depths over the bar vary with freshets and changes in wind. Vessels of up to 50m in length, 9m beam, and 3.5m draft may be handled at HW. A prominent slender spire stands close E of the harbor. A conspicuous radio mast and a conspicuous television tower stand close N and 3.5 miles E, respectively, of the town.

Turnberry Point (55°19'N., 4°51'W.) is a low but conspicuous promontory. A castle, in ruins, stands at the NE side of the point which is marked by a cairn. A light is shown from a tower, 24m high, situated near the ruins. Brest Rocks, extending up to 0.5 mile offshore 1 mile S of Turnberry Point, are marked by a beacon.

1.10 Barwhin Point (55°21'N., 4°48'W.) divides Maidenhead Bay and Culzean Bay, the former encumbered with foul ground; the latter has a castle standing near the cliffs at its S end. From the point, the coast forming the E side of the outer part of the Firth of Clyde recedes to form Ayr Bay and Irvine Bay. The shores of these bays are fronted by shoals and rocky patches extending as far as 3 miles offshore.

Dunure Harbor (55°24'N., 4°45'W.), a fishing harbor formed by two breakwaters, has a depth of 2.7m at HW. A tower marks the SW side of the entrance. Three radio masts stand on a hill about 2 miles E of the harbor.

Heads of Ayr (55°26'N., 4°42'W.), a broad and conspicuous headland consisting of steep, vertical cliffs, rises 2 miles NE of Dunure.

Ayr Bay (55°30'N., 4°40'W.), entered between the Heads of Ayr and the Troon Peninsula, 6.5 miles NNE, is cluttered with numerous shoal patches. The River Ayr flows into Ayr Harbor, formed by two breakwaters. The conspicuous ruins of a castle stand on the edge of a cliff 1.5 miles ENE of the Heads of Ayr. Black Rocks, above and below-water rocks, lie in the N part of the bay about 3.5 miles N of Ayr.

Lady Isle (55°32'N., 4°44'W.) is fringed by reefs and encircled by shoals. Two towers stand on the isle and a light is shown from a conspicuous white beacon.

Caution.—Shallower depths than those shown on the chart may be encountered in this part of the bay. The passage between Lady Isle and the coast E should only be traversed by small vessels with local knowledge.

A spoil ground area lies 1.7 miles S of Lady Isle and may best be seen on the chart.

1.11 Ayr Harbor (55°28'N., 4°38'W.) (World Port Index No. 33560), at the mouth of the River Ayr, is protected by a pier and detached breakwater at the entrance. Ayr Harbor is formed by the banks of the River Ayr, which are quayed at the mouth of the river, and by Griffin Dock, a tidal basin which extends NE from the inner end of the entrance channel. The port is a fishing and industrial complex which handles the transport of scrap metal, coal, fertilizer, timber, and cement.

Winds—Weather.—Winds from W raise a swell at the harbor entrance. After heavy rains a strong current flows through the entrance setting vessels off course. Fresh S winds raise the



Ayr Harbor

water level, and N and NE winds lower the water level.

Ayr Harbor Home Page

<http://www.abports.co.uk>

Ice.—Ice in the harbor is carried to sea by the ebb current.

Depths—Limitations.—The least charted depth on the range line over the bar is 3.6m lying 0.3 mile W of South Pier Light. The width of the channel between the pier and breakwater is 60m.

North Quay has a length of 359m and an alongside depth of 6.7m at HW. Griffin Dock has a length of 610m and alongside depths of 6m at HW.

Vessels up to 5,000 tons, with a maximum length of 110m and a maximum draft of 6.2m, can be handled at the river berths. Vessels up to 4,000 tons, with a maximum length of 95m, a maximum beam of 18m, and a maximum draft of 5.8m, can be handled at Griffin Dock.

Aspect.—Range lights, in line bearing 098°, lead through the approach fairway. The spire atop the Town Hall on the S bank of the river is prominent. A gas tank and the Pavilion Building stand about 0.5 mile ENE and 0.5 mile SSE, respectively, of the harbor entrance and are conspicuous.

Pilotage.—Pilotage is compulsory for vessels exceeding 65m in length and is available 24 hours. ETA and a request for pilotage should be sent 24 hours in advance. Pilots board in position 55°27.8'N, 4°40.1'W.

Contact Information.—Ayr port can be contacted, as follows:

1. VHF: VHF channels 14 and 16
2. Telephone: 44-1292-281687
3. Facsimile: 44-1292-287787
4. E-mail: ayr@abports.co.uk

1.12 Irvine Bay (55°36'N., 4°45'W.) is formed by the coast extending NW from the Troon Peninsula (55°33'N., 4°41'W.) to a low, but prominent headland on which is situated the town of Ardrossan (55°39'N., 4°49'W.). The River Irvine and the River Garnock flow into the bay through a common mouth. Dangers in the bay are contained within the 20m curve which lies 1 to 2 miles offshore.



Troon Harbor

1.13 Troon Harbour (55°33'N., 4°41'W.) (World Port Index No. 33550), easily accessible, has been artificially formed on the NE side of the Troon Peninsula, which divides Ayr Bay and Irvine Bay. The chief industries are shipbuilding and fishing. The port is the terminal for ferries to Belfast and Larne. The town of Troon extends along the coast on both sides of the harbor.

Troon Harbor Home Page

<http://www.abports.co.uk>

Winds—Weather.—It is reported that winds from the SW develop a very heavy sea in the approach. Strong winds from the NW, reported to be the most dangerous, develop heavy seas in the entrance.

Depths—Limitations.—There are depths of 4 to 5m in the entrance. The harbor entrance, 79m wide between the pier heads, leads to the sheltered outer harbor. The maximum permitted draft is 6.2m.

The approach to the ferry terminal and the channel between West Pier and East Pier have a maintained depth of 5.4m. A ro-ro terminal NE of East Pier has a maintained depth of 5.4m alongside.

West Pier, 140m long, extends N from the head of the peninsula. The largest berth has alongside depths of 6.2m for a length of 110m. At HW, vessels up to 130m in length with a maximum draft of 6.2m can be accommodated.

East Pier, about 900m long, projects NW and parallel to the peninsula. It was reported that East Pier was not in use.

A marina occupies the whole of the inner harbor. A tidal basin on the SW side of the outer harbor has an entrance 12m wide with a depth of 5.5m and is used by fishing vessels.

Aspect.—The approach from WNW is free of dangers. However, vessels are cautioned of the shoals that exist in the harbor. Troon Rock, 1.2 miles W of the harbor entrance, has a

least depth of 5.6m and lies on the dividing line between the white and green sectors of West Pier Light, bearing 090°.

A gas tank standing 1 mile SE of the entrance is conspicuous. A large shed at the shipbuilding yard is also conspicuous.

A buoy marks the N extremity of foul ground off West Pier; however, shoal water is reported to lie up to 0.7 mile NW of West Pier.

Mill Rock, which dries 0.3m, lies 0.5 mile NE of West Pier. Lappock Rock, which dries 0.6m and is marked by a beacon, lies 1.5 miles NNW of the harbor.

Pilotage.—Pilotage is not compulsory. Pilots are available from Ayr with a 24-hour advance notice on VHF.

Signals.—A flashing amber light may be shown from the West Pier to indicate temporary harbor closure for ferry mooring operations.

Contact Information.—Troon can be contacted through Ayr, as follows:

1. VHF: VHF channels 14 and 16
2. Telephone: 44-1292-281687
3. Facsimile: 44-1292-287787
4. E-mail: ayr@abports.co.uk

Anchorage.—Safe anchorage during gales from between SW and NW is obtained in Whiting Bay (55°30'N., 5°05'W.).

Safe anchorage during winds from the E may be taken in Ayr Bay.

1.14 Irvine Harbor (55°36'N., 4°42'W.) lies at the confluence of the River Irvine and the River Garnock. The port facilities are situated chiefly on the S side of the river, 0.3 mile within the river mouth. The harbor is closed to commercial traffic but open to recreational vessels.

Ardrossan Harbor (55°39'N., 4°49'W.)

World Port Index No. 33530

1.15 Ardrossan Harbor is located on the NW side of the low, salient point that marks the NW limit of Irvine Bay. The harbor is largely artificial, being protected from NW by a detached breakwater and a jetty. The latter, known as Lighthouse Pier, projects N from the extremity of the low point.

Ardrossan Harbor Home Page

<http://www.clydeport.co.uk>

Tides—Currents.—Tides rise 2.8m at springs and 1.5m at neaps. Tidal currents off the harbor entrance are weak. Gales from the SW may cause the harbor to close.

Depths—Limitations.—There is a dredged depth of 5m in the entrance and general depths of 3 to 5m inside the breakwater. The entrance is 115m wide between Lighthouse Pier and the S end of the breakwater.

Vessels of up to 7.8m draft can enter at HWS and 7.2m draft at HWN.

Dry cargo and ro-ro vessels may berth on the W side of Eglington Tidal Basin, at a 130m long pier, with a dredged depth of 5m alongside. A passenger berth on the NW face of Winton Pier is 137m long, with a depth of 4.2m alongside.

The Old Tidal Basin, at the W end of the harbor, has depths

of 3.9m alongside. A ro-ro ferry terminal occupies the NE face of the basin.

Aspect.—Horse Isle, low and partly grassy, lies 0.5 mile NW of Lighthouse Pier. A conspicuous stone tower stands at the S extremity of the isle which is fronted by drying and rocky spurs. A directional light is shown from a tower on the point 500m NE of the head of Lighthouse Pier.

Pilotage.—See paragraph 1.29.

Regulations.—Harbor regulations are in force. There are special by-laws applicable to vessels carrying explosives and petroleum. Consultation should be made with the harbormaster prior to arrival.

Signals.—Lights, used to indicate harbor status, are displayed vertically at a height of 19m with 1m intervals, from a framework tower on top of the port control tower, situated on the S side of Montgomerie Pier, as follows:

1. Three red lights indicate that the harbor and marina are closed and no vessels may arrive or depart.
2. Three green lights indicate the marina is open to pleasure craft but commercial vessels shall not move in, out, or about the harbor.
3. Two red lights over one green light indicate that the harbor is open to commercial traffic with permission from Harbor Control via VHF but pleasure craft must clear the approach channel, basins, and outer harbor immediately and the marina is closed.

Mariners are advised that in direct sunlight these signal lights may be difficult to discern.

Contact Information.—The port can be contacted, as follows:

1. Call sign: Ardrossan Harbor Control
2. VHF: VHF channels 12, 14, and 16
3. Telephone: 44-1475-565210
44-1475-726221 (Estuary Control)
4. Facsimile: 44-1475-568285

The Port Authority can be contacted, as follows:

1. Telephone: 44-1475-726171
2. E-mail: ardrossan@peelports.com

Ardrossan Harbor control operates only from 30 minutes prior to a scheduled ferry arrival until the departure of the ferry. All other times vessels should contact Estuary Control.

Anchorage.—Anchorage can be taken, in depths of 22 to 27m, sand, about 1 mile SW of Lighthouse Pier.

Caution.—Several detached rocks lie between Horse Isle and the coast. The passage should only be used by small craft with local knowledge.

An explosives dumping ground area lies 6 miles W of Ardrossan and may best be seen on the chart.

The Firth of Clyde—West Side

1.16 Arran Island (55°30'N., 5°13'W.) forms the W side of the Firth of Clyde. The island is cultivated in its S part, with rolling hills sloping to the sea. The N part of the island is mountainous, with connecting ridges intersected by deep ravines. Goat Fell, the highest peak, rises to a height of 873m about 6.5 miles S of the N extremity. The shores of Arran are low and indented to form several bays. Tidal currents set N along the E coast on the flood and S on the ebb. Velocities are weak, except at the entrance of Lamlash Harbor (55°32'N.,



Courtesy of Scottish Radiance

Whiting Bay and Holy Island (background)

5°07'W.) and in the vicinity of Pladda, where strong tide rips occur when E and ebb currents meet.

Kildonan Point (55°26'N., 5°06'W.), the SE extremity of Arran, is identified by the ruins of a castle standing close in-shore.

Pladda (55°26'N., 5°07'W.), is an islet lying almost 1 mile S of Kildonan Point. A light is shown from a prominent tower standing at the S end of the islet. The area between Pladda and Arran is foul.

Whiting Bay (55°30'N., 5°05'W.), an open bight, contains a jetty and a boat harbor formed by natural rock formations. Anchorage, sheltered from W winds, can be taken, in depths of up to 18m, sand, less than 0.5 mile offshore, where the shores of the bay are wooded and fringed with white cottages.

1.17 Lamlash Harbour (55°32'N., 5°07'W.) (World Port Index No. 33310) indents the coast for 1.5 miles between Kingscross Point (55°31'N., 5°05'W.) and Clauchlands Point, 2.5 miles N. Holy Island, fronting the harbor, is steep-to, with grassy lower slopes and rocky cliffs forming the upper slopes.

Tides—Currents.—The flood tidal current setting N along the E coast of Arran, flows into South Channel and out North Channel with a velocity of up to 1.5 knots. The reverse applies to the ebb current.

Depths—Limitations.—North Channel and South Channel lead into the harbor at either end of Holy Island. North Channel has a navigable width of 1.7 miles and a least depth of 10.4m. South Channel has a navigable width of 1.2 miles and a least depth of 25m in the fairway.

A lighted buoy marks the S extremity of shoals in North Channel. In South Channel, Fullarton Rock, with a least depth of 2.1m, lies close ENE of Kingscross Point and is marked on its NE side by a buoy.

Aspect.—Pillar Rock Light is shown at the E end of the is-



Pladda Light

land. Another light is shown from a tower at the SW extremity. Two church spires, standing in the village at the head of the harbor, are prominent. A conspicuous radio mast stands on a

hill 2.7 miles W of the village. Numerous unlit mooring buoys lie in the S part of the harbor and trots of small boat moorings are situated off the village.

Anchorage.—Anchorage can be taken, in depths of 15m to 30m, sand and mud, in the NW part of the harbor. Vessels should not anchor in less than 15m, as the depths shoal abruptly. During E or SE gales, better shelter is available off the W side of Holy Island.

1.18 Brodick Bay (55°35'N., 5°08'W.) indents the coast between Corriegills Point, 1.5 miles NW of Clauchlands Point, and Merkland Point, 2 miles NNW.

Winds—Weather.—It is reported that heavy squalls can be expected from the valley at the head of the bay during W winds.

Tides—Currents.—Tidal currents in the bay are weak.

Depths—Limitations.—Brodick Pier, T-shaped, is situated on the S side of the bay. Another pier, L-shaped with a ro-ro berth, is situated close E of Brodrick Pier. The ro-ro pier is reported to be subject to further development.

A railroad car ferry from Fairlie (55°46'N., 4°51'W.) maintains regular service with Brodick.

Aspect.—Corriegills Point is marked by a beacon; a prominent radio mast stands 0.3 mile W of it. A beacon stands 0.2 mile NNE of Merkland Point.

A castle, with a tower and a flagstaff at its SW corner, is conspicuous at the NW side of the bay. A lighted mooring buoy lies in the bay.

Anchorage.—Anchorage, sheltered from W winds, can be taken, in depths of 20 to 30m, sand and mud, in the bay.

Caution.—Submarine cables lie across the Firth of Clyde, 1.7 miles N of Merkland Point, and can best be seen on the chart.

The **Sannox River** (55°40'N., 5°09'W.) flows into the Firth of Clyde 3.5 miles N of Merkland Point. A rock, with a depth of 1.5m, lies 0.2 mile E of the bar at the river mouth.

For Bute Sound NW of the Sannox River, see paragraph 1.50.

1.19 Farland Head (55°42'N., 4°54'W.), 4 miles NW of Ardrossan, is steep-to on its W side. The ruins of a castle lie close N of the point. The inner part of the Firth of Clyde is entered between Farland Head and **Garroch Head** (55°43'N., 5°02'W.), the steep-to S extremity of Bute Island, 4.5 miles WNW. The entrance is encumbered by Little Cumbrae Island and Great Cumbrae Island. The principal navigable part of the firth leading to the River Clyde passes W of these islands. The fairway is deep and free of dangers. Largs Channel passes to the E of the islands.

The flood tidal current setting across the Bute Sound entrance, joining the current setting NW from the E side of the outer Firth of Clyde, passes on both sides of the Cumbrae Islands with a velocity of 1.5 knots at springs. The ebb currents, from Bute Sound and from along the E coast of Bute, meet off Garroch Head forming tide rips which should be avoided. Tidal currents in the firth are both weak and variable.

Little Cumbrae Island (55°44'N., 4°57'W.) lies in the middle of the entrance to the inner part of the Firth of Clyde. Near the center of the island stands the conspicuous ruins of an old tower.

Cumbrae Elbow (55°43'N., 4°58'W.), on which a light is shown from a conspicuous tower, is the W extremity of Little Cumbrae Island.

Cumbrae Pass (55°44'N., 4°56'W.), lying between Little Cumbrae Island and Great Cumbrae Island, has a navigable width of 0.3 mile and a least depth of 25m in the fairway between Sheanawally Point and Portachur Point, 0.5 mile NNW, the SW extremity of Great Cumbrae Island. The flood tidal current sets E and the ebb W through the pass, with a velocity of 1.5 knots at springs. A beacon stands close WNW of Portachur Point, marking the landing point of a submarine power cable which crosses the pass from Little Cumbrae Island.

Great Cumbrae Island (55°46'N., 4°55'W.), rising to a height of 125m near the middle of the island, is steep-to. At Portachur Point, the SW end of the island, a spit extends 0.2 mile SW and is marked by a buoy. Tomont End, the NE extremity of the island, is marked by a monument. A prominent building stands 0.7 mile S of Tomont End. A water sports center, offshore moorings, and mooring buoys lie off the E side of the island between Tomont End and Clashfarland Point, the E extremity, about 1.7 miles S. A small pier, with a depth of 4.9m alongside the head, is situated 1 mile SSW of Clashfarland Point.

Millport Bay (55°45'N., 4°55'W.) (World Port Index No. 33520), indenting the S side of Great Cumbrae Island, is partly encumbered by low islets and foul ground. A tall spire and tower in the town are conspicuous. A pier at the W side of the bay has a depth of 2.1 alongside. Range lights, in line bearing 333°, lead in a least depth of 2.4m to an anchorage with a depth of 3.7m, about 0.1 mile SSE of the pier head. Anchorage can also be taken in the E part of the bay, in a depth of 11m; however, small craft moorings are also laid in this area.



Millport Bay from NE

The Firth of Clyde—Inner Part—West Side

1.20 Rubh'an Eun lies 1 mile NE of Garroch Head. A light is shown from a prominent tower standing on the point.

Kilchattan Bay (55°45'N., 5°01'W.) indents the SE side of Bute Island 1 mile NNW of Rubha'n Eun. Drying flats fill the

head of the bay.

Caution.—Submarine cables lie across the firth close N and 3 miles N of Kilchattan Bay.

Ascog Point (55°50'N., 5°01'W.), 6 miles N of Rubha'n Eun, is marked by a prominent church. An islet lies close off the point. Ascog Patches, marked by a lighted beacon and having a depth of 7m, lie 0.5 mile E of Ascog Point.

Bogany Point (55°51'N., 5°01'W.), the NE end of Bute Island, is marked by a conspicuous pavilion, with a green cupola surmounted by a ball.

Toward Point (55°52'N., 4°59'W.) is low, rocky, fringed by reefs, and fronted by shoals, marked by a buoy, extending 0.5 mile offshore. Toward Bank, with a least depth of 4.3m, lies 1 mile SW of the point and is marked by a lighted buoy; the channel between Toward Point and Toward Bank is foul and not recommended. A light is shown from a conspicuous tower standing on Toward Point and several lattice towers stand within 1.2 miles of it. Castle Toward, 1.2 miles WNW of the light, is conspicuous.

Rothsay Sound, entered between Toward Point and Bogony Point about 2 miles SW, is described in paragraph 1.53.

Inellan Beacon (55°53'N., 4°58'W.) marks the E edge of a rocky ledge extending offshore about 1 mile N of Toward Point. A disused pier, in poor condition, is situated about 1 mile N of Inellan Beacon.

1.21 Dunoon Point (55°57'N., 4°55'W.), a triangular headland, projects from the coast and rises to Castle Hill, a green, rocky knoll on which stands the ruins of Dunoon Castle. The coast extending S to Inellan is steep-to. The spire and tower of two churches standing in Dunoon close N of the point are conspicuous. A pier, 150m long, with a depth of 4.3m alongside, forms a ro-ro terminal at Dunoon. There is a ferry service to Gourock (55°58'N., 4°48'W.).

The Gantocks, a partly drying reef at the SE end of a shoal extending 0.8 mile from Dunoon Point, is marked by a lighted beacon and a buoy.

Caution.—A submarine cable area lies close S of the Gantocks and is shown on the chart.

A submarine gas pipeline lies across the firth about 1.2 miles S of the Gantocks and may best be seen on the chart.

Dunoon Bank, with a least depth of 21.5m, lies close W of the main ship channel, 0.5 mile ENE of the Gantocks. A lighted beacon marks the W side of the bank. A wreck, with a least depth of 14m, lies on the bank.

Hunter's Quay (55°58'N., 4°55'W.), 1.5 miles N of Dunoon, lies on the SW side of the entrance to Holy Loch. There is a pier with a ferry and ro-ro facility.

For Holy Loch, see paragraph 1.34.

The Firth of Clyde—Inner Part—East Side

1.22 Largs Channel (55°46'N., 4°53'W.) is entered between Farland Head and the SE end of Great Cumbrae Island. The mainland coast on the E side of the channel is fronted by drying sandflats which extend as far as 0.8 mile offshore. The sands, and the edge of shoals along the E side of the channel, are marked by perches and buoys.

Little Brigurd Point (55°43'N., 4°54'W.) lies 1.5 miles N of Farland Head. Hunterston Power Station, which is conspicu-

ous, stands a short distance inland from the point. A jetty and the water intake for the power station are situated about 0.5 mile S of the point. The outfall pipes from the power station extend seaward on the N side of the point. A buoy is moored 0.4 mile NW of Little Brigurd Point and marks the seaward limit of the outfalls.

Caution.—Vessels are cautioned to pass W of the outfall buoy and keep well clear of the outfall pipes as the discharge of hot water from them causes considerable turbulence.

1.23 Hunterston Ore and Coal Terminal (55°45'N., 4°53'W.) (World Port Index No. 33515), a jetty, lies nearly 2 miles NNE of Little Brigurd Point, at the head of a causeway. This causeway extends 1 mile SE and E across the reclamation area to the stockyards which supply ore and coal to Ravenscoft Steelworks.

Hunterston Terminal Home Page

<http://www.clydeport.co.uk>

The jetty has an outer berth and an inner berth. The outer berth has a length of 443m, an alongside depth of 36.0m, and can accommodate vessels of up to 350,000 dwt with a maximum draft of 23.0m. The inner berth has a length of 300m, an alongside depth of 25m, and can accommodate vessels of up to 150,000 dwt with a maximum draft of 19.8m. Mobile cranes standing on the jetty are conspicuous.

An oil platform construction site is situated in the SW part of the reclamation area, 1 mile SSW of the above-mentioned jetty. A channel, which is buoyed, leads to a jetty on the N side of the site.

Hunterston Channel, the recommended channel serving Hunterston Ore and Coal Terminal, leads through Largs Channel from Skelmorlie Channel, 1.2 miles N of Great Cumbrae Island, and then between Little Cumbrae Island and the mainland.

For pilotage information, see paragraph 1.29.

Hunterston Terminal can be contacted, as follows:

1. Telephone: 44-1475-568181
2. Facsimile: 44-1412-483167
3. E-mail: hunterston@clydeport.co.uk

1.24 Fairlie (55°46'N., 4°51'W.), a town stretching along the shore, is fronted by Fairlie Roads and Fairlie Patch; the latter, rocky and almost dry, lies 0.5 mile offshore, about 0.2 mile ENE of Hunterston Jetty and is marked by a lighted buoy. The roads are very constricted. Yacht moorings are laid across the roads and sands fronting the town. A prominent church spire is situated near the N end of the town and a disused pier is situated close NW of it. A mooring buoy is situated 0.2 mile SW of the disused pier.

Fairlie Quay (55°46'N., 4°52'W.), formerly known as NA-TO Terminal Pier, is L-shaped and extends 305m offshore and then N for 185m. A depth of 10.4m is maintained alongside the W side of the pier, however, an 8.4m patch lies close WSW of the elbow. A lighted buoy is moored 0.2 mile S of the pier. It was reported that ground tackle was laid out in the vicinity of the pier.

Largs Yacht Haven (55°46'N., 4°51'W.), protected by

breakwaters, is situated 0.3 mile N of Fairlie Quay. A conspicuous monument, 12m high, stands at Far Bowen Craigs, close N of the yacht harbor.

1.25 Largs (55°48'N., 4°52'W.) (World Port Index No. 33500), a coastal town, lies 2.2 miles N of Fairlie. There are depths of up to 3.6m alongside a pier which is 67m long. It is used by ro-ro and passenger ferries and coastal vessels. Conspicuous church towers stand close NNE and SE of the pier. For pilotage information, see paragraph 1.29.

The Knock, a 213m high conical hill topped by a cairn, stands 1.5 miles N of Largs. Knock Castle, 0.5 mile W of The Knock, and a castellated building, often flying a red flag from a flagstaff on a turret of the building, situated 0.5 mile N of Knock Castle, are prominent. Skelmorlie Castle stands 1.5 miles N of Knock Castle. A measured distance, marked by beacons and indicated on the chart, lies N of Skelmorlie Castle.

Skelmorlie Bank (55°52'N., 4°55'W.), with a least depth of 5.3m and marked by a lighted buoy, lies between the Firth of Clyde Channel and Skelmorlie Channel, about 1.5 miles WNW of Skelmorlie Castle.

Wemyss Bay (55°53'N., 4°53'W.), a shallow bight, indents the coast close S of Wemyss Point, a blunt promontory located 2.2 miles N of Skelmorlie Castle. A castle stands on Wemyss Point; however, it was reported that the castle was obscured. A ferry pier, with a ro-ro facility, is situated in the bay 1 mile S of the castle. The pier, 187m long, has alongside depths of 0.6 to 3.7m.

Inverkip Power Station, with a conspicuous chimney 238m high, is situated between Wemyss Point and Inverkip Bay. It is reported (2013) that Inverkip Power Station is being demolished. A T-head oil jetty, lying 0.4 mile N of Wemyss Point, has a length of 250m; however, it is closed to traffic.

Kip Marina, entered by a narrow buoyed channel, lies 0.7 mile NE of the power station. Kip Lighted Buoy, 0.5 mile N of a conspicuous chimney, lies close W of the entrance channel. Vessels of up to 22.8m in length and 2m draft may be accommodated at the marina.

Ardgowan Bank, with a least depth of 12.6m, lies on the E side of the firth 1.2 miles N of Wemyss Point and extends about 0.2 mile W from the shore.

Warden Bank (55°56'N., 4°54'W.), with a least depth of 10.8m, lies close E of the ship channel 1.5 miles NW of Kip Marina and is marked by a lighted buoy.

Cloch Point (55°57'N., 4°53'W.) lies 3 miles NNE of Wemyss Point. A light is shown from a tower on the point. From the point the coast turns abruptly ENE to the entrance of the River Clyde.

The River Clyde Approach

1.26 Firth of Clyde Channel, the recommended channel for ships bound through the firth and approaches to the River Clyde, extends from a position 1.2 miles W of the S end of Little Cumbrae Island to Whiteforeland Point (55°58'N., 4°47'W.). A controlling depth of at least 15m prevails in the channel except abeam Skelmorlie Bank, where there are depths of 17.5m. Lighted buoys mark the mid-channel line.

Tides—Currents.—Tidal currents flowing N and S on the flood and ebb, respectively, in the inner Firth of Clyde have a

maximum velocity of 1 knot. In the approaches, W of Cloch Point, the flood current divides and runs N to Loch Long and E to the River Clyde. Velocities increase near the shores and salient points. The velocities decrease offshore, where the current becomes rotary. The flood current off Kempock Point runs E to the river, Ardmore Head, and Rosneath Point, where part of the current enters Gare Loch.

Regulations.—Vessels navigating within the recommended channels should be considered to be in “narrow channels” within the meaning of Rule 9 of The International Regulations (COLREGS 72). Skelmorlie Channel, recommended for ships with a draft in excess of 15m, is buoyed throughout. Transit in this channel is northbound only.

Anchorage.—No. 1 Anchorage off Kilchattan Bay, No. 2 to No. 6 Anchorages, between Great Cumbrae Island and Rothesay Sound, and No. 7 Anchorage in Rothesay Sound are designated for deep-draft ships. All vessels proceeding to an anchorage in the firth should obtain permission through Clydeport Radio.

1.27 From abeam Cloch Point, the inner reach trends NE for 2 miles then E for 3 miles to where the River Clyde empties into its SE side. This reach is divided into two parts by the narrows between Whiteforeland Point and Portkil Point (55°59'N., 4°48'W.). The W half of the reach is relatively deep and has no off-lying dangers; the E half is shallow, with a drying flat fronting the head for as much as 0.5 mile.

Rosneath Patch (55°59'N., 4°47'W.), the only danger in the inner reach, lies 0.8 mile N of Whiteforeland Point. The shoal has a least depth of 1m and is marked by a lighted beacon.

The Hole (55°58'N., 4°46'W.), a deep area 0.5 mile in extent lying 1 mile S of Rosneath Point (55°59'N., 4°46'W.), has depths of 36m to 70m. Range lights, in line bearing 196° and shown from masts standing 0.5 mile ESE of Whiteforeland Point, and Rosneath Patch Lighted Beacon, bearing 285°, intersect and mark the middle of The Hole.

Anchorage A lies S of Rosneath Point and E of Rosneath Patch. It is subdivided for reference purposes. Berth A3 is the explosives anchorage. The usual anchorage is E of the 196° range alignment marking The Hole, with the best holding ground in the N half of the anchorage.

Anchorage B is a deep-draft area between the Firth of Clyde, Loch Long, Ardmore Channel, and Kilcreggan Channel. Very large deep-draft vessels, unable to use Anchorage A and Anchorage B, should use designated anchorages in the outer part of the Firth of Clyde. Ships intending to use any of these anchorages must first obtain permission through Clydeport Estuary Radio (Greenock).

Caution.—Several spoil ground areas, cable areas, outfall pipelines, and degaussing ranges lie in the inner reach and may best be seen on the chart.

1.28 The N shore of the entrance to the River Clyde is formed by the S end of a peninsula which separates Loch Long from Gareloch.

Barons Point (55°54'N., 4°51'W.) is the SW extremity of the peninsula. A light is shown close offshore of the point. Kilcreggan Bay, 1 mile E of Barons Point, has a ferry pier with yacht moorings lying E of it.

Portkil Point (55°59'N., 4°48'W.), marked by a beacon, is

located 1.8 miles ESE of Barons Point. Two conspicuous radio masts, 256m high, stand 0.5 mile NNE of the point.

Rosneath Point (55°59'N., 4°46'W.), 1 mile ENE of Portkil Point, is the SE extremity of the peninsula.

McInroy's Point (55°57'N., 4°51'W.) is located 1 mile NE of Cloch Point. There is a pier with ro-ro facilities. Kempock Point, from which a light is shown, is located 1.5 miles NE of McInroy's Point. West Bay, SW of the point, is fronted by foul ground and has numerous yacht moorings. Darroch Tower stands 0.4 mile SSW of Kempock Point and is conspicuous.

Gourock (55°58'N., 4°48'W.) (World Port Index No. 33380), located in Gourock Bay, is used by ferries, yachts, and pleasure craft. The bay is entered between Kempock Point and Ironotter Point 0.6 mile E. Strong winds from between NW and NE raise a considerable sea in the bay.

A wharf, 490m long, at the W side of the bay, has a ro-ro berth and depths alongside of 3.7 to 6.1m. There is a disused pier at the head of the bay.

Pilotage.—See paragraph 1.29.

Whiteforeland Point (55°58'N., 4°47'W.) is located at the narrows in the approach to the River Clyde 0.2 mile E of Ironotter Point. A prominent building with a framework radio mast, 18m high, and two flagstaffs on its flat roof, with a beacon close W of it, stands on Whiteforeland Point. Craigs Top, which rises to an elevation of 128m, 0.5 mile S of the point, has a flagstaff on the summit and is conspicuous.

The River Clyde (Clydeport)

1.29 The River Clyde, of prime commercial importance to Scotland, is over 100 miles in length. From its source in the mountains, the river flows N and NW to its mouth at the Tail of the Bank, off Greenock. Ocean-going ships can proceed in a buoyed river channel as far as Glasgow, passing major industrial areas and shipbuilding plants.

Tides—Currents.—Depths in the entrance can be affected by wind and rain. These changes are probably greatest in the upper part of the Firth of Clyde and in the entrance to the River Clyde, where winds from the SW will have more effect than winds from the NE.

The tidal current in the river runs in the direction of the channel except at river bends, where the current sets toward the outer side. The duration of the ebb current increases as the river is ascended. Tidal currents are weak, but with strong NE winds, heavy rainfall or melting snow, the duration and velocity of the ebb current is increased greatly. Dry weather with SW winds increase the duration and velocity of the flood current. In the River Clyde and other estuaries, HW occurs progressively later upriver, with tide ranges gradually increasing toward the head of the river and lochs.

Clydeport, comprised of the ports of Glasgow, Greenock, and Ardrossan, together with other important facilities such as Hunterston Ore Terminal and Finnart Oil Terminal in Loch Long, is administered by the Clyde Port Authority.

Clydeport Home Page

<http://www.clydeport.co.uk>

Depths—Limitations.—The dredged river channel is entered close W of the Tail of the Bank about 1 mile ESE of Whiteforeland Point. From the entrance to Newark Castle at the E end of Port Glasgow, a distance of 3.2 miles, the channel is maintained at a depth of 8.1m, with a width of 100m. Between Newark Castle and Glasgow, a distance of 15 miles, the channel is maintained to depths of 7.4 to 8.2m. Beyond Shieldhall Riverside Quay, depths are not maintained. The harbor-master should be contacted for the latest depth information.

It should be noted that buoys in the first 10 miles of the river channel may mark the 5m contour and not the dredged channel. Erskine Bridge has a vertical clearance of 55m which may be reduced to 52m when painting gantries are in use.

Aspect.—Greenock Bank (55°57'N., 4°44'W.) extends across the entrance of the River Clyde between Clydeport Container Terminal and Ardmore Head. The bank is shallow, partly drying in places. Tail of the Bank, the NW end of Greenock Bank, extends to the River Clyde entrance channel.

Ardmore Head (55°58'N., 4°42'W.), a low rocky peninsula at the E side of the River Clyde entrance, is fronted by flats and shoals as far as Greenock Bank. Hill of Ardmore, covered by trees, rises in the middle of the peninsula.

River Clyde (Clydeport)—Pilotage Requirements		
Requirements for Both the Outer Pilotage Area and the Inner Pilotage Area	Additional Requirements for the Outer Pilotage Area	Additional Requirements for the Inner Pilotage Area
Vessels carrying dangerous substances in bulk.	Vessels 120m in length and over transiting the area.	Vessels 70m in length and over proceeding to berths or anchorages within the inner pilotage area.
Vessels which are not gas-free.	Vessels 80m in length and over proceeding to Hunterston, Loch Striven, Inverkip, or other berths or anchorages within the Outer Pilotage Area.	Vessels 60m in length and over proceeding E of Lighted Buoy No. 1 (55°58'N., 4°46'W.).
Vessels 25m in length and over carrying more than 12 passengers.	Vessels 100m in length and over bound for Ardrossan.	Vessels 45m in length or over if proceeding E of the current operational Clydeport limit.

River Clyde (Clydeport)—Pilotage Requirements		
Requirements for Both the Outer Pilotage Area and the Inner Pilotage Area	Additional Requirements for the Outer Pilotage Area	Additional Requirements for the Inner Pilotage Area
Vessels 25m in length and over which are carrying more than 12 passengers and are proceeding to Loch Fyne or Kyles of Bute.	Vessels 75m in length and over proceeding to Holy Loch. (The pilot boards at Skelmorlie "O" Buoy)	Vessels under tow, dumb barges, etc., 35m in length and over, when proceeding E of the buoy.
Vessels of 15m length and over which are carrying more than 12 passengers and navigating E of Lighted Buoy No. 1 (55°58'N., 4°46'W.).		
Timetabled ferry services operating within the Firth of Clyde pilotage areas.		
The pilot boards off Little Cumbrae Island.	The pilot boards off Little Cumbrae Island.	The pilot boards 0.4 mile NW of Kempoch Point.

Pilotage.—Pilotage is compulsory within both the Outer Pilotage Area and the Inner Pilotage Area. For further information, see the table titled **River Clyde (Clydeport)—Pilotage Requirements**. Vessels should send their ETA at least 6 hours in advance.

Regulations.—The dredged river channel is subject to the regulations of the recommended channels. Regulations and signals of the port authority are applicable to ships navigating the River Clyde, the Firth of Clyde, and Kilbrannan Sound, within an area bound by a line extending due E from Corriegills Point (55°34'N., 5°07'W.) and a line drawn due W from Loch Ranza (55°43'N., 5°18'W.). The regulations also contain special light and sound signals.

Health regulations require transmittal of a Bill of Health aboard ship to be sent to "Porthealth, Glasgow" not more than 24 hours and not less than 12 hours before arrival at Tail of the Bank, where pratique is granted.

The Clyde Port Authority's Estuary Control Tower at Greenock (55°57'N., 4°46'W.) maintains a Port Operations and Information Service. Clydeport Estuary Control (call sign: Estuary Radio) can be contacted 24 hours on VHF channel 12 or 16. The seaward limits of the control area comprise a line in the Firth of Clyde extending due E from Corriegills Point and a line in Kilbrannan Sound extending due W from Loch Ranza entrance. Inbound vessels should send their ETA at the limit of the area at least 24 hours in advance, or if closer, within 1 hour of departure from the previous port. On or before entering the area, vessels should report the following:

1. Vessel's name and nationality.
2. Intended approach channel.
3. Destination.
4. Draft.
5. Where the pilot is to be embarked.
6. Whether an anchorage is required.
7. ETA at Cloch Point (55°56.6'N., 4°52.5'W.).
8. Inability to proceed or maneuver normally.

9. Details of any damage the vessel has sustained. Vessels should subsequently report when fast alongside a berth.

Outbound vessels or vessels shifting berth should send their expected time of commencing movement at least 24 hours in advance. At least 1 hour before sailing, vessels should report by VHF or by telephone the following information:

1. Vessel's name and nationality.
2. Location (berth).
3. ETD.
4. Destination.
5. Draft.
6. Where the pilot is to be disembarked.
7. Whether an anchorage is required.
8. Vessels shifting: designation of new berth.

Immediately before sailing, vessels should obtain clearance to proceed.

In addition to the inbound and outbound reporting requirements, vessels without a pilot should also report to Estuary Control, as follows:

1. When passing E or W of Little Cumbrae Island (55°43.0'N., 4°57.0'W.).
2. When passing Hunterston Buoy No. 1 (55°48.1'N., 4°54.1'W.).
3. When passing River Lighted Buoy No. 1 (55°57.6'N., 4°45.9'W.).
4. When passing Dunglass Light (55°55.8'N., 4°30.1'W.).

Information on weather and shipping movements is available on request. The details of any accident or incident concerning the safe navigation of a vessel, or the safety of a vessel berthed in port, should be reported immediately.

Contact Information.—Clydeport Pilots and Port may be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1475-726221
3. Facsimile: 44-1475-727006
4. E-mail: estuary.tower@clydeport.co.uk

Greenock (55°57'N., 4°45'W.)

World Port Index No. 33390

1.30 Greenock, located close E of Gourock, slopes steeply from the River Clyde as it stretches along the S bank of the river merging SE with Port Glasgow. The port can accommodate all types of vessels and has shipyard facilities.

Tides—Currents.—Tides rise 3.1m at springs and 1.8m at neaps.

Depths—Limitations.—Clydeport Greenock Ocean Terminal, at the SW entrance of the river channel, has an alongside depth of 11.7m at LWS and handles containers. The Cruise Terminal has a length of 376m and an alongside depth of 12.6m; this wharf is primarily a container berth, but passengers and forest products are also handled. The James Watt Dock, with a length of 1,600m and an alongside depth of 4.9m also handles containers, timber, paper and general cargo. A tidal dock, is entered from Garvel Basin, however shallower areas are reported to exist. The West Quay and Custom House Quay, each in ruins, lie approximately 0.5 mile E of the container terminal. Wharfs, quays, tidal harbors, and basins, extending for 2 miles upstream to Maurice Clark Point, form the harbor.

A sea wall extends from the Container Terminal to East India Harbor. Bollards are set at frequent intervals along the wall.

Clydeport Estuary Control can be contacted for depth information. The dock entrance width is 23.15m. Vessels with a salt water draft up to 4.9m and a beam of 21.5m can be accommodated.

Great Harbor, entered SE of Maurice Clark Point, has a depth of 8.5 to 11.7m. The principal berth is Molasses Jetty which extends SW from the SE end of Garvel Embankment, which forms the NE side of the harbor. This jetty, which handles bulk molasses, has a length of 90m and a dredged depth alongside of 8.5m.

There is a drydock, 304.8m long and 44.2m wide, with a depth of 11.3m over the sill. Restrictions as to size of ship and drafts allowed are defined by the Clyde Port Authority.

At Victoria Harbor there is 700m of quayside for small craft, with a depth of 3.9m alongside.

Aspect.—Conspicuous landmarks in Greenock include a church spire, the spire on the Town Hall, and the cranes at the Container Terminal.

Pilotage.—Pilotage is compulsory. Greenock lies within the Inner Pilotage Area of the River Clyde.

Contact Information.—Greenock Port can be contacted, as follows:

1. Telephone: 44-1475-726171
2. Facsimile: 44-1475-888130
3. E-mail: greenock@clydeport.co.uk

Anchorage.—See the River Clyde Approach in paragraph 1.26.

1.31 Port Glasgow (55°56'N., 4°41'W.), located on the S shore of the River Clyde, was formerly the seaport for Glasgow, but navigational improvements to the River Clyde have resulted in greatly decreasing its significance as a port. Shipbuilding, foundries, and the export of timber are important to the port. There is a quay which can accommodate vessels up to 4,000 dwt and 90m in length.

Dumbarton (55°57'N., 4°34'W.) is located on the River Leven, above its junction with the River Clyde. Dumbarton Castle, prominent and double-peaked, is so steep-to that it can only be reached by steps on its S side. A narrow channel with a depth of 2.4m leads to a shallow tidal basin lying close N of the castle.

Bowling (55°56'N., 4°29'W.) (World Port Index No. 33450), a ship repair center with lay-up berths, is formed by two parallel piers fronting the river. There is a least depth of 4.6m alongside the quay.

Dunglass Terminal (55°56'N., 4°31'W.), two offshore tanker berths at Bowling, lie about 1 mile downriver from the Bowling Harbor entrance. Tankers of up to 20,000 tons and 168m in length with a maximum draft of 9m can be accommodated.

1.32 Old Kilpatrick (55°55'N., 4°27'W.) (World Port Index No. 33460), a town on the N side of the River Clyde and 1 mile upstream of Bowling, has an oil tanker wharf, 135m long with depths of 7.6 to 8.7m alongside, situated 0.5 mile above Erskine Bridge. A tanker must hoist the International Code answering pennant by day, or two lights, red above white, at night when docking and undocking.

The Erskine Bridge lies approximately 0.2 mile above Old Kilpatrick. The vertical clearance is 55m, unless the painting gantry is in place, where the clearance decreases to 52m. The navigable channel under the bridge is 115m wide. An overhead power cable exists 0.7 mile farther downstream, with a safe clearance of 74m.

Rothesay Dock (55°54'N., 4°24'W.) (World Port Index No. 33470), a large tidal basin, is situated on the N side of the Clyde, opposite the River Cart. Rothesay Dock handles bulk cargo and scrap metal. The entrance, 55m wide, leads to a total quayside of 1,900m, with a depth of 6.7m alongside. There is also a riverside quay, 180m long, with a depth of 6.2m alongside.

Traffic signals are hoisted at the basin entrance. International Code flag B by day, and a red light above the masthead light, at night, aboard ship signifies docking, or underway in the river after undocking. A green or red light shown from the signal mast at the basin entrance, signifies when the entrance is clear or closed, respectively.

Renfrew (55°53'N., 4°23'W.) (World Port Index No. 33480), a small tidal basin on the S side of the River Clyde, has quays with depths of 3 to 4m alongside. Vessels of up to 1,450 dwt and 65m in length can be handled.

Glasgow (55°52'N., 4°17'W.)

World Port Index No. 33490

1.33 Glasgow, both a port and city, is situated on both sides of the River Clyde, 20 miles above its mouth. The city, an industrial and manufacturing center, has a port renowned for its shipbuilding. The main approach to the port is through the Firth of Clyde.

Tides—Currents.—A description is given with the River Clyde in paragraph 1.29, and additionally on charts of the area. Tides at Glasgow rise 4.1m at springs and 2.4m at neaps.

Depths—Limitations.—Dredged depths in the river chan-

nel to Glasgow are shown on the applicable charts. The river channel is dredged to a depth of 6.9m up to 1.6 miles below the Kingston Bridge; depths of 5.3m exist from that point to the bridge. The bridge has a vertical clearance of 19m over a width of 50m. There are no commercial berths above the bridge.

A pedestrian bridge crosses the river about 0.5 mile below the Kingston Bridge; part of the bridge can be swung open if given 24 hours notice.

King George V Dock, a tidal basin with a total berthing availability of 1.586m, is located on the S side of the river.

Shieldhall Riverside Quay, adjacent to King George V Dock, is also situated on the S bank,

Vessels with a maximum draft of 9.7m can be accommodated at the port.

Three drydocks located at Govan (55°52'N., 4°18'W.); the largest is 268m in length, 25m wide, and 8m deep.

The largest of the three drydocks at Scotstoun (55°53'N., 4°22'W.) is 207m in length, 33m wide, and 7.4m deep. For further berth information refer to table titled **Glasgow—Berth Information**.

Contact Information.—Glasgow port can be contacted, as follows:

1. Telephone: 44-141-4452241 (Dock Number)
44-141-4458733 (Office Number)
2. Facsimile: 44-141-4452791
3. E-mail: kgv@clydeport.co.uk

Anchorage.—See anchorages described with the Firth of Clyde and the River Clyde approach.

Caution.—To avoid vessel squatting it is recommended that vessels not exceed a speed of 12 knots below the Erskine Road Bridge.

Holy Loch

1.34 Holy Loch (55°59'N., 4°54'W.) is entered between Hunter's Quay, previously described in paragraph 1.21 and Strone Point, a rounded promontory 0.8 mile NNE. A spit extends 0.2 mile S of Strone Point and is marked by a lighted

buoy.

Aspect.—A church with a conspicuous spire stands on Strone Point. There are depths of over 20m in the fairway throughout the loch as far as its drying head and fringing coastal shoals. The main part of the loch is free of detached dangers. Several settlements on the shores of the loch are served by piers or jetties. Graham's Point, on which a monument stands, is located 1 mile WNW of Strone Point. White Farlane Point, on which there is also a monument, lies on the S side of the loch, 1 mile NW of Hunter's Quay.

Directions.—Vessels bound for Holy Loch should follow Firth of Clyde Channel and Loch Long Channel, which branches N of Cloch Point (55°57'N., 4°53'W.). From a position about 1.5 miles N of Cloch Point, a course can be shaped to enter the loch.

Caution.—Numerous seabed obstructions exist within Holy Loch; anchorage should not be attempted within the loch.

Loch Long and Loch Goil

1.35 Loch Long and Loch Goil form part of the Clyde Dockyard Port, wherein special regulations and signals are in force to safeguard the movement of naval ships. Entry into the protected area by unauthorized vessels is prohibited. Entry into the restricted area is prohibited during the movement of nuclear powered submarines or large naval vessels; vessels within the area must clear it.

Loch Long (55°59'N., 4°52'W.), entered between Strone Point and Baron's Point, 1.5 miles E, trends N and NNE for 15 miles to its drying head. The entrance to Loch Goil lies on the W side, 6.5 miles above the entrance. Hills backing the shores on both sides of lower Loch Long become precipitous mountains as the head of the loch is approached.

Winds—Weather.—Deep valleys lie between the mountain ranges. This aspect of the loch causes sudden calms and violent squalls with rapid shifting of the wind and possible danger to small craft.

Glasgow—Berth Information			
Berth	Length	Depth	Remarks
King George V Dock			
No. 1	—	7.7m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 2	—	6.4m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 3 and 4	—	8.1m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 5	—	4.8m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 6	—	5.8m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 7 and 8	—	7.5m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 9	—	7.1m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
No. 10	—	7.3m	Bulk, animal feed, fertilizer, salt, grain, and scrap metal cargo.
Meadowside Quay			
Quay	696m	3.0-4.0m	Meadowside Quay, on the N bank 1.2 miles upriver from King George V Dock.

Glasgow—Berth Information			
Berth	Length	Depth	Remarks
Stobcross Quay	190m	2.0m	Located on the N side of river.
Shieldhall River Quays			
Quay	1,300m	6.2-6.7m	Steel, bulk, and general cargo.
Rothesay Dock			
Quay	274m	9.0m	Minerals, coal, and salt. Can accommodate vessels with an loa of 160m and a beam of 20m.
Nustar Terminal (Clyde)			
Nustar Rothesay Dock	126m	—	Petroleum products.

Tides—Currents.—Tides at Coulpport rise 3.4m at springs and 2.9m at neaps.

Tidal currents are weak in the loch. A maximum velocity of 0.8 knot at springs is attained in the entrance. In the inner part of the loch, the velocity and turning times of currents are greatly influenced by the wind.

Anchorage.—Anchorage can be taken close offshore on either side of the loch for about 4 miles above the entrance; beyond this distance the shores are too steep-to. Good anchorage can be taken, in depths of 15 to 22m, mud, about 0.5 mile from the head of the loch.

Directions.—Loch Long Channel leading into the entrance has a least depth of 34.7m and is clear of dangers.

Kilcreggan Channel is an inshore channel which leads from Ardmore Channel to Loch Long. By avoiding an 18m shoal on the N side of the channel, S of Kilcreggan Bay, a least depth of 21.9m exists in the channel.

Caution.—Caution should be exercised in transit of Loch Long and Loch Goil, as submarines frequently surface and dive in these lochs.

Several mooring buoys are situated throughout the loch.

Submarine cables lie in the entrance to the loch. Disused cables and swamped moorings exist in Upper Loch Long, between the parallels of 56°07'N. and 56°12'N.

A power cable with an overhead clearance of 76m spans the loch 2 miles N of Coulpport Jetty.

1.36 Gairletter Point (56°01'N., 4°54'W.), on which there is a conspicuous boathouse, is located 2.5 miles N of Strone Point. A light structure stands on Ravenrock Point 1 mile N of Gairletter Point and a conspicuous hotel stands on a point 0.5 mile N of it.

Coulpport Jetty (56°03'N., 4°53'W.), 245m long, with a maintained alongside depth of 10.7m, lies parallel with the E shore of the loch 4 miles N of Baron's Point. A pier extends 45m offshore from close S of Coulpport Jetty.

Coulpport Covered Berth, 200m long, lies parallel to the shore, 0.7 mile NNE of Coulpport Jetty. A conspicuous warehouse-type building covers the berth.

Coulpport Works Jetty, 57m long, is situated on the E side of the loch 0.9 mile ENE of Coulpport Jetty; it is used for the discharge of construction material. Vessels wishing to berth at this jetty must first obtain clearance from the harbor master at Faslane. The shore adjacent to the jetties is built up and there are several conspicuous watch towers. A prominent building

stands 0.5 mile S of Coulpport Jetty.

Caution.—A restricted area and a protected area lie in the vicinity of the jetties and may best be seen on the chart. Fishing is prohibited in the N part of the restricted area.

When the Coulpport Restricted Area is closed, the following signals will be displayed from Coulpport Jetty and any patrol craft:

1. By day—Three green lights disposed vertically and the International Code Pennant superior to Pennant 9.
2. By night—Three green lights disposed vertically.

Vessel speed is limited to 12 knots in the loch and 7 knots in the restricted area.

1.37 Finnart Oil Terminal (56°07'N., 4°50'W.) (World Port Index No. 33405), 3.5 miles NNE of Coulpport Jetty, has two deep-water piers with connections to a tank farm.

Tides—Currents.—Tides rise about 3.4m at springs and 2.9m at neaps.

Depths—Limitations.—No. 2 Pier is 90m long, with a depth of 17.7m alongside.

No. 3 Pier is 150m long, with a depth of 25m alongside, and can accommodate tankers up to 330,000 dwt, with a length of 345m and a draft of 25m.

Pilotage.—See paragraph 1.29.

Aspect.—Arddarroch House, a conspicuous dwelling, stands in the woods close E of No. 3 Pier. Lights, in range 031°, are shown from Cnap Point, on the W side of the loch, 0.5 mile N of the terminal. Lights are shown from the ends of each pier head. In each case, the light at the NE end of the pier forms a range alignment with a light ashore, assisting tankers docking at night.

Contact Information.—Finnart Terminal can be contacted, as follows:

1. Call sign: BP Finnart
2. VHF: VHF channels 10, 12, 16, and 19
3. Telephone: 44-143-681-0381
4. Facsimile: 44-143-681-0240

Directions.—At night, vessels should navigate with the white sector of Ravenrock Point Direction Light bearing astern between 203°30' and 204°30'. This will lead vessels to the 031° lighted range. This range should be steered on until the individual pier head ranges are in line. The terminal maintains a port radio station.

1.38 Glenmallan Jetty (56°08'N., 4°49'W.), an L-shaped

pier, which serves an ammunition depot, is situated on the E side of the loch about 1 mile NE of Finnart Oil Terminal. The pier is 150m long with depths of 11.2 to 11.6m alongside. A restricted area surrounds the pier and is shown on the chart. Anchoring and fishing are prohibited within the area. An area, within which unauthorized entry is prohibited, lies in the vicinity of the pier. Vessels should give a wide berth to ammunition ships being berthed or departing from the pier.

Ardgartan Point (56°11'N., 4°47'W.) is a low point at the mouth of a river 4 miles NNE of Cnap Point. The shore between the points is steep-to.

Arrochar, a village at the head of the loch, has a conspicuous hotel. A T-head wooden pier, situated in front of the hotel, is reported (2007) to be unusable. A jetty and a disused pier are situated on the W side of the loch between Ardgartan Point and the head of the loch.

1.39 Loch Goil (56°08'N., 4°54'W.), leading off the W side of Loch Long, is entered S of Meall Darraich (56°06'N., 4°52'W.), a bold precipitous promontory rising at S end of a broad peninsula separating the lochs. The deep valleys between mountain ranges encircling Loch Goil cause variable winds and violent squalls. The E side of the loch is steep-to except for shoals about 0.5 mile within the entrance. Shoals fringe the W side of the loch. Carrick is a small village on the W side of the loch, 1.2 miles within the entrance. The ruins of a conspicuous castle lie on a point fronting the village.

Depths—Limitations.—The Perch, a reef with depths of less than 1.8m marked by a beacon, extends off the W shore of the loch 0.4 mile N of Carrick. A combination range and sector light leads through the entrance of Loch Goil in a least depth of 13m. This leading line passes close SW of an 11.4m shoal lying 0.3 mile WNW of Carraig na Maraig.

Regulations.—An Admiralty Trials Range is operated within the loch. Special signals and regulations are in force. A large red flag displayed by naval craft at Douglas Pier (56°09.3'N., 4°54.4'W.) and Carrick Castle Pier (56°06.5'N., 4°54.3'W.) signifies that traffic control measures are in effect.

Experimental areas, shown on the chart, lie 0.9 mile and 1.7 miles from the head of the loch. Within these areas there are rafts and unlit mooring buoys. When the areas are in use by nuclear submarines they will be patrolled by safety craft.

Civil craft must stay clear of Douglas Pier (56°09'N., 4°54'W.) as well as naval craft, buoys, rafts, moorings, and other obstructions.

Anchorage.—Anchorage can be taken 0.3 mile from the head of the loch, in a depth of 42m.

Anchorage, good holding ground, can be taken in a depth of 18m, sand and mud, about 0.2 mile NE of Carrick (56°06'N., 4°54'W.). Anchorage can also be taken 0.3 mile N of The Perch, in a depth of 18m.

Gareloch

1.40 Gareloch is approached between Rosneath Point (55°59'N., 4°46'W.) and Craigendoran Pier, about 1.7 miles E.

The E shore entering the loch, which is low and fronted by a drying mud flat, extends NW for 3 miles forming a bight as far as Rhu Point.

A sea wall fronts the outer 2 miles of this coast. The W

shore of the approach to Gareloch is low and wooded to the water's edge. Shoals of less than 5.5m lie up to 0.7 mile off the E shore and 0.2 mile off the W shore.

Gareloch is approached from W through Ardmore Channel (55°59'N., 4°47'W.), then N and NW along a restricted channel through Rhu Narrows (56°01'N., 4°47'W.), which has a least width of 225m. The centerline of this channel is indicated by range lights. It is reported (2010) that radar becomes landlocked north of Rosneath Point.

The controlling depth in the approach and entry to the Gareloch is 13.4m. The channel through Rhu Narrows is also maintained at a depth of 13.4m. It was reported (2010) that, during low tide, larger vessels often experience sluggish turning response rounding Rosneath Point, but responsiveness dramatically improves once the vessel enters the deeper water of the Gareloch.

Rosneath Farm, a castellated building, conspicuous on most bearings when approaching Gareloch, stands 0.5 mile NW of Rosneath Point.

Helensburgh, a coastal town, stretches along the coast between Craigendoran Pier and **Cairndhu Point** (56°00'N., 4°46'W.). Helensburgh Pier, 245m long, has a depth of 2.1m alongside, but depths less than 2m exist in the approach close to seaward. A church steeple and clock tower, which are conspicuous, stand NNE of the pier head.

Ardencaple Castle stands close ENE of Cairndhu Point and is conspicuous. A jetty, used by landing craft, is situated about 0.4 mile NW of Cairndhu Point. A marina is situated close WNW of the jetty.

1.41 Castle Point (56°00'N., 4°46'W.), on the W shore opposite Cairndhu Point, is low and grassy. From Castle Point, the coast recedes to form Rosneath Bay with wooded shores backed by sloping fields. A light is shown from Castle Point. Rosneath Jetty, with a T-head 90m long and a depth of 6.7m alongside, is situated near some conspicuous boat sheds about 0.5 mile WNW of Castle Point.

Directions.—Ardmore Channel, the recommended channel leading to Gareloch, branches ENE from Firth of Clyde Channel about 0.8 mile NW of Kempock Point. On departing Ardmore Channel E of Rosneath Point, a light on Ardencaple Castle and a lighted beacon, standing 0.5 mile S of the castle, aligned 356°, lead through the first reach; a directional sector light is situated at the lighted beacon. The second reach is entered when the directional sector light near Rhu Point (56°01'N., 4°47'W.) bears 318°. Steer on this bearing until the directional sector lighted beacon, close S of Limekiln Point, bears 295°. Enter the third reach and steer on this bearing until the directional sector light close SW of Castle Point, bears 149° astern, then steer a course of 329° through the narrows.

Rhu Narrows (56°01'N., 4°47'W.), the entrance to the loch, lies between Rhu Point and Limekiln Point, 0.3 mile SW. A drying spit extends from Rhu Point to the edge of the fairway channel which is about 225m wide and has a maintained depth of 13.4m. Vessels should use caution due to marine works in the vicinity of the loch and narrows. Depths of as little as 12.9m have been reported (2015) in Rhu Narrows and its approaches.

Tidal currents approaching the entrance are variable as to direction and velocity. There is a strong set across the shoals in

the vicinity of Rosneath Point. At times, the current in and around the narrows is rotary and strong. Vessels passing through Rhu Narrows on an ebb tide should guard against being set on the shoals off Limekiln Point. Within Gareloch, the tidal currents are weak and ineffective. It was reported (2010) that runoff after heavy rain can cause currents in Gareloch to differ significantly from those predicted based on tidal movement.

1.42 Gareloch, with steep-to and wooded E and W shores, leads NNW for 4.2 miles to the drying flat at the head of the loch. Shoals of less than 5.5m fringe both sides of the loch. There are general depths of 27 to 37m throughout the loch. Mambeg Light is shown from the W shore of the loch 1 mile S of the head. After clearing the narrows, vessels should steer in the directional white sector of the light.

Faslane Bay (56°04'N., 4°49'W.) indents the E coast of the loch between Rowmore Point, 0.8 mile S of the head, and Carban Point, 1 mile S. Most of the bay is fronted by the Naval Jetty which has depths of 9.2 to 10.8m alongside. No. 10 Berth and No. 11 Berth, located on a pier to the N of the Naval Jetty, have depths alongside of 15m. Berth 12, on the northernmost pier, has depths alongside of 19.7m. It is reported (2010) that runoff after heavy rain can cause currents at the jetty to differ significantly from those predicted based on tidal movement. A wharf, used by a ship-breaking firm, is situated N of the Naval Jetty and has a dredged depth of 7.6m alongside. Two oil piers, situated 0.2 mile N of Rowmore Point, have depths of 10.3m and 8.5m alongside the S and N piers, respectively. Tankers of up to 32,000 dwt can be accommodated.

The N end of the bay is protected by an enclosed barrier (leading boom). It was reported (2011) that the boom has been moved W and S from its charted position.

Tides—Currents.—Tides at Faslane rise 3.4m at springs and 2.9m at neaps.

Pilotage.—Pilotage is compulsory for all vessels over 50m in length. The pilot vessel monitors VHF channel 73. Pilots board military vessels, as follows:

1. Any vessel bound for Loch Striven NATO Fuel Jetty in position 55°50.3'N, 4°59.4'W.
2. Nuclear-powered warships and military vessels carrying hazardous cargo bound for Loch Long or Gareloch in position 55°54.6'N, 4°55.1'W.
3. Military vessels bound for Loch Long in position 55°58.5'N, 4°52.4'W.
4. Military vessels bound for Gareloch in position 55°58.2'N, 4°50.0'W.

Regulations.—A Restricted Channel has been established in the approaches to, and through, Rhu Narrows; a Restricted Area has been established off the naval installations at Faslane. The limits of these areas are shown on the chart.

Entry into the Restricted Channel and the Restricted Area is prohibited during the movement of nuclear-powered submarines and large naval ships; vessels within these areas must clear them when the relevant signals are displayed.

A Protected Area has been established adjacent to the naval installations at Faslane and is shown on the chart. Entry into the Protected Area by unauthorized vessels is prohibited.

The loch is a Clyde Dockyard Port; speed is limited to 12 knots in the loch and 7 knots in the Protected Area and the Re-

stricted Areas, to include Rhu Narrows.

The required minimum underkeel clearance within the port is 2m for underway vessels and 1m for vessels alongside.

Vessels bound for Clyde Dockyard Port, including the Naval Base at Faslane should send an ETA at least 24 hours in advance to QHM Clyde and any updates at least 2 hours prior to arrival.

Vessel Traffic Service.—A traffic organization service with mandatory participation for vessels over 20m in length has been established in the Clyde Dockyard Port and approaches. It is bounded by an area, as follows:

1. The Dockyard Port of Gareloch including the waters in and the approaches to the loch N of an imaginary line commencing at Rosneath Point and extending E to Ardmore Point.
2. The Dockyard port of Loch Long, the waters of Loch Long and Loch Goil to the N of 56°N.

Inbound vessels required to participate in the VTS shall report, as follows:

1. Upon passing Cumbrae Light
2. Nuclear powered warships and vessels bound for Loch Long when at the Outer Pilot Station.
3. When abeam the lower Loch Long Buoy for vessels bound for Loch Long.
4. Vessels bound for Gareloch when at the Inner Pilot station.
5. Upon passing Perch Rock at the entrance to the Rhu Narrows.
6. Upon passing Gully Bridge when exiting the Rhu Narrows.

Outbound vessels required to participate in the VTS shall report as follows:

1. Upon passing Gully Bridge at the entrance to Rhu Narrows.
2. Upon passing Perch Rock at the exit to Rhu Narrows.
3. Upon abeam the lower Loch Long Buoy for vessels departing Loch Long.
4. When abeam Cumbrae Light.

Signals.—When the Rhu Narrows Restricted Channel and Faslane Restricted Area are closed, a red light above two green lights supplemented by a red rectangular flag with a white diagonal bar is displayed on any Naval or Auxiliary vessel within the Rhu Narrows Restricted Channel and also at masts in the following locations:

1. The Port Control Building at Faslane.
2. Rhu Hard.
3. The DG Range Building adjacent to Green Isle.
4. The Navy Buildings at Greenock.

Anchorage.—Rosneath Bay affords anchorage, sheltered from S winds, to small vessels with local knowledge. There is general anchorage between Cairndhu and Rhu Points. Temporary anchorage can be taken in suitable depths throughout Gareloch, clear of restricted areas, but the holding ground is not good.

Contact Information.—QHM pilots can be contacted, as follows:

- | | |
|---------------|------------------------|
| 1. Call sign: | QHM |
| 2. VHF: | VHF channels 16 and 73 |
| 3. Telephone: | 44-1436-677280 |
| 4. Facsimile: | 44-1436-677398 |



The Ship Light

5. E-mail: faslaneportcontrol@mod.co.uk
 Clyde Dockyards Port Control can be contacted, as follows:
1. VHF: VHF channel 73
 2. Telephone: 44-1646-696136/7
44-1646-696137
 3. Facsimile: 44-1646-696110
 4. E-mail: faslaneportcontrol@mod.co.uk

Approaches to Kilbrannan Sound

1.43 Kintyre (55°30'N., 5°35'W.), a broad mountainous peninsula, forms the W side of the sound and the approaches. It is connected to the mainland NNE by a narrow isthmus.

Sron Uamha (55°17'N., 5°46'W.), the S extremity of Kintyre, lies 1.5 miles SE of the Mull of Kintyre and is a rocky, conspicuous promontory. Tide rips occur off the point.

Carskey Bay, an open bight, indents the coast between Sron Uamha and Rubha McShannuich, 5 miles E. A conspicuous white hotel stands at the head of the bay and a framework radio mast stands on Rubha McShannuich. Small vessels with local knowledge can obtain anchorage in the bay, in depths of 7 to 9m.

Macosh Rocks, which dry and are marked by a lighted buoy, form the W part of the reef extending 0.2 mile offshore from Rubha McShannuich. Barley Ridges are a series of rocky reefs extending about 1.5 miles NE of Macosh Rocks.

Sanda Island (55°17'N., 5°35'W.) is the largest of a group of islets and rocks lying off Rubha McShannuich. Reefs and rocks lie within 1 mile N and E of the island. The Ship, a small promontory midway along the S side of the island, appears detached when seen from W. A light is shown from a tower standing on the S extremity of The Ship.

Sanda Sound (55°18'N., 5°35'W.) is the navigable passage between the island group and the coast NW. The sound has a

width of about 1 mile and depths of 9 to 51m. The least charted depth in the fairway of Sanda Sound is 19.4m lying 0.8 mile NW of Sanda Island. Tidal currents attain a velocity of 5 knots in both E and W directions.

Du-na-h-Oighe is a small isolated mound located 2.2 miles NE of Rubha McShannuich. A granite cross stands on a point close SW of the mound. Arranman's Barrels, marked by a lighted buoy, are several large drying stones which lie on a ledge extending 0.3 mile E of Du-na-h-Oighe.

Ru Stafnish (55°22'N., 5°31'W.), the SE point of Kintyre, is located 3.2 miles NE of Du-na-h-Oighe. Prominent radio masts stand close W of the point.

Davaar Island (55°25'N., 5°33'W.), lying at the W entrance of Kilbrannan Sound about 3.5 miles NNW of Ru Stafnish, is described in paragraph 1.47.

Cleiteadh Mor (55°26'N., 5°15'W.), the SW extremity of Arran, is located 4.5 miles W of Kildonan Point. The coast between is fronted by rocky spurs which extend up to 0.2 mile offshore.



Sanda Island from W

Kilbrannan Sound and Bute Sound

1.44 Kilbrannan Sound (55°30'N., 5°26'W.), lying W of Arran and E of Kintyre, extends N from its entrance to a junc-

tion with Inchmarnoch Water and the Bute Sound. Shores on both sides of the sound are irregular, hilly, and fringed by rocky shoals. The sounds and adjacent lochs are all navigable by ocean-going ships of deep draft. The hilly coasts are partly steep-to and backed by mountains and steep ravines. There are very few anchorages.

The sound is entered between Cleiteadh Mor, the SW point of Arran, and Davaar Island, about 10 miles W. Depths are irregular throughout the sound, with 20 to 26m existing in the entrance. There are few detached dangers, and those lying close offshore are marked by buoys.

Tides—Currents.—In mid-channel, the current is generally rotary and lacks strength. There is a counterclockwise and rotary current in constricted channels. Along the S coast of Arran Island there is a continuous E current. Off salient points and around Davaar Island, velocities may reach 4 knots during springs, whereas along the shores, currents are weak. At Skipness Point (55°46'N., 5°20'W.), the tidal currents run strongly in both directions. Tide rips occur over the banks and off salient points with an ebb or S current.

Caution.—Submarines exercise frequently in the entrance to and within the sounds.

1.45 The E coast of Kilbrannan Sound for about 8 miles N of Cleiteadh Mor is fronted by shoals and foul ground as far as 0.5 mile offshore.

Iron Rock Ledges (55°27'N., 5°20'W.), partly drying, extend 0.8 mile offshore and are marked by a lighted buoy.

Drumadoon Point (55°30'N., 5°21'W.) is a low rocky spur forming the NW extremity of a shoal bay. King's Cave is located in conspicuous sandstone cliffs extending 1.5 miles N of the point.

Imachar Point (55°37'N., 5°24'W.) is a blunt point 6.5 miles N of Drumadoon Point. The intervening coast is indented to form Machrie Bay. Small vessels can anchor in suitable depths close offshore in the bay and clear of Iorsa Patch, a drying shoal, lying at the N end. A conspicuous radio mast stands on the hillside about 0.8 mile NE of Imachar Point.

Whitefarland Bank (55°37'N., 5°25'W.), with a least depth of 16.8m, has tide rips breaking on it with a S tidal current. Anchorage can be taken, in depths of 16 to 18.3m, in the bay 1 mile NE of the bank, sheltered from S winds.

Erins Bank (55°37'N., 5°25'W.), contiguous with Whitefarland Bank, has a least depth of 10.1m with heavy tide rips breaking on it during the S tidal current.

Catacol Bay (55°42'N., 5°20'W.), 5 miles NE of Erins Bank, affords anchorage, in depths of 15 to 18m, sheltered from S winds.

Caution.—Submarine cables cross the sound in the vicinity of Drumadoon Point and about 1 mile S of Imachar Point and are shown on the chart.

1.46 Loch Ranza (55°43'N., 5°18'W.) 6.8 miles NE of Imachar Point, is a constricted shoal inlet with a drying head frequented by fishing vessels. Rocky shoals and a ledge extending off the NE entrance point narrow the entrance fairway. A ro-ro pier extends N from Coilemore Point; a ferry ramp is situated close E of the root. A mooring buoy lies in the middle of the entrance and is used as an off-service ferry berth. Yacht moorings are also situated in the loch. Local knowledge is neces-

sary. Anchorage can be taken, in depths of 5 to 10m, in the middle of the loch, abeam a castle in ruins. North and S gales make the anchorage untenable.

Cock of Arran (55°43'N., 5°15'W.), 1.5 miles ENE of the entrance of Loch Ranza, is the NE entrance point of the sound. It comprises cliffs of red sandstone.

1.47 Davaar Island (55°25'N., 5°33'W.) lies at the W side of the entrance of Kilbrannan Sound and in the entrance of Campbeltown Loch. It attains an elevation of 114m on the S side and a light is shown from the N side. The S side of the island is high and conspicuous; the N and E sides are rocky and somewhat steep-to. Reef flats fringe the island. Tidal currents run strongly E of the island, with a velocity reaching 4 knots at springs. Heavy tide rips occur off the SE side of Davaar when the wind opposes the ebb tidal current.

The Doirlinn, a drying sand bank which is liable to change, extends from Davaar Island to Ottercharach Point, located on the mainland 0.2 mile SW. The N and W sides of the bank are fringed by a gravel ridge, impassable at HW. Millmore Beacon stands near the NW end of The Doirlinn.

Kildalloig Bay (55°25'N., 5°33'W.), an open area lying E of The Doirlinn, affords anchorage protected from NW storms, in a depth of 9m, with the E end of Davaar and Millmore Beacon bearing 014° and 301°, respectively.

Campbeltown Loch (55°25'N., 5°36'W.) provides passage through North Channel between Scotland and Ireland. The loch is entered between the NW side of Davaar Island and Macringan's Point, 0.5 mile NNW. The shores of the loch are fronted by shoals which narrow the fairway leading to the inner part of the loch to a width of about 150m and to a depth of 12.9m in the area N of Millmore Beacon. Lighted buoys mark the sides of the channel where it is restricted. Methe Bank, with a least depth of 10m and marked by a lighted buoy, lies about 0.2 mile W of Millmore Beacon.

Trench Point, a projection midway along the N side of the loch about 1.2 miles SW of Macringan's Point, is marked by a disused jetty with a lighted buoy moored off its head and a beacon standing close E.

Campbeltown NATO Pier is an L-shaped concrete jetty on steel piles extending into the SE part of the loch. Three dolphins are situated on each side of the jetty head, which is 78m long with a dredged depth of 12.8m alongside.

Caution.—A large mooring buoy is moored in the loch about 0.3 mile SSW of Trench Point; a submarine cable extends WSW from the buoy to the shore.

Along the S side of the loch, the terrain rises to a height of 350m. Heavy gusts of wind occasionally blow down from the hills.

1.48 Campbeltown Harbor (55°26'N., 5°36'W.) (World Port Index No. 33300), fronting the town at the head of the loch, is a fishing center. Two quays form a tidal basin.

Depths—Limitations.—The Old Quay is L-shaped, with the outer face known as Fish Market. The outer side of the Old Quay has a berth, 110m long, with a charted depth of 3.5m alongside; the inner side has a berth 80m long, with charted depths of 2.4 to 3.1m alongside. The outer face of the Fish Market has a depth of 4.5m alongside; the inner face has charted depths of 3.1 to 4.1m alongside.



Courtesy of Campbeltown Harbor

Campbeltown Harbor



Loch Ranza from N

The NW face of the New Quay has 120m of berthing space, with a dredged depth of 9m. The SE face of the New Quay is a ro-ro berth and with an alongside depth of 5m.

A pontoon close W of the Old Quay has a depth of 3m alongside and provides numerous berths for small vessels.

Vessels of up to 100m in length and 5m draft can be accommodated at the port.

Aspect.—Range lights, shown from structures standing at

the SW side of the loch, lead through the entrance fairway. The daymarks of the range light structures were reported difficult to distinguish. Prominent aids include radio masts standing 0.5 mile N and 0.8 mile NE of Trench Point, a flagstaff standing near the shore 0.5 mile NW of Trench Point, and a monument, with a white cross on its seaward side, standing close NW of the harbor. A church tower with corner pinnacles stands close W of the harbor and another church tower with four pinnacles stands close S of the harbor. The chimney of a school stands 0.4 mile S of the harbor.

A television mast, 51m in height, stands 1 mile SW of the harbor and a white cross war memorial stands close S of the front range structure. When a vessel passes N of Millmore Beacon in the entrance, an alternative transit may be used with the prominent chimney at the school and the prominent television mast in line, bearing $251^{\circ}15'$.

Pilotage.—Pilotage is compulsory, as follows:

1. Vessels with an loa of 80m and over.
2. All vessels carrying dangerous or polluting substances in bulk.

Masters and First Mates of vessels holding a current Pilotage Exemption Certificates will be exempt from pilotage.

Pilots board, as follows:

1. Position $55^{\circ}26.0'N$, $5^{\circ}31.8'W$, about 0.5 mile NE of Island Davaar Light ($55^{\circ}26'N$, $5^{\circ}32'W$).
2. Vessels classed as large (125m loa and over and/or a draft of 8m) may be boarded 1.75 miles ENE of Island

Davaar Light in position 55°26.4'N, 5°29.5'W.

The pilots can be contacted, as follows:

1. Telephone: 44-158-655-2552
2. Facsimile: 44-158-655-2552
3. Web site: <http://www.campbeltownpilots.com>

Regulations.—The harbor master should receive the ETA at least 72 hours in advance, with confirmations sent 48 hours and 24 hours prior to arrival.

Contact Information.—The harbor master can be contacted, as follows:

1. VHF: VHF channels 12, 13, and 16
2. Telephone: 44-158-655-2552
3. Facsimile: 44-158-655-2552
4. E-mail: campbeltownharbour@argyll-bute.gov.uk
5. Web site: <http://www.argyll-bute.gov.uk>

Anchorage.—Foul ground is present throughout Campbeltown Loch, therefore mariners are advised to contact the harbor master prior to anchoring. Anchorage may be taken in the loch. There is good holding ground for small vessels S and E of Trench Point.

The loch affords sheltered anchorage for vessels navigating North Channel.

1.49 The coast N of Macringan's Point is fronted by rocky shoals and foul ground which extend about 0.5 mile offshore. Otterard Rock, with a least depth of 3.8m, lies 1.5 miles NE of Macringan's Point and is marked by a lighted buoy close E. Vessels approaching Campbeltown from N can clear the rock by keeping Macringan's Point aligned with the beacon on Trench Flat, bearing 237°.

Kildonald Point, a well-defined promontory, is located 3.5 miles NNE of Macringan's Point. Ross Island, 7m high, lies off the point. Pluck Point is located 2.5 miles N of Kildonald Point. A river with a prominent sandy beach on the N side and a castle on the S side, flows into the sound close WSW of the point.

Carradale Point (55°35'N., 5°27'W.) is located 6 miles NNE of Kildonald Point. A rocky ledge extends SE from the point and is marked by a lighted buoy. Carradale Bay, lying close W of the point and somewhat sheltered on the SE side by a small island, has depths of up to 15m in its outer part. A building and radio mast standing close NNW and NE, respectively, of the bay are conspicuous. A prominent castle stands on a hill 1.3 miles WSW of Carradale Point. A conspicuous bridge, which can be seen from seaward, is situated close ESE of the castle.

Anchorage can be taken by small vessels in the bay N of Kildonald Point, in depths of 7 to 9m; anchorage may also be taken in the bay close SW of Pluck Point, in depths of 9 to 11m, sheltered from N winds. Carradale Bay affords anchorage 0.5 mile SW of the point, in depths of 9 to 13m.

Port Crannaich (Carradale Harbor) (55°36'N., 5°28'W.), 1.5 miles N of Carradale Point, affords shelter at a jetty, protected by a breakwater, with 37m of berthage for vessels of up to 3m draft. Herring fishermen work out of the harbor. Local knowledge is necessary. Anchorage for small vessels can be taken, in depths of 9 to 12.8m, N of the harbor entrance.

Fascairt Point lies 8 miles NNE of Port Crannaich. A marine farm, marked by lighted buoys, lies close E of the point. The Cour, an isolated rocky shoal with a depth of 19.3m, lies on the

W side of the sound about 3.2 miles S of the point. A ferry operated from Claonaig Bay, 1.8 miles NE of Fascairt Point, runs across the sound to Loch Ranza.

Skipness Point (55°46'N., 5°20'W.), the NW entrance point to Kilbrannan Sound, is fronted by foul ground marked by a lighted buoy. Two radio masts stand on the coast 1.2 miles NNE of the point.

Caution.—A submarine cable area, which is shown on the chart, extends SE for a distance of 3.5 miles from a point on the E shore of the Peninsula of Kintyre, about 1 mile N of Skipness Point. Mariners are advised to navigate with caution in the area.

Bute Sound—Inchmarnock Water

1.50 Bute Sound (55°45'N., 5°10'W.) is the broad channel leading NW between the NE side of Arran and the SW side of Bute Island. The sound, connecting the Firth of Clyde with Inchmarnock Water, has a deep and danger-free fairway.

Tidal currents entering the sound are weak and irregular.

The SW side of the sound is steep-to. The NE side has a shore indented by several coves affording temporary anchorage. The W side of the sound extends from Cock of Arran, previously described in paragraph 1.46, to the mouth of the Sannox River, 5 miles SW. A measured mile, marked by beacons, lies off the coast NW of the Sannox River. Mariners wishing to use the measured distance should contact the Commodore Clyde. For a description of the coast S of the Sannox River, see paragraph 1.19.

The E side of the sound extends from Garroch Head to Ardscaipsie Point, 4.3 miles NW. Whiting Bank, with a least depth of 20.1m, and Scalpsie Bank, with a least depth of 13.7m, lie about 1.5 miles W and 3.5 miles NW, respectively, of Garroch Head.

Inchmarnock Water (55°48'N., 5°15'W.) is a continuation to the NW of Bute Sound. This deep and clear passage leads to Kilbrannan Sound, Loch Fyne, and West Kyle.

Inchmarnock Island (55°47'N., 5°09'W.), lying on the E side of the passage 1.2 miles NNW of Ardscaipsie Point, rises to an elevation of 56m. Inchmarnock Sound leads between the E side of Inchmarnock Island and the W side of Bute. The sound is free of dangers except for Shearwater Rock, with a least depth of 0.9m, lying in the S entrance about 0.7 mile W of Ardscaipsie Point. Vessels pass on either side of the rock, although depths of less than 12m are found close SSE of it.

Anchorage can be taken in sheltered St. Ninian's Bay located on the E side of Inchmarnock Sound, in a depth of 11m, sand. A breakwater extending 64m from the E shore of the bay, 0.4 mile E of St. Ninian's, has been established to protect a jetty which has not yet been constructed.

The Kyles of Bute—Loch Riddon

1.51 The Kyles of Bute consist of West Kyle and East Kyle, two navigable passages passing W and E of Bute Island and joining N of the island to form Loch Riddon.

West Kyle (55°52'N., 5°12'W.) is entered between **Ardlamont Point** (55°50'N., 5°12'W.) low, rugged, and the W side of Bute. The passage is constricted to a least width of 300m near its N end. Depths throughout the passage are ample for ocean-

going vessels and the fairway is clear of dangers, with the exception of a shoal that lies in the middle of the Kyle. This shoal has a least depth of 9.5m and is located off Rubha Dubh, approximately 1 mile SSW from Rubha Ban. Close E of Ardlamont Point lies a drying rock, marked by a lighted buoy, which marks the E end of a foul area. Lamont Shelf, with a least depth of 22m, lies 1.5 miles SW of Ardlamont Point.

Tides—Currents.—Tidal currents are weak, setting N and S with the flood and ebb, respectively. At springs, the current may attain a velocity of 2 knots in the narrows. The flood rounds the N extremity of Bute Island and sets SE through East Kyle.

Anchorage.—Anchorage by small vessels can be taken, in a depth of 5m, sand, off the S side of Blindmans Bay 1 mile N of Ardlamont Point.

There is additional anchorage, exposed to S winds, about 300m offshore between Kames (55°53'N., 5°15'W.) and Tignabraich (55°54'N., 5°14'W.). Piers extend offshore at these places. The T-head pier at Tignabraich has a depth of 6.7m alongside. Local passenger vessels call regularly.

Black Farland Bay (55°54'N., 5°13'W.) provides anchorage for small craft at the E side of Kyle, protected from S winds, in depths of 3.7 to 7.3m. A rocky spit, with a least depth of 1.8m, extends close NNW from the S end of the bay.

Caution.—Submarines exercise frequently in West Kyle in an area S of Rubha Ban.

Submarine cables cross West Kyle and are shown on the chart.

An area within which anchoring and fishing are prohibited, has been established in the vicinity of Ettrick Bay 2 miles ENE of Ardlamont Point. Underwater obstructions exist in the area which is shown on the chart.

Marine farms have been established off the shores of Kyle.

1.52 Loch Riddon (55°57'N., 5°12'W.) extends N from Buttock Point (55°56'N., 5°11'W.), the N extremity of Bute. The inner half of the loch dries.

Caladh Harbor (55°56'N., 5°12'W.) is the name given to a very constricted anchorage formed by a blunt, small peninsula and an islet lying 0.5 mile NNW of Buttock Point. The islet is reef-fringed and has rocky heads close E. Beacons mark the N and S entrances to the anchorage, which has depths of 3 to 5m.

East Kyle (55°54'N., 5°08'W.), from its junction with West Kyle, extends SE for 4.2 miles. The navigable channel has a width of about 0.3 mile, constricted to 0.1 mile in the vicinity of Colintraive Point (55°55'N., 5°09'W.).

The **Burnt Isles** (55°56'N., 5°10'W.) lie just inside the NW entrance of East Kyle, almost obstructing the fairway. Two navigable channels, marked by buoys and beacons, lead between the isles. The S channel is narrow and tortuous. The preferred N channel has a width of about 25m, with a least depth of 4.3m. The channel is straight and a vessels can steer through it passing between the buoys marking the dangers on either side. Caution is necessary as tidal currents may attain rates of up to 5 knots at springs, although they generally follow the direction of the channel. Velocities are greatest over the shallower parts. The currents from both channels meet at the isles. Southeast of the Burnt Isles the currents are negligible.

Rubha Bodach (55°55'N., 5°10'W.), a promontory opposite Colintraive Point, is the site for a cross-channel ferry terminus.

Anchorage can be taken, in depths of 11 to 13m, sand, N of the promontory and 350m E of the largest of the Burnt Isles.

Ardmaleish Point (55°53'N., 5°05'W.) and Strone Point, about 1 mile N, form the S entrance to East Kyle. A lighted buoy marks the shoal bank off Ardmaleish Point.

Caution.—Submarine cables extend across the channel and are shown on the chart.

Rothesay Sound—Loch Striven

1.53 Rothesay Sound (55°51'N., 5°02'W.), entered between Bogany Point (55°51'N., 5°01'W.) and Toward Point, previously described in paragraph 1.20, leads NW to the entrance of East Kyle and Loch Striven. The fairway in the sound is deep and clear of dangers. Toward Bank, also previously described in paragraph 1.20, lies on the N side of the fairway entrance. Ardyne Point lies on the N side of the sound, 2.2 miles WNW of Toward Point.

Caution.—Ardyne Point Platform Construction Area (disused), the limits of which are best seen on the chart, lies offshore of Ardyne Point. Vessels are warned not to enter this area as swamped anchors and other underwater obstructions exist within the limits of this area.

1.54 Rothesay Bay (55°51'N., 5°03'W.), entered within Bogany Point, is deep as far as the shoals fringing the shores of the bay. Several church spires and the ruins of a castle are conspicuous in Rothesay, at the head of the bay.

Rothesay Harbor (55°50'N., 5°03'W.) (World Port Index No. 33370), at the head of the bay, consists of inner and outer tidal basins which partly dry and are used by small craft with drafts of up to 2.5m. A T-head pier about 250m in length, fronting the basin, has depths of 2.2 to 4.0m along its N side. There is a ro-ro terminal on the N face of Rothesay Front Pier.

For pilotage information, see paragraph 1.29.

The port can be contacted, as follows:

- | | |
|---------------|------------------------|
| 1. Call sign: | Rothesay Radio |
| 2. VHF: | VHF channels 12 and 16 |
| 3. Telephone: | 44-1700-503843 |
| 4. Facsimile: | 44-1700-504358 |

Anchorage can be taken in suitable depths in the bay clear of mooring buoys, cables, foul patches, and small craft moorings. A stony spit, with depths of 14.6 to 18.4m, extends off the SE shore and provides poor holding ground. The W part of the bay has very good holding ground.

Kames Bay (55°52'N., 5°05'W.) is entered between Ardbeg Point, 1 mile SW of Ardyne Point, and Undraynain Point, 1 mile NNW. Ardbeg Point is fringed by drying reefs and fronted by shoals.

A measured distance, indicated by beacons and shown on the chart, lies N of Undraynain Point. Depths shoal from 31m in the entrance to drying flats at the head of the bay. East gales raise a heavy swell. Southwest winds prevail. There are deep-water and shoal moorings for yachts that frequent the bay.

A conspicuous tower stands 0.3 mile WNW of Ardbeg Point. Port Bannatyne, with a pier having a depth of 3m alongside, lies on the S side of the bay. An area, within which anchoring and fishing are prohibited, lies 0.2 mile N of the pier.

Anchorage.—A deep-draft designated anchorage area lies 0.7 mile N of Bogany Point and may best be seen on the chart.

Caution.—Submarine cables lie across the sound between Ardbeg Point and Ardyne Point.

A gas pipeline lies across the sound between Ardbeg Point and a point on the shore close ESE of Ardyne Point.

1.55 Loch Striven (55°55'N., 5°04'W.), deep and constricted, is entered between Ardyne Point (55°52'N., 5°03'W.) and Strone Point. The loch, free of dangers, has steep-to shores backed by mountains. Violent wind squalls lash the loch. A small pier, marked by a beacon and known as Kings Landing, is situated on the E side of the loch, 4.8 miles N of Ardyne Point.

The NATO Fuel Jetty is situated on the E side of the loch, 1.5 miles N of Ardyne Point. It extends 100m from the shore and has a face 65m long with mooring dolphins off each end. There is a least depth of 12.2m alongside the jetty. Mariners are cautioned that currents may set vessels off the jetty.

For pilotage information, see paragraph 1.29.

Caution.—Submarines exercise frequently, both surfaced and submerged, in Loch Striven.

An Experimental Area, the limits of which are shown on the chart, lies in the loch 1 mile N of Strone Point; anchoring is prohibited in the area and vessels should pass to the E of it. Mooring buoys, sometimes joined by wires, are occasionally laid in the area.

It is reported that marine farms are moored along the shores of the loch.

Loch Fyne

1.56 Loch Fyne (55°50'N., 5°19'W.) is entered between Skipness Point, previously described in paragraph 1.49, and Ardlamont Point, previously described in paragraph 1.51. Lower Loch Fyne extends about 14 miles to the entrance of Loch Gilp, where Upper Loch Fyne continues for another 23 miles to the head of the loch. Loch Fyne is deep, navigable throughout, and free of off-lying dangers. The shores are generally steep-to with fringing shoals. Local vessels serve the few minor ports in Loch Fyne. The E shore of the loch is indented by several small open bights with many islets and reefs lying off the points that form the bights. Temporary anchorage is afforded small vessels in the bays when the wind is offshore.

Sgat Mor (55°51'N., 5°18'W.), from which a light is shown, is a grassy islet lying on foul ground 3.7 miles NW of Ardlamont Point.

Portavadie (55°52'N., 5°19'W.), is the site of a recently established marina for pleasure boats, is situated at the E side of the loch about 1.5 miles N of Sgat Mor.

1.57 East Loch Tarbert (55°52'N., 5°24'W.), on the W side of Loch Fyne, is entered between Rubha Loisgte (55°52'N., 5°23'W.) and Garbhaird, a promontory 0.4 mile NNW. East Loch Tarbert is constricted to a width of 0.7 mile within its entrance and then expands to a wide, inner basin partly encumbered with rocky islets and shoals. A church tower and hotel near the drying head of the loch are conspicuous.

There are least depths of 11m and 5.5m in the outer and inner parts of the lock, respectively. The intricate preferred channel, leading SE of an islet lying in the center of the loch, has a narrow width and a least depth of 5.5m.

Anchorage can be taken within the outer entrance of the loch, in depths of up to 34.7m, mud. There is no space to anchor within the inner loch.

Tarbert, a town, stands at the head of the loch. Fish Quay, on the SE side of the harbor, has a depth of 2.7m alongside. It was reported that the area off the quay had been dredged to a depth of 3m. Another pier, Passenger Wharf, with a depth of 5.5m alongside, situated about 0.2 mile WNW of Rubha Loisgte, is used for ferry traffic. The prominent ruins of Tarbert Castle, covered with ivy, are situated above this pier.

Barmore Island (55°53'N., 5°24'W.) is connected to the W side of the loch about 1 mile NNW of East Loch Tarbert. A foul area lies E of the island.

1.58 Loch Gilp (56°00'N., 5°26'W.), entered W of Eilean Mor (56°00'N., 5°24'W.), extends N for about 2.5 miles, with the inner mile being a drying flat. Several detached rocky areas lie 0.2 and 0.5 mile W and E, respectively, of the approach fairway to Loch Gilp.

Big Rock (55°58'N., 5°26'W.), 0.2 mile W of the fairway, has a least depth of 2.1m, with a 9.4m reef in the fairway NE of the rock.

Gulnare Rock (56°00'N., 5°26'W.), with a depth of 2.4m, lies off the W shore at the entrance of Loch Gilp. Rocks and rocky shoals extend NE across the entrance fairway from Gulnare Rock. The light is shown from a tower that stands on the head of a breakwater extending E from Ardrishaig. It is reported that the light is difficult to distinguish against the lights of the town. It is noted that several dangers, including Big Rock and Gulnare Rock, a rock with a depth of 3.4m, 1 mile SSE of the light, and a 4.9m patch lying off the SW end of the tongue on which Sgeir Sgalag lies, are covered by the white sector of Ardrishaig Light.

Duncuan Island (56°01'N., 5°26'W.), encircled by foul ground, lies almost 0.5 mile SE of Ardrishaig. Tidal currents are negligible in the loch. South winds can raise the water level; N winds lower the level. Landmarks include the spire of Ardrishaig Church, a white house 300m WNW of the church, and a farm 1 mile N of the church.

Ardrishaig (56°01'N., 5°27'W.) (World Port Index No. 33340), a town with a small harbor, stands at the S entrance of the Crinan Canal. A pier, with a depth of 2.4m alongside, is situated 100m NW of the breakwater. Depths of 5.5 to 8.2m exist off the pier and breakwater. Pilotage is not available.

The port can be contacted, as follows:

- | | |
|---------------|-------------------------|
| 1. VHF: | VHF channels 16 and 74 |
| 2. Telephone: | 44-1546-603210 |
| | 44-7810-794471 (mobile) |
| 3. Facsimile: | 44-1546-603941 |

Anchorage, sheltered from S winds, can be taken, in depths of up to 7.3m, about 0.2 mile ENE of the breakwater.

Caution.—Less water than charted was reported in the approaches to Ardrishaig.

1.59 Crinan Canal (56°01'N., 5°27'W.), the S entrance, marked by lights, extends from Ardrishaig to Loch Crinan, 9 miles NW. It has 15 locks and will accommodate vessels having a length of 26.8m, a masthead height of 29m, a beam of 6.1m, and a draft of 2.7m in freshwater. Using the canal saves 85 miles over a track that rounds the Mull of Kintyre enroute to

ports in the West Highlands. Canal transit time is about 8 hours. The canal is closed on Sundays in the spring and autumn and navigation is prohibited at night. In winter, opening times are further restricted. At times of low rainfall or canal maintenance, the maximum permissible draft may be temporarily reduced and the loch entrance opening times limited.

Vessels exceeding a draft of 2.5m are cautioned to stay in the middle of the canal to avoid the banks on both sides.

Contact Information.—The Crinan Canal can be contacted, as follows:

1. Telephone: 44-1546-603210
2. Facsimile: 44-1546-603941
3. E-mail: enquiries@scottishcanals.co.uk

1.60 Upper Loch Fyne (56°00'N., 5°22'W.), entered between Liath Eilean (56°00'N., 5°23'W.) and the E shore of Loch Fyne, is 0.7 mile wide at the entrance, but becomes constricted at The Narrows, 1 mile within the entrance. The shores on both sides of the loch are fronted by rocks, reefs and shoals. Buoys mark those dangers lying close to the loch fairway.

At The Narrows, the channel is less than 0.5 mile wide and constricted by Otter Spit (56°01'N., 5°21'W.) on the E side, and Glas Eilean (56°01'N., 5°21'W.), an islet lying 0.5 mile N on the W side. Otter Spit, a drying flat of sand and gravel, is marked at its NW end by a lighted beacon; Glas Eilean at its S extremity by a light.

Otter Bay (56°01'N., 5°20'W.) indents the coast at the inner end of the spit. A ferry plies across this bay from a pier at the head of the bay to a quay at West Otter (56°02'N., 5°21'W.). Anchorage can be taken in Otter Bay, in depths of up to 11m, N of the ferry pier. Good anchorage can be taken in Port Ann, in depths of 12.8 to 14.6m, W of Glas Eilean.

Kames Bay (56°03'N., 5°20'W.), an open bight, affords an-

chorage, in a depth of 15m, sand and gravel.

Loch Gair (56°04'N., 5°20'W.) is a small landlocked basin filled with shoals. A conspicuous tower stands at the SW side of the entrance. There is anchorage for small vessels, in a depth of 5m, in the loch.

1.61 Minard Narrows (56°06'N., 5°14'W.) is formed by two islets, rocks, reefs and shoals which constrict the fairway. Minard Castle is conspicuous on the shore SW of the narrows. North Rock, marked by a lighted buoy, lies at the NE extremity of foul ground. A lighted beacon marks the NW end of a gravel bank extending NW from the largest islet.

Sgeir an Eirionaich (56°06'N., 5°14'W.), a rock marked by a light, lies 0.5 mile off the E shore where the loch is marked by a castle in ruins. Vessels pass on either side of the rock. Big Shoal, with a depth of 5.2m, lies 0.6 mile NNE of the rock. The fairway from the entrance of Upper Loch Fyne to and above the narrows is free of dangers.

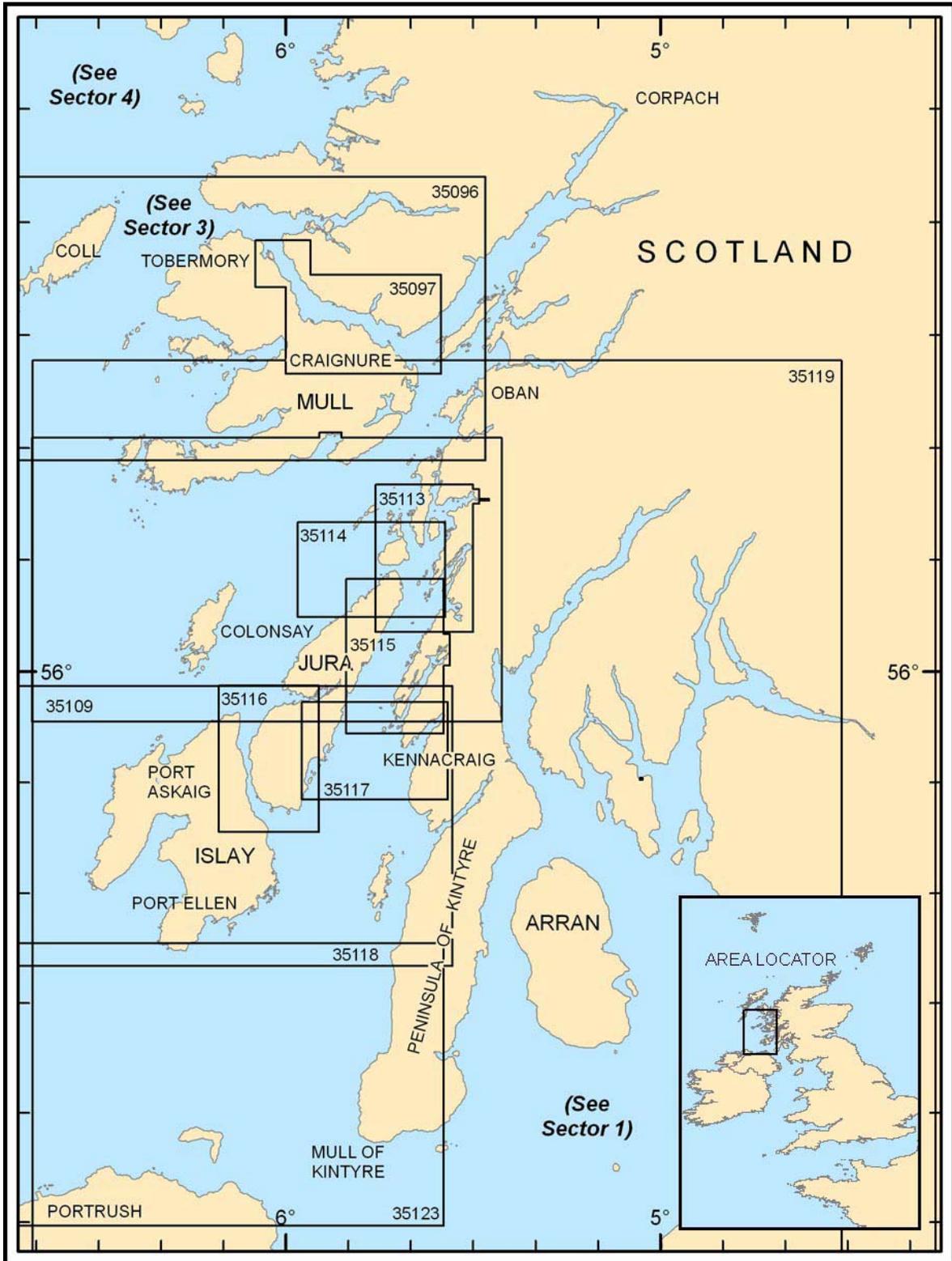
Inveraray (56°14'N., 5°04'W.), a town at the W entrance point of Loch Shira, has a T-head pier with depths less than 2m alongside. A mooring buoy lies off the pier. A ferry plies between the pier and St. Catherine's, on the opposite shore.

Inveraray Castle, standing in the woods N of town, is conspicuous. High hills rising NNE of the castle are prominent.

Anchorage, open to SW winds and sea, can be taken about 0.2 mile SE of the pier at Inveraray. A vessel proceeding toward the head of Loch Fyne can find additional anchorage in the area abeam Ardinglas House (56°15'N., 4°57'W.), a conspicuous building standing on the SE side of the loch.

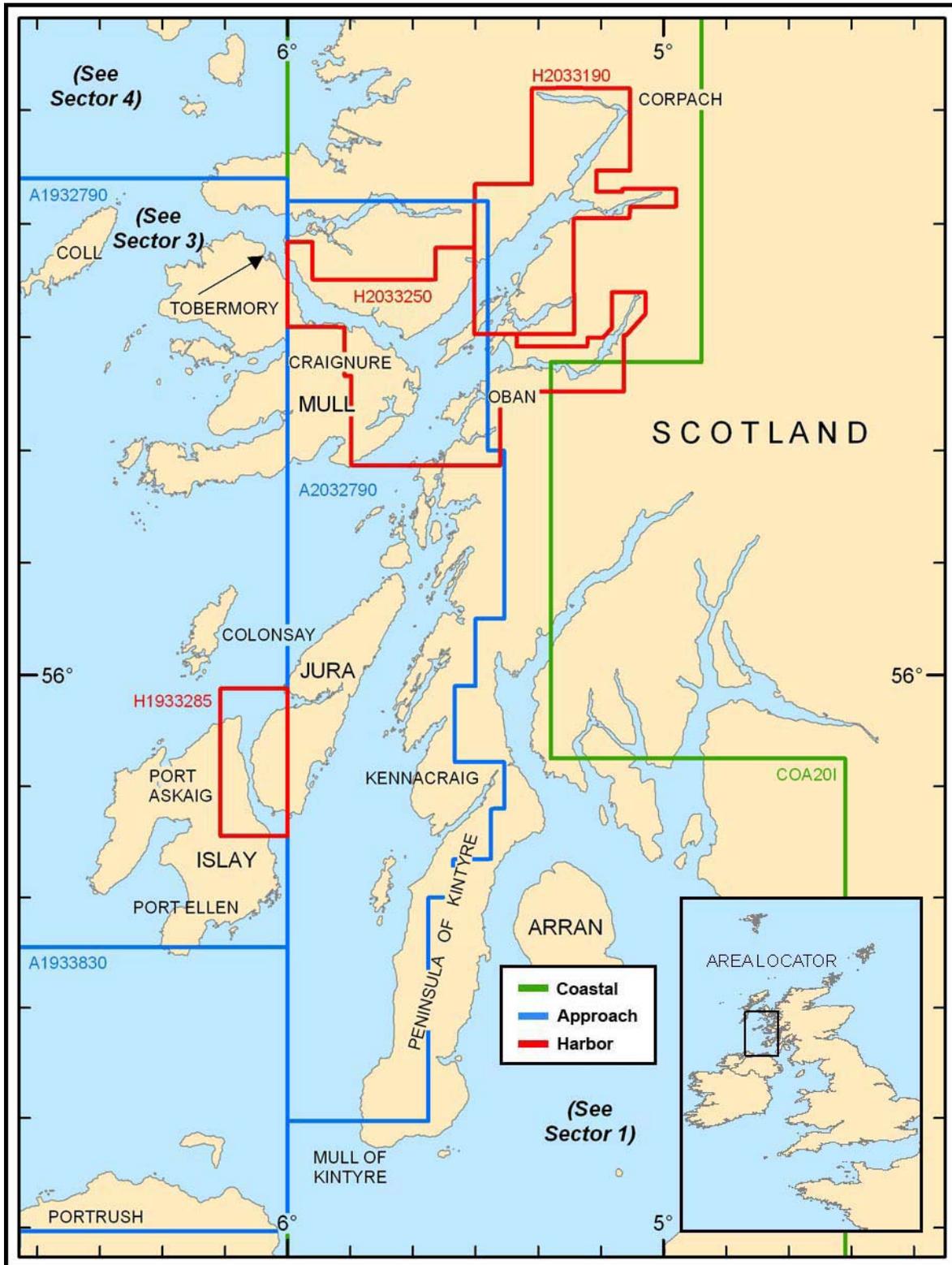
Anchoring and fishing are prohibited in an area off the SE side of the loch, centered in position 56°12'N., 5°05'W.

Caution.—Upper Loch Fyne is used as a submarine exercise area.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 2 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNCs 19 and DNC 20 (Limited Distribution) discs within the README\GRAPHICS folder.
SECTOR 2 — DNC LIBRARY INFORMATION

SECTOR 2

WEST COAST—THE MULL OF KINTYRE TO THE ROSS OF MULL

Plan.—This sector describes the lochs, sounds, and estuaries, with contiguous coasts, between the Mull of Kintyre, the Ross of Mull, and the Caledonian Canal. The descriptive sequence is from S to N.

General Remarks

2.1 The coasts are generally bleak and rugged throughout the area covered in this sector. Seaward sides of the mainland and adjacent islands are subjected to seas and swell from the Atlantic Ocean. The terrain is usually mountainous, with the mainland from the N part of Kintyre indented by numerous constricted lochs often fronted by rocky islets and shoals.

Islay, Jura, and Colonsay, three islands W of Kintyre, lie in the approaches to the Firth of Lorn. Fairways between the islands lead inland to small harbors and a few sheltered anchorages. Local vessels serve the harbors and settlements on the off-lying islands. Lights mark salient points. Dangers in the approaches and channels are described with related features.

The W coast of Scotland presents an almost uninterrupted succession of deep indentations and bold rocky cliffs and headlands. Beinn Nevis, exceeding 1,341m in elevation and located 4 miles E of Fort William (56°49'N., 5°07'W.), is the highest mountain in Scotland.

Regulations.—An IMO-adopted traffic separation scheme, which is indicated on the chart, lies in the channel between the Mull of Oa and the Mull of Kintyre to the N, and the coast of Northern Ireland to the S. Laden tankers of over 10,000 tons should avoid the area between the traffic separation scheme and the Mull of Kintyre and between the traffic separation scheme and Rathlin Island. Laden tankers should not transit the narrow passage through Rathlin Sound.

Information about the Western Europe Tanker Reporting System (WETREP), Particularly Sensitive Sea Areas (PSSA), and MARPOL can be found in Pub. 140, Sailing Directions (Planning Guide) North Atlantic Ocean and Adjacent Seas.

Caution.—Submarines may conduct exercises in these waters. The areas are generally indicated on the chart.

Numerous marine farms may lie along the shores of the lochs and estuaries described in this sector.

The Sound of Jura

2.2 The **Mull of Kintyre** (55°19'N., 5°48'W.), the SW extremity of Kintyre, is a bold steep-to promontory. Strong tide rips occur S and SW of the headland. A light is shown from a tower on a building standing 0.7 mile N of the promontory. The light is often obscured by haze over the high land. Radio masts stand close E of the tower.

The coast for 7 miles N of the Mull of Kintyre is bleak and rugged; then to Glenacardoch Point (55°35'N., 5°42'W.), the cliffs are interspersed with sandy bays. This coast is open to sea and swell which breaks heavily upon it even during calm weather, but especially when the tidal current is setting SE. Above and

below-water rocks lie on the fringing coastal shoals.

The tidal currents cause breakers and overfalls in the vicinity of the rocks. There are dangerous tide rips over the 37m bank lying 1.5 miles WNW of the Mull of Kintyre. Depths are very irregular in the approaches to the Sound of Jura, but are at least 18m when more than 3 miles offshore. An aeronautical lighted beacon is occasionally shown from a point near the coast about 8.5 miles NNE of Mull of Kintyre Light.

Gigha Island (55°39'N., 5°46'W.) is a hilly populated island lying 3 miles off the coast of Kintyre. **Cara** and **Gigalum** (55°38'N., 5°45'W.) are small islands lying off the S end of Gigha. All these islands are encircled by foul ground and above and below-water rocks and reefs.

Cath Sgeir (55°40'N., 5°37'W.), the outermost of the dangers lying W of Gigha, is marked by a lighted buoy.

The **Sound of Gigha** (55°40'N., 5°42'W.), between Kintyre and Gigha, is encumbered with foul ground and requires local knowledge for transit by small vessels. **Rhunahaorine Point** (55°41'N., 5°40'W.), on the E side of the sound, is marked by a tower. Two conspicuous houses stand 2.5 and 3 miles NE of the point. At **Ardminish Bay** (55°40'N., 5°44'W.), on the E side of Gigha, there is a pier and anchorage for coastal vessels with local knowledge. Beacons mark submarine cable landings on Ardminish Bay and the opposite shore.

2.3 **West Loch Tarbert** (55°45'N., 5°35'W.), approached from N and E of Gigha Island, is a finger loch extending 9 miles NE. The head of the loch is separated from East Loch Tarbert by a low isthmus 0.7 mile wide. Ardpatrik Point and **Ronachan Point** (55°44'N., 5°36'W.) mark the N and S entrance points of the loch which has a least charted depth of 8.2m in the fairway E of **Dunmore** (55°48'N., 5°31'W.).

Ferries cross the loch within Dunmore. Foul ground encircles an islet in the loch entrance. Rocks within the entrance are marked by lighted buoys and lighted beacons. A draft of 4.6m can be carried for 7 miles within the loch and 2.4m to the head of the loch. Mariners without local knowledge should enter the loch at a stage of the tide when the rocks and reefs are visible. A light is shown from a mast 1 mile NE of Ronachan Point. Fishing vessels extensively use the loch.

Anchorage can be taken 0.5 mile NE of the islet of Eilean Traighe and 0.2 mile off the ferry pier in a depth of 9m.

Kennacraig (55°48'N., 5°29'W.) is the mainland terminal for a vehicular ferry. The channel markings in the loch ends at the terminal. From this terminal to the head of the loch, 4.5 miles of waterway, is extensively used by fishing boats.

Islay, the outermost island forming the W side of the S approach to the Sound of Jura, has undulating, mountainous terrain with coastal ridges of moderate height. The island is sparsely populated.

Rubha nan Leacan (55°35'N., 6°16'W.) is the S extremity of Islay. From this point, the coast NE to Ardmore Point is fronted by islets and rocks lying as far as 1.5 miles offshore.

2.4 Ardmore Point (55°41'N., 6°01'W.) is the steep-to, SE extremity of Islay. The Ardmore Islands (55°40'N., 6°02'W.), a group of islets and above and below-water rocks, extend about 2.2 miles SSW of the point. Eilean a' Chuirn (55°40'N., 6°01'W.) is the E islet of the group. A light is shown from a beacon on the E end of the islet.

Aird Imersay (55°39'N., 6°05'W.), a promontory SW of Ardmore Point, is fronted by foul ground.

Texa (55°37'N., 6°09'W.), an island marked by a beacon on its E summit, is encircled by above and below-water rocks and foul ground extending S and W to Carraig Fhada (55°37'N., 6°12'W.).

Otter Rock (55°34'N., 6°07'W.), lying 2.5 miles S of Texa, has a least depth of 3.7m. A lighted buoy is moored 0.4 mile SSW of the rock. Seas break heavily on Otter Rock when strong winds are in opposition to the tidal currents, which set E in this area.

Caution.—Dangers lying off the S coast can be avoided by keeping Ardmore Point, bearing 354°, open E of Eilean a' Chuirn.

2.5 Port Ellen (55°38'N., 6°12'W.) (World Port Index No. 33280), the chief port of Islay, is a ferry port which is entered between Carraig Fhada and Rubha a' Chuinnlein (55°38'N., 6°11'W.), the W and E entrance points. The entrance channel, with a least depth of 3.9m in the fairway, is constricted by numerous rocks and shoals which reduce the swell setting into the harbor with S winds. North and S gales lower and raise the water level about 0.6m, respectively.

Carraig Fhada Light, 20m high, is conspicuous and stands on the SE extremity of Carraig Fhada Point. Ten high radio masts are conspicuous about 0.8 mile NW of Carraig Fhada. A distillery on the N shore is prominent, as is a church spire on the E shore.

The approach to Port Ellen is encumbered with rocks, reefs, and shoals. The E part of the harbor is foul, and the W part has depths of 5.5 to 11m and is relatively clear of dangers. A pier in the harbor has a length of 65m and an alongside depth of 3.3m, with ro-ro facilities for ferries. Local knowledge is required to enter the harbor or a pilot can be arranged for through the harbormaster on prior notice.

Anchorage can be taken in the harbor, in depths up to 11m, sand. With S winds, vessels can anchor, in a depth of 11m, about 0.2 mile W of the E entrance point. Larger vessels can anchor, in a depth of 16.5m, good holding ground, about 1.2 miles SE of Carraig Fhada.

2.6 The Sound of Islay (55°46'N., 6°01'W.) separates the islands of Islay and Jura. Local vessels of shallow draft transit the sound, avoiding the open sea W of Islay. It is not recommended that vessels of deep draft proceed through the sound as a rocky shoal, having a depth of 9.1m, lies in the N entrance fairway. Anchorage, except in fine weather, is not advised because of strong tidal currents and the uneven foul condition of the bottom. It is reported that ten power-generating tidal turbines are planned to be installed on the sea floor within the sound by the autumn of 2015. These turbines will extend from the sea floor to within 17m of the surface.

McArthur's Head (55°46'N., 6°03'W.), 1 mile N of Proaig Bay, is a promontory formed by steep cliffs. A light is shown

from a tower on the head. A small pier is situated 0.2 mile SE of the light. The Sound of Islay is entered between McArthur's Head and **Rubha na Traille** (55°48'N., 5°58'W.).

Tidal current data is carried on charts of the area. Tide rips occur off McArthur's Head during the ebb. In the entrance, the tidal current sets W and NW during the flood and E and SE during the ebb.

The currents in the sound set in the direction of the channel fairway. There are countercurrents close to the shores of the sound.

2.7 Proaig Bay (55°45'N., 6°02'W.), an open bight, affords sheltered anchorage during W winds, but the bottom is unreliable. **Beinn Bheigeir** (55°44'N., 6°05'W.), the highest mountain on Islay, rises W of the bay.

Am Fraoch Eilean (55°48'N., 6°02'W.), an islet lying in the entrance of the sound, and Black Rock, marked by a buoy, lie on an above and below-water reef. The fairway into the sound leads close W of the buoy and N through the sound between the shoals and rocky, foul ground fringing the shores.

Port Askaig (55°51'N., 6°06'W.) is a very small bight on the W side of the sound, just N of its narrowest part. There is a quay used by ferry vessels; S of the quay a small bay with depths of 4m close to the shore. A light is shown from a tower on the cliffs at Carraig Mor (55°50'N., 6°06'W.).

Carragh an t-Sruith (55°52'N., 6°06'W.) is a cliffy point on the E side of the sound on which stands a lighted tower. The sound opens up N of the point, with its E shore extending to Loch Tarbert.

Rubha a' Mhail (55°56'N., 6°07'W.), the N extremity of Islay, is also a point at the NW end of the sound. The lighted tower on the point shows up very clearly against the background of heather-covered slopes. Rocky shoals and reef flats, with depths of 9.1 to 9.6m, extend from the point into the fairway of the sound.

Sheltered anchorage from N winds can be taken, in depths up to 14.6m, about 0.5 mile E of Am Fraoch Eilean and 1.2 miles NW of the N end of this same islet.

McDougall's Bay (55°50'N., 6°05'W.) affords anchorage, in 7.3m, good holding ground, clear of the tidal current.

Whitefarland Bay (55°51'N., 6°05'W.) provides sheltered anchorage, in a depth of 9.1m, but the holding ground is poor.

Bunnahabhain Bay (55°53'N., 6°07'W.), an anchorage sheltered from W winds, has good holding ground, in a depth of 10.1m, about 0.3 mile offshore, with the distillery chimney bearing 197°. A stranded wreck is located close E of the bay.

2.8 The Sound of Jura (55°50'N., 5°48'W.), separating the E side of Jura from the W side of Kintyre, is entered between Rubha na Traille (55°48'N., 5°58'W.) and Ardpatrik Point (55°46'N., 5°37'W.). Depths in the fairway of the sound exceed 37m, but there are several detached patches with a least depth of 15.8m. Tidal currents, irregular in the S entrance of the sound, set NE and SW on the flood and ebb, respectively, within the entrance.

Loch na Mile (55°51'N., 5°56'W.), a small, shallow, and open bay, is fronted by The Small Isles (55°50'N., 5°56'W.), a group of islets. The S islet, Eilean nan Gabhar, is marked by a light; a stranded wreck lies close E. Loch na Mile provides good anchorage in its N part sheltered from all winds, in depths

of 7 to 12m, mud and weed, W or NW of Eilean Bhrìde (55°52'N., 5°55'W.). A concrete pier, close within the S entrance of the bay, has a depth of 2.7m alongside.

The Small Isles are encircled by above and below-water rocks and reef flats, of which **Na Cuiltean** (55°49'N., 5°55'W.), the S islet, is marked by a light.

Anchorage, with local knowledge, can be taken, in a depth of 22m, sand and mud, about 0.5 mile SE of Eilean nan Gabhar. Small vessels can anchor, in a depth of 5m, sand and gravel, 0.2 mile NNW of Eilean nan Gabhar and should pass W of the islet.

Lowlandman's Bay (55°53'N., 5°53'W.), a small bight with a drying head, affords anchorage in the middle of the bay in depths of 8.7m, good holding ground. The bay is open to N and S squalls, but is sheltered from W gales.

Nine-Foot Rock (55°52'N., 5°53'W.), marked by a lighted buoy at its SE side, lies off the entrance of the bay.

Skervuile (55°53'N., 5°50'W.), above and below-water rocks marked by a lighted tower, lies in the fairway of the Sound of Jura.

Caution.—Due to the many unmarked shoals, it is recommended that vessels of deep draft should pass E of Skervuile.

2.9 Loch Stornoway (55°47'N., 5°37'W.) is a small bight with many shoals and a drying head. Submerged rocks lie in the entrance of the loch which should not be entered without local knowledge.

Loch Caolisport (55°52'N., 5°40'W.), entered SE of Point of Knap (55°53'N., 5°41'W.), has a least depth of 10.7m in the fairway. There are several patches to be avoided. Liath Eilein (55°54'N., 6°40'W.) lies at the edge of a foul area. The loch, exposed to S winds, can be used for temporary anchorage. Lochead House, a large white building at the head of the loch, aligned 046° with the SE end of Liath Eilein, leads SE of shoal patches.

Anchorage can be taken, in depths of 4.1 to 6.4m, near the drying head of the loch and, in 4.6 to 9.1m, in a bight on the W shore, about 1 mile NE of Point of Knap.

The **MacCormaig Isles** (55°55'N., 5°43'W.), a group of grassy islets and rocks, lie in the approach to Loch Sween. Eilean Mor (55°55'N., 5°44'W.), the largest and W islet, is separated from the two E islets by a navigable passage about 0.2 mile wide. The passage is not recommended for vessels without local knowledge. Foul ground encircles the isles and a spit, with depths of 2.1 to 3.4m, extends N to NNW from the inner isles to the NW channel leading to Loch Sween. A rock, with a least depth of 1.9m, was reported to lie 0.2 mile SE of the S end of **Corr Eilean** (55°55'N., 5°44'W.).

Eilean nan Leac (55°55'N., 5°42'W.), a steep rocky islet, lies on the E side of the S channel leading into Loch Sween. Tide rips and eddies occur in the vicinity of the isles.

Loch Sween (55°56'N., 5°42'W.), 2 miles N of Point of Knap, is entered between Eilean nan Leac and Danna, an island 2.7 miles N of Point of Knap. Rocky foul ground extends at least 0.3 mile off the S side of Danna.

Sgeir Bun an Locha (55°56'N., 5°41'W.), the largest of a group of above-water rocks, lies on the outer edge of this foul ground and close within the entrance of the loch. The ruins of Castle Sween, standing on the SE shore of the loch 2 miles NNE of Eilean nan Leac, are conspicuous. A bar of stones and

shells, with a least depth of 6.1m, obstructs the fairway midway between Sgeir Bun an Locha and Castle Sween. Sgeirean a' Mhain is a small rock lying on a shoal bank, in mid-channel, about 3 miles inside the entrance.

2.10 Linne Mhuirich (55°59'N., 5°39'W.), a shallow inlet leading off Loch Sween, is fronted by Tainish Island, covered with heather. Tidal currents within Loch Sween are greatly affected by the strength and direction of the wind. Strong SW winds cause the water level inside the loch to rise despite a falling tide.

Anchorage can be taken within a landlocked inlet indenting the E side of the loch about 6 miles inside the entrance. The holding ground is good, in depths of 11 to 22m, mud.

Small vessels can anchor with good holding ground in a bight about 1 mile NW of the above anchorage. However, Oib Rocks, marked by a beacon, must be cleared to reach the anchorage, which has depths of up to 12.8m, mud.

Anchorage can be taken, in a depth of 14.6m, in mid-channel between Sgeir Bun an Locha and the bar.

Carraig an Daimh (55°57'N., 5°45'W.) is the larger of two above-water rocky islets lying on foul ground on the E side of the fairway leading through the Sound of Jura.

Rubha na Cille (55°57'N., 5°43'W.), a point at the S extremity of a long finger peninsula, lies 1 mile E of Carraig an Daimh, and at the W entrance of Loch na Cille. The N end of the peninsula terminates at Port Keills, a small shallow bight encumbered by rocks.

Loch na Cille (55°57'N., 5°43'W.), also known as Loch Keills, extends NE along the W side of Danna Island to its drying head. Strong tidal currents setting across the entrance of the loch keep the loch free from swell during SW winds.

Anchorage can be taken, in a depth of 7.3m, sand and shells, 0.6 mile NE of the S end of Rubha na Cille. This anchorage is protected from the swell during SW winds.

Lagg Bay (55°56'N., 5°51'W.), a shallow bight, indents the E coast of Jura about 4 miles NNE of Lowlandman's Bay.

Tarbert Bay (55°58'N., 5°50'W.), a small inlet, affords shelter; there is a landing at its head for boats during N and W winds. Local knowledge is highly recommended for access.

The N part of the Sound of Jura leads into several lochs along the coast and to sounds leading N to the Firth of Lorn. Depths are irregular in the fairway. Currents are variable and often strong between the islands, depending on the stage of tide and time of year. Tide rips and eddies often occur off salient features and in channels between the islands during tidal changes.

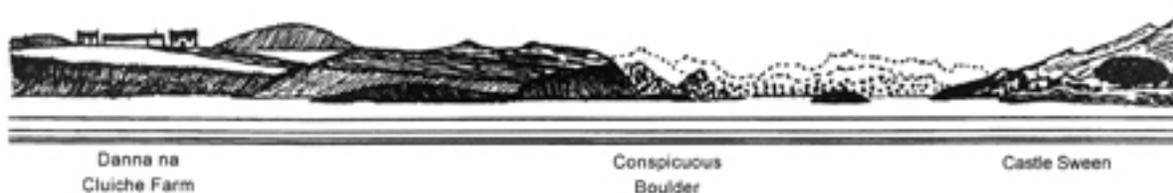
2.11 Lussa Bay (56°01'N., 5°47'W.), a small bight, affords shelter to small vessels from N winds. Care must be taken to avoid the reefs lying close off the W side of the bay. A shoal, with a least depth of 11.6m, lies 0.3 mile offshore, 0.7 mile S of Lussa Bay.

Ardlussa Bay (56°02'N., 5°46'W.) affords anchorage for small craft with local knowledge.

Dubh Chamas (56°06'N., 5°42'W.) is an open bight, free of dangers, but too deep for suitable anchorage.

Kinuachdrach Harbor (56°07'N., 5°41'W.) affords anchorage, in depths of 3m, close to the N shore of the bay.

Port an Tiobairt (56°08'N., 5°41'W.), a ferry terminal, is a



Loch Sween

small, open bight wherein anchorage can be taken in depths of 5 to 11m.

The coast forming the E side of the Sound of Jura is irregularly indented by several shoal inlets and fronted by islands lying close offshore. In the middle of the sound, extending 5 miles from its N limit, lie a chain of islets terminating S at **Ruadh Sgeir** (56°04'N., 5°40'W.), from which a light is shown. Detached banks, with depths of 23.8m, lie up to 1.5 miles off the E shore of the sound.

Leth Sgeir (56°00'N., 5°40'W.) is the S islet of a rocky chain of islets and rocks extending parallel to the coast for about 2 miles. The W side of the chain is steep-to.

Carsaig Bay (56°02'N., 5°39'W.), encumbered with rocks and shoals, affords anchorage, in depths up to 14.6m, sheltered from N winds, E of the S end of Carsaig Island. A submarine cable is landed in the bay.

Loch Crinan (56°06'N., 5°34'W.) is entered between **Ardnoe Point** (56°06'N., 5°35'W.), a promontory, and Scodaig, a point 1.2 miles NNE. The loch extends ESE for 1.5 miles to its drying head, where the River Add empties. Tidal currents, strong across the loch entrance, are weak within.

Eilean nan Coinean (56°07'N., 5°35'W.), a steep-to islet about 0.3 mile W of Scodaig, is separated from the mainland by a deep channel.

2.12 Crinan (56°05'N., 5°34'W.) (World Port Index No. 33290), a village situated at the NW entrance of the Crinan Canal, has a conspicuous hotel. Duntrune Castle, about 1.5 miles NE of the village, is prominent. Lights are shown at the canal entrance. Anchorage can be taken by small craft in the harbor. Good temporary anchorage can be taken in the center of the loch, 0.4 mile N of **Eilean da Mheinn** (56°05'N., 5°34'W.), in a depth of 8.8m, sand over mud.

Loch Craignish (56°08'N., 5°35'W.) is entered between Scodaig and Rubh' an Lionaidh (56°08'N., 5°37'W.). Garbh Reisa (Garraear) (56°07'N., 5°37'W.), at the N end of the chain of islets terminating S at Ruadh Sgeir, lies 0.5 mile S of Rubh' an Lionaidh.

Dorus Mor (56°08'N., 5°37'W.), the deep channel N of Garbh Reisa, is clear of dangers in the fairway. Strong tidal currents are encountered in the channel. Tide rips and eddies occur around the islets.

Reisa an t-Sruith (56°08'N., 5°39'W.), a steep-to islet, lies in the W approach to Craignish. The channel N of the islet is deep and clear of dangers except for tide rips and eddies. A light is shown from the S end of the islet.

Two channels lead NE from the entrance of Loch Craignish. One channel, with a least depth of 11m, leads between a chain of islets and the E shore of the loch. The principal channel, with a least depth of 7.3m, lies W of the islets and becomes constricted about 3 miles within the loch entrance. Tidal currents are negligible.

Anchorage can be taken, in a depth of 8.3m, about 0.5 mile SSE of Sgeir Dubh Mhic Lartai (Black) Rock (56°11'N., 5°32'W.), and also in a depth of 14.6m, mud, 0.5 mile from the head of the loch. Anchorage can also be obtained 1 mile ENE of Craignish Point, in a depth of 9m, mud, shale and weed.

The Sound of Jura—Islands in the North Approach

2.13 Scarba (56°11'N., 5°43'W.), a bleak and rugged island, has no harbors. Cruach Scarba is a pyramidal peaked eminence in the interior of the island. The S coast of Scarba is bold and steep-to. Temporary anchorage can be taken in depths of up to 18m about 300m off the E coast, and in the bay near the SE extremity of Scarba; both places are little affected by the tidal current.

The **Gulf of Corryvreckan** (56°09'N., 5°43'W.) is the navigable passage separating Scarba and Jura. Coastal vessels transit this turbulent passage which is deep and free of dangers, but subject to strong tidal currents, eddies, and tide rips. The gulf is considered dangerous when the tidal currents are approaching maximum strength, and no vessel should then attempt this passage without local knowledge, nor should a passage be attempted with the wind against the tide.

The ideal time to transit the gulf is in calm weather at slack water, especially at neaps. Vessels are advised to navigate on the S side of the gulf to avoid a local disturbance known as the Hag. This disturbance is a whirlpool that attains a height of several meters with a conspicuous roar heard at a great distance. Vessels transiting from E to W through the gulf are cautioned that the strong tidal current setting N up the E side of Jura increases in strength as it approaches the gulf and sets vessels strongly toward the N side of the gulf, causing difficulty in making the passage on the S side.

Lunga (56°13'N., 5°42'W.), an island, is separated from Scarba by a channel constricted by foul ground and an islet lying at its E end. The E sides of Scarba and Lunga are fringed by rocky shoals and above and below-water rocks.

Anchorage can be taken, in depths up to 18m, sand, in Camas a' Mhor-Fhir, a deep bay on the SW coast of Lunga, and al-

so, in a depth of 9m, 250m offshore, about 1 mile N of the SE end of the island.

Guirasdeal (56°12'N., 5°43'W.), an island 0.2 mile SW of Lunga, and An Tudan, an above water rock lying 0.3 mile NNW of Lunga, are separated from Lunga by a constricted channel 6.5m deep. The Black Islands (Eilean Dubh Mor and Eilean Dubh Beag) (56°14'N., 5°43'W.) lie 1 mile NW of Lunga.

Ormsa (56°15'N., 5°42'W.) is a steep-to islet. Eddies and tide rips occur in the vicinity of Lunga, the Black Islands, and Ormsa, where a strong race prevails close S and W of Ormsa with a N tidal current.

Belnahua (56°15'N., 5°41'W.), an islet lying 0.5 mile N of Ormsa, is encircled by foul ground.

Garvellachs (56°14'N., 5°47'W.) is a group of islands and islets lying 3 miles WNW of Lunga. A light is shown from a beacon standing at the SW extremity of Eileach an Naoimh (56°13'N., 5°48'W.), the S island of the group.

The Sound of Jura—North Approaches

2.14 The Sound of Luìng (56°12'N., 5°40'W.), a N extension of the Sound of Jura, lies between Scarba, Lunga, and Luìng. Dubh Sgeir (56°15'N., 5°40'W.) and Fladda (56°15'N., 5°41'W.), a reef and an islet, lie at the E and W sides of the N entrance.

Numerous shoals lie in the constricted N part of the sound and there are strong tidal currents. The Sound of Luìng is the principal waterway for shipping proceeding N from, or S to the Sound of Jura. The S part of the Sound of Luìng is clear of dangers and has a least depth of 25.6m in the fairway. Eddies along the sides of the sound are weak and run contrary to the main tidal currents.

Luìng (56°14'N., 5°39'W.), a sparsely-settled island, forms the E side of the Sound of Luìng. Cnoc Dhomhnuill, the summit of the island, rises near the N end.

Rubh'ard Luìng (56°11'N., 5°38'W.), a low islet lying off the S end of Luìng, is connected by a drying reef to the island. Foul ground, marked by a buoy moored SW of the islet, extends along the W side of Luìng and extends up to about 250m offshore as far as Rubha na Lic (56°13'N., 5°40'W.).

Black Mill Bay (56°13'N., 5°40'W.), a shoal bight close S of Rubha na Lic, has a fishing settlement and a ruined wooden pier near its S entrance point. Shoals, with a least depth of 3m, lie in the fairway of the Sound of Luìng about 1.2 miles NNW of Rubha na Lic. The preferred fairway lies E of the shoals.

Anchorage can be taken in depths of 5 to 11m about 300m from the head of Black Mill Bay, with Rubha na Lic bearing 321° and aligned with the NE end of Rubha Fiola (56°14'N., 5°42'W.).

Dubh Sgeir (56°15'N., 5°40'W.), 4m high, is encircled by rocky shoals. A light is shown from its summit. A racon is situated at the light.

Fladda (56°15'N., 5°41'W.), a low islet lying on rocky foul ground, shows a light from a tower standing on the E side of the islet.

The channel between Dubh Sgeir and Fladda has a least depth of 9.8m and between Fladda and Belnahua (56°15'N., 5°42'W.), there is a least depth of 14.9m in the fairway. There are several detached above and below-water rocks and shoals



Courtesy of Nicola Lang

Fladda Light

lying up to 3 miles W of Luìng at the N end.

Anchorage can be taken in depths of 9.1 to 11m about 0.1 mile N of Fladda with the lighted tower bearing 184°.

2.15 Loch Shuna (56°13'N., 5°35'W.) is approached between the S end of Luìng and Craignish Point. The outer entrance is deep and clear of dangers. The coast forming the E side of the approach is fronted by numerous rocky shoals and islets.

Reisa Mhic Phaidean (56°09'N., 5°37'W.), an islet lying in the approach to Loch Shuna, is separated from the mainland by a deep channel. The islet is fringed by rocks, awash, on foul ground.

Bagh Ban (56°10'N., 5°35'W.) affords anchorage, in depths of 2 to 7m, sand and mud, in the S part of the bay.

Druim an Achanarnich (56°10'N., 5°36'W.) is an elevated ridge with a fort on its summit, located adjacent to a conspicuous cliff on the coast.

Culbhaie Rock (56°11'N., 5°35'W.), one of a group of above and below-water rocks which dry 1.5m, and Liath Sgeir (56°12'N., 5°34'W.), the S islet of a group of islets, lie in the entrance to Loch Shuna.

Bagh an Tigh Stoir (56°12'N., 5°33'W.), a bay 0.3 mile ENE of Liath Sgeir, is sheltered by the islets in the vicinity and can be approached from S, W, and NW. In the latter passage there is a rock awash 0.1 mile off the S side of Fraoch Eilean. Anchorage can be obtained for small vessels in the middle of the bay, except during strong SW winds, in depths of 4 to 5m, mud and sand. Larger vessels may anchor outside the bay, 0.3 mile NNE of Liath Sgeir, in a depth of 25m, mud. A jetty is situated at the S entrance point of the bay.

SE limits: All Canadian waters N of and included within a line from the shoreline of Vancouver Island (48°34'·97N 124°40'·00W) southward along the meridian 124°40'·00W to a point which intersects the International Boundary, then following the International Boundary eastwards and northwards through Juan de Fuca Strait, Haro Strait, Boundary Passage

and the Strait of Georgia to a point which intersects the Canadian coastline at 49°00'00"N 123°05'33W.

Eilean Arsa (56°12'N., 5°34'W.), the largest of these islands, which rises to an elevation of 45m, lies 0.1 mile NW of Liath Sgeir.

Craobh Haven (56°13'N., 5°33'W.) is a small harbor enclosed by Eilean Buidhe to the NE and Eilean an Duin and Fraoch Eilean to the W and SW. The harbor is protected by breakwaters and a marina lies on its SE side. Anchorage can be taken in the harbor, in depths of 9 to 14m, good holding ground.

Asknish Bay (56°14'N., 5°34'W.) affords sheltered anchorage from N and E winds in suitable depths throughout the bay. The drying rocks and shoals extending S from Rubh' a' Chnaip (Asknish Point), forming the N part of the bay, must be avoided.

Shuna (56°13'N., 5°36'W.), an island, is separated from Luing by Shuna Sound and from the mainland by Loch Shuna, which is deep and navigable. Shuna Cottage, standing near the NE point of the island, is a conspicuous landmark. A detached 3.7m rocky patch lies 0.3 mile SW of Shuna Point (56°12'N., 5°37'W.). Close E of Rubh' an Aoil (56°14'N., 5°37'W.), the N extremity of Shuna, there is a sheltered inlet wherein anchorage can be taken, in depths of 3.7 to 9.1m.

2.16 Shuna Sound (56°13'N., 5°38'W.), deep and free of dangers, has a least navigable width of 0.3 mile. Tidal currents are usually weak in the sound and loch except at springs. Anchorage can be taken, in depths of up to 11m, sheltered except for winds from the SSW, in the entrance of Kilchattan Bay (56°13'N., 5°38'W.), midway within Shuna Sound.

Loch Melfort (56°15'N., 5°34'W.) is entered between Arduaine Point and Degnish Point (56°15'N., 5°35'W.). The entrance points are steep-to. Tidal currents are negligible. Scoul Eilean (56°15'N., 5°36'W.) and Eilean Gamhna (56°15'N., 5°35'W.) are islets lying on foul ground in the entrance to Loch Melfort. Vessels entering the loch can pass between or on either side of the islets. Campbell Rock (56°15'N., 5°34'W.), with a depth of 1.8m, lies in the fairway. Detached above-water rocks and islets lie scattered throughout the loch, but there is ample room to navigate.

Kilchoan Bay (56°16'N., 5°34'W.), indenting the N shore of Loch Melfort, is open to SW winds. Farm buildings near the head of the bay are conspicuous. Anchorage can be taken, in a depth of 22m, mud, in the middle of the bay.

Anchorage can be taken in Fearnach Bay (56°16'N., 5°30'W.), the N head of Loch Melfort, in depths of 11 to 12.8m, about 0.3 mile offshore. A light is shown from a pier at the N extremity of the bay. Vessels can anchor in greater depths about 300m off the NW side of the bay, keeping clear of the mooring buoy 275m SW of the light. Small vessels can anchor in small bays indenting the S side of Loch Melfort. A small pier is situated at Loch na Cille, an inlet SSE of Fearnach Bay.

2.17 Seil Sound (56°16'N., 5°36'W.), a N extension of Shuna Sound, is approached from S between Degnish Point (56°15'N., 5°35'W.) and the SE end of Torsa (Torsay) (56°15'N., 5°37'W.). The approach channel is deep, except for drying rocks lying close NW of the point. Torsa is connected to the NE side of Luing by a drying reef. The passage and bay be-

tween the W side of Torsa and the NE side of Luing is foul. Rocky, 3.7m patches lie as far as 0.3 mile from the NE end of Torsa.

Seil Sound extends from the N end of Torsa to Clachan Sound (56°19'N., 5°35'W.). The mainland coast, forming the E side of the sound, is formed of steep cliffs. There is a least depth of 14.9m in the fairway to Ard Sheilleach, where depths decrease to 2.7m. The E side of **Seil** (56°18'N., 5°37'W.), a sparsely-populated island, forms the W side of Seil Sound.

Armaddy Bay (56°17'N., 5°35'W.), a shallow bight encumbered with rocky shoals, indents the E side of the sound, close inside the entrance. Navigation is restricted in this bay due to the many drying shoals.

Balvicar Bay (56°18'N., 5°36'W.), a small open bay on the E side of Seil, is formed N by Ard Sheilleach, a promontory. Eilean Tornal, an islet, lies in the bay entrance. A village and jetty are situated at the S shore of the bay.

Restricted anchorage can be taken, in a depth of 5m, mud, 0.1 mile WNW of the SW end of the islet and also off the jetty by small craft.

Clachan Sound (56°19'N., 5°35'W.), entered about 1 mile NNE of Ard Sheilleach, is spanned at the entrance by a bridge connecting Seil with the mainland. The sound, drying in places, can be entered with local knowledge. Tidal currents are strong under the bridge.

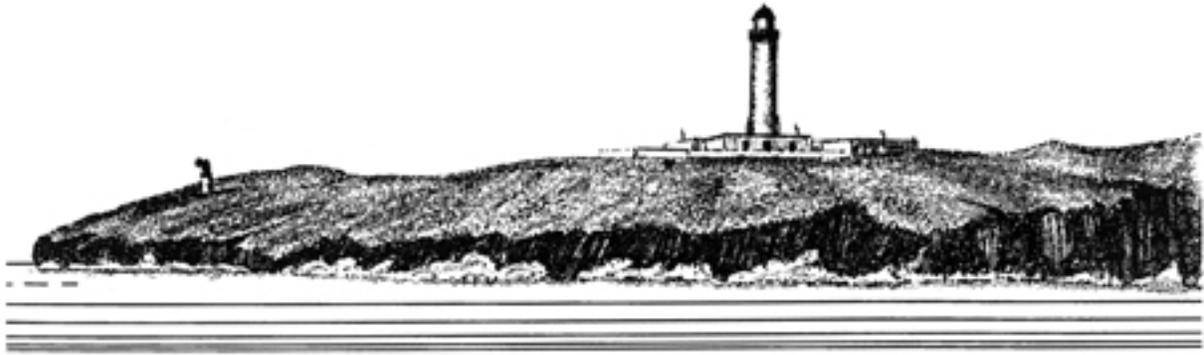
Cuan Sound (56°16'N., 5°38'W.), separating Luing and Seil, is a narrow passage connecting Seil Sound and Loch Melfort with the Firth of Lorn. Vessels with local knowledge transit the sound which has a least depth of 7m in the channel. Passage through the sound is best accomplished during the stage of slack water as at other stages strong currents prevail. An overhead power cable, with a vertical clearance of 35m, spans the sound. Anchorage can be taken, clear of tidal currents, about 0.5 mile SSW of Rubha Breac (56°16'N., 5°37'W.), the S extremity of Seil.

The Firth of Lorn—Approaches

2.18 The Firth of Lorn (56°18'N., 5°47'W.) is approached between the W sides of Islay, Jura, Scarba, Lunga, Luing, and the S side of Mull. Colonsay and Oronsay, two islands, lie in the approach to the firth. Although Islay (55°45'N., 6°10'W.) and Jura (55°55'N., 6°00'W.) are both mountainous, the sharply peaked mountains of Jura are in marked contrast with the undulating ranges of Islay. The rocky NW coast of Islay affords no shelter and should only be approached during fine weather. Mull is also mountainous, deeply indented, and backed by precipitous cliffs in places. Depths are ample for deep-draft ships in the principal approach to the Firth of Lorn, NW of Colonsay. Several detached 18 to 33m banks lie in the fairway. The channel between Oronsay and Islay has depths of 11 to 12.8m with detached shoals of 7.6 to 9.1m.

Dubh Artach (St. John's Rock) (56°08'N., 6°38'W.), a rocky islet fringed by reefs, lies 16 miles W of the N extremity of Colonsay. A light is shown from a tower on the islet. Above and below-water rocks lie as far as 0.3 mile from the islet and there are several detached banks in the area around Dubh Artach.

Shackleton Rock (56°10'N., 6°23'W.), with a depth of 11.9m, lies 8 miles ENE of the islet and close N of the ap-



Rhinns of Islay Light from SE

ry on Oa, is marked on its summit by a prominent monument.



Courtesy of Scottish Radiance

Dubh Artach Light

proach channel. Tide and current information is included on applicable charts covering the approaches to the Firth of Lorn.

Tidal currents set NE and SW in the direction of the coasts. Eddies prevail along the shores of the islands lying in the approach.

Rubha Dubh na h'Òtha
bearing about 098°
distant 4 miles



South Coast of the Oa

Prevailing coastal currents are altered in velocity and direction by the tidal currents coursing through the sounds. In the approach fairway to the firth, the current is weak and has a rotary clockwise direction.

The Oa (55°37'N., 6°17'W.) is the peninsula forming the S end of Islay. The Mull of Oa (55°35'N., 6°20'W.), a promontory

2.19 Rhinns of Islay (55°44'N., 6°26'W.), the SW peninsula of Islay, is marked by a lighted tower standing on Orsay (55°40'N., 6°31'W.), an islet lying close off the Rhinns. There are numerous, detached patches, best seen on the chart, lying S and SW of Islay.

Loch Indaal (55°43'N., 6°23'W.) indents the coast of Islay 7.5 miles N of the Mull of Oa. Coasters and small vessels can anchor in the entrance to the loch, unsheltered from the prevailing winds.

Laggan Bay (55°40'N., 6°18'W.) is an open bight between The Oa and Laggan Point (55°43'N., 6°20'W.), the E entrance point of Loch Indaal. The loch has depths of 7.3 to 14.6m in the entrance, with lesser depths to its drying head. Shelter is afforded to vessels with drafts of up to 3m well within the loch. Lights are shown at Port Charlotte and Bruichladdich, two villages on the W shore of the loch. There is an L-shaped pier, with a depth of 3m alongside, at the latter village. Anchorage can be taken, in a depth of 10.1m, good holding ground, about 0.6 mile ESE of Port Charlotte, with Rubh an Duin Light bearing 305°. Anchorage may also be taken, in a depth of 5.5m, about 1 mile E of the pier at Bruichladdich.

From Rubha na Faing (55°41'N., 6°32'W.) and Frenchman's Rocks, this rocky coast, affording no shelter, extends NNE to Eilean nam Meann (55°51'N., 6°27'W.), a conspicuous promontory.

Caution.—A historic wreck lies in a restricted area, 100m in radius, centered on the N end of Frenchman's Rock.

2.20 Coul Point (55°48'N., 6°29'W.), a prominent headland, separates Machir Bay and Saligo Bay. Neither bay affords anchorage.

West Bank (55°43'N., 6°35'W.), with a depth of 11.9m, lies 5.5 miles SW of Coul Point.

The entire coast is reef-fringed and foul. At Ardnave Point (55°53'N., 6°20'W.), the coast is broken by Traigh Baile Aonghais, a lengthy and very shallow inlet. Balach Rocks, drying, lie just off the entrance to the inlet which is fronted by foul ground extending as far as and encircling Nave Island, lying 0.4 mile N of the point. Anchorage can be taken, in a depth of 5.5m, good holding ground, about 250m SE of Nave Island.

Rubha a' Mhail (55°56'N., 6°07'W.), the N extremity of Islay, is described with the Sound of Islay in paragraph 2.7. Post

Rocks, dark, drying rocks lying 1.2 miles WNW of Rubha a' Mhail, are steep-to on their N side and should be given a wide berth.

2.21 Oronsay (56°01'N., 6°15'W.), a small island, is separated from Colonsay (56°04'N., 6°13'W.) by a narrow drying channel.

The islands are sparsely populated. Foul ground fringes most of the islands and there are detached rocky patches lying offshore. Beinn Oronsay, a high hill, is conspicuous because of its wedge shape. Carnan Eoin, the highest eminence on Colonsay, is topped by a cairn.

The low rocky coast of Oronsay is fronted by a chain of shoals and rocky islets terminating N at Eilean Ghaoideamal (56°01'N., 6°13'W.) and S at Caolas Mor (55°59'N., 6°15'W.), a channel with a least width of 0.2 mile and charted depths of 5.8 to 11.6m. Rubha Mhail, aligned 117° with Beinn an Oir, 4.5 miles ESE, clears NNE of Post Rocks. The W coasts of the islands should not be approached within a depth of the 36m. A detached 16.2m patch lies 4.2 miles ENE of the N end of Colonsay. Anchorage can be taken, in depths of 7.3 to 9.1m, gravel, in the bay about 0.3 mile NW of Eilean Ghaoideamal.

Loch Staosnaig (56°04'N., 6°12'W.), a small bight, affords anchorage with offshore winds, in depths of 11 to 12.8m, sand, about 0.3 mile offshore. Scalasaig Harbor (56°04'N., 6°11'W.) lying in a cove close N of the loch, has a pier 183m long. Range lights, in line bearing 262°, lead to the pier. Anchorage can be taken, in 7.3m, sand, about 300m E of the pier. With W winds, anchorage can be taken, in a depth of 18m, mud, about 0.7 mile SE of Scalasaig Light.

The W coast of Jura extends 17 miles NE from the N entrance of the Sound of Islay to the Gulf of Corryvreckan. The Paps, three conical peaks, rise to conspicuous heights at the SW part of Jura.

2.22 Loch Tarbert (55°58'N., 6°00'W.) extends 5.5 miles E and is separated from Tarbert Bay by an isthmus 0.7 mile wide. The loch has outer and inner narrows. An islet in the middle of the outer narrows constricts the fairway to a width of about 35m with depths of 4.9 to 6.7m; the inner narrows has a depth of 3.6m. Tidal currents are strong in both narrows. Rubh' an t-Sailean (55°58'N., 6°00'W.), a rocky headland at the N entrance of the loch, is formed W by bare, dark cliffs and has a cairn on the summit. Landing can be accomplished at a sandy bight close E of the headland. The shores of the loch are fronted by shoals, above and below-water rocks, and islets. Local knowledge is necessary.

Anchorage, with offshore winds, can be taken by large vessels in the outer part of the loch, in a depth of 16.5m, sand. Small vessels, sheltered from N winds, can anchor, in a depth of 11m, good holding ground, off the N shore about 1 mile from Rubh' an t-Sailean. Glenpatrick Bay, on the S side of the loch, affords anchorage, in a depth of 11m, sand, sheltered from SW and W winds and seas.

Tarbert Bank (56°00'N., 6°05'W.), with a depth of 9.5m, has a hard bottom covered with sand and shells.

The coast of Jura extending N and NE from Loch Tarbert is indented by several open and shallow bays which afford temporary anchorage to vessels with local knowledge. South gales along this coast generally veer N.

2.23 Mull (56°31'N., 6°00'W.), an island of the Inner Hebrides group, is separated from the mainland by the Firth of Lorn and the Sound of Mull. The island is very mountainous and has shores that are deeply indented.

Beinn Mor (56°26'N., 6°01'W.), rising to a conical summit, is the highest mountain. Tobermory, the only town, is situated 3 miles from the N end of the island. Whereas the tidal currents around Oronsay and Colonsay are rotary and weak, those along the S coast of Mull and in the lochs are irregular, increasing in velocity within the narrows of the Firth of Lorn.

The **Ross of Mull** (56°19'N., 6°22'W.) is the SW peninsula of Mull. Rubha nam Maol Mora (56°16'N., 6°19'W.) is a point 1 mile E of the SW extremity of the Ross of Mull.

Torran Rocks (56°15'N., 6°25'W.), a detached group of islets with above and below-water rocks, extends at least 5 miles SW of the point. Eilean a' Chalmain is an islet lying close W of the point.

Ardalanish Bay (56°17'N., 6°14'W.) indents the rugged rocky coast close E of Rubha Ardalanish. Several steep-to, above-water rocks lie off this point. Anchorage can be taken in the bay, in a depth of 22m, stones and sand, sheltered from N and W winds about 1.7 miles ENE of the point.

Leac nan Leum (56°17'N., 6°03'W.) is the E end of very high and steep basaltic cliffs forming a bay that can be approached as close as 0.1 mile offshore. The cliffs at their bases assume the form of remarkable, natural arches.

Carsaig Bay (56°19'N., 5°59'W.), a small bight, is partly sheltered by Gamhnach Mhor (56°19'N., 5°58'W.), a group of above and below-water rocks. The bay is backed by high, steep hills. Anchorage can be taken, in depths up to 9.1m, about 250m NE of the largest rock in the group.

Caution.—If approaching the S coast of Mull from the SW during low visibility, it is necessary to exercise caution as soundings may not indicate the proximity of rocks and reefs.

2.24 Loch Buie (56°20'N., 5°53'W.), entered between two points, has rocky steep-to shores backed by hilly terrain. Buildings and the ruins of a castle are visible on some low wooded land at the head of the loch. Anchorage is considered unsafe in the bay.

Lord Lovat's Bay, a small cove, lies 0.5 mile SE of Rubha na Faoilinn (56°19'N., 5°53'W.), a broad rocky and steep-to headland. Frank Lockwood's Island (56°19'N., 5°50'W.) lies 100m S of the headland and at the entrance to the Firth of Lorn.

Loch Spelve (56°23'N., 5°43'W.) has an entrance channel which contracts to a width of 45m and has a least charted depth of 5.6m. Within the channel, the loch opens to two arms, the SW arm extending nearly to Loch Uisg, a freshwater lake. Tidal currents are strong in the entrance channel. Anchorage can be taken in the bight indenting the W head of the N arm of the loch, in a depth of 11.9m.

The Firth of Lorn

2.25 The entrance to the **Firth of Lorn** (56°18'N., 5°47'W.) lies between Frank Lockwood's Island and the N extremity of Luing Island. The firth extends 11 miles NE to the Lynn of Morvern, the Lynn of Lorn, and Loch Linnhe. There is a least depth of 18.3m in the entrance. Tidal currents set NE and SW with the flood and ebb. **Insh** (56°19'N., 5°40'W.) lies

E of the entrance fairway and at the S end of a group of above and below-water rocks and rocky shoals.

Ardencaple Bay (56°19'N., 5°36'W.), indenting the N side of Seil Island, provides temporary anchorage, in a depth of 16.5m, mud, about 0.7 mile SSW of Eilean Duin (56°20'N., 5°35'W.), an islet lying off the bay entrance.

Bogha Nuadh (56°22'N., 5°38'W.), with a least depth of 0.3m, lies in the fairway of the firth about 3 miles NNE of Insh. The shoal is marked by a buoy and should not be confused with a rock of the same name lying 5.7 miles SSW.

Dubh Sgeir (56°22'N., 5°37'W.), a bifurcated islet, lies 0.5 mile NE of the lighted buoy marking Bogha Nuadh. A narrow ridge, with a least depth of 11m, connects these two dangers.

Kerrera (56°24'N., 5°32'W.), a rugged high island, is separated from the mainland by Kerrera Sound. Rubha Seanach (56°22'N., 5°33'W.) is the low, rocky and steep-to S extremity of the island.

Ardmore Bay (56°23'N., 5°34'W.), at the head of an open bight indenting the S coast of the island, affords anchorage, sheltered from N winds, in a depth of 20m, sand and clay, about 300m off the head of the bay.

Rubh' a Bhearnaig (56°26'N., 5°30'W.), marked by a conspicuous monument, is the N extremity of Kerrera.

Oitir Mhor Bay (56°25'N., 5°31'W.), 0.5 mile SE of Eilean nan Gamhna (56°25'N., 5°31'W.), affords anchorage, in a depth of 11m, mud, in the middle of the bay. Larger vessels can anchor, in depths up to 18m, mud, 0.5 mile W of Rubh' a Bhearnaig.

Loch Don (56°26'N., 5°40'W.) is a shallow inlet indenting the E coast of Mull. It is mainly used by small vessels awaiting a favorable tidal current before proceeding into the Sound of Mull. Overfalls occur 0.5 mile off the loch entrance during flood tide. Anchorage, sheltered from W winds and clear of tidal currents, can be taken, in a depth of 11m, about 0.3 mile NE of the S entrance point.

Lady's Rock (56°27'N., 5°37'W.), marked by a lighted beacon, lies in the approach fairway to the Sound of Mull, 1 mile E of Black's Memorial Lighthouse.

2.26 Eilean Musdile (56°27'N., 5°36'W.) lies with its S extremity 0.5 mile NE of Lady's Rock. Lismore Light stands on the SW end of the islet. There is a least depth of 11m in the fairway between Lady's Rock and Eilean Musdile. Tidal currents are troublesome in the area. Small vessels are cautioned to avoid the area.

Kerrera Sound (56°23'N., 5°31'W.), leading between the island and mainland E, is navigable at all times, but especially during daylight when shoals near the fairway can be more easily avoided. Least depths of 7m exist in the channel between Ferry Rocks and Kerrera, and 8.2m between Ferry Rocks and the mainland. There is a least depth of 14.6m in the N approach to Oban. Tidal currents set in the direction of the channel attaining a velocity of about 2 knots.

Sgeirean Dubha (56°23'N., 5°32'W.), a group of small islets, lies on shoals extending 0.2 mile off the SE side of Kerrera. A light is shown at the N end of the islets. A promontory located 0.3 mile E of Sgeirean Dubha is fronted by shoals and a drying rock. The fairway in this area is about 300m wide. A lighted beacon at Port Lathaich (56°23'N., 5°31'W.) marks the landing of submarine cables.

Little Horseshoe Bay (56°23'N., 5°32'W.) and Horseshoe Bay, about 0.4 mile NE of the former, indent the shore of Kerrera NNW of the promontory. Ferry Pier (56°24'N., 5°31'W.), on Kerrera and near the N entrance of Horseshoe Bay, is the terminus of a ferry plying the sound SE to the mainland. Ferry Rocks, marked by a lighted buoy, lie close N of the ferry lane and 0.3 mile E of Ferry Pier.

Heather Island (56°24'N., 5°30'W.) lies in the center of partly-drying rocks and shoals. Mooring buoys lie close N.

Anchorage can be taken, in a depth of 12.8m, about 100m WNW of Sgeirean Dubha Light in a depth of 5.5m, good holding ground, in Little Horseshoe Bay. There is sheltered anchorage, in a depth of 12.8m, in Horseshoe Bay and, in depths up to 18m, in Ardantive Bay (56°25'N., 5°30'W.), good holding ground.

Maiden Island (56°26'N., 5°29'W.), steep-to, lies in the N approach to Kerrera Sound and 0.3 mile NE of the N extremity of Kerrera. Foul ground extending from the mainland terminates E of the island, leaving a clear channel often used by local vessels. Hutchesons Monument stands near the N end of Kerrera and is conspicuous. Dunollie Castle, in ruins and covered with ivy, stands on the summit of a precipitous cliff about 0.3 mile SE of Maiden Island. Dunollie Light is shown from a tower standing on a low cliff at the E side of the N entrance to the sound. Corran Ledge, extending about 0.2 mile SE of the light, is marked by a lighted buoy at its outer edge.

Oban Bay (56°25'N., 5°29'W.), 1 mile within the N entrance of Kerrera Sound, indents the E shore for 0.2 mile. Sgeir Rathaid, a drying shoal marked N and S by lighted buoys, lies in the entrance of the bay. A tower atop a high hill and a smokestack are conspicuous at the E side of the bay; a radio mast is prominent on a ridge at the SW side. Depths of 7 and 11.8m are found in the W and E passages of the fairway divided by Ferry Rocks. The holding ground is untenable, especially during SW winds.

Caution.—A voluntary Code of Practice for Oban Bay and its approaches has been adopted to promote safety of navigation. The area is defined to the N by a line from Rubh'a' Bhearnaig to the NW tip of Maiden Island. To the S it is defined by an E-W line drawn through Sgeirean Dubha Light. For the purposes of this code this area is deemed a narrow channel as defined in the COLREGS. A large vessel is a vessel of more than 20m in length or more than 3m draft. Large vessels leaving Oban Bay have the right-of-way over all vessels entering the bay. Small vessels are to keep to the starboard side of the channel as far as safe and practicable. Vessels within the harbor limits, best seen on the chart, are not to exceed a speed of 5 knots. Vessels in Oban Bay are not to exceed a speed of 7 knots. Vessels in excess of 40m in length should announce their intentions to enter or leave the harbor on VHF channel 16. All vessels operating in Oban Bay should maintain a continuous listening watch on VHF channel 16.

2.27 Oban (56°25'N., 5°28'W.) (World Port Index No. 33250), a tourist resort, is situated with the town standing along the shores forming the head of the bay. The town is the center of a thriving fishing industry. North Pier, the principal general purpose berth, is 73m long and has depths alongside of 3 to 5m. Railway Quay, on the SE side of the harbor, is primarily a ro-ro ferry terminal. The harbor is mostly used by



Lismore Light

ferries, fishing vessels, and pleasure craft.

Loch Etive (56°27'N., 5°25'W.) is entered 2.5 miles NE of Kerrera Sound. The loch entrance is constricted and shallow, limiting transit to small vessels. Rubha Garbh (56°27'N., 5°26'W.), the S entrance point, is a low, wooded promontory on which stands the ruins of a castle. Ledaig Point (56°27'N., 5°24'W.), on the opposite shore, is low and grassy. An airfield is situated close N of the point. Two islets in the loch entrance divide the channel. The larger islet fronts **Dunstaffnage Bay** (56°27'N., 5°26'W.), which affords good shelter, but anchorage within the 10m curve is constricted by numerous small craft moorings. Temporary anchorage is also available, in a depth of 11.9m, in the bay adjacent to Rubha Ard nan Leum (56°27'N., 5°25'W.). The main entrance to the bay, which is from the NW, has a least depth of 11.6m in the fairway.

A bridge, with a vertical clearance of 15m, spans Connel Sound, the narrows within Ledaig Point. Conspicuous white inns stand near each end of the bridge. A sewer outfall, marked at its end by a beacon, lies 100m W of the S end of the bridge.

Ardmucknish Bay (56°29'N., 5°26'W.) is entered between Rubha Garbh-aird (56°28'N., 5°27'W.), the SW end of Garbh Ard, a rough wooded peninsula forming the W side of the bay,



The Connel Bridge

and the mainland E. Ard Bhatan (56°30'N., 5°25'W.) is a rocky wooded headland at the head of the bay. Sandy beaches extend along the shore E to the prominent buildings at Ledaig village. Lady Margaret's Tower, standing atop an eminence on Garbh

Ard, is conspicuous and often used as a bearing while anchoring.

Oban—Contact Information		
North Pier		
Call sign	North Pier	Available 0900-1700
VHF	VHF channels 12 and 16	
Telephone	44-1631-562892	
Railway Pier		
Call sign	Cal-Mac	Available 0700-1100
VHF	VHF channels 12 and 16	
Telephone	44-1631-565854	
Facsimile	44-1631-566588	
Port Authority		
Telephone	44-1631-562892	
Facsimile	44-1631-563550	
Web site	http://www.obamharhour.com	

Anchorage, open to SW winds, can be taken, in a depth of 29m, mud, good holding ground, 0.7 mile S of Ard Bhatan with the headland bearing 018° and the tower bearing 332°.

2.28 Loch Linnhe (56°36'N., 5°26'W.) is a NE continuation of the Firth of Lorn. The outer part of the loch is divided into two channels by Lismore Island (56°30'N., 5°32'W.). The channels are known as the Lynn of Lorn to the SE and the Lynn of Morvern to the NW. Lismore Island is a comparatively low narrow island that is sparsely inhabited. A flagstaff marks Rubha Fiart (56°28'N., 5°36'W.), the SW extremity of the island where a drying reef almost joins the point with Eilean Musdile. Tide rips prevail in the area. There are several castles in ruins on Lismore.

The **Lynn of Lorn** (56°29'N., 5°30'W.) is the channel lying SE of Lismore. The entrance is wide and deep, but within, the channel becomes constricted and has a depth of 6.4m in the inner fairway. There are several islets and rocks lying in a group about 3 miles NE of Rubha Fiart. The main fairway lies SE of the group.

Rubha Fion-aird (56°29'N., 5°28'W.), the low rocky point at the SW entrance to the Lynn of Lorn, should not be approached within 0.3 mile.

Achnacroish (56°31'N., 5°29'W.), the principal landing place on Lismore, has a stone causeway and pier with a depth of 3m alongside. The ferry from Oban berths alongside.

Eriska Shoal (56°32'N., 5°26'W.) fronts the mainland in the approach to Loch Creran. Branra Rock (56°32'N., 5°27'W.), a steep-to and drying rock, is marked by a beacon. Glas Eilean (56°32'N., 5°26'W.), an above-water rock, lies in the middle of a shoal area.

Appin Rocks, drying 2.4m and marked by a lighted buoy 0.2 mile W, lies on foul ground extending 0.3 mile WSW of Ru nan Clach Tholl (56°33'N., 5°25'W.), a wooded promontory. Tidal currents are strong in the vicinity of the rocks.

2.29 Inn Island (56°34'N., 5°25'W.), lying in the middle of the NE entrance to the Lynn of Lorn, is the S islet of a group of islets lying on shoals. The channels E and W of the island are constricted and have depths of 6.4m and 4m, respectively. The W channel is only suitable for small vessels with local knowledge. Sgeir Buidhe, a rock lying 0.3 mile E of Inn Island, is marked by a lighted beacon.

Anchorage can be taken, in a depth of 11m, good holding ground, in the center of **Airds Bay** (56°33'N., 5°25'W.).

Loch Creran (56°32'N., 5°20'W.) is a winding inlet entered S of Airds Point (56°32'N., 5°25'W.). The channel through the loch is constricted, but is navigable by small vessels. A rocky bar extends into the loch entrance. The channel across the bar has a controlling depth of 4.3m. Within the bar between Airds Point and the rocks off the NW coast of Eriska, there is a least depth of 5.5m.

Caolas Creagan (56°33'N., 5°18'W.), the narrows of the loch, has depths of 0.4 to 3.6m. A railroad bridge spans the narrows wherein tidal currents are strong.

Anchorage can be taken, in a depth of 9.1m, about 0.3 mile N of South Shian and 0.2 mile NW of Sgeir Caillich (56°32'N., 5°24'W.), a group of rocks. There is anchorage, in depths of 10 to 13m, mud, about 250m from the head of the loch.

Caution.—Mariners are cautioned that the underwater contours in Loch Creran are based upon old and widely spaced leadline soundings, that are unreliable, especially those close inshore. Loch Creran has been designated a Marine Special Area and mariners are requested to restrict anchoring to the preferred anchorages best seen on the chart.

2.30 Port Appin (56°33'N., 5°24'W.) a village connected with the railroad, is situated at the root of Ru nan Clach Tholl. The village is 0.5 mile from a remarkable, natural arch in the tableland. A ferry slip serves the ferry plying between the village and a jetty at the NE end of Lismore.

The **Lynn of Morvern** (56°32'N., 5°33'W.), the channel between the NW side of Lismore and the coast of Morvern, is deep and clear of dangers. The mainland coast of Morvern is bold, rocky, and steep-to, backed by high hills. Small bights afford temporary anchorage in fine weather.

Rubha an Ridire (56°30'N., 5°41'W.) is a point at the S extremity of Morvern. Tidal currents set NE and SW on the flood and ebb and are generally weak. Eddies form in the SW part of the Lynn of Morvern. Tide rips occur on the ebb of Bernera Island (56°30'N., 5°35'W.).

Bernera Bay (56°29'N., 5°35'W.) lies SE of Bernera Island which is connected to Lismore by a drying reef at its NE end. The bay, open to SW weather, affords temporary anchorage, in depths up to 31m, near the E shore, taking care in avoiding the rocks.

Dubh Sgeir (56°33'N., 5°29'W.), a group of above-water rocks, and Glas Druim (56°34'N., 5°28'W.), the N promontory of Lismore, enclose Port na Moralachd, a small bay where anchorage can be taken, in a depth of 12.8m, clay, in its SE part. A beacon marks Glas Druim. The bay is open to W and SW winds which raise a heavy swell. The bay between the N and NE extremities of Lismore is filled with islets and foul ground. The largest islet is Eilean Ramsay (56°34'N., 5°27'W.).

Port Ramsay, lying 0.1 mile WSW of the islet, affords sheltered anchorage, in depths up to 9m, sand and shells.

Glensanda Harbor (56°34'N., 5°32'W.) (World Port Index No. 33210), comprising a deep-water loading berth and associated facilities for the bulk shipment of stone, is situated at Rubha a' Chamais Bhain, about 0.5 mile NE of the mouth of the Glensanda River. The port has accommodated vessels up to 97,000 dwt.

Pilotage is compulsory for vessels exceeding 6,000 dwt when berthing. The pilot boards 3.5 miles SSW of Glensdale Jetty. The vessel's ETA should be sent to the pilot/harbor master upon departure from the previous port, with ETA updates sent each morning. Vessels should contact the pilot on VHF channel 14 (call sign: Glensanda Pilot) 1 hour before arrival. Permission to enter the harbor limits must be granted by the harbor master prior to entry.

Contact Information.—The port can be contacted, as follows:

1. Call sign: Glensanda Harbor
2. VHF: VHF channel 14
3. Telephone: 44-1631-730460
4. Facsimile: 44-1631-220880
5. E-mail: glendanda.shipping@foster-yeoman.co.uk

Loch Linnhe, from the NE end of Lismore, extends 11 miles NNE to Corran Narrows. The shores on either side of the loch are closely backed by almost continuous, precipitous ranges penetrated in places by deep valleys.

Sgor Dhearg (56°39'N., 5°10'W.) is a conspicuous landmark. Tidal currents set NE and SW on the flood and ebb tides, but are generally weak.

2.31 Shuna Island (56°35'N., 5°23'W.), rising NE, is separated from the mainland by the Sound of Shuna. Farm buildings and a castle in ruins are landmarks on the island. The Sound of Shuna is constricted to a width of about 300m in the vicinity of Knap Point (56°35'N., 5°23'W.), where a rocky bar extends across the SW entrance of the sound. There is a least depth of 1.2m over the bar.

Anchorage, sheltered from S winds, can be taken, in depths up to 11m NW of Knap Point and E of Shuna. Anchorage can also be taken in a bight between the point and the mainland, in depths up to 12.8m, good holding ground.

Loch a' Choire (56°37'N., 5°29'W.), an inlet, is entered between headlands and affords shelter, subject to wind squalls off the mountains. A church and buildings stand near the head of the inlet.

Rubha na h-Earba (56°39'N., 5°25'W.) forms the E side of a bight which affords shelter from N winds. Shelter from W winds can be taken in an inlet on the E side of Eilean Balnagowan (56°38'N., 5°20'W.).

Cuil Bay (56°39'N., 5°18'W.), 0.7 mile E of Rubha Mor, a rocky point, affords anchorage, in a depth of 11m, sheltered from N and E winds.

Rubha Ruadh (56°42'N., 5°19'W.) is fronted by a reef flat and a drying shoal.

Camas Shallachain (56°42'N., 5°18'W.) is a bay lying between Rubha Ruadh and Sallachan Point (56°42'N., 5°17'W.), a low boggy promontory fronted by shoals and partly-drying foul ground. A beacon stands on the point, although it is not prominent.

Temporary anchorage can be taken, in a depth of 14.6m, about 0.5 mile NW of Sallachan Point.

2.32 Kentallen Bay (56°40'N., 5°15'W.), a narrow inlet extending 0.3 mile S, is open to N winds. During W gales, the mountains near the entrance deflect the wind and cause violent squalls. Kentallen Pier, which is in ruins, lies 0.5 mile NE of W entrance point of the bay. Shoal patches and reef flats lie in the vicinity of the pier.

Anchorage during fine weather can be taken, in depths of 15 to 18m, about 0.1 mile SSE of the W entrance point.

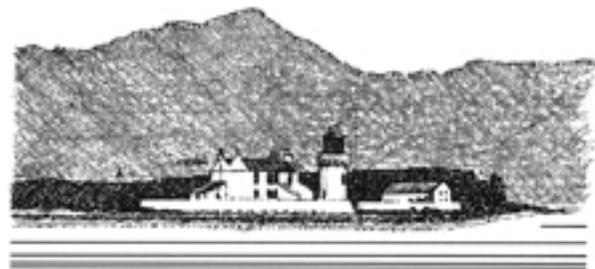
Rubha Cuil-cheanna (56°42'N., 5°15'W.) is the SE entrance point in the approach to Corran Narrows. A partly-drying spit of sand and stones extending 1.2 miles SSW from the point is marked at its outer end by a lighted buoy.

Ballachulish Bay (56°41'N., 5°14'W.) is entered S of the partly drying spit off of Rubha Cuil-cheanna and N of a drying rock lying on foul ground extending off the S entrance point. A lighted buoy marks the rock. The village of Onich, with a drying stone pier in disrepair, is situated at the N entrance of the bay. South and SW winds raise a swell and cause wind squalls off the mountains. Tidal currents are weak in the bay.

Anchorage for large vessels can be taken, in depths up to 46m, mud, throughout the bay. Small vessels can anchor in fine weather, in a depth of 20m, at the NE corner of the bay about 0.3 mile SW of the church.

2.33 Loch Leven (56°41'N., 5°09'W.), entered at the head of Ballachulish Bay, is navigable by small vessels. The narrows at the entrance has depths of 1.8 to 7.3m over a least width of 61m. The center of the narrows has a least depth of 5.5m. A deep basin within the narrows contracts to form a second narrows with a least depth of 4.6m. A village, hotel, and monument are conspicuous at the S side of the entrance narrows, which is spanned by a bridge with a vertical clearance of 17m. About 4 miles above the second narrows is an inner narrows, 25m in width, with a depth of 3.3m. Tidal currents are strong at the inner narrows and at the loch entrance.

Kinlochleven (56°43'N., 4°59'W.), a village at the head of Loch Leven, has a wharf with 79m of berthage and depths of 3.6 to 5.5m alongside its N side. Anchorage can be taken by small vessels, in a depth of 3.7m, in the bight close E of the village within the N entrance point. Other areas in the loch afford anchorage, but in all cases local knowledge is necessary.



Corran Point Light from E

Corran Narrows (56°43'N., 5°14'W.) has a fairway with a width of 0.1 mile and depths of 11 to 23.8m. Lights are shown from a tower on Corran Point (56°43'N., 5°15'W.) and from a

frame structure 0.5 mile NE of the tower.

Clovullin Bay (56°43'N., 5°16'W.) indents the coast between Sallachan Point and the low tongue of shingle forming Corran Point. Clovullin Flat, fronting the bay, extends almost 0.7 mile offshore and is marked by lighted and unlighted buoys at its SE and E edges, respectively. The channel E of both buoys has a width of about 0.2 mile. Depths of less than 10m lie up to 0.1 mile S of Corran Point. Corran Shoal, with a least depth of 0.6m, extends 0.3 mile N of the point and is covered by the red sector of Corran Point Light.

Tidal currents increase in velocity as the narrows are approached. Strong winds opposing the current in Corran Narrows cause overfalls. Eddies form along the sides of the loch and could prove troublesome to small vessels which should avoid the strength of the ebb current in the narrows. Larger vessels should pass through the narrows during daylight hours and about the time of HW.

A berthing dolphin, used by the Corran ferry pilot boat, is situated 0.2 mile NNW of Corran Point Light. A ferry slip close SE of the pilot berth is the terminus for the ferry crossing the narrows.

Anchorage can be taken in fine weather, clear of the ebb current, close NE of the lighted buoy marking Clovullin Flat and with Corran Point Light bearing 030°. There is anchorage, in a depth of 16.5m, S of the W end of Corran Shoal.

2.34 The inner or N part of Loch Linnhe extending about 7 miles NNE from Corran Narrows to Fort William, is deep and danger-free in the channel.

The Caledonian Canal, entered about 1.5 miles NW of Fort William (56°49'N., 5°07'W.), is described in paragraph 10.21.

Mountain ranges back the shores on both sides of the loch. Tidal currents decrease N of the narrows and are negligible at Fort William.

Anchorage can be taken in **An Camas Aiseig** (56°44'N., 5°16'W.), a broad bay open to NW wind squalls, but protected from S and SW winds. Vessels anchor, in depths of 18 to 22m, mud and shells, about 0.2 mile offshore.

During NW gales, the preferred anchorage is in **Inverscadle Bay** (56°45'N., 5°16'W.), 0.4 mile NNE of Rubha Dearg, or farther offshore, in depths of more than 20m, mud.

Victorious Rock (56°45'N., 5°15'W.), with a depth of 5m, lies about 0.3 mile E of a promontory on which stands a prominent boathouse. Anchorage, sheltered from all winds except SE, can be taken between the rock and W shore.

2.35 The town and harbor of **Fort William** (56°49'N., 5°07'W.) (World Port Index No. 33200) extends along the shore at the E head of the loch. The mouth of the River Nevis empties into the loch close NE of the harbor. A church spire and chimneys in town are conspicuous. An old fort stands on a gravel spit 0.4 mile NE of Fort William Pier. Ben Nevis, the highest mountain in the British Isles, rises to a height of 1,341m, 3.7 miles ESE and the ruins of Inverloch Castle lie 1 mile NE of the fort.

Underwater Centre Limited Pier, extending from the NE end of the town, has a depth of 11.9m alongside its head. Fort William Pier, extending from the coast near the center of the town, is the main commercial pier with an alongside depth of 1.5m.

There are shipping services to Glasgow and Oban. A ferry plies between the town and a landing at Camas nan Gall.

Anchorage can be taken, in depths of 7.3 to 14.6m, mud and clay, about 0.2 mile W of Fort William Pier and near the edge of the steep shore bank. During SW gales, a heavy sea sets into the anchorage and it is advisable to take shelter in Camas nan Gall.

Caution.—The testing of underwater equipment is periodically carried out in the N part of Loch Linnhe between Corran Narrows and Annat Narrows (56°51'N., 5°07'W.). This may include the use of moored barges from which diving takes place. The test sites are generally marked by lighted buoys. Care should be taken when navigating in this vicinity.

2.36 Lochy Flats (56°50'N., 5°07'W.), composed of sand and gravel, fills the NE side of the bight forming the head of the loch. The flats enclose the mouth of the River Lochy. A lighted buoy marks the W edge of the flat close to the S entrance point of the River Lochy. Shoaling was reported off the entrance to the river.

Camas nan Gall (56°50'N., 5°07'W.), a bay opposite Fort William and 0.5 mile NNE of Rubha Mor, affords shelter from SW winds and seas. Anchorage can be taken, in depths of 9 to 13m, in the bay.

The head of the loch is encumbered with foul ground and above and below-water rocks. Three islets encircled by drying reefs lie in the middle of the loch S of Corpach. An overhead transporter extends from the mainland, across Eilean nan Craobh (56°51'N., 5°08'W.), the W islet, to an island wharf off the E side of the island. There is a depth of 12.2m alongside the wharf.

2.37 Corpach (56°51'N., 5°07'W.) (World Port Index No. 33190), a village with docking facilities and railroad connections, is situated on the W shore within the entrance of the Caledonian Canal.

The mean tidal range is 3.5m during springs and 1.3m during neaps.

Vessels with a length of 62m, a beam of 10.7m, and draft of 4.1m, can berth alongside. Anchorage can be taken, in depths up to 18m, SW of the canal entrance.

The commercial port has a new wharf extending from the E side of Eilean nan Craobh (56°50.4'N., 5°07.9'W.). The berth, used mostly by pulp mill traffic, is 130m long and has an alongside depth of 12.2m; dolphins are situated N and S of the berth.

Pilotage is not available.

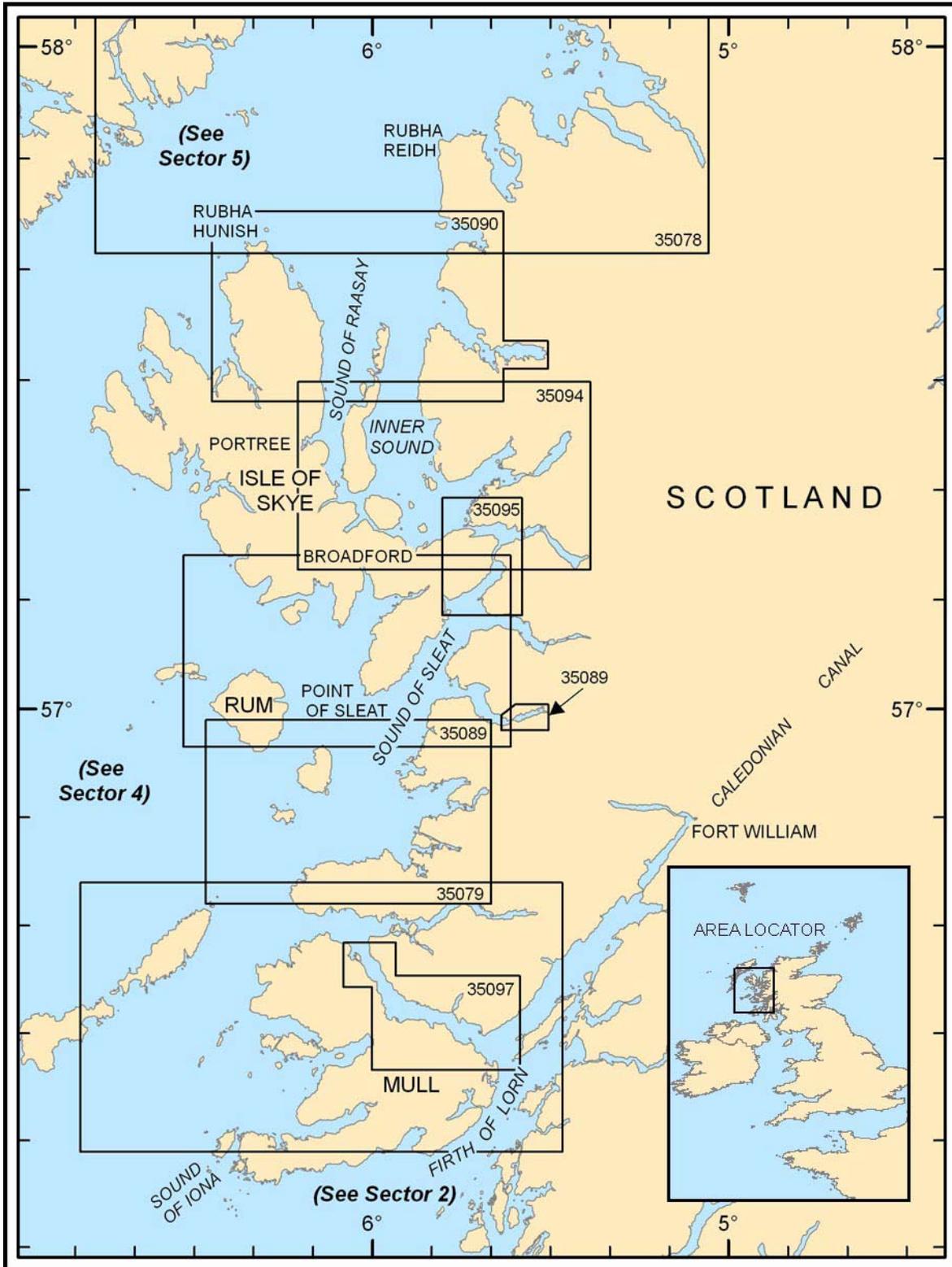
The port can be contacted, as follows:

- | | |
|---------------|--|
| 1. VHF: | VHF channel 12 |
| 2. Telephone: | 44-1397-772235 |
| 3. Facsimile: | 44-1397-772450 |
| 4. E-mail: | corpach@peelports.com |
| 5. Web site: | http://www.peelports.com |

Loch Eil (56°51'N., 5°08'W.) is entered through Annat Narrows (56°51'N., 5°07'W.), a constriction W of Eilean nan Craobh. The width of the channel in the narrows is less than 100m with a least depth of 4.6m in the fairway close to the S shore.

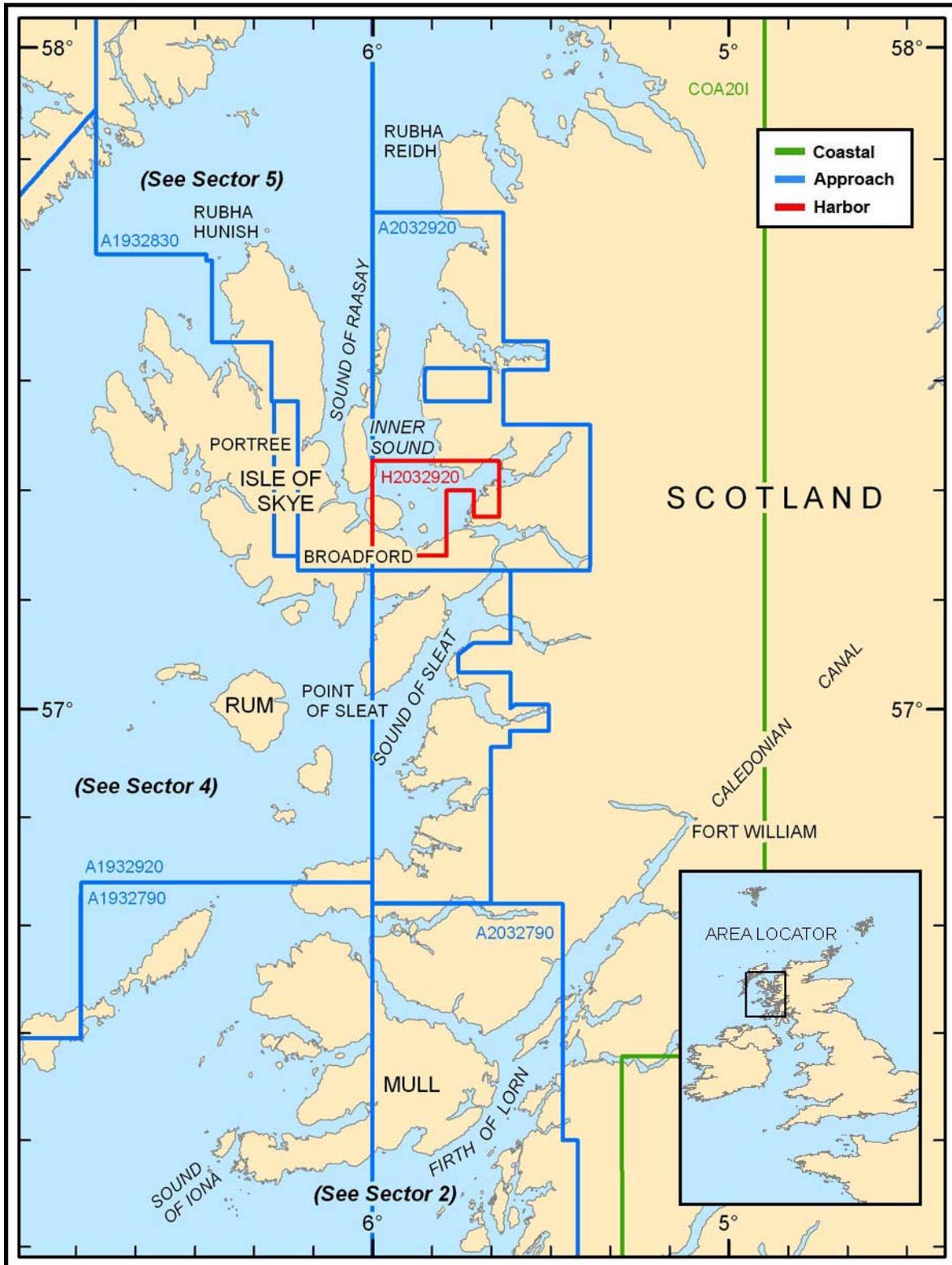
Submerged cables and pipelines, marked by landing beacons, are laid across the narrows. The loch is deep as far as 0.5

mile from its head, but navigation is limited to small vessels with local knowledge due to the continual silting and shoaling.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 3 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNCs 19 and DNC 20 (Limited Distribution) discs within the README\GRAPHICS folder.
SECTOR 3 — DNC LIBRARY INFORMATION

SECTOR 3

WEST COAST—THE ROSS OF MULL TO RUBHA REIDH

Plan.—This sector describes Iona, the Sound of Sleat, the Sound of Mull, and the Sound of Raasay. The descriptive sequence is from S to N.

General Remarks

3.1 The island of Mull and the adjacent mainland coast is generally mountainous with picturesque sea cliffs. Lochs indent the W coast of Mull and the mainland to Rubha na h Aiseig. There are several lakes on Mull. The sounds and lochs are all navigable with local knowledge. Small harbors throughout the sector have sea communication. There are numerous anchorages available.

Caution.—Numerous marine farms lie along the shores of the lochs and estuaries described within this sector.

West Coast of Mull and the Sound of Iona

3.2 Mull (56°30'N., 6°00'W.), from the Ross of Mull (SW extremity) to Ardmore Point (56°40'N., 6°08'W.), has a very irregular coastline indented by lochs and fronted by islets and rocky shoals. There are numerous detached patches of 9m, or less, lying as far as 8 miles off Iona. There are ample depths in the vicinity of these unmarked dangers, but the area should be avoided by vessels not having local knowledge.

The **Sound of Iona** (56°18'N., 6°23'W.) lies between the W side of the Ross of Mull and the E side of Iona. Shoals and rocks encumber the narrows of the sound. South of the narrows, the sound is clear of dangers in the fairway. However, transit is not recommended without local knowledge. A sand bank, with a least depth of 0.1m, extends across the middle of the sound. The channel through this area has a least depth of 1.8m.

Soa (56°17'N., 6°27'W.), the largest and highest of several islets and rocks, lies S of Iona and in the approach to the sound. Torran Rocks (56°15'N., 6°25'W.), with Na Torrain, the largest islet of this group of islets and rocks, are off-lying dangers SW of the Ross of Mull.

Anchorage can be taken by small vessels in a sheltered inlet, marked by beacons on each side of the entrance, about 1 mile N of Erraid (56°18'N., 6°22'W.). Anchorage can also be taken, in a depth of 8.4m, about 1 mile S of the cathedral on Iona.

3.3 Iona (56°20'N., 6°24'W.), an island separated from the Ross of Mull by the Sound of Iona, is sparsely populated, low, and irregularly formed by many knolls of which Dun is the most prominent. Iona appears barren from the offing. Bold headlands mark the W and NW sides of the island. A prominent cathedral, with a huge square tower, stands on the E side of Iona. A submarine pipeline (water), each end marked by a beacon, is laid across the sound. The village of Baile Mor is situated close S of the cathedral. A pier at the village is used by the ferry from Fionnphort (56°20'N., 6°22'W.). Shipping with Oban and Tobermory is carried on during the summer.

Stac Mhic Mhurchaidh (56°21'N., 6°28'W.) is the larger of two steep islets lying about 2.5 miles W of the N end of Iona. Reidh Eilean lies close E of the islet. Detached shoal patches lie E and NE of the islets. Iona and the W part of the Ross of Mull should be given a wide berth, especially during fog or inclement weather.

Loch na Lathaich (56°20'N., 6°16'W.) indents the N coast of the Ross of Mull, about 3 miles from its NE extremity. The coast is rugged, rocky, and generally steep-to.

Camas Tuath (56°20'N., 6°17'W.), a narrow shallow inlet encumbered with rocks and reefs, is entered 0.5 mile W of Loch na Lathaich. The loch has depths of 11 to 18m in the fairway. Islets, the largest being Eilean Ban (56°19'N., 6°15'W.), lie on partly drying shoals fronting the E side of the loch.

Eilean na Liathanaich (56°21'N., 6°16'W.), a group of islets and rocks lying N of the W entrance point, is marked by a lighted beacon. Scott Rock (56°20'N., 6°16'W.), with a depth of 5m, lies in the middle of the loch entrance.

3.4 Bunessan (56°19'N., 6°14'W.), a village at the head of a drying SE branch of the loch, has a pier at which local vessels are accommodated.

Anchorage by small vessels can be taken, in depths of 7.3 to 9.1m, mud, about 0.1 mile WSW of Eilean Ban (56°19'N., 6°15'W.). Anchorage is also available in the outer part of the loch, mud, good holding ground.

Loch Scridain (56°21'N., 6°10'W.) is entered N of Ard Tun (56°21'N., 6°14'W.), a promontory forming the E side of Loch na Lathaich. **Garadh na Sroine** (56°22'N., 6°11'W.), at the N entrance of the loch, is bluff and steep-to, and backed by high terraces. Several prominent headlands separate the bays indenting the shores. There is deep water in the main body of the loch which provides shelter and easy access in stormy weather. A beacon stands on Aird of Kinloch (56°23'N., 6°01'W.). Tidal currents are weak in the loch.

Anchorage can be taken, in depths of 9 to 16.5m, in the middle of Bun an Leoib (56°20'N., 6°11'W.), a bay 1.5 miles E of Ard Tun. Vessels should not anchor when a heavy swell sets into the bay with N and NW winds.

Port Mor (56°21'N., 6°06'W.) affords anchorage, in depths of 11 to 13m, about 0.1 mile offshore. Small vessels can anchor, protected from W winds, SE of Sgeir Alltachd (56°22'N., 6°04'W.), in Kilfinichen Bay (56°23'N., 6°04'W.), and inside the entrance of Loch Beg (56°23'N., 6°00'W.), in a depth of 3.7m.

3.5 Loch na Keal (56°27'N., 6°08'W.) is entered between the SE extremity of Ulva (56°28'N., 6°10'W.), and Rubh' a' Ghearrain (56°27'N., 6°08'W.), a steep bluff rising to high land about 1.5 miles SSE.

The coast between Loch Scridain and Loch na Keal is fringed by rocks and reefs, partly awash. Erisgeir (56°25'N., 6°15'W.) is a steep-to islet lying 2 miles off this coast.

Inch Kenneth (56°26'N., 6°10'W.), a reef-fringed island,

lies at the S entrance of the loch. A large white house, which is conspicuous, stands on the E side of the island, 0.5 mile NNE of its S extremity.

Gometra (56°29'N., 6°18'W.) and **Ulva** are adjoining islands lying on the N side of the approach to the loch. A narrow, dry-channel separates the islands.

Anchorage can be taken, in a depth of 9m, in *Bail' a Chlaidh*, a basin at the SW entrance of the channel.

The principal fairway at the loch entrance is about 0.3 mile wide and 20.1m deep between *Geasgill* (56°27'N., 6°10'W.), a group of islets and rocks, and the dangers lying off *Rubh' a' Ghearrain*. *MacQuarrie's Rock*, which dries, lies about 1 mile ENE of *Geasgill*. The fairway leads S of the rock.

Eorsa (56°28'N., 6°05'W.), an island lying in mid-channel within the loch entrance, has rocky shoals extending up to 0.5 mile NW and E from it. Anchorage can be taken, in depths up to 27.4m, mud, about 0.5 mile SE of the E end of *Eorsa*. Small vessels can anchor, in depths of 9 to 11m, about 275m off the NE side of *Eorsa*. Anchorage is also available, in depths up to 14.6m, about 2 miles ENE of *Eorsa*.

Caution.—Heavy squalls are experienced in the loch. Strong W winds raise a swell.

3.6 Loch Tuath (56°31'N., 6°14'W.) is entered between an islet connected to the NW end of *Gometra* and *Rubh' a' Chaoil* (56°32'N., 6°20'W.). Depths decrease from 32.9m in the entrance to 12.8m near the head of the loch. Detached patches, with a least depth of 7.9m, lie 0.5 mile W of the entrance.

Bogha Mor (56°31'N., 6°17'W.), with a depth of 2.7m, and **Sgeir Dubhail** (56°30'N., 6°11'W.), drying 2.6m, are to be avoided.

Soriby Bay (56°29'N., 6°11'W.) provides the only real shelter from all winds and is of easy access. Anchorage can be taken, in a depth of 16.5m, mud, about 0.2 mile off the W side of *Soriby Bay*. The head of the W promontory forming the bay, aligned 300° with the N extremity of *Ulva*, leads to the anchorage.

3.7 The Sound of Ulva (56°29'N., 6°08'W.), separating *Ulva* from *Mull*, connects *Loch na Keal* with *Loch Tuath*. A narrow intricate channel, with a least depth of 0.4m, leads through the NW part of the sound.

Eilean Casach (56°28'N., 6°08'W.) lies on a drying reef at the SE entrance of the sound. A ferry crosses the middle of the sound. Anchorage for small vessels can be taken, in a depth of 12.3m, mud, about 0.2 mile NW of *Eilean Casach*.

The **Treshnish Isles** (56°30'N., 6°25'W.) are a chain of grassy islets, with the S isle lying about 4 miles W of *Gometra*. *Cairn na Burgh More* and *Cairn na Burgh Beg* (56°31'N., 6°23'W.), at the NE end of the chain, are identified by a steep high hill at the S end of *Bac Mor*. The *Treshnish Isles* are a breeding place for seals and sea birds.

The waters between *Lunga* (56°29'N., 6°26'W.), the largest isle, and *Cairn na Burgh Beg* is foul and full of dangers. Local knowledge is essential. A below-water rock exists between *Lunga* and *Sgeirean Mor*, 100m E of *Lunga*; a rock, which covers and uncovers, lies 0.1 mile SW of the below-water rock. The channel between *Cairn na Burgh More* and *Fladda* has a least charted depth of 10.5m.

Staffa (56°26'N., 6°20'W.) is an islet with a very steep coast backed by an uneven tableland. Numerous caves, with remarkable formations, indent the shores of the islet. *Fingal's Cave* is the most notable of the caves and lies at the S end of the island.

Maisgeir (56°28'N., 6°18'W.), an islet fringed by reefs, lies 0.4 mile S of the SW end of *Gometra*. The channel between the islet and island is 1.4m deep in the fairway.

Little Colonsay (56°27'N., 6°15'W.), a reef-fringed island with a shoal extending 1.5 miles SW, is separated from *Garbh Eilean*, the S of the islets off *Ulva*, by a deep-water channel. A depth of 8.2m was reported to lie 0.3 mile NNW of *Sgaigein*, an islet lying close off the NE side of *Little Colonsay*.

3.8 Calgary Bay (56°34'N., 6°20'W.), entered N of *Treshnish Point* (56°33'N., 6°20'W.), has depths of 9.1 to 16.5m in the outer part of the bay. Foul ground extends over 0.3 mile SSW from *Rubha nan Oirean* (56°35'N., 6°19'W.), the N entrance point of the bay. Vessels approaching the bay from N should pass 0.5 mile off this point and the coast N. *Calgary Castle* stands at the head of the bay. Anchorage can be taken in the outer part of the bay during N and E winds and in fine weather.

Caliach Point (56°36'N., 6°19'W.) is the NW end of a promontory extending 1.8 miles N of *Rubha nan Oirean*.

Loch a' Chumhainn (56°37'N., 6°14'W.) is entered between *Rubha an Ard* (56°37'N., 6°16'W.) and *Quinish Point* (56°38'N., 6°14'W.). Most of the loch is encumbered with rocks and foul ground. North and NW winds raise a heavy swell.

Sgeir Mhor (56°38'N., 6°15'W.), which dries, lies in the middle of the loch entrance. *Carn Mor* (56°34'N., 6°14'W.), a conspicuous mountain peak, aligned 180° with *Croig House*, a white building standing on the SW shore of the loch, leads into the loch in a least depth of 7m. Vessels should keep slightly W of this alignment. Anchorage can be taken, in depths of 9 to 11m, on the entrance range alignment about 1 mile SSW of *Quinish Point*. Small vessels can anchor, in a depth of 3.7m, NE of *Croig House*.

Ardmore Bay (56°39'N., 6°11'W.), a broad bight fringed by a narrow reef along its coast, is entered between *Sorne Point* (56°39'N., 6°11'W.) and *Ardmore Point* (56°40'N., 6°08'W.). *Glengorm Castle*, 0.5 mile SE of *Sorne Point*, is conspicuous.

Ardmore Point (56°39'N., 6°08'W.), rocky, low and steep-to, is marked by a light. The bay affords temporary anchorage, sheltered from S winds, in depths of 9.1 to 14.6m.

3.9 The Sound of Mull (56°36'N., 6°00'W.), separating the NE side of *Mull* from the SW side of the *Morven Peninsula*, affords a sheltered passage for vessels plying between S ports on the W coast of Scotland and *Pentland Firth*. Tidal information is given on charts of the area. Tidal currents setting in the direction of the sound are weak, but are stronger in the approaches where they are influenced by the influx of loch currents. Although fresh breezes may blow off the mountains on the weather side, within the sound to leeward, there are only light breezes. Pilots for the Sound of Mull and adjacent waters are obtained at *Tobermory* (56°37'N., 6°04'W.).

Duart Point (56°27'N., 5°39'W.), at the SE approach to the sound, is the rocky steep-to N extremity of a promontory located 0.8 mile NNW of *Black's Memorial Tower*. *Duart Castle*,



Duart Castle

standing close inshore of the point, is conspicuous.

Duart Bay (56°27'N., 5°40'W.), foul in its inner part, indents the coast between the point and Rubh' a' Ghuirmein (56°28'N., 5°41'W.). Boat piers extend off each side of the bay entrance. A radio tower, with a white building close to it, stands 0.5 mile SSE of Rubha na Sroine. A radio mast stands 1.2 miles SW of the same point. Anchorage can be taken temporarily, in a depth of 23.8m, about 0.2 mile E of the W boat pier.

Craignure Bay (56°28'N., 5°42'W.) (World Port Index No. 33170) affords shelter from W winds in depths of 9.1 to 23.8m. A church, inn, and stone pier, are conspicuous near the head of the bay. The pier, with a depth alongside of 3m at HW, can accommodate small vessels. A pier, 145m long, extends offshore. The pier provides a general cargo berth on its S side having a length of 26m and an alongside depth of 4m. The ro-ro berth on the N side of the pier has a length of 37m and an alongside depth of 5.6m.

Range lights, in line bearing 244°, and shown from masts at the head and root of the pier, lead alongside the N face of the pier. Two tall conspicuous oil tanks stand 150m NNW of the root of the pier. Local vessels plying between Oban and Tobermory make Craignure, at the head of the bay, a port of call.

The port can be contacted, as follows:

1. VHF: VHF channel 31
2. Telephone: 44-1680-812343
3. Facsimile: 44-1680-812433
4. E-mail: craignure@calmac.co.uk

Anchorage can be taken, in a depth of 9m, sand, close E of Craignure pier head. Larger vessels can anchor, in a depth of 23.8m, about 0.3 mile NW of Rubha na Sroine.

3.10 Rubha an Ridire (56°30'N., 5°41'W.) and **Scallastle Point** (56°29'N., 5°43'W.) form the entrance points to the Sound of Mull. Eilean Rubha an Ridire, encircled by foul

ground, lies 0.5 mile NW of the steep-to point. Foul ground, lying about 1 mile W of the islet, is marked by a buoy. Reefs extend 0.5 mile N and NW of Scallastle Point.

Caution.—An area of 50m radius, centered on a position 60m N of the W end of Eilean Rubha an Ridire, contains a protected and historic wreck.

Glas Eileanan (56°30'N., 5°43'W.), two islets lying on foul ground in the middle of the entrance, is marked by a light shown from a tower on the E islet. The preferred channel entering the sound lies NE of the islets. The passage SW of the islets should not be used without local knowledge due to the shoal patches and Yule Rocks, the latter marked by a buoy, lying as far as 0.8 mile WNW of the islets. Anchorage can be temporarily taken, in depths of 21.9 to 25.6m, on a bank S of Glas Eileanan.

Ardtornish Point (56°31'N., 5°45'W.), wooded and steep-to, is marked by a castle in ruins. The coast in the vicinity is cliffy, backed by mountains and a conspicuous plateau. A light is shown from a tower on the point. Inninmore Bay (56°31'N., 5°43'W.) and Ardtornish Bay (56°31'N., 5°45'W.), the former, a broad open bay, the latter, with shoals near its E entrance point, afford shelter with offshore winds.

Anchorage can be taken in Inninmore Bay, in a depth of 16.5m, and in Ardtornish Bay, in a depth of 12.8m. Anchorage can also be taken in Scallastle Bay (56°29'N., 5°45'W.), in a depth of 16.5m, good holding ground, about 1 mile NW of Scallastle Point.

Rubha Leth Thorcaill (56°31'N., 5°48'W.), rising to a mound close inshore, is backed by a conspicuous high hill. An islet near the point is marked by a white post. The shore SE from the point is fronted by a rocky shoal for 0.2 mile offshore.

Avon Rock (56°31'N., 5°47'W.), with a depth of 2.2m, is marked close NE by a buoy.

3.11 Lochaline (Loch Aline) (56°33'N., 5°46'W.) (World Port Index No. 33160) is entered between Bolorkle Point (56°32'N., 5°46'W.) and a point 0.3 mile W which is marked by a conspicuous monument in the shape of a cross; Bogha Lurcain, drying rocks, lies 100m from Bolorkle Point. Lochaline has a least depth of 1.7m over the entrance bar. The entrance channel is marked by lighted buoys. Range lights, on the W shore within the entrance, in line bearing 356°, lead over the bar in a depth of 3.7m. There are depths of 7.3 to 21.9m in the fairway of the loch, which is clear of dangers as far as its drying head.

A T-head jetty, 70m long, with a depth of 9m alongside, projects from the W shore of the loch, 0.4 mile NNE of the cross and serves the silica sand mine situated N of the village of Lochaline. Lochaline Pier, with depths of 6.4 to 7.3m alongside the head, lies 0.5 mile W of Bolorkle Point. Large coastal vessels use the loch and caution is necessary to avoid meeting in the narrow fairway.

The ruins of a castle and a prominent clock tower are visible at the head of the loch.

Anchorage can be taken, in depths of 14 to 18m, off the E shore of the loch. Small vessels can anchor as suitable off the W shore.

The coast between Lochaline and the **Fiunary Rocks** (56°33'N., 5°53'W.), marked by a lighted buoy close SW, is foul as far as 0.2 mile offshore. Temporary anchorage can be taken 0.3 mile offshore, in a depth of 23.8m, on the bank between Rubha Dearg (56°32'N., 5°48'W.) and Eilean na Beitheiche (56°33'N., 5°52'W.).

3.12 Fishnish Bay (56°31'N., 5°50'W.) is deep and clear of dangers. Anchorage can be taken, in a depth of 29.3m, in the middle of the bay. Small vessels can anchor, in depths of 12.8 to 14.6m, about 0.4 mile from the head of the bay.

Rubha Mor (56°31'N., 5°56'W.) forms the W point of an open bight extending to the mouth of the Forsa River (56°31'N., 5°54'W.). The intervening coast is fronted by foul ground for 0.3 mile. Farm buildings are prominent at the river mouth and on Rubha Mor. There is a short pier at the point reported to be in ruins. Another pier at the point, consisting of wooden piles in ruins, is prominent.

Eileanan Glasa (56°32'N., 5°55'W.), a group of grassy rocks, steep-to NE, lies in the middle of the sound. A light is shown from a tower on Dearg Sgeir, the N rock of the group. The area between the rocks and Rubha Mor is foul and has a drying rock. Sheltered anchorage can be taken, in a least depth of 27.4m, good holding ground, mud, N of a line joining Eileanan Glasa and the ruins of Aros Castle. Small vessels can anchor, in a depth of 11m, off the castle.

3.13 Salen Bay (56°31'N., 5°57'W.) is entered between Rubha Mor and a point about 0.7 mile NW. The ruins of Aros Castle and several large buildings are conspicuous on the latter point. The bay is shallow and generally foul from the entrance to its drying head. North gales raise a heavy swell in the bay. The village of Salen, at the head of the bay, is connected by road with the ruined pier at Rubha Mor. A white house with a flagstaff stands on Rubha Aird Ealasaid (56°32'N., 5°58'W.), a salient point. Caisteal nan Con (56°34'N., 5°56'W.) is a prominent ruin of a castle on the NE shore of the sound.

Rubh' an t-Sean-Chaisteil (56°34'N., 5°59'W.) is a conspicuous steep-to promontory fronted by low cliffs. Farm buildings and a castle, in ruins, stand S of the promontory.

Calve Island (56°37'N., 6°02'W.), 2.5 miles NW of the promontory, fronts Tobermory Harbor. The coast between the promontory and the island is steep-to, and backed by steep wooded cliffs. A local magnetic disturbance exists between Caisteal nan Con and Calve Island. The fairway through the Sound of Mull between Caisteal nan Con and Calve Island is free of dangers.

Rubha nan Gall (56°38'N., 6°04'W.) is a point with a steep-to flat rock lying close offshore. A light is shown from a tower on the rock.

New Rocks (56°39'N., 6°03'W.), with a least depth of 0.1m, are marked by a lighted buoy of their S side. Partly-drying rocks and shoals, detached from New Rocks, lie N and E of the rocks. Kelp shows on many of the rocks at LW.

Rubha na Leip (56°38'N., 6°04'W.), aligned 168° with Aros Waterfall, leads W of New Rocks and is the preferred passage to the Sound of Mull.

3.14 Tobermory (56°37'N., 6°04'W.) (World Port Index No. 33140), the principal town on Mull, has a harbor formed by a bay lying W of Calve Island. It was reported that the port is no longer open to commercial traffic, although facilities are maintained for seaborne vehicular traffic.

The principal entrance to the harbor lies between the N extremity of Calve Island and Rubha na Leip, 0.4 mile NW; a sector light leads through the channel. The SE entrance of the harbor is a drying passage with a least width of 100m. Small vessels can transit the passage on a flood tide, especially when SW gales with violent squalls prevent entrance through the principal channel. There is a least depth of 2m in the channel at HW. The principal entrance is deep and leads into a harbor where there are depths exceeding 21.9m.

Mishnish Pier, the ferry terminal, is 42m long, with a depth of 2.4m at its outer end.

Landmarks include the spires and towers of churches and Aros Waterfall, at the S end of town. There are two piers at the W head of the harbor.

Anchorage can be taken, in depths of 25 to 30m, about 0.3 mile ESE of the pier. Smaller vessels anchor near the pier. Anchorage in the fairway is prohibited due to seaplane operations.

Anchorage is also available, in a depth of 36m, thick mud, 0.3 mile offshore in **Bloody Bay** (56°39'N., 6°06'W.), an open bight backed by high, steep slopes. The bay is utilized as a quarantine anchorage for Tobermory Harbor. The preferred berth is 0.6 mile NW of Rubha nan Gall, with the light on that point bearing 130°.

3.15 Loch Sunart (56°42'N., 5°56'W.) is approached from W between Ardmore Point (56°40'N., 6°08'W.) and the S coast of Ardnamurchan, the mainland to the N.

Point of Ardnamurchan (56°44'N., 6°14'W.), the W end of a rugged mountainous promontory, forms the N entrance point in the approach to Loch Sunart and the Sound of Mull. A light is shown from a tower encircled by a high wall.

Sron Bheag (56°41'N., 6°09'W.) is a steep rocky point backed by rising heights. A bare, rocky islet lies close offshore, about 2.2 miles NW of Sron Bheag. Fishing Bank, with depths



Ardnamurchan Light

of 18 to 38m, lies 2 miles SW of the point. Tide rips and heavy confused seas break over this bank in stormy weather.

Kilchoan Bay (56°41'N., 6°07'W.), an open bight close E of Sron Bheag, is shallow and encumbered with reefs and shoals.

Mingary Bay (56°42'N., 6°04'W.), close E of Kilchoan Bay, has a castle in ruins near the shore at the NW head of the bay. When approaching the bay from the S, it resembles a large sandy rectangular tower with sooty chimneys. A small promontory juts into the bay SE of the castle. Mingary Rock, about 0.2 mile S of the promontory, has a depth of 6.9m. There are sunken rocks in the vicinity of a small pier at the W side of the bay. Marv Rock lies 0.2 mile E of the pier.

Loch Sunart is entered between **Maclean's Nose** (56°41'N., 6°02'W.) and Auliston Point, about 2 miles SSE. The former is a steep, rocky point backed by steep slopes while the latter point is fringed by foul ground. Red Rocks, Big Stirk, and Little Stirk, above and below-water rocks, lie N of the entrance fairway to Loch Sunart. A deep channel, at least 0.2 mile wide, lies between these rocks and shoals and the coast S of Auliston Point.

3.16 Macparlin Rock (56°40'N., 6°03'W.), with a depth of 6.5m, lies almost 1 mile SW of Maclean's Nose. A conspicuous dwelling stands about 2.5 miles E of Maclean's Nose.

Hills and mountains enclose Loch Sunart. Depths in the loch are ample for coastal vessels as far as **Laudale Narrows** (56°41'N., 5°40'W.), where there is a least depth of 4.9m in the fairway and a least navigable width of 100m. A rocky bar, with a least depth of 1.2m, extends across the loch about 1.5 miles NW of the narrows. Steep-to drying rocks and an above-water rock lie off Rubha Aird Shlignich (56°40'N., 5°58'W.).

Oronsay (56°40'N., 5°55'W.) lies close N of Torr nan Con (56°39'N., 5°57'W.), a promontory. Above and below-water rocks lie off the W side of Oronsay.

The passage between Oronsay and Torr nan Con has a least depth of 9.2m. A drying reef connects the E end of Oronsay with the S shore, so the passage is entered from the W. Anchorage can be taken in Loch na Droma Buidhe (56°39'N., 5°56'W.), in a depth of 18m, mud, almost 0.3 mile ESE of Torr nan Con.

3.17 Glenmore Bay (56°41'N., 5°56'W.) is fringed by foul

ground to its drying head. Sheltered anchorage can be taken, in a depth of 15m, in the bay entrance.

Risga (56°40'N., 5°54'W.), an islet, and two rocks, with a least depth of 0.3m, lie S and SE of Risga and close to the fairway of the loch.

Carna (56°40'N., 5°53'W.), an island lying across the center of the loch, has a navigable channel about 275m wide lying N of the island.

Loch Teacuis (56°39'N., 5°53'W.), which extends 2.7 miles SE from the S end of Carna, has narrow, foul entrance channels leading into a shallow loch. A rock, awash, lies about 1.5 miles E of the N end of Carna.

Anchorage, sheltered from S winds, can be taken by large vessels, in a depth of 27m, mud, about 0.3 mile E of Carna. Smaller vessels can anchor, in a depth of 15m, mud, about 300m off the E end of Oronsay. Large vessels can also anchor, in a depth of 37m, good holding ground, 0.4 mile E of Rubha Aird Shlignich.

3.18 Salen Bay (56°43'N., 5°46'W.) indents the N steep-to shore of the loch. A rock, with a depth of 0.6m, lies 0.3 mile NW of the E entrance point of the bay. The navigable channel, about 100m wide, leads to a pier in disrepair and a landing near the W entrance point. Vessels can berth alongside the pier at HW.

Anchorage can be taken, in depths of 7.3 to 11m, good holding ground, about 150m off the E shore of the bay. A small mooring buoy lies in the anchorage.

Eilean Garbh (56°42'N., 5°41'W.) is the E islet of two islets lying off the N shore of the loch which constrict the channel S to about 0.1 mile. Anchorage, sheltered, can be taken, in a depth of 13m, mud and clay, about 0.2 mile E of the S end of Eilean Garbh.

The **Strontian River** (56°42'N., 5°34'W.), with the village of Strontian at its mouth, affords anchorage in a depth of 5.5m, mud, off a small pier situated close E of the river mouth and also, in a depth of 12.8m, in a bight about 1 mile SW.

Point of Ardnamurchan to the Sound of Sleat

3.19 The **Point of Ardnamurchan** (56°44'N., 6°14'W.) is described in paragraph 3.15 with the approach to Loch Sunart.

Sanna Point (56°45'N., 6°11'W.), formed by several irregular summits, is located at the N end of Sanna Bay, a small, foul bight.

White Sand Bay (56°45'N., 6°10'W.), conspicuous from the N, is entered WSW of a cliffy point covered by bright orange lichens. The cliffs stop abruptly at Faskadale Bay (56°46'N., 6°06'W.), where a fissure splits the cliffs from top to bottom. The entire coast E of Sanna Point is indented by several, small open bays backed inland by high mountains. There are very few off-lying dangers.

Bo Faskadale (56°48'N., 6°06'W.), two detached heads, the N head awash, the S head with a least depth of 0.7m, is marked on its NW side by a lighted buoy.

Elizabeth Rock (56°47'N., 6°06'W.), with a depth of 0.7m, lies 0.5 mile S of the S head.

Rubha Aird Druinnich (56°47'N., 5°58'W.) is a rugged promontory at the entrance to Loch Ceann Traigh (56°46'N., 5°54'W.), a bay open to onshore winds.



Mallaig Harbor

Eilean Shona (56°48'N., 5°51'W.), a high rocky island, is fronted by shoals and is partly awash. North Channel and South Channel lead from seaward and around the island through foul and constricted waters to Loch Moidart, (56°47'N., 5°53'W.), an inlet that generally dries, except at HW.

The **Sound of Arisaig** (56°51'N., 5°52'W.) is entered between Rubha Ghead a' Leighe (56°50'N., 5°51'W.), a point fringed by drying rocks, and the S side of Arisaig, a promontory. The N side of the sound is fronted by rocks, reefs, and islets as far as 1 mile offshore. The S side of the sound is steep-to and free of fronting dangers. A rough sea buffets the S shore when the wind is onshore.

3.20 Ardnish (56°52'N., 5°45'W.), a hilly peninsula at the E end of the sound, is connected to the mainland by an isthmus. The peninsula separates the sound into two arms. Loch nan Uamh (56°53'N., 5°46'W.), the N arm, is deep, but affords little shelter. Loch Ailort (56°52'N., 5°42'W.), the S arm, affords shelter, in depths of up to 9.1m, protected by islets extending across the outer entrance of the loch. The S side of the Sound of Arisaig is relatively steep-to and free of dangers. Numerous islets and reefs encumber the N side as far as 1 mile offshore. There are several coves indenting both the N and S shores of the sound wherein shelter can be obtained, but local knowledge is necessary. Violent wind squalls blow down from the mountains rising above the S side of the loch during E and SE gales. Tidal currents are fairly strong in Loch Ailort and, during W gales, the ebb current causes seas to break across the entrance. Sheltered anchorage can be taken, in depths of 5.5 to 7.3m, good holding ground of clay and sand, about 0.1 mile E of Eilean nan Gobhar (56°51'N., 5°47'W.).

Loch nan Ceall (56°54'N., 5°54'W.) is entered between Eilean

lean Ighe (56°55'N., 5°54'W.) and Rubh Arisaig (56°53'N., 5°55'W.), a point at the W end of a rugged peninsula which forms the S side of the loch. A chain of above and below-water rocks extends SW from the point. Numerous islets, rocks, and reefs lie on a drying sand bank extending from Eilean Ighe almost to Rubh Arisaig. The loch is approached through S and N channels. The former, entered N of Rubh Arisaig, has a least depth of about 1.5m and is the preferred channel; it is marked by perches. Tidal currents are strong when the sand bank is uncovered. Anchorage can be taken, in depths of 7.3 to 9.1m, close ENE of Cave Rock (56°54'N., 5°54'W.), which dries.

Rubha da Chuain (56°57'N., 5°51'W.) is a coastal point backed by sand hills. The coast S of this point consists of small sandy bays and rocky points fronted by foul ground as far as 1 mile offshore. A dangerous wreck lies 1.8 miles NW of Rubha da Chuain. The coast N of the point is both rocky and sandy, backed by steep hills in places.

Rubha na h-Acairseid (57°00'N., 5°50'W.) is a point at the W entrance of Mallaig Harbor. A rocky islet lies 0.2 mile SW of the point, which is reef-fringed. A light is shown from the reef.

3.21 Mallaig Harbor (57°00'N., 5°49'W.) (World Port Index No. 33090), a cove adjacent to Rubha na h-Acairseid, is a terminus for fishing vessels and affords shelter to small vessels during W gales. The town of Mallaig, is situated on low land W of the cove and on high hills SE, and appears prominently from seaward. Sgeir Dhearg, a partly drying rocky ridge, lies 0.2 mile NNE of the entrance point and partially protects the harbor.

Depths—Limitations.—Channels on each side of Sgeir Dhearg lead into the harbor. The E, or main channel, has a least depth of 5.4m; the SW channel has less than 3.7m. A breakwa-

ter extends 120m ENE from Steamer Pier on the W side of the harbor. A light is shown from the head of the breakwater and indicates the fairway leading through the main channel E of Sgeir Dhearg. Three fixed red lights, disposed vertically, shown from the light structure indicate that vessels may only proceed as permitted by the harbormaster.

On the S side of the breakwater there is a berthing face, 100m long, with a depth of 5.3m alongside. Steamer Pier, which connects the breakwater to the shore, has a ro-ro berth at its outer end and a maximum depth of 4.5m alongside. Vessels of up to 90m in length and 6m draft can be handled in the harbor. Fishing wharves in the harbor have lesser depths alongside.

A new outer harbor, including a 300m breakwater and new quays, has been built. This new outer harbor has a dredged depth of 4m.

Pilotage.—Pilotage is available on request to the harbor office, by VHF channels 9 and 16.

Contact Information.—Mallaig Harbor can be contacted, as follows:

1. Call sign: Mallaig Harbor Radio
1. VHF: VHF channels 9 and 16
2. Telephone: 44-1687-462154
44-1687-462411 (after office hours)
3. Facsimile: 44-1687-462172
4. E-mail: info@mallaigharbourauthority.com

The Sound of Sleat

3.22 The Sound of Sleat (57°03'N., 5°51'W.) separates the SE coast of the Isle of Skye from the mainland of Scotland. The SW entrance of the sound lies between Point of Sleat and Mallaig Harbor. From the entrance, the sound leads NE for about 15 miles to Kyle Rhea, a constricted passage. The shores of the sound are generally hilly and steep-to, with occasional headlands and salient points.

Tides—Currents.—Tidal currents in the sound set NE and SW at 1 knot, increasing to 1.5 knots where the sound is constricted, and 2 knots off salient features. The NE set in Kyle Rhea does not increase in strength until the 30m curve has been crossed. The S current in Kyle Rhea is quite strong where constricted in scope, with eddies running along the shores. Heavy overfalls occur during strong S and SW winds with a S current off the narrows.

Depths—Limitations.—Depths exceed 36m in the fairway of the sound as far as Kyle Rhea, where depths abruptly shoal to less than 18m. The sound is free of dangers in the fairway as far as the approach to Kyle Rhea, where shoals of less than 9m front the shores.

Caution.—A voluntary reporting system for northbound vessels approaching Kyle Rhea and the Kyle of Lochalsh and intending to pass under the Skye Bridge is bounded by a line joining Mallaig Harbor and Point of Sleat. See paragraph 3.36 for further information.

3.23 Point of Sleat (57°01'N., 6°01'W.), the S extremity of Skye, has outcropping on the W side and rising terrain NE. A light is shown from a tower on the point. Above and below-water rocks lie as far as 0.2 mile W of the point.

Camas Daraich (57°01'N., 6°00'W.) is a cove close E of the

point. Anchorage, sheltered from N winds, can be taken, in a depth of 15m, off the entrance to Camas Daraich with Ard Thurinish (57°02'N., 5°58'W.), a prominent bold cliffy headland bearing 071°.

Rubha Dubh (57°04'N., 5°54'W.), a salient point, is fronted by islets on drying reefs lying as far as 0.5 mile offshore. Ardvasar, a promontory projecting offshore about 0.3 mile from Rubha Dubh, provides shelter from S winds to **Armada Bay** (57°04'N., 5°53'W.). A conspicuous castellated castle stands on high ground about 0.5 mile N of the promontory. A pier extends ENE from the N extremity of the promontory and a light is shown from a building on the pier head. There is a ro-ro facility on the N side of the pier.

It was reported that a conspicuous radio mast stands about 2.5 miles NNE of the pier. Anchorage can be taken, in a depth of 18m, in Armada Bay, subject at times to a heavy swell. Small vessels can anchor off the pier, in a depth of 5m.

3.24 Loch Nevis (57°00'N., 5°42'W.), at the SE entrance of the Sound of Sleat, is approached between Rubha Ban (57°01'N., 5°48'W.) and An Fhaochag (57°04'N., 5°48'W.), a steep-to salient point. The loch is entered between Rubha Raonuill (57°02'N., 5°44'W.) and the shore 0.7 mile S. The coast E of Rubha Ban is steep-to and regular in outline. A shoal ridge, with a least depth of 8.5m, extends across the approach to the loch. A dangerous wreck lies on this shoal, 0.2 miles N of Sron Raineach. It has a least swept depth of 7m.

Sandaig Bay (57°03'N., 5°46'W.), an open bight on the N side of the approach to Loch Nevis, has a drying head fronted by above and below-water rocks and reefs extending S along the E side of the bay as far as Rubha Raonuill. A chain of islets lies S of the W entrance point of the bay.

Rubha Raonuill, the peninsula forming the N entrance of Loch Nevis, is formed of steep hills. A prominent point projects from the middle of the peninsula, and a stone monument, conspicuous from the W, stands on a small promontory jutting from its SE corner. Foul ground fronts the peninsula, with Smyth Rock (57°01'N., 5°44'W.) the outermost danger, lying at the N side of the fairway leading to Loch Nevis.

Inverie Bay (57°02'N., 5°42'W.), an open bight inside the entrance to the loch, has steep-to shores with conspicuous buildings visible at intervals. The village of Inverie and a church nearby are prominent at the NE side of the bay. There is a small T-head jetty at the village.

The bay is deep and free of dangers except for **Sgeirean Glasa** (57°02'N., 5°43'W.), rocks marked by a beacon. Anchorage can be taken in suitable depths in the E part of the bay. Sheltered anchorage can be taken, in a depth of 16.5m, N of Sgeirean Glasa.

Loch Nevis turns SE for about 4 miles from its entrance to the narrows where the fairway has a depth of 4.1m. A pilot is necessary to transit the narrows. There are no harbors or shelter to the head of the loch which is bound by steep-to shores. Winds in the loch are variable. Strong winds cause violent squalls, with SE and SW winds the most dangerous. Currents are weak except in the narrows. Anchorage can be taken in Taret Bay (56°58'N., 5°38'W.), near the narrows, in depths of 7 to 11m, mud.

3.25 The coast from **An Fhaochag** (57°04'N., 5°48'W.)



Ornsay Light

has few indentations and is fringed by reefs. Shelter is afforded to small craft SE of Airor Island (57°05'N., 5°46'W.).

Kilbeg Point (57°05'N., 5°52'W.) is a prominent point located opposite Airor Island.

Knock Bay (57°06'N., 5°51'W.), on the E coast of the Isle of Skye, affords anchorage, in depths of up to 22m, open to S and SW winds, in the outer part of the bay.

Rubh Ard Slisneach (57°07'N., 5°43'W.) marks the S approach to Loch Hourn.

Camas Croise (57°08'N., 5°48'W.), a shallow cove with a drying head, affords anchorage to small vessels on the W side of the Sound of Sleat, but SW winds make this bay unsafe.

Ornsay (57°09'N., 5°47'W.) (World Port Index No. 33060), reef-fringed and connected to the shore by a drying reef, lies SE and E of Isleornsay Harbor.

Eilean Sionnach (57°09'N., 5°47'W.), marked by a lighted tower, lies close SE of Ornsay Island. Another light marks the outer edge of the reef NE of the island.

3.26 Isleornsay Harbor (57°09'N., 5°48'W.), a shallow harbor, is used by small vessels as a harbor of refuge during SW gales. There is a small pier and village at the head of the harbor. Moorings are situated 0.7 mile N of the pier. Sheltered anchorage can be taken, in a depth of 14m, about 0.4 mile offshore, with the light off the NE side of Ornsay bearing 155°, distant 0.4 mile.

Loch na Dal (57°00'N., 5°48'W.), an inlet indenting the coast NNW of Ornsay, is shallow with a drying head. Anchorage can be taken, in a depth of 24m, mud, off the loch entrance.



Courtesy of Scottish Radianc

Ornsay Light

A prominent white building, partially surrounded by trees, stands on the NE side of the head of the loch.

Loch Hourn (57°08'N., 5°39'W.) is approached between Rubh Ard Slisneach (57°07'N., 5°43'W.) and the Sandaig Islands, about 3 miles N. The S shore leading to the entrance at Rubha an Daraich (57°08'N., 5°39'W.), a small point S of a rounded headland, is steep-to and has no off-lying dangers. The NE shore of the approach is fronted by rocky shoals, detached patches, and drying reefs.

Sgeir Ulibhe (57°08'N., 5°41'W.), a reef, and a rock, awash, lying 0.1 mile W of the reef, are dangers near the entrance fairway. From the entrance, the loch leads E and SE for 5 miles to the first of four narrows. Loch Hourn Beg is that part of the loch above the first narrows. Vessels can transit the loch to the first narrows; local vessels beyond. Depths of 12.8 to 21.9m exist in and between the first and second narrows, decreasing to 6.9m in the latter. Loch Hourn has the greatest amount of rainfall in the highlands. Precipitous mountains rising from the shores completely enclose the loch. Violent wind squalls blow off the mountains during inclement weather.

3.27 Camas Ban (57°08'N., 5°34'W.), a cove on the N shore of the loch, affords shelter off the village at the head of the cove. **Corr Eileanan** (57°06'N., 5°32'W.) consists of three islets extending into the loch near the first narrows. The fairway leads S of the S islet. Anchorage can be taken, in a depth of 29m, in Camas Ban, S of the village at the head of the cove. Large vessels can anchor, in a depth of 29m, mud, 0.8 mile SE of the islets lying about 1 mile NW of Camas Ban.

Poll a' Mhuineil (57°06'N., 5°34'W.), a cove on the S side of the loch, is fronted by an islet lying on foul ground. Anchorage can be taken, in a depth of 55m, mud and sand, about 0.5 mile E of Poll a' Mhuineil. Small vessels anchor, in depths of 7 to 9m, close inshore on the W side of the bay.

Caution.—Vessels traversing the first narrows should do so at HW or LW to avoid the strength of tidal currents, which attain a velocity of 3 knots.

In inclement weather, especially with strong winds from between S and W, violent squalls descend from the high land from unpredictable directions.

3.28 The Sandaig Islands (57°10'N., 5°42'W.), a group of islands lying close offshore, are connected to the shore by a drying reef and foul ground. A light is shown from a tower on the largest island.

Sandaig Bay (57°10'N., 5°41'W.) has depths of 5.5 to 12.8m over sand.

Dunan Ruadh (57°12'N., 5°40'W.) is a cliffland on the W side of the sound about 4.5 miles NE of Loch na Dal. Anchorage can be taken, in a depth of 20m, good holding ground, mud, about 0.5 mile NNE of the headland, sheltered from SW winds and clear of tidal currents. Tide rips occur in the vicinity of the shoals extending N of the anchorage and as far as Kyle Rhea. Violent NW squalls arise over the Kyle Rhea River (57°13'N., 5°40'W.), which is fronted by drying flats. A conspicuous ferry house stands 0.3 mile N of the river mouth.

The **Eilanreach River** (57°12'N., 5°38'W.) is the S of three rivers emptying into the sound between the Sandaig Islands and Kyle Rhea. All the rivers are fronted by drying sand and gravel flats. The intervening coast is steep-to and rocky.

Glenelg Bay (57°13'N., 5°38'W.) has variable depths decreasing to drying flats off the mouth of the Glenmore River, at the head of the bay. A church and monument, standing S of the river mouth, and a high barracks N, are all conspicuous. Anchorage can be taken, in a depth of 27m, in the bay, with the pier bearing 139° and the church bearing 094°, distant 0.2 mile.

3.29 Bernera Bay (57°13'N., 5°39'W.), adjoining Glenelg

Bay, affords anchorage, in a depth of 18m, sand and shells, about 0.3 mile offshore. The anchorage is not affected by currents, but is exposed to SW winds.

Directions.—During the day, steer in mid-channel to enter the Sound of Sleat. At night, enter the sound from SW by keeping the light on Ardnamurchan Point bearing no more than 217°, astern, until clear of the dangers. Then steer 038° toward Sandaig Islands Light until abeam of Eilean Sionnach Light. Change course to 048° and bring the latter light on a stern bearing of 228°. This course leads into Glenelg Bay.

Kyle Rhea (57°14'N., 5°40'W.), a narrow strait, separates the NE extremity of Skye from the mainland. It also connects the N end of the Sound of Sleat with Loch Alsh. The terrain on both sides of the strait rises steeply except where intersected by various streams. The E shore consists mainly of low cliffs. A light is shown from Kyle Rhea Beacon. Depths of 12.8 to 16.5m exist in the strait. Dangers are few, but include an 8.7m patch in the S entrance of the strait and **Research Rock** (57°15'N., 5°39'W.), with a least depth of 5.8m. The fairway in the vicinity of the rock has a width of 0.1 mile, as does the S entrance of the narrows. The 10m curve contains most fringing shoals extending along both shores of the strait.

An overhead power cable, with a vertical clearance of 60m, spans the narrows in the vicinity of Research Rock, about 0.5 mile NE of Kyle Rhea Light.

The currents set N on the flood tide and S on the ebb tide. Slack water is of short duration.

Rubha na Caillich (57°15'N., 5°39'W.), the W point at the N entrance to Kyle Rhea, is low and grassy. A light is shown from Sgeir na Caillich, a detached reef lying 300m N of the point. Pilots can be obtained from cottages at the S entrance of Kyle Rhea. It is not advisable to transit the strait at night without a pilot aboard.

Directions.—Northbound vessels enter Kyle Rhea with Kyle Rhea Light bearing 343°. When the E ferry house bears 170°, change course N in mid-channel. When clear of Research Rock, bring Kyle Rhea Light astern, bearing 222°, and steer in mid-channel out of the N entrance of the strait.

Loch Alsh—Loch Duich—Loch Long

3.30 Loch Alsh (57°16'N., 5°38'W.) separates the N side of the E end of the Isle of Skye from the mainland. The W end of the loch is entered through Kyle Akin, a narrow passage about 2.5 miles W of Kyle Rhea. Loch Alsh in its W part, is free of dangers. Loch Long and Loch Duich, leading off the E part of Loch Alsh, have little commercial importance.

Ardintoul Point (57°16'N., 5°36'W.) is a low flat point backed by cultivated terrain. Two tanks and farm buildings mark the point. The coast between Kyle Rhea and the point has a gravel beach backed by low land rising inland to steep mountain ridges.

Ru Aird a Mhill (57°17'N., 5°37'W.) is a steep and grassy point on the N side of Loch Alsh.

Ru Sgarabhaig (57°16'N., 5°35'W.) is a point at the S extremity of an unmarked promontory located opposite Ardintoul Point. Anchorage can be taken, in depths up to 14.6m, in the middle of Ardintoul Bay. Small vessels can anchor off the W shore of the bay, in a depth of 5m.

Ardelve Point (57°17'N., 5°31'W.) and **Totaig** (57°16'N.,

5°31'W.) are the N and S entrance points to Loch Long and Loch Duich. A stone hotel stands N of Ardelve Point.

3.31 Glas Eilean (57°16'N., 5°35'W.), a flat islet encircled by drying reefs and shoals, lies inside the entrance of Loch Alsh. A buoy marks a rock lying 0.2 mile NW of Glas Eilean. The preferred navigable channel leads close N of the rock and ENE through Loch Alsh. Ais Sgeir (57°16'N., 5°33'W.), a bare black rock aligned 074° with the stone hotel near Ardelve Point, leads through the channel. Eilean Tioram, several islets encircled by a drying reef, is connected N to Ardelve Point by a drying spit.

Loch Duich (57°16'N., 5°31'W.), entered between Eilean Tioram and Totaig, is deep and clear to its drying head. The shores are steep and partly wooded. Several mountain peaks are conspicuous. Vessels seldom transit this loch. Anchorage can be taken, in depths up to 22m, off the drying flats at the head of the bay.

Loch Long (57°17'N., 5°31'W.) is constricted throughout. The entrance is encumbered by a bar over which there is a depth is 2.1m. A bridge spans the loch at its entrance.

Rubha Buidhe (57°16'N., 5°40'W.), a point NW of Rubha na Caillich, affords anchorage, in depths up to 15m, about 0.3 mile NE of Rubha Buidhe and, in a depth of 6.4m, about 0.2 mile E of the same point. Anchorage, sheltered from S and SW gales, can be taken, in depths up to 7.3m, sand and mud, about 0.2 mile NNW of Sgeir na Caillich.

3.32 Balmacara Bay (57°17'N., 5°39'W.), an open bight with a drying head, is fringed by drying reefs and fronted by shoals of less than 9m depth. Prominent hotels stand on the E and W shores of the bay. Anchorage can be taken, in depths up to 22m, sand, about 0.2 mile SE of a pier at the SW side of the bay. North squalls may cause vessels to drag anchor. Donald Murchison's Monument (57°17'N., 5°40'W.) is a conspicuous white granite monument standing on Doire na h-Earba, a small headland.

A detached 8.2m shoal lies 0.3 mile S of the headland.

Bo Sron an Tairbh (57°16'N., 5°41'W.) is a detached, rocky shoal, with a least depth of 6.6m, lying 300m N of Sron an Tairbh, a small point. A sunken wreck lies about 0.3 mile NW of the point.

Loch na Beiste (57°16'N., 5°43'W.), 2.2 miles W of Rubha Buidhe, has depths of 12 to 31m. Several mooring buoys lie in the middle of the loch, 0.5 mile from its head.

Sheltered anchorage can be taken, in depths up to 24m, sand and shells, about 0.4 mile from the head of the loch.

Kyle Akin

3.33 Kyle Akin (57°17'N., 5°43'W.), a short constricted passage, leads W from Loch Alsh to the SE end of Inner Sound. The E entrance of Kyle Akin lies between the W entrance point of Scalpaidh Bay and Rubha Ard Treisnis (57°16'N., 5°43'W.), the NE extremity of a narrow peninsula. There is a least depth of 8.3m in the fairway S of Eileanan Dubha and a least width of 137m between the 10m curves.

Tides—Currents.—Tidal currents in the E approach to Kyle Akin are weak. With melting snow and after heavy rain, the strength of the W current is increased. This is also true with

strong S and SW winds. The times at which the tidal currents change direction vary considerably with the range of tide. When the range is less than 4m, the E current runs from the time of HW until 4 hours 30 minutes later. As the tidal range decreases, the E current runs for progressively longer periods.

At springs, the W current attains a strength of about 3.5 knots 6 hours before HW. The E current has two maxima; one of about 2 knots occurring 2 hours 30 minutes before HW, and another 2.5 knots occurring about 1 hour 15 minutes after HW. During the 4 hours preceding HW, the currents are considerably affected by the wind. Strong protracted northerlies increase the strength of the E current and decrease the strength of the W current. Strong S winds have the reverse effect.

Caisteal Maol, a conspicuous tower in ruins, stands on a headland 0.2 mile W of Rubha Ard Treisnis. Foul grounds front the headland. String Rock, awash and marked by a lighted buoy, lies at the NE end of this foul ground.

Eileanan Dubha (57°17'N., 5°42'W.), a group of islets and rocks, lie in the fairway near the E entrance of Kyle Akin.

Foul ground encircles the group for about 100m and a lighted tower marks the NE islet. Navigable channels lie N and S of the group. The channel N of the islets is 130m wide, with least charted depths of 13.3m in the fairway.

3.34 The Plock of Kyle (57°17'N., 5°43'W.), a peninsula at the W end of the mainland, forms the N side of Kyle Akin. Foul ground extends as far as 150m offshore. Station Hotel is a conspicuous building near the shore at the E end of the peninsula and adjacent to the ferry pier.

3.35 Kyle of Lochalsh (57°17'N., 5°43'W.) (World Port Index No. 32900) is a small town and terminus for the railroad. Railroad connections lead from the town to the pier.

Depths—Limitations.—Kyle of Lochalsh Pier (Railway Terminus Pier) lies about, 0.1 mile E of Station Hotel. It is used by small passenger vessels, yachts, and fishing vessels, and is the principal railroad connection for the entire area. The pier has a length of 270m and a depth of 5.4m along the S face, from which lights are shown. The ferry slip, with a beacon at its SE extremity, is situated 0.1 mile W of the pier.

Fishery Pier, a T-head pier about 67m long, with a depth of 3m alongside, is situated close E of the pier. British Underwater Test and Evaluation Center (BUTEC) Jetty, an L-shaped pier marked by lights, is situated 0.2 mile E of Fishery Pier. Drying reefs fringe the shores adjacent to the piers.

Signals.—Signals are displayed at the Support Base, 0.1 mile E of Fishery Pier. A red flag by day and a red light at night indicates that entry into the restricted area in Inner Sound is prohibited, except for direct passage.

3.36 Kyleakin (57°16'N., 5°44'W.) (World Port Index No. 32910), a coastal village about 0.5 mile W of Caisteal Maol, is situated on a flat peninsula terminating in a rocky knoll 0.3 mile E of the village. A stone pier extends 137m through a drying reef from the E end of the peninsula. A lighted beacon stands on the E end of the pier. A ferry plies between Kyle Akin and the Kyle of Lochalsh. The King's Arms Hotel is prominent on the shore close N of Kyle Akin. Kyle House stands on a knoll, with a cliffy seaward face covered by trees which obscure this conspicuous hotel in summer.

Sgeir na Iasgaich (57°16'N., 5°47'W.) is a narrow rocky peninsula on the S shore of the W approach to Kyle Akin. The intervening shore is backed by high hills and fronted for 0.5 mile by shoals of less than 9m depth. A lighted buoy is moored 0.2 mile N of Bogha Beag, a drying reef lying 0.3 mile offshore. Deep-draft vessels should pass about 0.5 mile N of Bogha Beag which lies almost 0.8 mile WSW of the disused Kyle Akin Light.

Eilean Ban (57°17'N., 5°44'W.), two islands encircled by drying reefs, lie off the SW side of the Plock of Kyle. Shoals and foul ground extend 100m S of the islands. The Skye Bridge, with a vertical clearance of 29m over a navigable width of 80m, extends SSW across Kyle Akin from the S extremity of the W island of Eilean Ban.

Black Eye Rock (57°17'N., 5°45'W.), with a depth of 3.8m and marked by a lighted buoy, lies in the approach fairway about 0.4 mile W of Eilean Ban. There are detached patches of less than 9m lying in the fairway NNW of the rock and 6.9m shoals, 0.2 mile NW and W of the disused Kyle Akin Light.

Eilean a Mhal (57°17'N., 5°44'W.), an island, is encircled by shoals and reefs. Above and below-water rocks lie on the shoals which extend W to the fairway and S to Eilean Ban. The least depth in the approach channel to Kyle Akin is 8.2m.

Regulations.—A voluntary reporting system is in effect for the following types of vessels passing under the Skye Bridge:

1. All passenger vessels.
2. All vessels carrying bulk or packaged dangerous cargo.
3. All other vessels 300 gt and over.
4. Fishing vessels 30m long and over.
5. Vessels restricted in their ability to maneuver.

Vessels approaching Kyle Rhea and the Kyle of Lochalsh and intending to pass under the main span of the Skye Bridge should contact Stornoway Coastguard on VHF channel 16 or 67 and make a report at the following positions:

1. Northbound vessels—When crossing the line joining Point of Sleat and Mallaig Harbor.
2. Southbound vessels—When passing through the latitude of Rona Light.

Vessels should also maintain a continuous listening watch on VHF channel 16.

Vessels should report any change in status. The report should be made in English and contain the following information:

Designator	Information Required
A	Vessel name and call sign.
E	Course.
F	Speed.
G	Port of departure.
H	Time of passing reporting point.
I	Port of destination.
O	Draft.
P	Cargo onboard; brief details of dangerous/hazardous cargo.
Q	Damages or other restrictions likely to affect maneuverability.

Designator	Information Required
U	Size and type of vessel.
X	ETA at the Skye Bridge.



Kyle Akin Light (disused) and the Skye Bridge from W

Loch Carron—Loch Kishorn

3.37 Loch Carron (57°20'N., 5°45'W.) is entered between Portnacloich Point (57°18'N., 5°44'W.) and Rubha na h-Uamha (57°21'N., 5°47'W.). The latter point is steep and bold, terminating in a cliff.

Loch Carron, with an entrance clear of dangers, extends ENE for 5 miles where a broad two-pronged promontory divides the loch into two arms. Loch Kishorn is the N arm.

An Dubh Aird (57°20'N., 5°41'W.), a dark peninsula covered with heather, rises steeply.

Rubha Mor (57°21'N., 5°39'W.) is the NE end of a hilly peninsula which is separated by a gap from higher hills. The S coast of the loch is foul for at least 0.5 mile offshore between points, whereas the N shore of the loch is steep-to and backed by rugged barren hills. Foul ground extends 0.8 mile N of Rubha Mor.

Sgeir Golach (57°21'N., 5°39'W.), marked by a beacon, are above and below-water rocks and reefs, which lie near the N edge of the foul ground.

Caution.—A disused explosive dumping ground area, the limits of which are shown on the chart, lies in the approach to Loch Carron about 2.8 miles SW of Rubha na h-Uamha Point.

A foul ground area lies about 2.5 miles SSW of Rubha na h-Uamha Point in the approach to Loch Carron.

Rubha Alasdair Ruaidh (57°22'N., 5°36'W.), the S prong of the two-pronged promontory, is of mountainous terrain, wooded, and has conspicuous terraces forming its SW side. The inner part of Loch Carron is entered between this promontory and Rubha Mor. This entire area, the narrows of the loch, is foul. A navigable channel, about 0.1 mile wide and 3.7m deep, leads through the narrows. Anchorage can be taken, in a depth of 11m, good holding ground and sheltered, about 0.2 mile ESE of the N end of Rubha Mor.

3.38 Plockton (57°20'N., 5°39'W.) (World Port Index No.



Courtesy of David Jones

Skye Bridge from E

32890), a village S of Rubha Mor, is approached via an inlet with a depth of 5.5m. Sgeir Bhuidhe, an islet, lies amid drying rocks 0.1 mile off the village which has rail connections. Vessels proceeding from Kyle Akin to Loch Carron can obtain pilot services from local fishermen at Kyle Akin or Eilean Mor. Anchorage can be taken, in a depth of 3.7m, good holding ground of clay, about 150m W of Sgeir Bhuidhe. Small vessels are beached on the flats.

Duncraig Castle (57°20'N., 5°38'W.), a conspicuous stone building, is backed by a prominent hill. A beacon is situated 300m E of the castle. The coast E of the castle is composed of sand and gravel, backed by cliffs in places, and bisected by a deep valley. A remarkable raised beach fronts the cliffs for 1 mile.

Creag Mhaol (57°21'N., 5°34'W.) are prominent partly-steep cliffs. The narrows of Strome lie N of Creag Mhaol. Two drying rocks, each marked by a beacon, lie in the W approach to the narrows. The fairway leading to the narrows passes W and N of these rocks. Local knowledge is necessary in approaching and proceeding through the narrows, where the preferred fairway is about 100m from the N shore on entering.

South Strome (57°21'N., 5°32'W.), a village at the SE corner of the narrows, has railroad connections and a ferry which plies across the narrows. The loch above the narrows is seldom visited by shipping. Anchorage, sheltered from S and W winds, can be taken on the shoals extending N and E of a disused railroad pier, clear of submarine cables.

3.39 Loch Kishorn (57°23'N., 5°39'W.) lies NW of Meall

na h-Airde (57°22'N., 5°38'W.), the N head of the two-pronged promontory. The loch is deep, clear of dangers, and provides an excellent refuge for vessels during stormy weather. Larger vessels may anchor offshore, clear of Sgorr a' Bhrìd-eoin Mhoir (57°23'30"N., 5°36'24"W.), the W of several drying rocks which extend up to 0.5 mile offshore. Care must also be taken to avoid the marine farms which are established in this vicinity. There is very little swell and sea in the loch and only NW winds are considered dangerous. The terrain consists of bare, rugged hills, backed by mountains. Streams and waterfalls flow into the loch along its NW side.

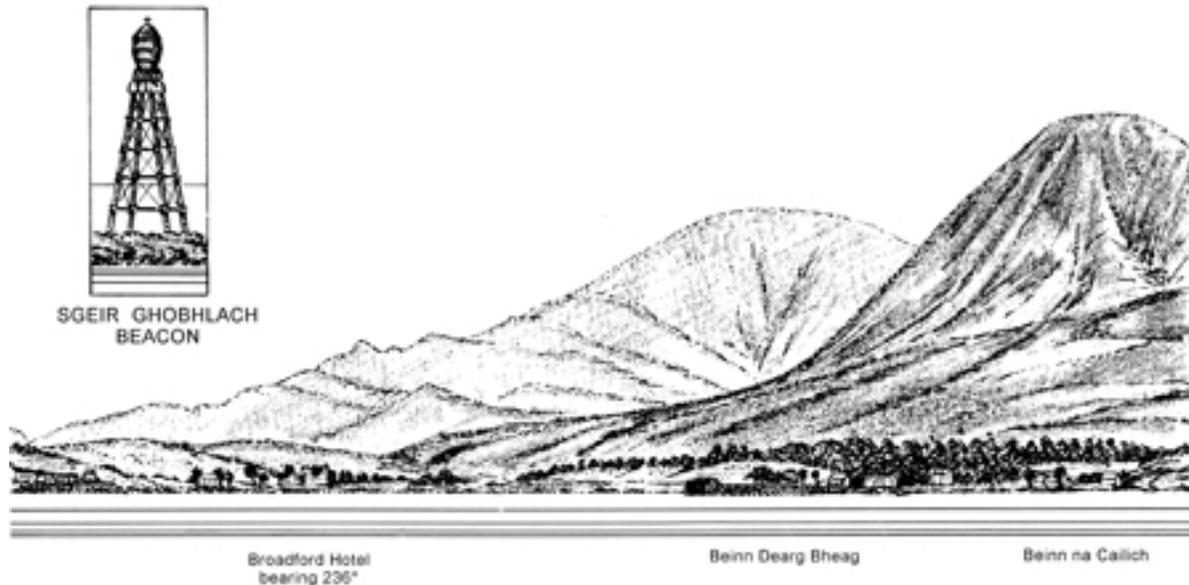
A detached patch, with a depth of 14.8m, lies near the middle of the loch, and several patches, with depths of less than 10m, lie up to 0.6 mile from the head of the loch.

A pier, which extends from the W side of the loch, and a quay, 0.4 mile NE, are all that remain of an offshore platform construction site.

Segier a Chinn (57°22'N., 5°39'W.), an above-water rock, lies at the outer end of a foul area extending about 1.2 miles SW of Meall na h-Airde.

The **Garra Islands** (57°23'N., 5°39'W.), of which Kishorn Island is the northernmost, lie on foul ground extending W of the promontory and close to the channel into the loch. A drying flat and rocks fill the head of Loch Kishorn.

Achintraid (57°23'N., 5°36'W.), a village, is situated at the S side of a cove. Vessels entering the loch for shelter or anchorage should keep at least 275m off the NW shore of the loch. Anchorage for small vessels can be taken off the E side of Kishorn Island. Larger vessels anchor clear of the shoals lying



Broadford Hotel in line with summit on the S slope of Beinn Dearg Bheag, bearing 236°

off the head and SE side of the loch.

Inner Sound

3.40 Inner Sound, a deep-water passage, extends NW and N from the W entrance of Kyle Akin. The sound is bound E by the mainland, S by the Isle of Skye, and W by a chain of islands lying off the E coast of Skye.

The islands lying NW of Kyle Akin constrict the sound, which enlarges N and is free of dangers.

Rubha Ardnish (57°15'N., 5°51'W.) is the N end of a narrow peninsula projecting from the head of Inner Sound. The coast in the area is backed by hills intersected by streams. Rock outcroppings, resembling stone jetties, extend offshore and are prominent coastal features. Partly drying rocks and reefs lie on shoals extending as far as 0.8 mile offshore.

Anchorage can be taken, in depths up to 15m, good holding ground, about 0.2 mile E of Sgeir Dubh (57°16'N., 5°50'W.), an above-water rock. In N winds, however, a heavy swell builds off this coast. Temporary anchorage can be obtained 0.4 mile NNE of Sgeir Dubh, in a depth of 24m.

3.41 Broadford Bay (57°15'N., 5°53'W.) (World Port Index No. 32920), open to N winds, indents the shore between Rubha Ardnish and Rubh' an Eireannaich (57°15'N., 5°54'W.). Hotels standing on the W and SW shores of the bay and white hospital building (57°15'N., 5°55'W.) are conspicuous. Drying reefs extend as far as 0.4 mile offshore. Corry Pier extends off the W side of the bay. There is a small drying pier near Broadford Village, at the head of the bay.

Anchorage can be taken, in depths of 10 to 12m, good holding ground, with Corry Pier bearing 275°, distant 0.3 mile.

Pabay (57°16'N., 5°52'W.) is a limestone island with rocky

walls. It is partly steep and grass-covered with farm buildings standing on its W side. Reefs encircle the island. Sgeir Ghobhlach, a drying rock marked by a lighted beacon, lies 0.5 mile SSW of Pabay. Caolas Pabay (57°16'N., 5°51'W.), a channel SE of Pabay, is clear of dangers, but is constricted and should not be used without local knowledge. The Broadford Hotel, bearing 236°, leads through Caolas Pabay.

Scalpay (57°18'N., 5°58'W.) is an island which rises steeply from its S and SW sides. The N and NE sides are rocky and reef-fringed in places for 0.1 mile. Anchorage can be taken, in a depth of 11m, sand, sheltered from S winds, in the entrance of a cove located at the NW end of Scalpay.

Longay (57°19'N., 5°53'W.), an island with steep shores and occasional cliffs, is reef-fringed. A deep-water channel, free of dangers, leads between Scalpay and Longay.

3.42 Gulnare Rock (57°19'N., 5°56'W.), awash, and a rock with a depth of 1m, lying close SW and marked by a buoy, are dangers to be avoided if using the channel between Longay and the N side of Scalpay. Sgeir Dhearg (57°19'N., 5°55'W.), a reef-fringed islet, and Sgeir Thraid (57°20'N., 5°57'W.), a drying rock, marked by a lighted beacon, are dangers in the vicinity of Gulnare Rock.

The **Crowlin Islands** (57°21'N., 5°50'W.) lie W of Rubha na h-Uamba (57°21'N., 5°47'W.). A drying reef connects these three islands. Reefs fringe the islands and foul ground, drying at its outer extremity, extends 0.3 mile N of Eilean Beag (57°21'N., 5°51'W.), the N island of the group. A light is shown from a beacon at the W end of Eilean Beag.

Linne Crowlin is the deep channel between the island and Longay. Caolas Mor, the channel between the islands and the mainland, has a least depth of 18m and is free of dangers.

Loch Toscaig (57°22'N., 5°49'W.), a narrow inlet open to S

winds, has a least depth of 11m. Bo Du, a drying rock, lies in the loch entrance. Another rock, with a least depth of 0.4m, lies 250m SW of Bo Du. The peninsula forming the W side of the loch is fronted on its SW side by above-water rocks. Anchorage can be taken, in a depth of 18m, good holding ground, within Loch Toscaig.

Poll Domhain (57°23'N., 5°49'W.), a foul inlet, indents the E side of Ardban, a promontory fronted by foul ground and drying rocks. Anchorage can be taken, in a depth of 9m, about 100m S of the reef lying in the center of Poll Domhain. Channels on either side of the reef lead to the anchorage.

Poll Creadha (57°24'N., 5°49'W.), an inlet indenting the E side of a peninsula, affords anchorage, in a depth of 5.5m, clear of a reef in the entrance which is marked by a beacon.

Applecross Bay (57°26'N., 5°50'W.), an open bay with a drying head, affords temporary anchorage, in depths of 9 to 18m, off the E shore. A grove of trees around a church at the head of the bay is prominent. There are two small drying piers at the SE side of the bay.

Caol Mor (57°20'N., 6°01'W.), the deep-water strait separating the NW end of Scalpay from the SE end of Raasay, connects Inner Sound and the Sound of Raasay. The strait is free of dangers over a navigable width of 0.5 mile. A light is shown from a tower on Eyre Point (57°20'N., 6°01'W.), the S extremity of Raasay.

3.43 Raasay (57°25'N., 6°03'W.), an island which is steep-to along its E side, is mountainous in the S half, with the mountains sloping gradually E and terminating in high cliffs along the E shore. North Raasay is comparatively low.

Dun Caan (57°23'N., 6°02'W.), 441m high, is a conspicuous mountain with a truncated peak. A castle, in ruins, stands 6.5 miles N of Eyre Point. Anchorage can be taken between Eyre Point and Suisnish Point (57°20'N., 6°04'W.), about 0.3 mile offshore, in depths of 22 to 27m.

Caol Rona (57°31'N., 5°59'W.), the strait separating the islands of Raasay and Rona, leads NW from Inner Sound to the Sound of Raasay. Three islets lie in the SE entrance of the strait which has a least depth of 12.8m.

Eilean Tigh (57°31'N., 6°00'W.), a rugged island forming the SW side of Caol Rona, is steep-to along its NE side. Lights are shown from three beacons, situated on the E coast of Rona and from a beacon on a rock close off Rubha Chuil-tairbh, 3.5 miles NNE of Garbh Eilean (57°31'N., 5°58'W.). Garbh Eilean, the largest of the three islets, is connected to Rona by a drying reef. The preferred channel lies SW of the SW islet. A light is shown from a beacon which marks the SE end of Garbh Eilean.

Caution.—A restricted area, the limits of which are best seen on the chart, surrounds the British Underwater Test and Evaluation Center (BUTEC) Range in Inner Sound W and SW of Ru na Lachan (57°28'N., 5°52'W.). Anchoring, fishing, dredging, dumping, and all underwater activities are prohibited in the restricted area and in the adjoining cable area. When a red flag, by day, or a red light at night, is shown at the Range Control Building, which stands 0.2 mile NNW of Ru na Lachan, vessels are not permitted to remain in these areas longer than is necessary for direct passage through them.

Rubha na Guailne (57°27'N., 5°51'W.), at the W entrance to Applecross Bay, and Rubha na Fearn (57°35'N., 5°50'W.) represent two points on the E coast of Inner Sound between which there are no off-lying dangers, anchorages, or harbors. Ard na Claise Moire (57°30'N., 5°52'W.) is a prominent headland along this stretch of coast. Rubha na Fearn is long, low, and barren.

3.44 Rona (57°33'N., 5°58'W.), an island forming the W side of the N part of Inner Sound, is bare, rugged, and sparsely cultivated. A ridge of high hills extending the length of the island falls steeply E to the sea. The E coast is steep-to and free of dangers up to 0.1 mile from the shore. Several above and below-water rocks lie on shoals extending 1 mile N of the N end of Rona. Rona Light is shown from a tower standing on the NE end of Rona. A radio mast stands close N of the light.

Caution.—A submarine range lies E of Rona. The area is used by submarines at varying depths and speeds.

A number of seabed obstructions lie in the vicinity.

A voluntary reporting system for southbound vessels approaching Kyle Rhea and the Kyle of Lochalsh and intending to pass under the Skye Bridge is bounded by the latitude of Rona Light. See paragraph 3.36 for further information.

3.45 Caolas Scalpay (57°16'N., 5°56'W.) and **Loch na Cairidh** (57°18'N., 6°02'W.) form a common strait between the S and W sides of Scalpay and Skye. The narrows of the strait are formed S of Scalpay by reefs extending into the channel from Scalpay and Skye. The reefs constrict the strait to a width of 0.2 mile and a depth of 0.3m. Except near HW, passage of the narrows should not be attempted. Caolas Scalpay, lying SE of the narrows, is easy of access and has moderate depths with good holding ground.

Anchorage can be taken, in depths of 9 to 11m, 0.7 mile ESE of the narrows. With most winds, the squalls in Caolas Scalpay are very strong and uncertain in direction because of the steep slopes on both shores. Loch na Cairidh leads NW of the narrows.

3.46 Loch Ainort (57°17'N., 6°03'W.) leads SW of Loch na Cairidh. Dangerous squalls render Loch Ainort unsafe for anchoring. Submarine cables, marked by landing beacons, are laid across the narrows which separate Caolas Scalpay from Loch na Cairidh. Anchorage can be taken, in a depth of 9m, off Dunan schoolhouse, 0.7 mile WNW of the narrows.

Loch Sligachan (57°19'N., 6°06'W.), indenting the coast of Skye, opposite the S extremity of Raasay, is encircled by steep mountains and is subject to violent squalls. Although the loch entrance is encumbered by rocks and shoals, there is a navigable channel about 50m wide and 4.1m deep. Local knowledge is essential. A ferry plies across the mouth of the loch. Sconser Lodge is a conspicuous building standing close within the S entrance point of the loch. Sconser Ferry Pier Light is shown 0.3 mile W of Sconser Lodge. Bo Sligachan, a rock with a least depth of 0.4m, lies on the extremity of foul ground extending 0.5 mile N of the lodge. The W extremity of the lodge in range 215° with the summit of Sgurr Mhairi (57°18'N., 6°08'W.) leads through the approach channel.

The Sound of Raasay

3.47 The Sound of Raasay leads N from its junction with Caol Mor and Loch na Cairidh, between Raasay on the E and Skye on the W. Except for the Narrows of Raasay, the Sound of Raasay is wide, deep, and clear of dangers in the fairway. The channel through the narrows can accommodate deep-draft vessels over a navigable width of 0.2 mile.

Rubha na Cloiche (57°20'N., 6°03'W.), the S extremity of Raasay, and Tor Mor (57°19'N., 6°06'W.), a steep headland, form the S entrance to the sound. The E, or Raasay side, of the entrance is fronted by shoals of less than 5.5m extending as far as 0.3 mile offshore.

Churchton Bay (57°21'N., 6°04'W.), an open bight exposed to violent squalls in the winter, has depths of 5m. Foul ground extends about 0.2 mile off its SE side. Arduish, a wooded peninsula, forms the N side of the bay. Anchorage can be taken during the summer, in a depth of 10m, clay and sand, about 0.3 mile S of the head of the bay.

Jackal Rock (57°20'N., 6°05'W.), with a depth of 2.9 and marked by a buoy, lies on the W edge of the coastal shoal at the SE side of the bay.

Narrows of Raasay (57°21'N., 6°06'W.) is about 0.5 mile wide between Arduish, on the E side, and the An Aird Peninsula on the W side. The least depth in the fairway is 9.3m.

Eilean Aird nan Gobhar (57°21'N., 6°05'W.), an islet, lies on a drying reef extending over 0.3 mile S of the NE peninsula. Drying reefs and rocks lie W and E, respectively, of the islet.

Penfold Rock (57°21'N., 6°06'W.), marked by a buoy, with a depth of 2.9m, lies in the middle of the narrows. Drying rocks and reefs extend almost 0.3 mile into the narrows from the SW peninsula. Eilean Aird nan Gobhar, aligned 358° with Sgeir Chnapach (57°22'N., 6°05'W.), leads close E of the drying rocks and shoals in a least depth of 12.8m.

3.48 Balmeanach Bay (57°20'N., 6°06'W.), between Tor Mor and the peninsula at the SW side of the narrows, is fronted by shoals of 5.5m extending as far as 0.2 mile offshore. Anchorage, open to SE winds, can be taken, in depths of 14 to 18m, in the bay. Temporary anchorage can also be taken, in a depth of 7.8m, sand, sheltered from W winds, in Tianavaig Bay (57°22'N., 6°08'W.). A submarine cable, marked by beacons, crosses the Sound of Raasay from the N side of Balmeanach Bay.

McMillan's Rock (57°21'N., 6°06'W.), with a least depth of 0.4m, is marked by a lighted buoy.

Sgeir Dhubh (57°21'N., 6°07'W.), a conspicuous above-water rock, lies 0.2 mile SW of McMillan's Rock. There is a conspicuous schoolhouse at Upper Ollach (57°21'N., 6°07'W.), W of Sgeir Dhubh. The SW extremity of Eilean Aird nan Gobhar, aligned 123° with Suisnish Cottage (57°20'N., 6°04'W.), leads close NE of McMillan's Rock and a 4.1m shoal lying 0.3 mile E of the rock. The schoolhouse, bearing 282°, and just open N of An Aird, leads N of Penfold Rock.

Oskaig Point (57°22'N., 6°05'W.) is a salient headland from which a ridge, with depths of less than 10m, extends NNW. Drying rocks and reefs lie on the ridge.

Tianavaig Bay (57°22'N., 6°08'W.) indents the W shore of the sound opposite Oskaig Point. The coast is moderately steep S of the bay. The coast N forms the base of Ben Tianavaig

(57°23'N., 6°09'W.), a prominent mountain with unusual pinnacles and overhanging brows. Deep caves perforate the lower part of the mountain.

3.49 Portree Harbor (57°25'N., 6°09'W.) on the E coast of Skye, is entered between Udairn (57°24'N., 6°08'W.) and Rubha na h-Airde Glaise (57°26'N., 6°09'W.). The harbor becomes constricted opposite steep-to Vriskaig Point (57°24'N., 6°11'W.). An arm of the harbor, Loch Portree, leads SW and is a drying flat. A prominent radio mast stands on high ground 2.5 miles WSW of Vriskaig Point. The main harbor is sheltered from all, except W winds. Mountains and dark cliffs back the sides of the harbor. Low terrain forms the head of Portree Harbor.

Portree (57°25'N., 6°12'W.), the town, is situated at the head of the harbor and on Meall na h-Acairseid, a wooded peninsula. Portree, the capital of the Isle of Skye, is a popular tourist center. A tower and two tanks are conspicuous on the peninsula. A pier on the NE side of the peninsula has a depth of 3.2m alongside over a length of 35m. A vessel having a length of up to 65m and a beam of 11m, with a maximum draft of 2.4m, can be accommodated.

Unscheduled vessels carrying dangerous cargo must give 24 hours notice of their ETA. This notification should be made by facsimile.

Portree Harbor can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1478-612926
3. Facsimile: 44-1470-612926
4. E-mail: harbours@highland.gov.uk

Anchorage can be taken, subject to a N swell, in a depth of 25m, about 0.8 mile ENE of the pier head.

Loch Arnish (57°28'N., 6°02'W.) is entered between Manish Point (57°28'N., 6°03'W.) a long low, rocky point, and Ard an Torrain (57°02'N., 6°02'W.), a headland. An islet and rocks, awash, lie on rocky shoals extending about 0.5 mile SW of Manish Point. The loch is deep with a rocky bottom unsuitable for anchorage.

Eilean Fladday (57°29'N., 6°02'W.), a flat-topped island, is connected to Raasay by a drying reef. Islets lie on foul ground encircling the island as far as 0.3 mile offshore. Anchorage can be taken in the inlet SE of Fladday, in depths of 5 to 18m. A channel, about 100m wide and 5.5m deep, leads from close N of Ard an Torrain to the anchorage although, vessels should not enter without local knowledge.

Acairseid Mhor (57°32'N., 5°59'W.), a cove, is entered S of Eilean Garbh through a channel with a least depth of 3.7m. Vessels without local knowledge are cautioned not to enter the cove, except in an emergency. Anchorage is suitable, in a depth of 6.4m, in the cove entrance and about 0.1 mile ENE of a drying rock.

3.50 Loch a Bhraige (57°35'N., 5°58'W.), entered close SW of the N end of Rona, is fringed by rocks including Sgeir Shuas, a double-headed rock, marked by a light. There is a small pier situated on the E side of the loch, 0.1 mile WSW of Rona Light. A jetty lies close SSW of the pier. Lights are shown from the jetty. Anchorage can be taken, in a depth of 18m, about 0.1 mile off the SW shore, with Rona Light bearing 070°.



Rubha Reidh Light



Kilmaluag Bay

The Storr ($57^{\circ}30'N.$, $6^{\circ}11'W.$), a mountain within the coast forming the W side of the Sound of Raasay, is a conspicuous feature, with cliffs and columns forming its summit. A waterfall, about 1.2 miles SE of The Storr, is a prominent mark. The coast N consists of low cliffs changing to steep hillsides sloping to the sound.

Rubha nam Braithairean ($57^{\circ}35'N.$, $6^{\circ}08'W.$), a peninsula terminating in a pinnacle topped by a dome, is conspicuous when approaching the Sound of Raasay from the N and NW. Foul ground and drying rocks lie as far as 1 mile NW of the

point.

The Sound of Raasay and Inner Sound—North Approach

3.51 Rubha na h-Aiseig ($57^{\circ}42'N.$, $6^{\circ}18'W.$), the low flat NE extremity of Skye, is located about 9 miles NNW of Rubha nam Braithairean. A high hill backs the low point; Meall nan Suireamach ($57^{\circ}37'N.$, $6^{\circ}19'W.$), a mountain rising 4 miles S of the point, has a conspicuous crater on its SE side. Dangers

along this stretch of coast are contained within the 50m curve, lying less than 1 mile offshore.

Staffin Bay (57°39'N., 6°13'W.), partially protected from E winds by Staffin Island, is encumbered by foul ground between the island and shore. A considerable N swell sets into the open bay. Anchorage can be taken, in depths of 9 to 13m, mud, about 0.2 mile offshore and the same distance W of the island. It was reported that a ship anchored with the N point of Staffin Island bearing 126°, distant 0.5 mile, in a depth of 16m, sand and small stones. This anchorage is sheltered from winds between S and NW. However, gusts of strong W winds may be encountered.

3.52 Kilmaluag Bay (57°41'N., 6°18'W.) affords shelter to small vessels during W winds. The bay is fringed by reefs extending 0.3 mile offshore. Anchorage can be taken, in depths of 5 to 9m, sand, close offshore and clear of the reef.

Loch Torridon (57°36'N., 5°46'W.), entered between Rubha na Fearn (57°35'N., 5°49'W.), and Red Point (57°38'N., 5°49'W.), leads SE for 5 miles where projecting peninsulas form narrows leading to Loch Shialdaig.

Upper Loch Torridon (57°33'N., 5°36'W.) is the E continuation of Loch Torridon. Loch Torridon is deep and clear of dangers in the fairway which has a least depth of 20.1m. The shores of the upper loch are steep-to and the loch has little commercial importance. The NE shore of Loch Torridon from Red Point is barren and bleak.

Sgeir na Trian (57°37'N., 5°48'W.), an above-water rock, lies on a shoal in the entrance. Hinds Shoal, with a least depth of 16.4m, lies 4 miles E of Red Point. Anchorage, suitable for small craft, can be taken, in a depth of 31m, mud, about 0.2 mile SSW of the NW entrance point of Loch a Chracaich (57°33'N., 5°45'W.), a bay considered the best anchorage in Loch Torridon.

Loch Shialdaig (57°32'N., 5°41'W.), deep and free of dangers as far as Shialdaig Island (57°31'N., 5°39'W.), has a conspicuous monument and mountain standing E and SE of the island. Anchorage can be taken, in depths up to 9m, mud, 0.1 mile N of Shialdaig Island.

Restricted anchorage can be taken in Loch Shialdaig, S of Shialdaig Island, in a depth of 24m, with the inn, 0.2 mile SE of the S extremity of the island, bearing 070°; however, the bottom is soft mud.

Upper Loch Torridon, deep and free of dangers, is entered through a narrows wherein the least depth is 11m over a width of 225m in the fairway. Anchorage can be taken, in a depth of 24m, about 0.5 mile ENE of Sron an Dubh-airde (57°32'N., 5°34'W.).

3.53 Loch Gairloch (57°43'N., 5°45'W.) is entered be-

tween Sron na Carra (57°42'N., 5°47'W.), a small promontory, and Rubha Ban (57°45'N., 5°48'W.), a bold rocky point. The outer loch is clear of dangers, but the inner loch is constricted and foul inshore. Conspicuous churches and a hotel stand at the head of the loch. A conspicuous radio mast stands 2.2 miles NNE of Rubha Ban. Longa Island (57°44'N., 5°48'W.), lying on the N side of the entrance, is separated from the mainland by Caolas Beag, a strait filled with shoals.

Anchorage, by small vessels, can be taken, in depths up to 5.5m, N of Longa Island during S gales and about 0.5 mile ESE of the island during NW gales.

Eilean Horrisdale (57°42'N., 5°43'W.), lying off the S side of the loch, is encircled by foul ground extending N almost to Glas Eilean (57°43'N., 5°42'W.), an islet from which a light is shown. A conspicuous islet lies about 0.8 mile SSE of Glas Eilean.

3.54 Gairloch (57°43'N., 5°41'W.) a village, is situated at the head of Flowerdale Bay (57°42'N., 5°41'W.), which is shallow and constricted. A pier extends 120m SSE from the shore 0.2 mile E of Seana Chreag, the W entrance point of the bay. The pier, 50m long, has a least depth of 10m alongside its outer arm. The head of the pier is lighted.

Vessels exceeding 30m in length and vessels carrying dangerous cargo should give the harbormaster at least 24 hours notice of ETA. smaller vessels should send their ETA at least 1 hour in advance.

Gairloch harbor can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1445-712140
44-77696-71966 (24 hours)
3. Facsimile: 44-1445-712140
4. E-mail: harbours@highland.gov.uk

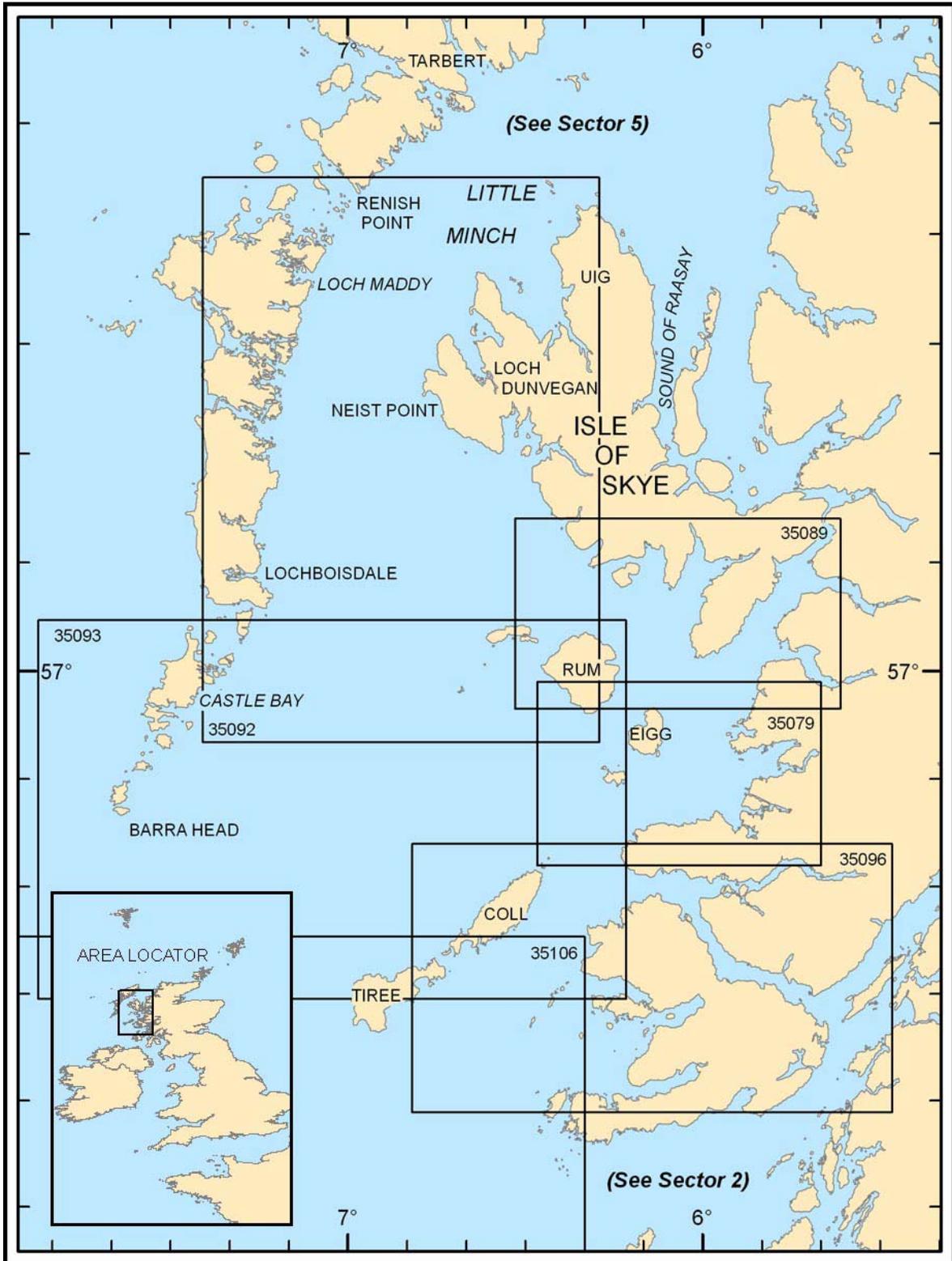
Anchorage can be taken between Eilean Horrisdale and Flowerdale Bay, in a depth of 36m, good holding ground. The various bays and inlets of the loch afford restricted anchorage with local knowledge.

Caution.—The 20m curve, less than 0.3 mile off the shores of the outer part of Loch Gairloch, should be approached with caution because of the proximity of much lesser depths.

3.55 The coast N of Rubha Ban is bold and rocky and free of dangers W of the 20m curve, about 1 mile offshore.

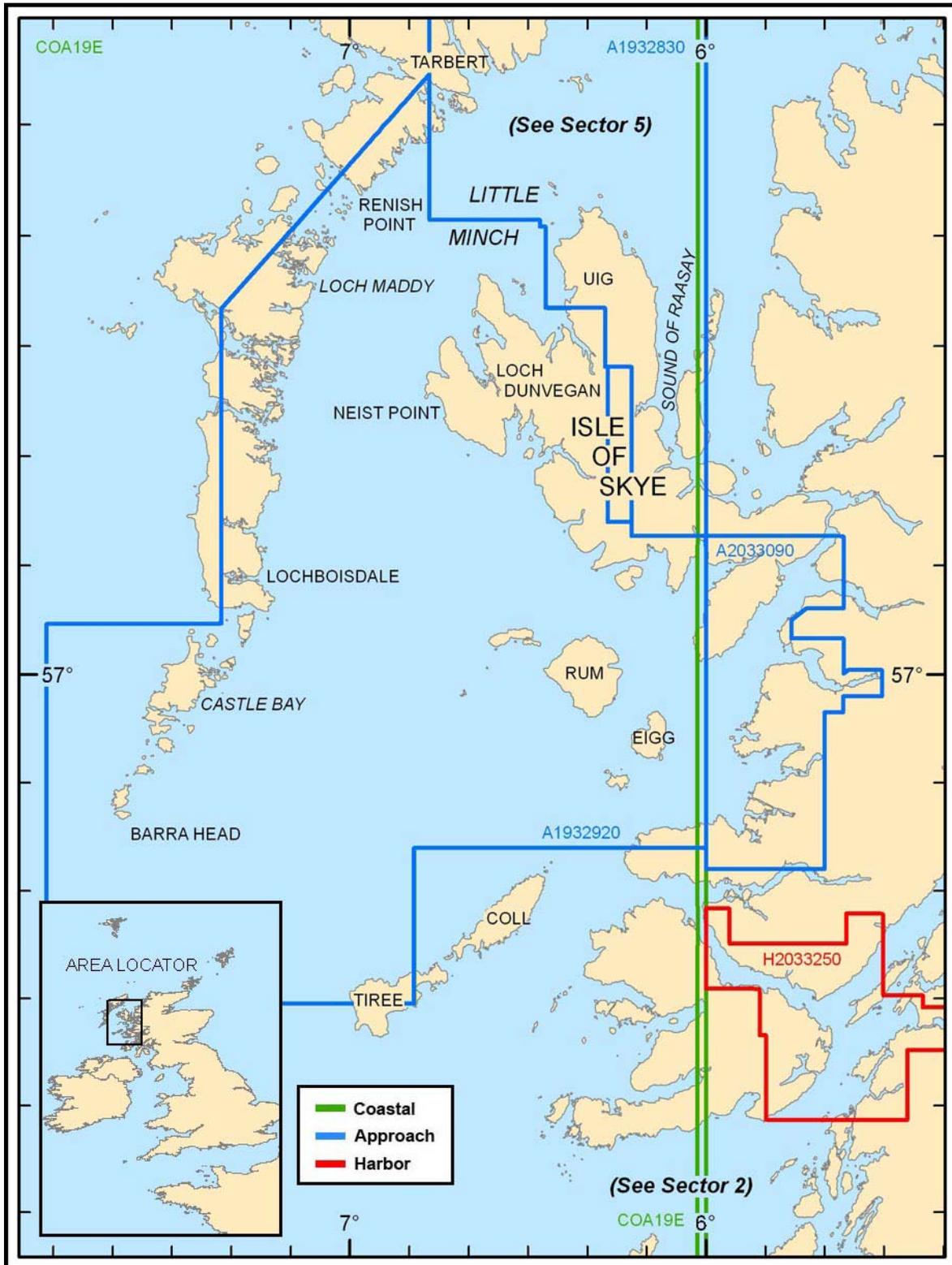
The approach waters between the NE extremity of Skye and Rubha Reidh (57°52'N., 5°49'W.) are clear and deep.

A light is shown from a tower on Rubha Reidh. A conspicuous radio mast stands about 1 mile SE of the light.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 4 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNCs 19 and DNC 20 (Limited Distribution) discs within the README\GRAPHICS folder.
SECTOR 4 — DNC LIBRARY INFORMATION

SECTOR 4

WEST COAST—THE SEA OF THE HEBRIDES TO LITTLE MINCH

Plan.—This sector describes the Passage of Tiree, the SW coast of Skye, and The Small Isles. The E coast of The Outer Hebrides from Berneray to the Sound of Harris is also described. The descriptive sequence is from S to N.

General Remarks

4.1 The Sea of the Hebrides, extending 85 miles NNE from the S extremity of the Outer Hebrides, separates the S part of the Outer Hebrides from the islands forming the Inner Hebrides. Depths are ample for deep-draft vessels. The islands of the Hebrides are rocky, bleak, low and indented by numerous bights. The climate is moist, but the soil is mostly non-arable and many of the islands are uninhabited. The few small harbors have only minor facilities. Local knowledge is required to enter the harbors or anchor in any of the coves or inlets, many of which are subjected to violent squalls and heavy swells. Rocky shoals fringing the Hebrides are contained within the 50m curve. Variable depths exist on detached banks and rocky extensions of shoals lying in the approaches to the islands.

Winds—Weather.—The islands of the Hebrides serve as a buffer against stormy NW weather buffeting the mainland of Scotland. Northwest gales raise long, heavy swells and cause breakers over off-lying rocks and shoals.

Tides—Currents.—Tide and tidal current information is shown and tabulated on charts of the area covered in this sector.

Off-lying Banks and Dangers

4.2 Skerryvore (56°19'N., 7°07'W.), one of a group of above and below-water rocks, is marked by a tower from which a light is shown. The tower, which is the tallest in the United Kingdom, is equipped with a racon.

MacKenzie's Rock (56°17'N., 7°10'W.), drying to 2.2m and marked by heavy breakers, is the outermost rock of the Skerryvore group. Numerous shoal patches with depths of less than 9m lie as far as 6 miles W and SW of Skerryvore.

Deep-draft vessels should exercise caution near Skerryvore.



Skerryvore Light

Boinshly Rock (56°22'N., 7°02'W.), almost awash, lies in an

area containing several rocky shoals of less than 9m. Long, heavy swells always prevail in the area, with breakers forming between Skerryvore and Tiree during NW gales. Banks, with detached patches of 16.8m or more, lie between 16 miles S and 11 miles SSW of Skerryvore. There are numerous shoal patches lying between Iona and the fairway leading through Passage of Tiree.

Stanton Banks (56°12'N., 7°53'W.), lying between 28 and 40 miles WSW of Tiree, has a least depth of 30m.

Hawes Bank (56°47'N., 6°41'W.) has a charted depth of 19.6m but there may be lesser depths. The sea breaks heavily over this bank in stormy weather.

The Passage of Tiree

4.3 The **Passage of Tiree** (56°33'N., 6°30'W.) is a navigable passage leading between Tiree and Coll on the W side and Mull on the E side. The passage, with a least width of 5.5 miles, has a least depth of 27.4m in the fairway. Depths are very irregular. Rocks and reefs fronting the islands, as far as 1.5 miles offshore, are contained within the 50m curve except in the area off the SE end of Tiree. The passage leads to the Sound of Mull and the Sound of Sleat, also E or W of Skye and the Small Isles.

Tidal currents begin earlier and attain greater velocities between and off the islands NE of Coll. These currents begin progressively later moving NE along the coasts of Tiree and Coll. A weak tidal current sets NNE and SSW in the vicinity of Hawes Bank.

Caution.—Submarines conduct exercises in the approaches and entrance to the Passage of Tiree and the Sea of the Hebrides.

Local magnetic disturbances have been reported in the vicinity of the islands.

Without local knowledge, the area around the islands should be avoided.

A submarine power cable crosses the N end of the Passage of Tiree, from Sorisdale (56°41'N., 6°27'W.), at the NE end of Coll, SE to Mull.

Dangerous overfalls occur over the bank SW of Dubh Sgeir (56°30'N., 7°09'W.) and over the entire shoal area lying between Mackenzie's Rock (56°17.4'N., 7°10.3'W.) and Boinshly Rock (56°22'N., 7°02'W.). Shallower depths than charted exist in these areas.

Tiree and Coll

4.4 **Tiree** (56°30'N., 6°54'W.) and **Coll** (56°38'N., 6°33'W.) are contiguous islands lying on a subterranean plateau which extends SW to include Skerryvore and adjacent rocky shoals. Tiree and Coll maintain communication with the mainland. Tiree, a low island with a plain near its center and a high promontory at its S end, is indented by bays fronted by rocky shoals.

Hynish Bay (56°28'N., 6°51'W.), indenting the coast adjacent to the S promontory, is fronted by above and below-water rocks and shoals. A prominent square water tank stands near the head of the bay; a stone pier used by small craft extends off the W shore.

Scarinish (56°30'N., 6°48'W.), a small inlet, leads to a drying pier which is available to vessels with a draft of 1.5m at HW. A heavy swell setting through the inlet entrance frequently prevents departure of vessels. Scarinish Light is shown from a point 0.5 mile SW of the entrance to Gott Bay. A tower stands close SW of the light.

4.5 Gott Bay (56°31'N., 6°48'W.), encumbered with rocks and reefs, has a T-head concrete pier close within its SW entrance point. A conspicuous chimney stands on the W side of the bay. The outer face of the pier has a length of 76m, with a depth of 4m alongside. It is reported(2011) that this pier is closed to all traffic. A drying rock marked by a beacon, lies close to the E head of the pier. Range lights, in line bearing 286°30', are shown from the pier heads and lead alongside. The ferry from Oban, Glasgow, and the Hebrides calls at the pier. Anchorage can be taken, with local knowledge, in a depth of 5m, sand, in the SW part of Gott Bay.

The port can be contacted, as follows:

1. VHF: VHF channel 2
2. Telephone: 44-1879-220337
3. Facsimile: 44-1879-220880

Rubha Chraiginis (56°30'N., 6°59'W.) is the W extremity of Tiree. Breaking seas are visible on banks and shoals lying as far as 7.5 miles W of the point.

Dubh Sgeir (56°32'N., 7°03'W.), a drying rock, and the Hough Skerries (56°31'N., 7°01'W.), above and below-water reefs, are among the dangers lying off the NW point of Tiree. A radio tower is prominent on a hill about 1 mile E of Rubha Chraiginis.

Gunna Sound (56°33'N., 6°42'W.), separating Tiree from the S side of Coll and encumbered with rocks and shoals, should be avoided without local knowledge.

Placaid Bogha (56°33'N., 6°44'W.), a sunken rock, is marked close S by a lighted buoy.

Roan Bogha (56°32'N., 6°40'W.), rocks awash, lie 2 miles E of Rubha Dubh, the NE extremity of Tiree. Seas may break on the rocks during stormy weather. A lighted buoy marks the S side of the rocks.

Coll (56°38'N., 6°33'W.) is a sparsely-populated island consisting of moorland which appears bleak and barren from the offing. Ben Hogh (56°38'N., 6°34'W.), an eminence, rises near the center of the island. The weather side (NW) of Coll affords little shelter. Crossapol Bay (56°34'N., 6°40'W.), indenting the S side of Coll, is foul.

4.6 Loch Eatharna (56°37'N., 6°31'W.), an inlet, has its entrance divided by a small island. The W entrance is the preferred. Bogha Mor (56°36'N., 6°31'W.), a drying rock lying in the entrance, is marked close SW by a lighted buoy. A pier, 180m long, extends off the W side of the loch from close within the entrance. A light is shown from the head of the pier. There are berths on either side of the pier, 24m long, with alongside depths of 4m. A ro-ro facility is available at the S berth.

Arinagour (56°37'N., 6°31'W.), a village on the W side of the loch, has a ferry pier with a depth of 2.7m alongside at HW.

The port can be contacted, as follows:

1. VHF: VHF channels 16 and 31
2. Telephone: 44-1879-230347
3. Facsimile: 44-1879-230447

Cairns of Coll (56°42'N., 6°26'W.), two drying rocks often marked by breakers, lie at the outer end of a group of islets and rocks lying off the NE end of Coll. Suil Ghorm, a rock, lies 1 mile NE of Coll. Cairns of Coll Light is shown from this rock.

A channel, deep and free of dangers, leads between Cairns of Coll and Suil Ghorm. Local knowledge is required due to strong tidal currents. A depth of 18.5m was reported to lie 5 miles WNW of Cairns of Coll Light.

The Isle of Skye—Southwest Coast

4.7 Skye (57°20'N., 6°15'W.), a large island, has a SW coast extending NW for 35 miles from Point of Sleat (57°01'N., 6°01'W.). This coast is rugged and indented by several lochs. Violent N wind squalls sweep down from the mountains backing the coast. The coastal waters are comparatively free of dangers with rocky shoals lying less than 0.5 mile offshore with the exception of An Dubh Sgeir (57°20'N., 6°40'W.).

Strathaird (57°08'N., 6°06'W.), a large promontory, divides two bays. Rubha na h-Easgainne (57°08'N., 6°05'W.) is the S point of the promontory.

Loch Eishort (57°09'N., 5°59'W.), deep and open to the W, is foul in its inner part and should be entered only with local knowledge. Sheltered anchorage can be taken, in depths up to 11m, in the loch.

Loch Slapin (57°11'N., 6°01'W.) is entered W of Rubha Suishish (57°10'N., 6°00'W.). The loch, opening N, is deep and clear of dangers in the fairway as far as 2 miles from its head wherein the inlet becomes shoal and foul. Anchorage can be taken, in depths up to 5.5m, mud, in the inner part of the loch.

Tarskavaig Bay (57°06'N., 6°00'W.), opposite and E of the point of Strathaird, has depths of 3.7 to 7.3m, but is foul throughout.

4.8 Loch Scavaig (57°10'N., 6°09'W.), indenting the coast W of Strathaird, is entered E of Rubha Gheodha Buidhe (57°11'N., 6°10'W.). Sgurr na Stri (57°12'N., 6°08'W.), a bare, dark mountain peak with a sharp cone, identifies the loch approaching from S. The sides of the loch are formed by steep mountain sides. Bogha Carrach (57°09'N., 6°08'W.), with a depth of 3.2m, lies in the S approach fairway to the loch. Above and below-water rocks and islets encumber the loch. Severe wind squalls off the mountains, or heavy swells rolling in with S winds, may cause dangerous conditions in the loch.

Rubh' an Dunain (57°10'N., 6°19'W.) is the outer extremity of a promontory on the NW side of the approach to Loch Scavaig. From the offing the promontory appears low and flat, with a twin-peaked hill at the point.

Soay (57°09'N., 6°14'W.), an island lying in the SW approach to Loch Scavaig, has a low narrow isthmus connecting the NE and SW ends of the island. Camas nan Gall (57°09'N., 6°13'W.), an inlet on the S side of the isthmus, is open to S gales and seas.

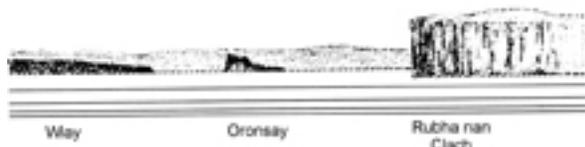
Soay Harbor (57°09'N., 6°01'W.), a constricted creek on the N side of the isthmus, is fronted by a drying bar. Temporary anchorage, sheltered from S winds, can be taken off the harbor. Anchorage is available, clear of drying rocks, in Camas nan Gall. The preferred anchorage is in a depth of 27m off the SW entrance point of the inlet.

Soay Sound (57°10'N., 6°15'W.), the channel N of Soay, has a least depth of 16.5m and is free of dangers in the fairway. Tidal currents setting N along the W side of Straithaird promontory divide at Soay Island. Part of the current sets W in strength through Soay Sound meeting the current setting along the coast from Loch Scavaig and causing a confused, choppy sea in the entrance of the sound.

4.9 Loch Brittle (57°11'N., 6°19'W.) and Loch Eynort (57°14'N., 6°23'W.) are adjacent lochs indenting the coast NW of Rubh' an Dunain. Most of Loch Brittle has a least depth of 15m and it extends free of dangers to drying flats at the head. South winds raise a considerable swell making the loch unsafe. High cliffs, cut by a chasm, form the NW side of the loch. Loch Eynort is open to W gales which raise a heavy sea. Squalls are frequent in the loch. An Dubh Sgeir (57°13'N., 6°24'W.), a bare rock, lies off the entrance. Depths decrease from 18m in the entrance to the drying flat at the head. Sheltered anchorage can be taken, in depths of 3.7 to 5.5m, within the bend of the loch. Vessels can anchor, in depths up to 11m, mud, at the bend.

Talisker Bay (57°17'N., 6°28'W.) is a small bight indenting a coast consisting of steep cliffs backed by conspicuous mountains. Caves in the cliffs and waterfalls are prominent landmarks. The bay is open to SW winds and has poor holding ground. A prominent rock rises about 1 mile NW of Rubha Cruinn (57°17'N., 6°29'W.), the steep N entrance point of the bay, over which flows a considerable waterfall. The coast N of the point consists of broken ragged cliffs.

4.10 Loch Bracadale (57°20'N., 6°32'W.) is entered between Rubha nan Clach (57°19'N., 6°29'W.) and Idrigill Point (57°20'N., 6°34'W.). The former is a high, sheer cliff with a waterfall flowing down its N face; the latter point consists of high craggy steep cliffs. Within a deep-water entrance, the loch divides into three arms fronted by several islands. Local vessels maintain a shipping service between some of the villages, the mainland via Mallaig, and the Hebrides. The loch is open to the prevailing winds. Tidal currents are negligible.



S part of entrance to Loch Bracadale

Entrance to Loch Bracadale

4.11 Wlay (57°20'N., 6°30'W.), a conspicuous island lying within the loch entrance, is ringed with coastal cliffs and fringed by drying reefs.

Oronsay (57°20'N., 6°28'W.), an island joined by a drying

reef to Ullinish Point, close NE, forms the NW side of the entrance to Loch Harport. The SW end of Oronsay is a vertical cliff, fronted by a low point on which rises The Castle, a prominent rock column resembling castle turrets. Drying rocks and reefs, lying close S and SE of The Castle, are marked by breakers.

Loch Harport (57°20'N., 6°24'W.), entered between Ullinish Point and Ardtreck Point (57°20'N., 6°26'W.), has a least depth of 9m in the fairway as far as 2.5 miles from the head of the loch, which dries. The loch channel is free of dangers. The sides of the loch are steep-to and fringed by reefs. Ardtreck Point is low, steep-to, and reef-fringed. A light is shown from a tower on Ardtreck Point. A parsonage standing 1.5 miles NE of Ullinish Point is a useful mark for vessels entering the loch. Anchorage can be taken in suitable depths, good holding ground, in the loch channel. Anchorage may also be taken, in depths of 13 to 16m, off the pier at Carbost (57°18'N., 6°21'W.).

Port nan Long (57°20'N., 6°25'W.), a small bight close E of Ardtreck Point, has a drying head. A concrete pier about 23m long can accommodate a vessel 60m in length with a maximum draft of 4.6m. Sheltered anchorage can be taken between Ardtreck Point and a point about 0.5 mile ESE. Small vessels can obtain anchorage farther in, close inshore off a ruined slip on the E side of the bay, in a depth of 7m.

Tarner Island (57°22'N., 6°30'W.), rocky with cliffs, is reef-fringed with a chain of drying rocks extending NNE from the N end of the island. A 5.5m deep channel leads between the island and rocks. Anchorage, open to S winds, can be taken, in a depth of 11m, clay, about 150m off the NE side of the island.

4.12 Loch Caroy (57°22'N., 6°31'W.), and **Loch Vatten** (57°23'N., 6°33'W.), both leading N from the entrance of Loch Bracadale, are separated by Harlosh Island (57°22'N., 6°32'W.). Although both lochs are deep, they provide very little shelter.

Rubha Ruadh (57°22'N., 6°40'W.), a promontory backing the shore, is the end of a stretch of coast consisting of remarkable, high cliffs broken into unusual formations. Above and below-water rocks extending 1.5 miles S of Rubha Ruadh, terminate at An Dubh Sgeir, a black rock steep-to on its S side. The coast NW of Rubha Ruadh consists of high, steep cliffs pierced by many caves. Tidal currents are strong in this area.

Hoe Point (57°23'N., 6°43'W.), a steep rocky headland, extends NW from Lorgill Bay to Hoe Rape (57°23'N., 6°44'W.). The Hoe has a black vertical cliffy face intersected with red streaks.

Moonen Bay (57°24'N., 6°45'W.) is an open bight between Hoe Rape and Neist Point (57°25'N., 6°47'W.). Waterstein Head (57°25'N., 6°46'W.), a precipitous headland E of the point, is an excellent landmark. Temporary anchorage can be taken, in depths of 15 to 20m, in the NW part of Moonen Bay.

Caution.—Tidal currents around Neist Point are rather strong and complicated by the currents setting NE and SW through Little Minch, which raise a choppy confused sea.

The Small Isles

4.13 The Small Isles (57°00'N., 6°20'W.) are sparsely populated and lie between Point of Ardnamurchan and the SW

coast of Skye. Shipping is carried on between Mallaig and the three largest isles of the group. Tidal currents in the vicinity of the area are shown on the charts.

Muck (56°50'N., 6°15'W.), the S isle, has terrain rising to over 135m in the W part where there are several cliffs. There is good spring water and arable land in the interior. Muck has a rocky coast, no harbors, and affords little shelter. Above and below-water rocks and reefs fringe the coast and there are detached, partly drying rocks and reefs lying offshore, some of which are uncharted as evidenced by breaking seas. Mariners without local knowledge are advised to give the area a wide berth.

Eigg (56°54'N., 6°10'W.), the E isle of the group, has a high and rocky coast indented by small bays and inlets. A conspicuous hill, the upper part a steep cliff, rises near the S end of Eigg. Although the N end of the isle is low, cliffs rise to prominent heights about 0.3 mile inland and nearly encircle the isle.

Eilean Chathastail (Eilean Castle) (56°52'N., 6°07'W.) is an islet lying close off the SE side of Eigg. A light is shown from a beacon standing on the E end of the islet. Rubha na Crannaig (56°53'N., 6°07'W.) is the low E end of Eigg. The coast N of the point is free of offshore dangers, but the N and W shores of the isle are reef-fringed, as is the S shore where a bare rock lies 0.4 mile offshore. Tidal currents in the channel S of the rock set NW and N along the E coast of Rhum.

Bay of Laig (56°55'N., 6°10'W.), open, and indenting the NW coast of Eigg, is reef-fringed. Most of the inhabitants of the isle live near the bay.

4.14 Maxwell Bank (56°51'N., 6°06'W.), a rocky bank with a least depth of 12.5m, on which the sea breaks in heavy weather, and Oberon Bank (56°52'N., 6°02'W.), with depths of 15.5 to 20.1m, about 3 miles E of Eilean Chathastail, are to be avoided enroute to the Sound of Sleat.

Anchorage can be taken, sheltered from W gales, about 0.3 mile offshore and N of Rubha na Crannaig and also in depths up to 14.6m about 0.3 mile S of the point, near Flod Sgeir, a drying rock. Anchorage is available in the bay between the W side of Eilean Chathastail and Eigg. A course of 021°, tangent to the W side of the N entrance, leads to the anchorage, in depths of 5.5 to 12.8m, sand.

Caution.—Depths increase suddenly to 55m at a distance of 0.3 mile from Flod Sgeir.

4.15 Rum (Rhum) (57°00'N., 6°20'W.), the largest isle, is very mountainous. Several of the highest mountain peaks are seldom seen, as they are enshrouded constantly in mist and clouds. Rum is a Scottish Nature Reserve and has a very sparse population. The coasts of the island are generally steep-to and generally free of dangers beyond 0.3 mile offshore. Lesser depths than charted were reported along the 50m curve between the S tip of Rum and a point 1.8 miles NW. Reefs, rocks, and shoals fringe this coast.

Loch Scresort (57°01'N., 6°15'W.), the only sizable bight indenting the coast of Rum, affords anchorage, in a depth of 6.4m, about 0.5 mile from the drying pier, with Kinloch House (57°01'N., 6°17'W.) bearing 270°. Small craft can anchor, in a depth of 3.7m, mud, with the pier bearing 250°, about 0.2 mile distant. Although the shores of the loch are reef-fringed, the loch proper is clear of dangers. Vessels enter the loch with Kin-

loch House bearing 270°.

4.16 Canna (57°04'N., 6°32'W.), the NW isle of the group, is grass-covered and hilly, with elevated extremities and a depressed middle.

Sanday (57°03'N., 6°30'W.) is an isle connected SE to Canna by a drying reef. A high steep-to cliff forms the E end of Sanday. Isolated high rocks of remarkable appearance rise close E of the cliff. Canna Light is shown from a tower at the E end of Sanday.

The S side of Canna is indented by a broad bay divided by a reef into two parts. Tarbert Bay (57°03'N., 6°33'W.) is the W part; Boat Harbor (57°03'N., 6°01'W.), the E part, is encumbered with rocks. An islet lying at the SE side of the harbor, aligned 040° with Compass Hill (57°04'N., 6°29'W.), leads to an anchorage, in a depth of 3.7m, sand, N of the islet. The hill is the center of strong magnetic disturbances.

Tarbert Bay affords anchorage, in a depth of 16.5m, but is not recommended.

4.17 Canna Harbor (57°03'N., 6°29'W.) is entered S of a point at the SE extremity of Canna which is a black steep-to cliff. A drying rock lies 0.1 mile NW of the point and another drying rock lies in the entrance fairway about 0.5 mile NW of Canna Light. The preferred entrance, N of the latter rock, leads in a depth of 3.7m to a very small harbor of similar depth. Anchorage, sheltered from SW gales, can be taken, in a depth of 3.7m, mud, close NW of a rock lying 0.1 mile WNW of the entrance point.

Garrisdale Point (57°03'N., 6°37'W.), the W end of Canna, is fringed by reefs which extend along the N coast of the isle. An Steidh, an islet, lies SE of the point and sunken rocks lie 0.2 mile apart and 1.5 miles S of the point.

Humla (57°01'N., 6°37'W.), a bare rock, is marked on its SW side by a lighted buoy fitted with AIS. Rocks, awash, lie 0.1 mile NNE and 0.2 mile WSW of Humla Rock. It should be noted that Sanday Light is obscured over this rock. Tide rips and eddies occur in strength over the rocks and banks lying SW of Canna.

Mill Rocks (56°57'N., 6°44'W.) are two detached heads with a least depth of 1.8m. Breaking seas occur over the rocks and the irregular bank lying SW during stormy weather. Although the least known depth on the bank lying SW of Mill Rocks is 19.3m, vessels should not approach the vicinity of Mill Rocks, particularly when the visibility is poor, in depths of less than 55m. The N extremity of Eigg, bearing 085°, open S of the S end of Rum, leads 1.5 miles S of Mill Rocks. Due to breakers, passage between Mill Rocks and Oigh Sgeir is not recommended.

Oigh Sgeir (56°58'N., 6°41'W.), an isolated group of islets, lies 5 miles SSW of Garrisdale Point. The SW islets are low-lying and the E islets are steep-to. Hyskeir Light is shown from a tower located 0.4 mile SW of the group of islets. A racon is located at the light.

East Coast of the Outer Hebrides—Berneray to the Sound of Harris

4.18 The Outer Hebrides (57°46'N., 6°58'W.), a group of islands, islets and rocks, are separated from the mainland of North Scotland by the Sea of the Hebrides and The Minch. The

Sound of Harris, the Sound of Barra, and several of the channels between the S group of islands are the only navigable passages through them.

Depths in the Sea of the Hebrides are ample for most ocean-going vessels and the channel through this seaway is clear of dangers.

Caution.—A submarine ridge, with a depth of 90m, extends SSW for about 15 miles from Barra Head (56°47'N., 7°38'W.).

4.19 Sgriobh Bhan (White Strip) (56°38'N., 7°41'W.), rocky fishing grounds with a least depth of 30m, lies on the ridge about 8.5 miles SSW from Barra Head. The depths in this vicinity are irregular, and a number of isolated patches, with depths between 22 and 36m lie between the 30m and 100m curves, SW and NW of Barra Head.

Caution.—Many depths, significantly less than those charted, are reported to exist up to 15 miles SW to W from Barra Head Light and up to 10 miles NW from the NW extremity of Barra. The depths lie E of the E limit of the Route for Deep Draft Ships.

Along the E side of the Outer Hebrides, the tidal currents of the S islands change direction about 4 hours before those off Lewis, the N island of the group. West currents prevail in the sounds when the coastal current sets SW.

Northeast coastal currents set into the sounds. South of Berneray, the current sets SE on the change before shifting to NE. Tide rips can be seen. Tide and tidal current information is shown on the charts covering the Outer Hebrides.

4.20 Barra Head (56°47'N., 7°38'W.), the S extremity of Berneray, is described in paragraph 6.9. Between the head and the N end of Barra are grouped several islands, islets, and numerous rocks. Several channels separate these various islands and islets.

Berneray (56°47'N., 7°38'W.), an uninhabited island, is marked by a light and is described in paragraph 6.9.

Mingulay (56°49'N., 7°38'W.), an uninhabited island, is described in paragraph 6.9.

Geirum Mor (56°48'N., 7°39'W.), a high islet formed of dark cliffs, lies 0.1 mile off the S end of Mingulay. Above and below-water rocks lie NE and NW of the islet. The Red Boy is a conspicuous detached rock lying close W of the N end of Mingulay. Anchorage, exposed to a SW swell, can be taken, in depths of 16 to 18m, off the E entrance of Mingulay Bay.

4.21 The Sound of Berneray (56°48'N., 7°38'W.), a navigable passage between Berneray and Mingulay, has a least depth of 12.8m and is clear of dangers in the fairway. Shelter Rock, which dries, lies close off the N side of Berneray. The channel between the rock and Berneray has a least depth of 1.8m. An E wind opposing the current raises a sea in the E part of the sound, where tide rips occur when a NE coastal current meets the SW eddy leaving the sound. An E transit of the sound is usually smooth.

Pabbay (56°51'N., 7°35'W.), an uninhabited island, and Rosinish, close E of Pabbay, are described in paragraph 6.9.

The **Sound of Mingulay** (56°50'N., 7°36'W.), a navigable passage, has a least charted depth of 16.8m and a width of 0.7 mile. Outer Heisker (56°51'N., 7°37'W.), an islet, lies in the W entrance of the sound. Inner Heisker (56°51'N., 7°36'W.) is a

group of islets lying N of the channel within the sound and off the SW end of Pabbay. If seas break between the outer and inner islets during stormy weather, vessels should pass S of both Outer Heisker and Inner Heisker. Tidal currents cause a race at springs when the E current clears the NE entrance of the sound. The tidal current from the Sound of Berneray meets the current setting S from the Sound of Mingulay, resulting in overfalls.

4.22 Sandray (56°53'N., 7°30'W.), an uninhabited island, has a large, sandy beach on its E side which is a good landmark. A bare, rocky islet lies close SE of the E end of Sandray. Numerous rocks lie W of the island as far as Flodday (56°54'N., 7°35'W.), an islet formed by dark cliffs along its W side. A bank, with a least depth of 13.2m, lies 2 miles E of Sandray. Southeast gales raise a rough sea over the bank.

The **Sound of Pabbay** (56°52'N., 7°33'W.), a navigable passage, has a least depth of about 14m in the fairway. Lingay (56°52'N., 7°35'W.), an island lying in the middle of the W entrance of the sound, consists of bold cliffs tapering from N to S. Greanamul, an islet, lies 0.7 mile E of Lingay. A rock, with a depth of less than 1.3m over it, lies 275m NW of the islet. The preferred fairway leads 0.3 mile N of Pabbay and close S of a 13.7m bank lying W of Lingay.

Caution.—Less water than charted has been reported between Flodday and Lingay.

4.23 The Sound of Sandray (56°54'N., 7°31'W.), a navigable passage, requires local knowledge, as rocks and shoals lying in or near the passage restrict the fairway to a width of about 300m and a depth of 10.9m. The W entrance of the sound is constricted by shoals over which the sea breaks. Foul ground lies off the NW and SE ends of Sandray and Vatersay.

Vatersay (56°56'N., 7°32'W.), the westernmost inhabited island in Scotland, is divided into two parts by a low sandy isthmus forming a W bay and an E bay. Vessels should avoid the tide rips off the W side of the N part of Vatersay. The W bay is untenable. Vatersay Bay, the E bay, is entered between Creag Mor and Am Meall, a steep point about 0.5 mile SW. The bay has a least depth of 10.5m in the fairway leading to a low sandy beach.

Muldoanich (56°55'N., 7°27'W.), an island SE of Vatersay, is sheer and steep-to, except on its W side. A chain of islets and rocks extends from the island to Creag Mor, and provides shelter from E weather to Vatersay Bay.

Sgeir Vichalea (56°55'N., 7°31'W.), a drying rock lying 0.5 mile WNW of Am Meall, is marked by a beacon. Sheltered anchorage can be taken, in depths of 13 to 15m, sand, about 0.2 mile NW of Sgeir Vichalea.

4.24 Bo Vich Chuan (56°56'N., 7°24'W.), a steep-to sunken rock, is marked close S by a lighted buoy equipped with a racon. The S end of Muldoanich, aligned 238° with a conspicuous sandy patch on the E side of Sandray, leads SE of the sunken rock. Above and below-water rocks lie at least 1 mile E of Rubha Mor (56°57'N., 7°26'W.), the SE extremity of Barra.

Sgeir a Scape (56°56'N., 7°27'W.), a drying rock marked by a ruined beacon, and a 1.6m shoal, marked by a lighted buoy equipped with a racon, lie 0.7 mile and 1 mile S of Rubha Mor.

Dubh Sgeir (56°56'N., 7°28'W.), a drying rock, is the outermost of a chain of rocks extending 0.2 mile S of the SE end of

Orosay (56°57'N., 7°29'W.). The fairway leading to Castle Bay is about 0.2 mile in width between Dubh Sgeir and the above and below-water rocky shoals extending N from Vatersay. A light is shown from a column on Dubh Sgeir.

Sgeir Liath (56°57'N., 7°31'W.), a low rocky islet, lies nearly 0.5 mile SW of Rubha Glas, the W entrance point of Castle Bay. A light is shown from a column on the islet. Rocky foul ground lies off Rubha Glas (56°57'N., 7°30'W.) and off Orosay, the islet close off the E entrance point.

4.25 Castle Bay (56°57'N., 7°29'W.) indents the S coast of Barra and is the local harbor serving the area. Tidal currents are weak in Castle Bay and approaches. The flood current sets E through Vatersay Sound and into the bay; the ebb current sets W and out of the bay. There are depths of 5.5 to 12.8m, mud and sand, in the harbor which is entered between Orosay and Rubha Glas in a least depth of 6.5m. The E part of the harbor is fronted by rocky shoals. Kiessimul Castle stands on an islet near the N end of these shoals. A church at the head of the bay, close N of the castle, has a conspicuous clock-faced tower. Submarine cables marked by beacons, lie between the castle and the N shore. Range lights, shown from towers 0.3 mile apart and aligned 295°, are located NNE of Sgeir Liath. This range leads close S of Dubh Sgeir on approaching the bay.

Vessels entering the bay should keep in the deeper water in its W part. There is a main pier on the N side of the bay, where vessels call from Glasgow and local mainland ports. Anchorage can be taken, in depths of 9 to 11m, with Kiessimul Castle bearing 046°. Smaller vessels can anchor, in a depth of 7.3m, close W of the castle.

The Sound of Barra—Southeast Side

4.26 The Sound of Barra (57°04'N., 7°22'W.) is the navigable passage between Barra and the island of South Uist lying 3.5 miles NE. Numerous islands, islets, rocks, and shoals encumber the sound which is at least 3.5 miles wide. The bottom of the sound in its middle and S parts is clear, composed of sand and shells partly covered by weeds. A rocky uneven bottom, with breakers denoting the presence of shoals, prevails throughout the N part of the sound.

The tidal currents set in and out of the Sound of Barra simultaneously at both ends on the flood and ebb. The current sets NW from the E entrance and SE from the W entrance. Both currents meet near the center of the sound (Oitir Mhor) and W of Eriskay, where they become weak and variable. In Drover Channel (57°04'N., 7°22'W.), the SE current has a strong set toward Fuday (57°03'N., 7°23'W.) and adjacent shoals, whereas the NW current sets strongly toward Drover Rocks (57°04'N., 7°24'W.).

The principal channel through the sound, consisting of several reaches designated by name, is intricate and in places less than 0.1 mile in width, with a least depth of 6.7m. Local knowledge is necessary to transit the sound, but pilots are not available. Natural ranges are often used to navigate within the sound and they are rather difficult to identify when approaching from the W.

The E side of the sound is bound on the S by **Bruernish Point** (56°59'N., 7°23'W.) and on the N by **Ru Melvick** (57°06'N., 7°14'W.). **Curachan** (56°58'N., 7°21'W.), a rocky

islet, is a prominent landmark when approaching North Bay (57°00'N., 7°23'W.) and the Sound of Barra. Above and below-water rocks lie near the islet. **Fuiay Island** (57°00'N., 7°22'W.) forms the E side of North Bay, with Flodday (57°00'N., 7°21'W.) lying close E of Fuiay.

Anchorage in North Bay can be taken, in a depth of nearly 11m, about 0.2 mile from the NW end of Fuiay. Hellisay (57°01'N., 7°21'W.), with Fuiay and Flodday, form the Sound of Hellisay (57°00'N., 7°21'W.), wherein shelter can be found amongst the various islets with local knowledge. Anchorage can be taken in the Sound of Hellisay about 0.2 mile W of Flodday, in a depth of 16.5m.

4.27 Gighay (57°01'N., 7°20'W.) is the NE of a group of islands forming the SW side of the Sound of Barra. The NE side of this island is steep-to and from SE appears as a high point ending in a hummock.

Fuday (57°03'N., 7°23'W.) is a grass-covered island featuring three flat-topped hills. The inner area between Fuday and Gighay is encumbered with islets and foul rocky ground. The outer shoals are cleared by keeping Ben Scrien (57°05'N., 7°18'W.) bearing not more than 014° and open E of Gighay.

Outer Oitir Mhor (57°02'N., 7°22'W.) and **Inner Oitir Mhor** (57°01'N., 7°24'W.) are areas cluttered with reefs and shoals wherein shelter and anchorage is available. Anchorage can be taken in Outer Oitir Mhor, in depths of 9 to 18m, good holding ground, about 0.5 mile NNW of the W extremity of Gighay. Anchorage is also taken, in depths up to 12m, clay and sand, about 0.5 mile W of Greanamul (57°02'N., 7°23'W.), an islet. With strong E and SE winds, vessels should anchor about 0.5 mile SW of the islet.

The Sound of Barra—Northeast Side

4.28 Ru Melvick (57°06'N., 7°14'W.), the SE extremity of South Uist, is a bold rocky headland ending seaward in a steep-to, bare rock. Easaval (56°07'N., 7°20'W.), a long flat-topped hill, and Artople (56°07'N., 7°17'W.), another eminence, are conspicuous landmarks in transit of the sound. The N shoulder of Easaval has a remarkable spur ending in a steep face. It was reported that a rock, with a least depth of 2m, lies approximately 0.6 mile SSW of Ru Melvick.

Eriskay (57°04'N., 7°17'W.), the largest island in the sound, has two conspicuous mountain peaks named Ben Scrien (57°05'N., 7°17'W.) and Ben Stack (57°04'N., 7°17'W.).

The **Sound of Eriskay** (57°06'N., 7°17'W.), N of Eriskay, is foul and used only with local knowledge. Hartamul (57°05'N., 7°14'W.), a grassy islet, lies in the E approach to the sound. Above and below-water rocks encircle the islet.

The **Stack Islands** (57°03'N., 7°18'W.), include Eilean Leathan, a steep-to island on which stands the ruins of Weaver's Castle, a prominent landmark when approaching the Sound of Barra.

Binch Rock (57°02'N., 7°17'W.), marked by a buoy, has a depth of 3.1m and lies near the entrance fairway to the Sound of Barra.

Bo Tanna (57°03'N., 7°20'W.), a two-headed drying rock, and a patch with a least depth of 2.3m over rock lying close N of Bo Tanna, are dangers close to the fairway.

Lingay (57°05'N., 7°22'W.), a grass-covered island encir-

ced by foul ground extending N and E to South Uist and Eriskay, is described in paragraph 6.13.

Drover Rocks (57°04'N., 7°24'W.), awash, lie close N of the fairway through the sound. Other shoals lie very close to the fairway NNW of Fuday.

Fiaray (57°04'N., 7°26'W.), a rocky island, rises to two flat summits. Kate Beacons, consisting of front and rear stone markers, stand on the NE side of the island and, when in alignment 273°, lead through Drover Channel (57°04'N., 7°22'W.).

The Sound of Barra to Benbecula Sound

4.29 South Uist (57°17'N., 7°20'W.) has a mountainous and barren E side formed by three mountain ranges, of which Easaval is a part. Roneval (57°06'N., 7°16'W.) is a conspicuous eminence located 1.2 miles WNW of Ru Melvick. Boisdale Hills (57°11'N., 7°17'W.), a range extending between Loch Boisdale and Loch Eynort, has three rounded, prominent peaks of which Stulaval (57°12'N., 7°18'W.) is the highest. Benmore (57°20'N., 7°18'W.), the highest range on the island, rises steeply from the sea N of Loch Eynort. Beinn Mhor (57°16'N., 7°18'W.) is the highest peak on South Uist. The E coast of this populated island is broken by many inlets and bays fronted by rocks and detached shoals extending as far as the 50m curve.

Rubha na h-Ordaig (57°07'N., 7°13'W.), the E point of the S end of the island, has several peaks. The highest peak, with a vertical N face, falls abruptly to low ground W. A reef extends about 250m E of the point. The sea breaks heavily on the reef, which should not be approached within 0.5 mile.

Rubha Meall na Hoe (57°08'N., 7°15'W.), the S entrance point of Loch Boisdale, is fronted for 0.5 mile by above and below-water rocks.

McKenzie Rock (57°08'N., 7°14'W.), with a depth of 2.4m, is marked close N by a lighted buoy. Tidal currents set N along the coast and into Loch Boisdale, where they become weak and variable.

4.30 Loch Boisdale (57°09'N., 7°16'W.) is approached between Rubha Meall na Hoe and Rubha na Creige Moire (57°10'N., 7°15'W.). The terrain on the sides of the loch is rocky and backed by steep hills while the head of the loch is so low as to be invisible from a few miles offshore. The entrance of the loch lies between **Calvay** (57°09'N., 7°15'W.), a small, grassy island lying close offshore and the N side of the loch, about 0.4 mile distant. The loch is clear of dangers, except during October and November when fishnets are stretched across the entrance, as far as **Gasay** (57°09'N., 7°17'W.), an island lying 1.2 miles within the entrance. A conspicuous tower, from which a light is shown, stands at the E end of Calvay.

Rubha Bhuailt, a promontory 0.1 mile W of Gasay, with Gasay, divide the loch into two arms. Both arms are encumbered with shoals, but the S arm has the deeper channel with a depth of 9.6m. Gasay Rock, drying, and covered by seaweed in calm weather, lies 0.1 mile E of Gasay. Sgeir Rock, 275m N of Gasay, has a depth of 1.2m and is marked close S by a buoy. To keep the fairway to the pier at Lochboisdale clear, vessels should avoid anchoring between Gasay and Sgeir Rock.

4.31 Lochboisdale (57°09'N., 7°18'W.) (World Port Index No. 32990) is a fishing village built on a triangular neck of

land. A hotel, with gables, is prominent in the village as is the local police station. The fairway leading N of Calvay and Gasay to the entrance channel at Lochboisdale has a least depth of 7.8m. Several detached shoal patches of less than 5.5m lie close N of the fairway. The pier at Lochboisdale is about 100m long with depths of 3.6m alongside. There are ro-ro facilities on the S side of the pier. Vessels of up to 73m in length can be accommodated.

Anchorage can be taken, in depths of 20 to 24m, mud, 0.5 mile E of Gasay. Additional anchorage can be taken, in depths of up to 16.5m, mud and shells, close S of the W end of Gasay, but this anchorage is open to W and SW gales.

Loch Eynort (57°13'N., 7°17'W.) indents the coast 4 miles N of Loch Boisdale. The intervening coast, backed by the Boisdale Hills, should not be approached within 1 mile. There is a conspicuous dark, sheer cliff about 0.2 mile N of Rubha na Cruibe (57°09'N., 7°15'W.).

4.32 Stuley (57°11'N., 7°15'W.), a grass-covered island lying close offshore, has foul ground E and SE, but a sound on the W side has a least depth of 2.5m in it. A group of islets and rocks lies as far as 0.8 mile SSE of the S entrance point of Loch Eynort. The entrance is 0.5 mile wide S of Creag Mor (57°14'N., 7°16'W.), the N entrance point. The loch leads W for 1.2 miles to Rubha Lailum (57°13'N., 7°18'W.), where it becomes constricted and shallow with a narrow channel leading into Upper Loch Eynort (57°14'N., 7°20'W.). Loch Eynort has often been mistaken for Loch Boisdale, as the heads of both lochs are backed by very low terrain. However, the shores of Loch Eynort are much steeper, with dark vertical cliffs on the N side.

Beinn Mhor (57°16'N., 7°18'W.) and **Meall Mor** (57°14'N., 7°17'W.) help identify Loch Eynort. Meall Mor, a hill with deep notches, terminates in Coilenish, a point projecting offshore about 0.5 mile SE of the summit. Both shores of the loch are fronted by foul ground for 0.2 mile. A mid-channel course should be steered from the loch entrance. Anchorage, open to E weather, can be taken, in a depth of 15m, mud, close N of islets lying 0.7 mile W of the S entrance point. Smaller vessels can anchor 100m offshore and 0.5 mile W of Coilenish (57°13'N., 7°16'W.), in a depth of 11m, mud.

4.33 Rubha Bhilidh (57°17'N., 7°13'W.) is a point on the coastal headland forming the outer end of Usinish Bay (57°17'N., 7°14'W.), a small open bight with a gravel beach fronted by a drying rock lying 250m offshore. The steep-to coast between Creag Mor and Rubha Bhilidh is formed of steep cliffs cut by sheer ravines with numerous dark caves along their sides. Violent squalls roar down the ravines with W winds.

Usinish (57°18'N., 7°12'W.) is a steep-to bold headland with three peaks. A light is shown from a tower standing at the SE end of the promontory. A rock, with a depth of 1.8m, lies 0.7 mile S of the light tower.

Mol a' Tuath (57°18'N., 7°13'W.), an inlet on the NW side of Usinish, has depths of 18 to 22m. A rock, partly awash, lies close off the NE end of Usinish. Anchorage can be taken, in depths up to 22m, good holding ground, in the middle of the inlet.

Ornish (57°19'N., 7°14'W.), a high headland, is fronted N



Usinish Light

by Ornish Island which is faced with steep dark cliffs. The area between is foul.

4.34 Loch Skipport (57°20'N., 7°14'W.) is entered between Ornish Island (57°20'N., 7°13'W.) and Rubha fo Dheas, a point 0.5 mile NNW. The shores of the loch are heavily indented, with several islets restricting the fairway to less than 0.1 mile over a depth of about 5.5m. The terrain is low on the N side of the loch and the S side is backed by hills. The conspicuous ruins of a building with two high gables stand N of the point.

Ben Tarbert (57°20'N., 7°18'W.), a prominent mountain, has a summit with a notch on each side.

Shillay Mor (57°20'N., 7°15'W.), an island with three peaks, is steep-to on its N side. Bagh Charmaig, a bay, lies close W of a promontory located 0.7 mile WSW of Rubha fo Dheas. Drying rocks lie off the bay entrance. Vessels proceeding to an anchorage in Loch Skipport should pass 0.2 mile N and W of Ornish Island. The W part of the loch is reached by steering midway between Shillay Mor and the N shore.

Anchorage can be taken, in a depth of 24m, between Ornish Island and the E side of Shillay Mor. Anchorage can also be taken, in depths of 7 to 11m, mud, in the strait between the island of Lairsay Dubh (57°21'N., 7°13'W.) and the mainland. Anchorage is available, in a depth of 11m, in Bagh Charmaig, about 0.1 mile NNE of the W entrance point, however, the holding ground is poor and the bay is subject to severe squalls in S winds. A cottage, with a red roof that is easily identifiable, lies 0.4 mile WSW of Aird Choraidh. When bearing 250°, it leads in the fairway to the anchorage off Bagh Charmaig.

Loch Sheilavaig (57°21'N., 7°14'W.) indents the coast of South Uist about 0.5 mile NW of Lairsay Dubh. Several islets front this landlocked inlet which is reached through unmarked deep-water channels.

Benbecula Sound to the Sound of Harris

4.35 Benbecula Sound (57°22'N., 7°13'W.) is the navigable, E part of a passage leading to South Ford (57°24'N., 7°19'W.) and separating South Uist from Benbecula. The shores of the sound are extremely irregular, with numerous islands, islets, and foul ground encumbering the passage. Tidal currents set into each end of the sound and South Ford on a rising tide and out each end on a falling tide.

Loch Carnan (57°22'N., 7°16'W.) is fronted by many shoals and islands, of which Gasay (57°22'N., 7°15'W.) is the most conspicuous. A quay, 55m long, with a depth of 3.7m alongside, is situated close W of the leading marks. In places in the approach to the quay, there are depths of only 3m. Vessels of

up to 1,000 tons can be berthed. The range lights on the mainland are shown from masts located 0.5 mile WSW of Gasay. When in line bearing 222°, the masts lead through an entrance channel marked by lighted buoys. A lighted buoy is moored in the entrance of Benbecula Sound, about 1.2 miles E of Grey Island Rocks (57°22'N., 7°14'W.). Other lighted buoys mark the channel N of the rocks and through the sound to Loch Carnan. There are no pilots, but local pilotage assistance is available through application to the Royal Artillery Range, Isle of Benbecula. The pilot boards N of Grey Island Rocks.

Bagh nam Faoileann (57°23'N., 7°14'W.) is an area lying E of the drying sands of South Ford and between the numerous dangers that lie off the S and N sides of the sound. The entrance to this area lies between the island of Steisay (57°23'N., 7°14'W.) and Gashernish (57°22'N., 7°16'W.), a peninsula.

Lighted buoys and floats, moored W and WNW of Steisay, mark the fairway through Bagh nam Faoileann. Army landing craft operating from South Ford transit Bagh nam Faoileann. The causeway crossing South Ford contains a bridge in the section N of Creagorry Island and has a horizontal clearance of 15m and a vertical clearance of 2.9m.

4.36 Wiay (57°24'N., 7°12'W.), the outer island on the N side of Benbecula Sound, has sloping terrain rising to a center eminence. The area between the island and Benbecula is foul.

Peter's Port (57°24'N., 7°15'W.) is an area affording shelter to small vessels between the islands W of Wiay. The island is uninhabited, but supplies are landed occasionally for South Benbecula.

Benbecula (57°26'N., 7°18'W.), a low flat island connected at low tide to South Uist and North Uist by drying sandy fords, is described in paragraph 6.15

Rueval (57°28'N., 7°18'W.) is the only prominent eminence.

Rarnish (57°25'N., 7°12'W.) is a promontory forming the SE end of Benbecula.

Bo Greanamul (57°25'N., 7°11'W.), a detached rock with a depth of 2.1m, is the outermost danger off the E coast of Benbecula. The rock is usually marked by tide rips.

Loch Uskavagh (57°27'N., 7°12'W.), a rocky inlet, is encumbered with islets and reefs which at low tide presents an almost continuous vista of bare rocks. Above and below-water rocks lie less than 0.1 mile N and S of the entrance fairway which becomes very constricted about 1.5 miles within the entrance N of Maey Glas (57°26'N., 7°11'W.).

The navigable channel is about 100m in width between the islands of Orosay Uskavagh (57°26'N., 7°13'W.), and a group of islets lying close N of the island. The fairway has a least depth of 11m.

Anchorage can be taken, in a depth of 15m, mud, in the middle of the loch and about 2 miles W of the entrance. Preferred anchorage is taken 0.4 mile WNW of the W end of Orosay Uskavagh, in a depth of 15m, mud. Lidistrom (57°26'N., 7°16'W.), a conspicuous white house at the head of the loch, when bearing 264°, leads through the fairway to an anchorage N of the E end of Orosay Uskavagh.

Caution.—Vessels without local knowledge should not proceed W of Orosay Uskavagh.

4.37 Grimsay (57°28'N., 7°12'W.) and **Ronay** (57°29'N., 7°11'W.) are islands, rocks, and islets lying in a partly-drying

and almost prohibitive waterway separating Benbecula from North Uist. The two islands divide the E part of the waterway into two partly navigable arms. The S arm (Loch nan Ceall) is entered between Rubha na Rodagrich (57°28'N., 7°11'W.) and the Maragay Islands (57°27'N., 7°11'W.). Only small vessels can enter this channel.

Kallin (57°29'N., 7°12'W.), the local village and supply center for the region, is located close N of the SE end of Grimsay. The village is approached through the S arm, passing 0.1 mile off the S and SW ends of Ronay. The passage leading NW to Kallin and the anchorages off the village require local knowledge and are reported to have depths of 5m or less. A chapel in ruins at the SE extremity of the island is conspicuous.

Anchorage, open SE, can be taken, in depths up to 7.3m, about 0.2 mile W of the SW extremity of Ronay. Vessels can approach this anchorage by keeping the S extremity of Ronay bearing 313° and passing N of Morrison's Rock (57°28'N., 7°10'W.).

4.38 Floddaybeg (57°31'N., 7°09'W.) and Floddaymore, lying close SW, are both steep-to, but fronted by foul ground on their inner side which occupies the N arm leading N of Ronay and Grimsay. Flodday Sound (57°30'N., 7°10'W.), with a depth of 5.5m, leads from sea W of the islands. Anchorage in the sound can be taken, in depths up to 22m, about 0.3 mile W of the N end of Flodday Mor. There is also anchorage, in a depth of 13m, about 0.1 mile NW of Flodday Beag.

North Uist (57°35'N., 7°15'W.) is an inhabited island with a hilly E side partly consisting of cliffs and indented by many bays and inlets. Two ridges of hills extend along the E side of the island.

Beinn Eaval (57°32'N., 7°11'W.), a high mountain, is wedge-shaped when viewed from E or W. A distinctive double-peaked hill rises on the S slope of the mountain.

Loch Eport (57°33'N., 7°08'W.), a very constricted inlet, has an entrance clear of dangers, but only 100m in width. There is a depth of 12.8m in the fairway for about 1 mile within the entrance; then depths decrease to 5.5m to within 1.5 miles of the loch head. Much of the loch is encumbered with rocks and rocky shoals. Bo Lea, a drying rock, lies 300m off the S entrance point. A drying reef flat extends 100m N and S of the rock. Tidal currents are weak.

4.39 South Lee (57°34'N., 7°10'W.), a prominent mountain at the N entrance of the loch, has a sheer N face and is the highest peak of a rugged range extending N to Loch Maddy. Bogs forms the S side of Loch Eport. Pilotage assistance can be obtained from Loch Maddy.

Anchorage can be taken, in a depth of 22m, mud, about 0.2 mile E of Skart Rocks, which lie above water 1.5 miles within the entrance and with Burrival (57°33'N., 7°10'W.) bearing 161°. There is also an anchorage, with a depth of 16m, at the entrance of Acairseid Lee, an inlet indenting the N shore within the entrance.

Loch Maddy (57°36'N., 7°07'W.) is entered between Leac nam Madadh (57°35'N., 7°06'W.) and Weaver's Point (57°36'N., 7°06'W.). The S entrance promontory is the NE extremity of a range of high hills. The coast between Loch Maddy and Loch Eport is bold, steep-to, and free of off-lying dangers. Weaver's Point ends in a cliff, steep-to and backed by

rounded hills in the interior. Maddy More (Madadh Mor) (57°36'N., 7°06'W.) lies 250m offshore E of Leac nam Madadh. Loch Maddy, easily recognized from offshore, has an open entrance. The inner part of the loch is obstructed by islets, rocks and shoals. The loch bottom is rock covered with mud or sand and affords unreliable holding ground.

Maddy Beg (Madadh Beag) (57°36'N., 7°06'W.) is a detached steep-to rock lying 300m SSE of Weaver's Point. The entrance channel between the point and the rock has a least depth of 11m and is clear of dangers.

Flodday (57°37'N., 7°07'W.) is the largest of the islands within the loch. Little Glas, a rock, lies 0.1 mile SW of Flodday.

4.40 Spanish Harbor (57°37'N., 7°08'W.), with depths of 6.9 to 13.2m, extends about 1 mile NW from Little Glas. Spanish House (57°37'N., 7°09'W.) is a conspicuous landmark about 0.5 mile N of the village.

South Basin (57°36'N., 7°09'W.) indents the S shore of Loch Maddy about 0.3 mile SW of Ruigh Liath islets, marked at their E and W extremities by a light and beacon, respectively. The basin is approached N and S of Faihore (57°36'N., 7°08'W.); there is a least depth of 5.9m in the N approach and of 9.1m in the S approach.

Pilotage.—Pilotage is not compulsory, but can be arranged, if required, on request 24 hours in advance to the Port Manager. Large vessels can proceed without a pilot as far as Faihore by passing close S of Maddy Beg and about 275m N of Glas Eilean Mor (57°36'N., 7°07'W.).

Caution.—Between Weaver's Point and Maddy Beg, the flood tidal current is strong, setting NE. The ebb tidal current is strong along the S side of the loch entrance, setting toward Maddy Mor. A considerable sea is raised close seaward of Loch Maddy when a strong SW wind prevails during the ebb tidal current.

4.41 Lochmaddy Harbor (57°36'N., 7°10'W.) (World Port Index No. 32955), a village, is located on the W shore of the loch at South Basin.

Depths—Limitations.—The Ferry Terminal, a pier with berthing faces on both sides, is situated on the W side of South Basin. A ro-ro berth, 115m in length, with depths alongside of 4m, lies on the S side of the pier. A berth, 60m in length, with depths alongside of 3m, is on the N side of the pier. Range lights, in line about 298°, lead to the pier from SW of Ruigh Liath. A private pier lies about 0.5 mile N of the main pier. A conspicuous radio mast at the head of the loch provides a useful mark.

Pilotage.—Pilotage is not available.

Anchorage.—Anchorage can be taken, in depths up to 13m, mud, about 0.3 mile E of and, in a depth of 12m, off the cove 0.5 mile SE of Faihore (57°36'N., 7°08'W.). Swell is absent at the anchorages, but SW squalls may cause the anchor to drag.

Contact Information.—Lochmaddy Harbormaster can be contacted, as follows:

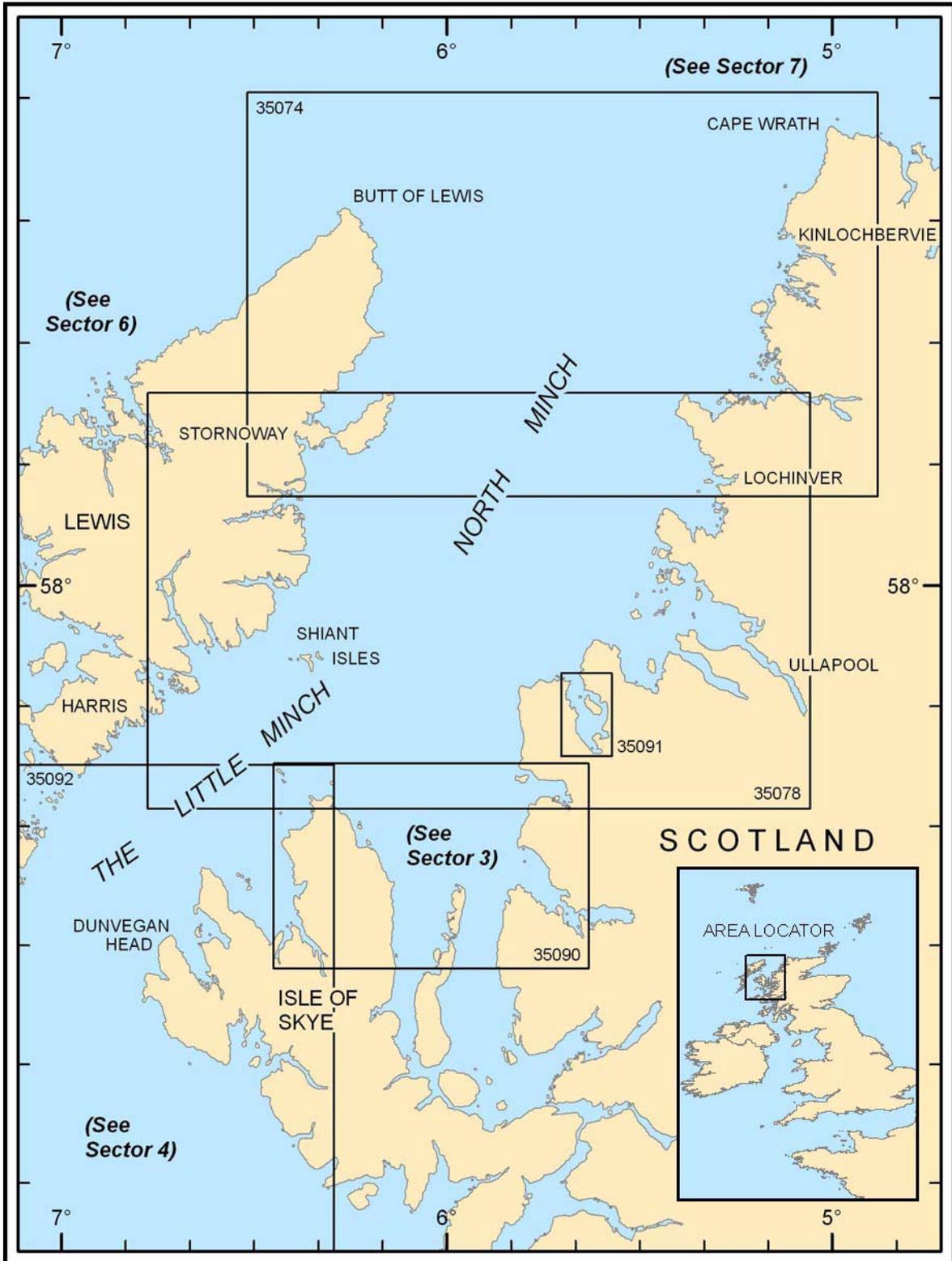
1. VHF: VHF channels 12 and 16
2. Telephone: 44-8456-007090
3. Facsimile: 44-1870-602988
4. Web site: <http://www.cne-siar.gov.uk>

Spanish Harbor affords anchorage, in a depth of 13m, mud, with Little Glas bearing 125° and the NW end of Flodday

Bearing 023°. South Basin offers anchorage, in depths of 7 to 11m, subject to violent S squalls.

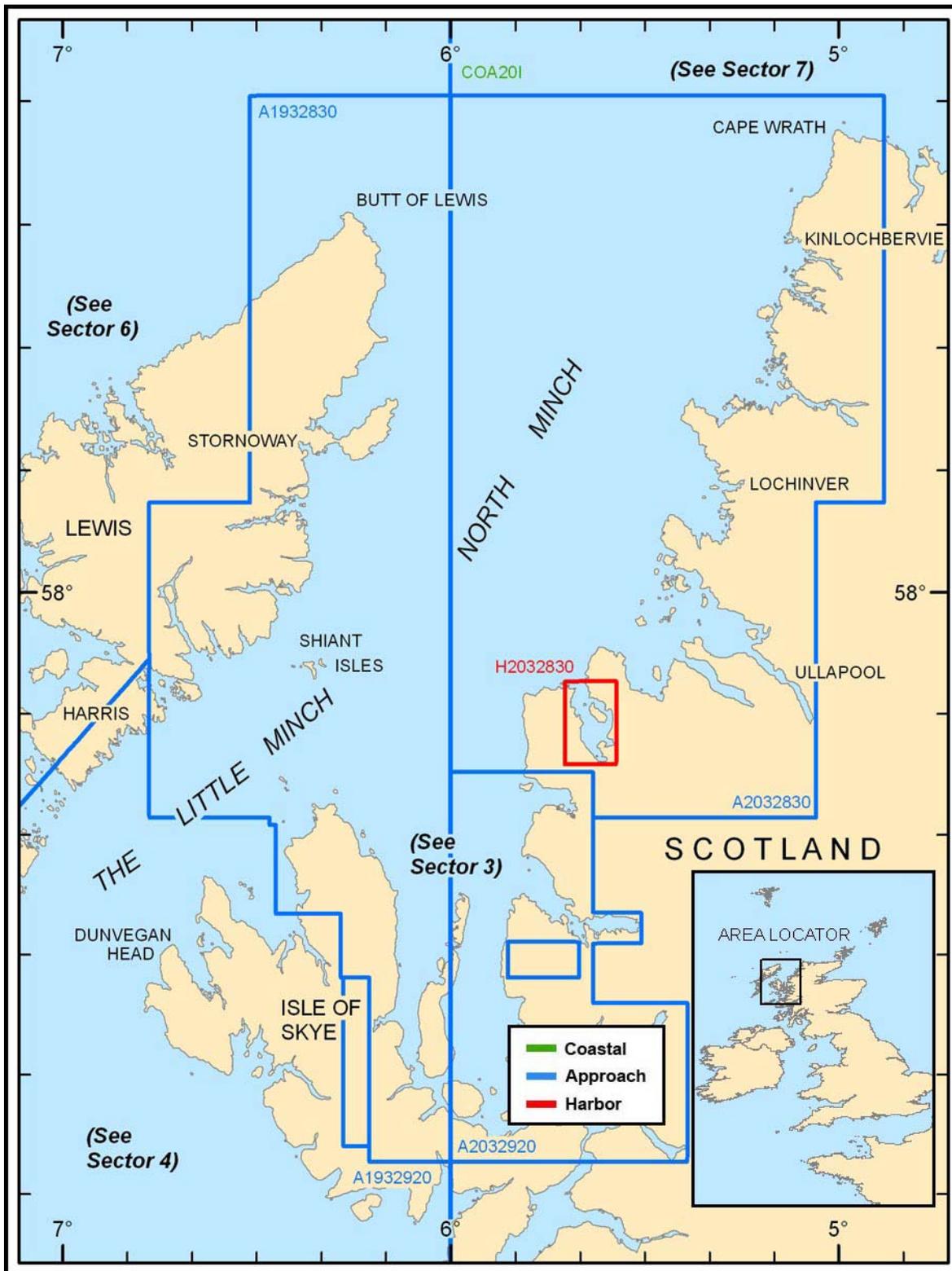
Leac na Hoe (57°38'N., 7°04'W.), a bold black headland with steep-to cliffs facing the sea, is the E extremity of North

Uist. The coast between Weaver's Point and the headland is bold and steep-to. Leac na Hoe rises to Crogary na Hoe (57°39'N., 7°04'W.), a very high hill located 0.2 mile W of the headland.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 5 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNCs 19 and DNC 20 (Limited Distribution) discs within the README\GRAPHICS folder.
SECTOR 5 — DNC LIBRARY INFORMATION

SECTOR 5

WEST COAST—LITTLE MINCH TO THE MINCH

Plan.—This sector describes Little Minch and The Minch, together with the adjacent coast of Skye, the mainland of Scotland, and the E coasts of Harris and Lewis. The sequence of description is from S to N.

General Remarks

5.1 Little Minch ($57^{\circ}40'N.$, $6^{\circ}40'W.$), also known as the Lower Minch, has an average width of 12 miles and is the narrowest part of the navigable waterway leading between the Outer and Inner Hebrides and mainland of Scotland. Ocean-going ships can proceed through Little Minch and The Minch, also known as the North Minch, on recommended tracks best seen on the chart.

The terrain covered in this sector is generally similar to that described in Sector 4. Rugged coastlines backed by high hills and fronted by rocky foreshores are prevalent. Lochs and inlets indent the coast between blunt salient points leading to small

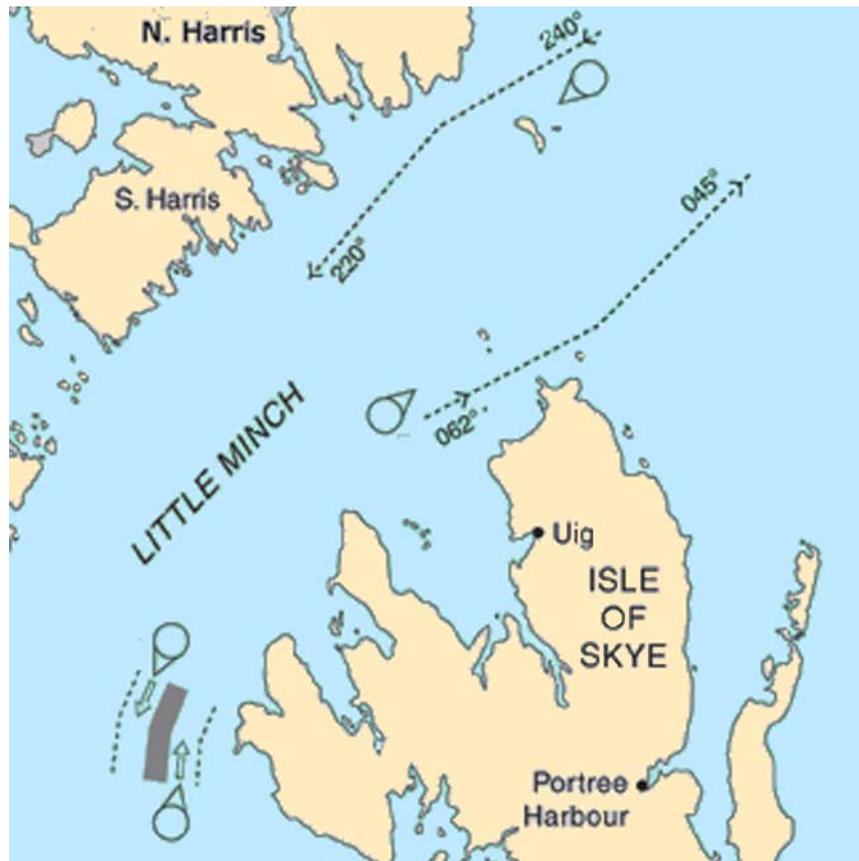
local harbors and anchorages. Stornoway is the principal harbor.

Traffic Separation Scheme (TSS).—Two IMO-adopted voluntary Traffic Separation Schemes, best seen on the chart, have been established in Little Minch off Neist Point (see paragraph 5.2); Rule 10 of COLREGS 72 applies. The location of each TSS are, as follows:

1. The Northbound TSS ($57^{\circ}26'N.$, $6^{\circ}54'W.$) runs off Neist Point, up the NW coast of the Isle of Skye, and enters the North Minch N of the Eilean Trodday ($57^{\circ}44'N.$, $6^{\circ}18'W.$).

2. The Southbound TSS runs from NNE of the Shiant Islands ($57^{\circ}54'N.$, $6^{\circ}21'W.$) down the E coast of the Isle of Lewis and the Harrises to join the TSS off Neist Point.

Regulations.—Information about the Western Europe Tanker Reporting System (WETREP), Particularly Sensitive Sea Areas (PSSA), and MARPOL can be found in Pub. 140, Sailing Directions (Planning Guide) for North Atlantic Ocean and Adjacent Seas.



Little Minch

Except due to stress of weather or any other case of force majeure, all laden tankers exceeding 10,000 gt should not pass through The Minches. All other vessels should contact Stornoway Coast Guard on VHF channel 16 at least 1 hour prior to ETA and upon final departure from the area, using the reporting format given in the accompanying table. There is an alternative Deep Water Route off the Outer Herbrides (see paragraph 6.1).

Reporting System.—A voluntary reporting system for all vessels over 300 gt navigating through the Minches is in effect between latitude 58°30'N and latitude 57°00'N.

All vessels over 300 gt should report to Stornoway Coastguard on VHF channel 16 when passing the following Reporting Points:

Direction	Reporting Reference	Position
Southbound		
Initial Report	When passing	Latitude 58°30.0'N
	B	57°58.0'N, 6°17.0'W
	C	57°58.5'N, 6°54.4'W
Final Report	When passing	Latitude 57°00.0'N
Northbound		
Initial Report	When passing	Latitude 57°00.0'N
	E	57°23.8'N, 6°51.8'W
	F	57°40.4'N, 6°32.0'W
Initial Report	When passing	Latitude 58°30.0'N

The Initial Report should contain the following information

Little Minch and North Minch	
Designator	Information Required
ALFA	Name and call sign of vessel.
BRAVO	Day of month (2 figures) and time in hours and minutes (UTC in 4 figures).
CHARLIE *	Latitude (4 figures N or S) and longitude (5 figures E or W).
DELTA *	True bearing (3 figures) and distance in miles (2 figures) from a clearly-identified landmark.
ECHO	True course in degrees (3 figures).
FOXTROT	Speed in knots and tenths of knots (3 figures).
GOLF	Last port of call.
INDIA	Destination.
MIKE	VHF channels monitored.
OSCAR	Deepest draft, in meters and centimeters.
PAPA	Type and quantity of cargo.

Little Minch and North Minch	
Designator	Information Required
QUEBEC	Brief details on damage/deficiency/other limitations
UNIFORM	Do you intend to use the recommended route?
VICTOR	Type of vessel and gross tonnage.
WHISKEY	Number of persons on board (listed as passengers and crew, if appropriate).
* Either designator may be used.	

Caution.—A least depth of 32.9m on the charted track lies 1.5 miles NW of Rubha Hunish (57°42'N., 6°21'W.). Numerous detached banks, with least depths of as little as 25.6m, lie adjacent to the track. Principal dangers are, as follows:

1. Islets and rocks on detached banks lying about 3 miles off the NW end of Skye and N of the track in position 57°43'N, 6°25'W.
2. A charted depth of 26m close to the centerline at the N end of the northbound traffic lane in position 57°28'N, 6°37'W.
3. A charted depth of 25m lying 0.5 mile NW of the traffic lane in position 57°39'N, 6°37'W.
4. A charted depth of 18m lying 0.6 mile NW of the traffic lane in position 57°43'N, 6°24'W.
5. A charted depth of 27m lying 0.4 mile NW of Eilean Trodday in position 57°43'N, 6°24'W.

Concentrations of fishing vessels may be encountered from June to December in the waters described in this sector.

The Minch Project is a collaboration of the Highland Council and the Scottish Natural Heritage that aims to reduce pollution, minimize erosion, minimize litter, and promote tourism, in particular wildlife tourism such as dolphin watching, in The Minch. The Minch is a busy shipping lane, with 2.5 million tons of cargo transiting the channel each month.

A good lookout should be maintained when transiting The Minch as submarines frequently exercise in the area, either submerged or on the surface.

Anchoring in the vicinity of submarine cables is prohibited.

Tide rips occur within 1 mile W of Waternish Point. A tide rip extends up to 2 miles NW from Neist Point during the N current at springs.

Commercial ferry services operate across The Minch. The ocean-going side-paddle steamship Waverley, the last ferry of its type, still operates in this area.

Neist Point to Waternish Point

5.2 Neist Point (Ness Point) (57°25'N., 6°47'W.), a low finger-like projection extending off the W end of Skye, is backed about 0.2 mile inland by a steep, peaked hill. A light is shown from a tower, standing on rising ground close within the end of the point.

The NW coast of Skye is rocky, rugged, composed of cliffs that are steep-to in places, and backed by high hills. Eddies occur close inshore along the NW coast of Skye. When the SW current prevails off the NW coast of Skye, it meets the current



Steamship Waverley



Neist Point Light from NE

Courtesy of Scottish Radiance

setting NW along the SW coast of Skye and both are deflected W. At other tidal stages the NW current rounds Neist Point and sets NE.

An Ceannaich ($57^{\circ}27'N.$, $6^{\circ}47'W.$), a prominent black rocky head rises steeply 2 miles N of Neist Point. The Merchant, a detached rock column, rises close off the headland.

5.3 Loch Pooltiel (57°28'N., 6°45'W.) indents the coast between An Ceannaich and the SW side of Dunvegan Pennisula, about 1.5 miles NE. The loch, completely open to the NW, extends 1.5 miles SE to its head and the settlement of Glendale. There are depths of 7.3 to 12.8m in the loch, which is steep-to NE, but partly foul along its SW side. A conspicuous schoolhouse stands 0.5 mile within the head of the loch. Anchorage can be taken, in depths up to 12.8m, good holding ground, throughout the loch.

Loch Dunvegan (57°30'N., 6°40'W.) is entered between Dunvegan Head (57°31'N., 6°43'W.) and Ardmore Point (57°33'N., 6°39'W.). Dunvegan Head is a steep-to prominent landmark. The NW side of the head is a vertical cliff broken by a spur sloping down to another steep headland located 1 mile SW of the head. A rugged promontory located 0.5 mile within the entrance divides the loch into two arms. The NE arm, clear in its approaches from Ardmore Point, has depths of 13 to 42m in its inner part, known as **Loch Bay** (57°30'N., 6°35'W.). The outer part of the principal loch is wide, deep and danger-free for 4.2 miles, then islets and rocky shoals prevail.

Healabhal Mhore (57°24'N., 6°38'W.), a flat-topped eminence, is a conspicuous landmark. Uiginish Point (57°27'N., 6°36'W.) is marked by a light.

Groban na Sgeire (57°30'N., 6°38'W.) is the NW point of the promontory separating Loch Dunvegan and Loch Bay; Rubha Maol (57°30'N., 6°36'W.) is the NE point. Between the two points the coast is indented to form Lovaig Bay (57°30'N., 6°37'W.) which is backed by high hills and sheer cliffs.

Sgeir nam Biast (57°31'N., 6°37'W.), above and below-water rocks and reefs, lie in the N approach to the bay. Mingay and Isay (57°31'N., 6°39'W.) are two islands lying close together and 0.5 mile N of Groban nan Sgeire.

5.4 Ardmore Point (57°33'N., 6°39'W.) is the S extremity of the Ardmore Peninsula (57°33'N., 6°39'W.), an elbow projection of the Waternish Peninsula (57°33'N., 6°35'W.). The W side of the Ardmore Peninsula is formed by high cliffs sloping E to a low point, on which stands Ardmore House. The coast from the Ardmore Peninsula to Loch Bay is formed by high steep cliffs. The flood current divides at Ardmore Point, setting NNE and S.

Stein (57°31'N., 6°34'W.) is a village near the head of Loch Bay.

Dunvegan (57°26'N., 6°35'W.), a village situated almost 1 mile SE of Uiginish Point, has a 20m long wharf, with depths of 3.0 to 3.4m alongside. The approach to the harbor is obstructed by a shoal with depths less than 5m. Dunvegan Castle (57°27'N., 6°35'W.), a massive structure with lichen-covered walls, stands 0.5 mile N of the village. Anchorage, sheltered from N winds, can be taken, in a depth of 11m, with Ardmore House bearing 278° and Dunvegan Head bearing not less than 231°. Anchorage can also be taken, in a depth of 26m, good holding ground, between Sgeir nam Biast and the S end of Mingay. There is anchorage available E of Isay and throughout Loch Bay. Southeast and E winds raise a sea in the area. Lovaig Bay has good anchorage in depths of up to 20m. Small vessels can anchor, in depths up to 13m, mud, in the loch SW of Uiginish Point and, in a depth of 8.7m, in the channel with the flagstaff of the castle bearing 030°.

Waternish Point to Rubha Hunish

5.5 Waternish Point (Waternish Point) (57°37'N., 6°38'W.) rising in a cliff, is the N extremity of the Waternish Peninsula, a rugged uncultivated high promontory. A light is shown from a tower on the point. The coast from the Ardmore Peninsula consists of steep inaccessible cliffs with several conspicuous ruins standing in places above the cliffs.

The ebb current setting S from the Waternish Point forms an eddy which sets E to the Ardmore Peninsula and then turns N and S along the coast. The eddy raises a choppy sea at times W of Waternish Point, which is fringed for 0.1 mile by foul ground.

Anchorage sheltered from SW gales can be taken, in a depth of 30m, with Waternish Point Light bearing 279° and Caisteal an Fhithich bearing 156°.

Caution.—Submarine cables extend NW and SW from the W side of the Waternish Peninsula and may best be seen on the chart.

5.6 Loch Snizort (57°34'N., 6°28'W.), a large deep-water inlet, is entered between Waternish Point and Dun Liath (57°39'N., 6°25'W.). The loch is free of dangers for about 7 miles, except for the Ascrib Islands. A church and farm buildings are landmarks SE of Dun Liath. Tidal currents are weak throughout the loch.

The SW shore of Loch Snizort is formed of high, steep cliffs, unindented except for Aros Bay (57°33'N., 6°33'W.), an open bight providing temporary shelter from SW gales. Anchorage can be taken, in depths up to 31m, in the middle of the bay.

Dun Liath (57°39'N., 6°25'W.), the prominent summit of the E entrance point of Loch Snizort, has a cliff formation on its N face which slopes gradually SW to the loch. There is a fort, in ruins, on the W slope. The E shore of the loch is low, with cultivated farmland sloping inshore to hills in the background. A conspicuous rock column and hill stands 0.7 mile N of Ru Idrigill (57°35'N., 6°24'W.).

Uig Bay (57°35'N., 6°23'W.) is entered between Ru Idrigill and Ru Chorachan (57°34'N., 6°23'W.). The former point rises in a steep slope to a stratified cliff, topped by a high mound. From a least depth of 46m in the entrance, depths decrease to a drying spit extending 0.1 mile off the NW side of the bay, which is otherwise free of dangers. Landmarks include a church with a prominent spire standing 1.5 miles NE of Ru Chorachan, and a hotel close S of the church.

5.7 Uig (57°35'N., 6°21'W.) (World Port Index No. 32950), a village, is located SE of the head of the bay. King Edward Pier extends about 300m offshore from a position 0.6 mile E of Ru Idrigill. There is a berth at the head of the pier, with a length of 42m and a depth of 3.5m alongside. A ro-ro berth on the E side of the pier has a length of 85m and a depth of 5.5m alongside. A light is shown from the head of King Edward Pier.

Unscheduled vessels carrying explosives or other dangerous cargo must give 24 hours notice of their ETA. Scheduled vessels should give 24 hours notice if carrying explosives and 12 hours notice if carrying dangerous cargo. This notification should be made by facsimile.

Uig harbor can be contacted, as follows:



Rubha Reidh Light

Courtesy of Scottish Radiance

1. VHF: VHF channels 8 and 16
2. Telephone: 44-1470-542381
3. Facsimile: 44-1470-542381
4. E-mail: harbours@highland.gov.uk

Anchorage can be taken, in a depth of 7.8m, mud, about 0.1 mile E of the pier head. Additional anchorage, in depths up to 11m, mud, can be taken about 0.3 mile S and SSW of the pier head. The anchorages are approached by passing 0.2 mile S of Ru Idrigill and steering 041° for a church at the head of the bay.

Loch Snizort Beag (57°31'N., 6°22'W.), providing excellent shelter, is entered E of Lyndale Point (57°32'N., 6°24'W.), a steep-to shelf of low rock at the end of a high promontory which divides the loch from Loch Greshornish. Loch Snizort Beag is deep, with few dangers in the fairway. There is an occasional below-water rock lying as far as 0.1 mile off the shores of the loch which is bold and steep-to along its SW side, whereas the NE side is cultivated and sloping. The head of the loch is filled by drying flats. There are two villages, Skeabost (57°27'N., 6°19'W.) and Bernisdale (57°28'N., 6°20'W.), the former at the head of the loch. Anchorage can be taken, in suitable depths, good holding ground, in Loch Snizort Beag, and also between Dun Liath and Uig Bay.

5.8 Loch Greshornish (57°31'N., 6°25'W.) is entered E of a promontory and Greshornish Point (57°31'N., 6°26'W.), and 0.5 mile SW of Lyndale Point. The promontory is hilly and faced by steep cliffs on its W side. Lyndale House, conspicuous, stands in a grove on the E side of the loch. Eilean Beag and Eilean Mor (57°32'N., 6°25'W.) are two islets lying in the loch entrance. Rocks and reefs lie as far as 0.1 mile SW and W of the islets.

Vessels approaching Loch Greshornish steer for Lyndale House on a bearing of 138°, which leads midway between Greshornish Point and Eilean Mor. When Scart Rock comes in range 010° with Dun Skudiburgh, astern, alter course and pro-

ceed up the loch on a mid-channel course to where it is the narrowest. A tangent of 018° on the W shore of the loch and the W side of Eilean Mor leads W of the foul tongue extending from the E side of the loch, and vessels steer with this tangent astern until clear of that danger.

Clinigin Rocks (57°31'N., 6°26'W.), consisting of several drying heads, lie off Greshornish Point. The SE extremity of Eilean Beag, bearing 066° and open NW of Eilean More, leads NW of the foul ground fringing the point. Dun Skudiburgh, bearing 014°, leads W of Scart Rock (57°31'N., 6°25'W.) and other rocks nearby. The channel between Lyndale Point and the islets is deep and clear of dangers.

The fairway through Loch Greshornish has a least depth of 9.1m as far as Crachan Rock (57°29'N., 6°26'W.). Anchorage can be taken, in depths of 7 to 27m, throughout the loch.

The **Ascrib Islands** (57°35'N., 6°31'W.), a group of uninhabited islets, rocks, and reefs, lie near the entrance of Loch Snizort. South Ascrib is the largest and S islet. Mariners without local knowledge should keep clear of the group and the bank extending N, where there are depths of 20m or less. Anchorage can be taken about 0.5 mile NNE of the N point of Eilean Iosal (57°36'N., 6°32'W.), in a depth of 22m, good holding ground in mud and sand, however, the islands are low and afford little protection from the wind.

Camas Mor (57°39'N., 6°25'W.), a small open bight, is entered between Dun Liath and Ru Bornesketaig (57°40'N., 6°25'W.), a high point about 1 mile NNE. A pier at the head of the bight leads to a road through a populated countryside. Tidal currents set NE and SW along this NW coast of Skye. Eddies prevail inshore and in the bights. Anchorage can be taken in Camas Mor, in depths of 9 to 13m.

Lub Score (57°40'N., 6°22'W.), a large, open bay indents the coast as far as Ru Meanish (57°41'N., 6°21'W.), a salient point. Anchorage can be taken, in suitable depths, throughout the bay.

5.9 Duntulm Bay (57°41'N., 6°22'W.), a continuation N of Lub Score, extends as far as Rubha Voreven (57°42'N., 6°21'W.). Eilean Tulm (57°41'N., 6°21'W.), high and narrow, extends across the entrance of the bay. Above and below-water reefs extend N and S of the islet. The preferred channel into the bay leads at least 100m S of the islet, with the entrance marked by the ruins of Duntulm Castle. Anchorage, sheltered from S and W gales, can be taken leeward of Eilean Tulm.

Rubha Hunish (57°42'N., 6°21'W.), the point of an elbow promontory located at the N end of Skye, has vertical cliffs forming its N and NE sides and is steep-to except off the W side. The SW tidal current sets closely around the point.

Eilean Trodday (57°44'N., 6°18'W.), a high rocky island, is fringed by foul ground for 0.3 mile, but the channel between the island and Rubha na h-Aiseig (57°42'N., 6°18'W.) is deep and free of dangers. The island is marked by a light shown at its summit.

The N limit of Little Minch is considered to extend N between Rubha na h-Aiseig, the Shiant Islands, and Lewis. The N track through Little Minch lies 0.8 mile N of Eilean Trodday. A group of islets, rocks and reefs lies NW of Rubha Hunish. There is a least depth of 18m near the N track between Rubha Hunish and Gearran Islet (57°44'N., 6°25'W.).

Currents between the various islets and rocks are variable. Detailed information on tides and tidal currents is shown on charts of the area. Gearran Islet and Am Bord, an islet close E, consist of black, sheer cliffs, with foul ground extending N from them as far as Fladdachuain (57°45'N., 6°26'W.), the largest of several islets. A landing can be made on the NE side of the latter islet.

5.10 Sgeir nam Maol (57°45'N., 6°23'W.) are two patches of drying rock. The SE patch dries 3.8m and the other, 0.1 mile NW, dries 4.2m. A beacon stands on the S end of the SE patch. The passage between the rocks is foul. The rocks are steep-to on their N and E sides, but a bank with depths of less than 5m extends 0.4 mile WSW and 0.6 mile SE from the beacon.

Comet Rock (57°45'N., 6°21'W.), with a depth of 0.6m, lies on a bank 0.3 mile SSE of Sgeir nam Maol beacon, with a drying patch of rock between. A lighted buoy is moored about 1.2 miles E of Comet Rock.

Sgeir Graidach (57°47'N., 6°28'W.), a drying rock, lies on the N end of a narrow rocky bank with a least depth of 3.6m. A beacon marks Sgeir Graidach. Eugenie Rock lies 0.3 mile SE of Sgeir Graidach. The channel between Eugenie Rock and Sgeir Graidach is encumbered with rocks.

East Bank, with a least depth of 14.4m in position 57°46.7'N, 6°31.2'W, is an extensive rocky bank lying 2 miles W of Sgeir Graidach. Another rocky bank, with a least depth of 22m in position 57°46.6'N, 6°23.0'W, lies between 1 and 3 miles E of Eugenie Rock.

East Bank (57°47'N., 6°31'W.) is narrow and grassy with a least depth of 14.4m. Tidal currents setting E and W around Sgeir Graidach raise turbulent rips and eddies.

Rubha Reidh to Greenstone Point

5.11 Rubha Reidh (57°52'N., 5°49'W.) is the NW point of a prominent headland rising to a flat eminence about 2 miles SE. Cliffs form much of the headland. A light is shown from a

tower standing on the point, and a conspicuous radio mast stands 1.5 miles SE of it.

Two open and foul bights indent the coast between Rubha Reidh and Stac Ruadh (57°32'N., 5°43'W.). The inshore waters E of Stac Ruadh are foul and fronted by Eilean Furaadh Mor (57°52'N., 5°43'W.), a grassy islet encircled by reefs. Tidal currents are negligible off this coast.

Loch Ewe (57°48'N., 5°37'W.) is entered between Rubha nan Sasan (57°52'N., 5°41'W.), a rocky, red-colored, and steep-to point, and **Ploc an t-Slagain** (57°53'N., 5°49'W.), a steep headland. The loch, trending about 6.5 miles SSE to its head, is backed generally by low cliffs.

Isle of Ewe (57°50'N., 5°37'W.) occupies the central part of the loch. Ploc an t-Slagain and a similar headland about 0.5 mile N, frame a hollow which is conspicuous from NW. The entire Isle of Ewe is fringed by rocky, foul ground.

Mellangaun (57°50'N., 5°41'W.), a promontory, rises to two steep prominent summits about 0.2 mile apart, the N of which is marked by a pillar.

Depths in the loch will accommodate deep-draft vessels. There is a least depth of 25.6m in the fairway W of Isle of Ewe and 10.1m in The Sound, a fairway E of the isle. There are depths of 9 to 18m in the entrance leading to the drying head of the loch.

Sron nan Oban (57°51'N., 5°41'W.) is the N of several promontories which are located on the W side of Loch Ewe. The open bights between promontories are foul with shoals extending at least 0.5 mile offshore.

5.12 Rubh a' Choin (57°51'N., 5°38'W.), a rocky point on the E shore of Loch Ewe, is fronted by an islet lying on foul ground extending at least 0.3 mile S and SE. The coast in the area is cliffy and fringed by above and below-water rocks and reefs. There is a boat pier and slipway in the cove E of Rubh a' Choin.

Sgeir an Araig (57°51'N., 5°39'W.), two rocky islets connected by a drying reef, lies in the loch fairway. The N islet has two peaks, with a cleft between. The S islet is a low, flat rock.

Gob na Lice (57°51'N., 5°38'W.) and Gualann Mhor (57°49'N., 5°36'W.) are the N and SE extremities of Isle of Ewe. A large farm building is conspicuous about 0.2 mile N of Gualann Mhor.

The Sound (57°51'N., 5°37'W.) is a secondary channel with a least depth of 10m in the fairway. In the S part depths of 6.3m lie adjacent to the fairway. The Sound can be entered from the NW or SE. Gob na Lice, aligned 305° astern, with Sgeir Maol Mhoraidh Shuas (57°52'N., 5°41'W.), leads through the deepest and most constricted part of the channel. Mooring buoys are laid in The Sound.

Aird Point, a salient feature, is backed by cultivated land and dwellings extending along the shores. Three concrete dolphins in a depth of 6.1m, are situated 0.3 mile NNW of Aird Point. There is a pier extending SE from Aird Point, with a depth of 1.8m alongside its head.

Anchorage can be taken, in depths up to 22m, good holding ground, on the NE side of The Sound, clear of the mooring buoys. The holding ground extending 1.5 miles S of Aird Point is unreliable. Anchorage, in a depth of 20m, can be taken with the N end of Am Fiaclachan (57°47'N., 5°37'W.) bearing 090°, however, the holding ground is unreliable and marine farms are

moored up to 0.3 mile off the SW shore. Small vessels can anchor on the mud flats near the head of the loch.

5.13 NATO Jetty (57°50'N., 5°35'W.), an L-shaped pier, extends almost 183m offshore. The pier head is 60m long, with a least depth of 10.1m alongside. Dolphins lie close N and S of the jetty; lights are shown from the outermost dolphins and from the N end of the jetty head.

Rubha Thurnaig (57°48'N., 5°36'W.) marks the entrance of Loch Thurnaig (57°47'N., 5°35'W.), an unimportant bight. The coast approaching the loch is bold, rocky and steep-to. Two steel pontoons are moored near the 20m depth contour in the SW corner of the loch. Orange floats mark below-water obstructions near the pontoons.

Resolution Rock (57°48'N., 5°38'W.), with a least depth of 6.8m, lies close to the fairway of Loch Ewe. The conspicuous whitewashed hotel at Poolewe (57°46'N., 5°36'W.), a village at the drying head of the loch, bearing 151°, leads SW of the rock.

Greenstone Point to Cailleach Head

5.14 Greenstone Point (57°55'N., 5°37'W.), the low flat extremity at the N end of a promontory separating Loch Ewe from Gruinard Bay, is marked close E by an iron pole standing on a large square stone.

Gruinard Bay (57°54'N., 5°30'W.), an open bight affording unsuitable anchorage, is entered between Rubha Beag (57°55'N., 5°34'W.) and Stattic Point (57°54'N., 5°25'W.). The bay is deep and free of dangers. **Gruinard Island** (57°53'N., 5°28'W.) is reef-fringed and rises to a high grassy dune marked by a cairn.

Little Loch Broom (57°54'N., 5°22'W.) is a constricted deep-water inlet with very few dangers. Heavy squalls occur within the loch when SW winds sweep through a valley between the mountains. About 1 mile S of Cailleach Head (57°56'N., 5°24'W.) is a point rising steeply to a hill and 0.5 mile farther E is a low, conspicuous wall fronted by a shingle beach. Terrain along the SW side of the loch rises to a high ridge and mountain. Numerous cottages are visible along both shores of the loch.

Ardross Rock (57°55'N., 5°25'W.), with a least depth of 0.6m, lies in the entrance fairway of Little Loch Broom. Vessels enter the loch N of the rock. Tidal currents are weak in the loch and its entrance. Anchorage can be taken about 0.4 mile off Rireavach (57°54'N., 5°20'W.), a village, in depths of 27 to 33m.

Loch Broom—The Summer Isles

5.15 Loch Broom (57°54'N., 5°12'W.) has its principal approach between Cailleach Head (57°56'N., 5°24'W.) and Priest Island (57°57'N., 5°31'W.). Cailleach Head is bold and rugged, with a high rocky cliff facing seaward and steep earthen banks S. A light is shown from a tower on the head.

Priest Island appears bold when seen from the N but smooth-topped, with two summits near its E end, when viewed from S.

Smaller vessels approaching Loch Broom from the N utilize Dorney Sound (58°02'N., 5°27'W.), the channel N of Tanera Mor (58°01'N., 5°24'W.) and the bay E of this island. Dorney

Sound is not advised for ocean-going vessels.

Glas-leac Beag (57°59'N., 5°30'W.) is a conspicuous islet on a clear day, due to the green grass covering it. Landmarks include Meall an Fheadain (58°03'N., 5°24'W.), a high steep hill and Ben Mor Coigach (57°59'N., 5°13'W.), a sharp mountainous ridge, rising prominently on the mainland on approaching Loch Broom.

Eilean Mullagrach (58°03'N., 5°28'W.), the N islet on approaching Loch Broom, has a flat summit at each end. The islet is fringed on its SW and W sides by drying rocks which include a large square rock, which dries 3.4m, lying 0.1 mile offshore.

Na Finlaichean (57°58'N., 5°27'W.), a group of bold and rocky islets with steep cliffs on their N and W sides, lie in the approach close S of above and below-water rocks. Carn Iar is the N and highest of these islets.

Carn Skerries (57°58'N., 5°22'W.), a group of grass-covered islets and rocks, lies 2.2 miles E of Na Finlaichean.

5.16 Carn Dearg (57°56'N., 5°22'W.) is a rugged promontory with several summits. The promontory, with steep rocky sides, forms the N end of a low peninsula which rises 4 miles ESE to Beinn Ghobhlach (57°54'N., 5°17'W.). The approach channel to Loch Broom, N of Carn Dearg, is 0.5 mile wide.

Annat Bay (57°55'N., 5°19'W.), a broad open bight, is bold and steep-to E and SE and affords temporary anchorage off the W shore, in depths of 13 to 31m.

Dorney Sound (58°02'N., 5°27'W.) and Badentarbat Bay (58°01'N., 5°23'W.), at the E end of the sound, form a secondary approach channel to Loch Broom. Depths are ample over a channel width of 0.5 mile; however, there are detached above and below-water shoals. Local knowledge is required.

Rubha Dunan (58°00'N., 5°21'W.), steep-to and faced with low red cliffs, projects from the mainland at the SE side of the bay. There is a pier about 30m long, with a depth of 3m alongside, at the N side of the bay. A bay indenting the E side of Tanera Mor, the island forming the W side of Badentarbat Bay, affords sheltered anchorage, in depths up to 26m, in the S part of the bay with a large house at the head bearing 238°. Local craft can anchor, in a depth of 7.3m, within two islets lying close off the S end of Tanera Mor.

5.17 Rubha Dubh Ard (57°59'N., 5°19'W.), a bold cliffy point ending in a low cliff, and Carn Dearg, a promontory previously described in paragraph 5.16, mark the inner approach to Loch Broom. The shores are high, steep-to, and cliffy. Fairways leading to the loch entrance have a least depth of 23.5m and are clear of dangers.

Isle Martin (57°57'N., 5°13'W.) lies 0.8 mile N of the NE entrance point of Loch Broom. The isle is high, barren, and reddish-colored, with steep-to rocky cliffs along the N and W sides.

Martin Bank (57°57'N., 5°16'W.) extends WNW from Isle Martin.

Cadail Bank (57°56'N., 5°15'W.), with a least depth of 16m, lies close N of the entrance fairway to Loch Broom.

Loch Kanaird (57°57'N., 5°12'W.) is almost landlocked between the E side of Isle Martin and the mainland. A rocky spit partly closes the S entrance of the loch. The N and central parts of the loch are deep while the E part is shallow. Anchorage can

be taken, in depths of 5.5 to 9.1m, on the shoals at the E side of the loch and, in depths up to 18m, off the E side of Isle Martin.

Caution.—Submarine cables are laid between Isle Martin and Aird na h-Eighe, close N of the bar in Loch Kinaird.

5.18 Loch Broom, entered between **Rubha Cadail** (57°55'N., 5°13'W.) and **Rubha Camas a Mhaoraich** (57°55'N., 5°14'W.), is clear of dangers in the fairway, but is subject to squalls from the surrounding barren mountains. There is a least charted depth of 23.5m lying 0.4 mile W of **Ullapool Point** (57°54'N., 5°10'W.), with lesser depths to Corry Point (57°53'N., 5°07'W.), where the loch has a least width of 0.2 mile between the 10m curves.

Although tidal currents are minimal, it is recommended that ships with a draft greater than 8m enter the loch at half flood. Shoals fringe both sides of the loch. At Ullapool Point, an extensive drying flat of sand, shells and stones formed by the river outflow constricts the channel. There is a conspicuous white building standing almost 0.8 mile NW of Corry Point and a bridge spanning a ravine 0.7 mile E of Ullapool Point.

5.19 Ullapool (57°54'N., 5°09'W.) (World Port Index No. 32820), a village located within the point, stands on a flat projecting terrace. The houses of the town are visible from seaward. Tides rise about 4.5m at springs and 1.8m at neaps.

Depths—Limitations.—A pier projects SSE; there is a total of 400m of quayside. The Ferry Pier, the longest berth on the SW side of the pier, is 90m long but has been extended (2015) an unknown length, with depths of 6 to 12m alongside. Vessels of up to 100m in length have been accommodated. A reclaimed area terminal, 72m long, has depths of 7 to 12m alongside. Fish-processing vessels and small cruise liners periodically use the port. A lighted beacon is shown from Ullapool Point.

Pilotage.—Pilotage is not available, however the harbormaster can provide information on the port and approaches on request.

Contact Information.—Ullapool can be contacted, as follows:

1. VHF: VHF channels 14 and 16
2. Telephone: 44-1854-612091
3. Facsimile: 44-1854-612678
4. E-mail: info@ullapool-harbour.co.uk
5. Web site: <http://www.ullapool-harbour.co.uk>

The harbormaster can be contacted, as follows:

1. Telephone: 44-1854-612724
2. Facsimile: 44-1854-613425

Anchorage.—Anchorage can be taken, in depths up to 29.3m, sand and stones, between the narrows at Ullapool and Corry Points. There is anchorage on good holding ground near the head of the loch, in depths of 22 to 27m, clear of the marine farms moored along the SW shore of the loch. Small vessels can anchor in a cove on the SW side of Corry Point narrows, where there are depths of 5.5m.

The **Summer Isles** (58°03'N., 5°28'W.), a group of islets and rocks, lie in the N approach to Loch Broom. **Glas-leac Mor** (58°02'N., 5°28'W.) is the steep-to outermost islet of the group. There are numerous rocks, above water, lying between **Glasleac Beag** (57°59'N., 5°30'W.) and **Tanera Mor** (58°01'N., 5°25'W.). Dorney Sound leads between the group.

Rubha Coigeach to Rubha Rodha

5.20 Rubha Coigeach (58°06'N., 5°26'W.), a rocky coastal point, is the N end of a long flat promontory. Loch an Alltain Duibh (58°03'N., 5°26'W.), indenting the promontory, is 11m deep, but open to the elements affording little shelter. The coast N of the loch is low and fronted by rocks and foul ground for 0.3 mile offshore.

Enard Bay (58°06'N., 5°21'W.), open NW, is entered between Rubha Coigeach and Kirkaig Point (58°08'N., 5°18'W.). The bay is deep, but seldom visited except for local craft. The shores of the bay are reef-fringed and fronted by islets.

A' Chleit (58°08'N., 5°21'W.), the outermost high islet, rises vertically. A rock, below-water, lying 0.4 mile N of A' Chleit breaks during N gales.

A' Chleit and **Soyea Island** (58°09'N., 5°19'W.) break during W gales. Soyea Island, steep-to on its S side, shows two hillocks at each end on a N approach. A light is shown from the W end of the island. North and S entrance channels lead into Loch Inver.

5.21 Bo Caolas (58°09'N., 5°18'W.), marked by a beacon, is a drying rock in the N channel. There are several other rocky shoals in the channel which limit its use to vessels with a draft of 4.6m. The S channel is deep and free of dangers.

Loch Inver (58°09'N., 5°16'W.) is entered between Kirkaig Point and Rubha Rodha (58°09'N., 5°18'W.). It is open to W winds, has rocky shores backed by mountains, and is fronted by reef flats extending as far as 0.1 mile offshore. Depths decrease gradually from 46m in the entrance to 11m off Aird Ghlas (58°09'N., 5°15'W.), a salient promontory. Several shallow and foul bays indent the S side of the loch. The N end of foul ground, off Aird Ghlas, is marked by a lighted beacon. It is entered between Kirkaig Point and Rubha Rodha (58°09'N., 5°18'W.). Tidal currents setting N and S along the E side of North Minch have no effect on currents in Enard Bay or Loch Inver where currents are negligible.

Landmarks visible when approaching Loch Inver include Suilven (58°07'N., 5°08'W.), a conspicuous mountain with a sharp peak; Culag Hotel (58°09'N., 5°15'W.), fronted by a mound; and Lochinver Church, about 0.2 mile NE of the hotel, visible from offshore.

Glas Leac (58°09'N., 5°16'W.), an islet marked by a light, lies in the fairway. Foul ground and drying rocks on rocky shoals encumber the area between islet and the N shore.

5.22 Lochinver (58°09'N., 5°14'W.) is a fishing village at the head of the loch. Finger Pier, which extends 130m NNW from the coast midway between the breakwater and Culag Pier, 0.2 mile E, provides berths on either side of the pier. Main Market Quay, the largest berth, has a length of 150m and can accommodate drafts up to 7m. A light is shown from the head of the pier. There is another pier in the village, with berths on both sides, as well as an additional 200m long quay.

The approach lies S of A' Chleit, Soyea Island and Glas Leac. Vessels exceeding 50m in length and vessels carrying dangerous cargo should give the harbormaster at least 24 hours notice of ETA. Smaller vessels should provide their ETA at least 1 hour in advance.

The port can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1571-844265
3. Facsimile: 44-1571-844247

Anchorage can be taken, in depths of 7 to 9m, mud, with Lochinver Church bearing 067° and Culag Hotel flagstaff bearing 117°; however, this anchorage is exposed to W gales. There is anchorage, in suitable depths, between Glas Leahjc and the head of the loch.

Loch Inver to Loch a' Chairn Bhain

5.23 Loch Roe (58°10'N., 5°18'W.), entered N of Rubha Rodha, is a tortuous narrow inlet encumbered with foul ground and drying rocks. The loch is frequented only by fishing vessels.

Claus Deas (58°14'N., 5°24'W.) is the W extremity of a bold headland whose N extremity is Point of Stoer. The coast from Loch Roe is featureless.



Courtesy of Scottish Radiance

Point of Stoer Light

Point of Stoer (58°16'N., 5°22'W.), high and rugged, appears to be an island when seen from offshore. Cliffs form the NW face of the point and an unusual, detached column, Old Man of Stoer, rises at the NE end. A light is shown from a white tower standing near Claus Deas.

Eddrachillis Bay (58°18'N., 5°17'W.) is a large, open bay entered between Point of Stoer and Handa Island (58°23'N., 5°11'W.). The shores of the bay are rough, rocky, and indented by several small bays. Numerous islets lie as far as 1.8 miles off the S and E shores. Steep, grassy slopes back the shores. Depths in the fairway of the bay are ample for deep-draft ocean-going vessels.

Oldany Island (58°15'N., 5°15'W.) lies close offshore and at the E end of a large, open bay. From the S end of the island the coast recedes E to Rubha nam Fias (58°16'N., 5°07'W.), the S entrance point of Loch a' Chairn Bhain. The intervening coast is broken by two inlets. Loch Dhrombaig (58°15'N., 5°12'W.), the W inlet, is fronted by several islets. Entrance is effected by a NE approach, passing close W of drying Bogout Rock and close NW of the islets. Anchorage can be taken SW of the islets, in depths up to 13m.

5.24 Loch Nedd (58°15'N., 5°10'W.) is entered between Rubh' Dhubhard (58°15'N., 5°11'W.) and Rubha na Maoile (58°16'N., 5°10'W.), the outer extremity of a promontory forming the NE side of the loch. The channel leading midway

through the loch has a least depth of 6.4m as far as the anchorage. Anchorage can be taken, in a depth of 12m, about 0.5 mile within the entrance of the loch. There is limited swinging room at the anchorage. A 4.6m shoal on the W side of the fairway should be avoided.

Loch a' Chairn Bhain (58°15'N., 5°04'W.) is entered between Rubha nam Fias (58°16'N., 5°06'W.), the SE entrance point, and Duartmore Point (58°17'N., 5°06'W.). Stack of Glencoul, a mountain located 7 miles ESE of the loch entrance, is conspicuous from seaward, as is grassy Eilean a' Ghamhna (58°15'N., 5°03'W.).

The fairway is deep and free of dangers as far as Caolas Cumhann (58°15'N., 5°02'W.), the narrows, which leads to the entrance of Loch Glencoul and Loch Glendhu. There is a depth of 13.7m at the E end of the fairway, where it joins the lochs.

The NW side of the narrows is formed by Garbh Eilean (58°15'N., 5°02'W.), an islet joined to the mainland by a drying reef. A 3.7m shoal lies close S of the SW end of Garbh Eilean. Tidal currents may attain a velocity of 2.5 knots at springs in Caolas Cumhann, where there are dangerous eddies. A ferry plies the E end of the narrows.

The Kylesku Bridge crosses Caolas Cumhann between Garbh Eilean and the mainland shore SE. The navigable span is 80m wide, with a vertical clearance of 23m.

An overhead power cable, with a vertical clearance of 23m, crosses the narrows 100m NE of the bridge. Submarine cables cross the NE end of the narrows; their landing places are marked by beacons.

Lochs Glencoul and Glendhu, the S and N arms of Loch a' Chairn Bhain, are separated by high land terminating in Aird da Loch (58°15'N., 5°00'W.). Loch Glencoul (58°14'N., 4°58'W.), at least 21.9m deep in the fairway, has a bold and steep-to N shore. Loch Glendhu (58°15'N., 4°58'W.), at least 11m deep in the fairway, is danger-free but subject to heavy squalls during S and SW gales.

Anchorage can be taken, in a depth of 13m, good holding ground, S of Eilean a' Ghamhna and during daylight hours about 0.2 mile ESE of the E end of Garbh Eilean, with a house bearing 326°. Vessels can anchor, in a depth of 15m, close E of the islets extending ENE of Garbh Eilean, with the E islet bearing 160°.

Loch a' Chairn Bhain to the Sound of Handa

5.25 Between **Duartmore Point** (58°17'N., 5°06'W.) and **Farhead Point** (58°19'N., 5°10'W.), the coast is heavily indented and fronted by rocky shoals, foul ground, and islets as far as 2.5 miles offshore. The entire E and NE shores of Eddrachillis Bay are very rocky, backed by either heather-covered or barren slopes interspersed by the grassy tops of cliffs.

Calbha Mor (58°17'N., 5°08'W.) and **Calbha Beag** (58°17'N., 5°09'W.), adjacent islands, are separated by a channel with a depth of 11m in the fairway. Foul ground fringes both islands. A shoal with a depth of 4.6m lies in the S entrance of the above channel, about 150m SW of Calbha Mor.

Ravens Rock (58°16'N., 5°09'W.) and **Lachen Shoal** (58°16'N., 5°10'W.), above and below-water dangers, lie N of the entrance fairway to Loch a' Chairn Bhain. The N end of Oldany Island, bearing 265° leads S of these dangers.

Bagh Chalbha (58°17'N., 5°08'W.) is formed by the N and

E sides of Calbha Mor and the mainland. A drying rock lies on the shoals fringing the E side of Calbha Mor.

5.26 The Badcall Islands (58°18'N., 5°10'W.) consist of an inner and outer group of grassy islands, with the former extending 1.5 miles SW from the entrance to Badcall Bay. The latter group, lying 0.8 mile SW of the inner group, consists of Meall Mor (58°18'N., 5°12'W.), Meall Beag (58°17'N., 5°12'W.), and Sgeir a' Chlaidheimh. Rocky shoals fringe all the islands and constrict the passages between them.

Rubha Gisgil (58°19'N., 5°09'W.) is a mainland point located at the inner end of the Badcall Islands and at the SE entrance of Badcall Bay. A chain of islets, islands, and rocks extends WSW from the point terminating in Dubh Sgeir (58°18'N., 5°11'W.). Eilean Bhreithimh (58°18'N., 5°11'W.) is a grassy island lying close NW of Dubh Sgeir. An approach channel to Badcall Bay is entered N of the island and S of Eilean Garbh (58°19'N., 5°10'W.).

Badcall Bay (58°19'N., 5°09'W.), entered between Rubha Gisgil and Farhead Point (58°19'N., 5°10'W.), is fringed by rocks and shoals with depths of less than 3.7m which constrict the channel to about 0.1 mile. Main Channel, leading to the bay, is entered S of Meall Earca (58°19'N., 5°11'W.) and Eilean Garbh. It is the deepest and widest of the channels.

Leopach Channel (58°19'N., 5°10'W.), leading SE of Farhead Point, has a rock with a depth of 2.1m lying in the NW entrance of the channel.

South Channel (58°19'N., 5°09'W.) is reported to be the safest channel to use as the adjacent islands are easily identified. The least depth in the fairway, which is less than 150m wide, is 7.8m. Pilotage can be performed by local fishermen living in cottages on the NE shore of Leopach Channel.

5.27 Badcall (58°20'N., 5°09'W.), a village on the N shore of the bay, has a small pier at which local vessels berth. Anchorage can be taken, in a depth of 14m, mud and sand, in the middle of the bay where there is swinging room of about 0.1 mile. Vessels approaching the anchorage should pass 0.1 mile NW of Clansman Shoal (58°18'N., 5°10'W.) and NW of Sgeir an Tairbh (58°19'N., 5°09'W.). After passing through South Channel on a N course, vessels should proceed toward the anchorage with the summit of Ceannamhor (58°18'N., 5°10'W.) bearing 236° astern and tangent to the SE side of Eilean Garbh.

Scourie Bay (58°21'N., 5°10'W.) is entered between Rubha Shios (58°21'N., 5°11'W.), a coastal point, and Creag a' Mhail (58°22'N., 5°10'W.). Eilean a' Bhuic, an islet, lies 0.2 mile NW of Rubha Shios. The bay is open to the NW and is fronted by rocky shoals and detached below-water rocks which constrict the navigable fairway. Anchorage in the bay is not recommended.

The Sound of Handa to Loch Inchard

5.28 The Sound of Handa (58°22'N., 5°10'W.), the passage between the mainland and Handa Island, has a least width of 0.2 mile, but the navigable channel is constricted by rocky shoals extending SE from the island. Above and below-water rocks and reefs lie in and near the fairway. Bodha Morair, the S rock in the sound, lies 0.4 mile SSE of the E extremity of Handa Island. Local knowledge is required to transit the Sound of

Handa. The E side of the sound and the mainland N to Rubha Ruadh (58°25'N., 5°09'W.) is formed of dark rugged rocks rising steeply as high hills.

Anchorage in favorable weather can be taken in Port of Tarbet (58°23'N., 5°09'W.), a small bight at the NE end of the Sound of Handa. There are depths of 18 to 26m, mud, about 275m SE of the E end of Eilean an Aigeach (58°23'N., 5°09'W.).

Vessels proceeding N through the sound en route to the anchorage should pass E of Bodha Morair, marked by tide rips. When clear of this danger, vessels should steer NNE with the summit of Eilean a' Bhuic bearing 207° astern, which leads into Port of Tarbet.

Handa Island (58°23'N., 5°11'W.) lies 0.2 mile offshore and 1 mile NNE of Creag a' Mhail. The N and W sides of the island are high and steep, with a gradual sloping toward the S side. The island is a nature reserve. High cliffs of dark red and brown sandstone serve as a bird rookery. Drying rocks and foul ground extend 0.3 mile SW of the island and are marked by breakers except during a calm sea. Tidal currents set NE and SW in the area W of Handa Island.

5.29 Loch Laxford (58°24'N., 5°06'W.) is entered between Rubha Ruadh (58°25'N., 5°09'W.), a low reddish-colored point, and Ardmore Point (58°25'N., 5°07'W.), bold and brownish-colored. Several islands and islets lying off the bold, steep, indented shores of the loch diminish the width of the channel leading SE to the head of the loch. Depths in the fairway of the loch decrease from 37m in the entrance to 11m about 0.5 mile from its head, into which the River Laxford flows.

There are three mountain peaks which are useful in clear weather in determining the entrance of Loch Laxford: Ben Stack (58°20'N., 4°57'W.), with a sharp, conical peak; Ben Arkle (58°22'N., 4°54'W.), with a round-topped summit almost white in color; and Foinaven, the highest peak rising at the N end of a ridge NNE of Ben Arkle.

Dubh Sgeirean (58°26'N., 5°08'W.) is a group of islets and rocks lying in the approach to Loch Laxford. Bodha Druim (58°25'N., 5°08'W.), a sunken rock, with a depth of 4.8m, lies in the loch entrance. A tangent of 120° on the SW side of Eilean an Eireannaich (58°24'N., 5°05'W.), leads SW of the dangers of Ardmore Point. A chain of islets and rocks lying off the SW side of the loch is closely contained within the 50m curve.

Anchorage can be taken, in depths of 11 to 13m, within the entrance of Fanagmore Bay (58°24'N., 5°07'W.) and, in depths of 18 to 22m, mud, within Bagh na Fionndalach Moire (58°24'N., 5°05'W.). There is anchorage on the NE side of the loch in Loch a' Chadh-fi (58°25'N., 5°04'W.), in depths up to 18m, mud. Small craft can anchor in Weaver's Bay (58°23'N., 5°04'W.), in depths of 5 to 9m. There is good anchorage, in depths of 10 to 18m, in the fairway of Loch Laxford about 1 mile from its head, however NW gales create a slight swell in the loch.

Loch Dughail (58°25'N., 5°06'W.), N of Ardmore Point, is open to the W and does not afford shelter or anchorage. Mariners are cautioned not to mistake this loch for Loch Laxford.

Loch Inchard (58°27'N., 5°05'W.) is entered about 2 miles NE of Loch Dughail. The intervening coast is steep, rocky, and backed by ranges of hills. Sgeirean Cruaidhe (58°26'N.,

5°07'W.), a group of islets and rocks, parallel this coast about 0.3 mile offshore. Although there is a deepwater passage at least 0.2 mile wide between Dubh Sgeirean and Sgeirean Cruaidhe, transit is not recommended without local knowledge.

5.30 Eilean Dubh (58°27'N., 5°05'W.), the W extremity of a peninsula, is also the S entrance point of Loch Inchar. Glas Leac, two rocky islets connected by a drying reef, lie 150m NW of Eilean Dubh.

Rubha na Leacaig (58°27'N., 5°04'W.), bold and reddish-colored, is the N entrance point of Loch Inchar. The point is also the W extremity of a rugged peninsula forming the S side of **Loch Clash** (Loch na Claise) (58°28'N., 5°04'W.), from which a light is shown. Loch Inchar is deep and clear of dangers except for Bodha Ceann na Saile (58°27'N., 5°04'W.), a reef with a depth of 3m, which in heavy seas is visible by the attached heavy weeds. Loch Clash is easy of access and free of dangers. The shores are rugged and steep-to. A T-head, concrete pier, with a depth of 2.7m alongside, is located at the SE corner of the loch.

5.31 Loch Bervie (58°27'N., 5°03'W.), a shallow inlet off the N side of Loch Inchar, is entered close E of Rubha nan Eun. There is a drying bar in the loch entrance. Small vessels remain afloat at LW in the loch, which affords anchorage. A directional light leads to the head of the loch. There is a least depth of 2.7m on the directional light, which leads through the fairway to the village of Kinlochbervie (58°27'N., 5°03'W.). There is a width of only 20m between the shoals on each side of the loch entrance. The narrow entrance is also marked by two lighted beacons on its W side and a lighted beacon on its E side. A pier, with a depth of 3.8m alongside, is located on the SW side of the loch.

Loch Bervie is approached from W by aligning the S extremity of Rubha nan Eun (58°27'N., 5°03'W.), 098°, with the N end of Rubha na Cloiche Lomaidh (58°27'N., 5°01'W.), a salient point. This alignment leads in the fairway N of Bogha Ceann na Saile.

Anchorage in Loch Inchar can be taken in Achriesgill Bay (58°26'N., 5°00'W.), in depths of 18 to 26m. Although good anchorage is generally not available in Loch Inchar due to constricted swinging space, the best anchorage is in mid-channel of Loch Inchar, about 0.8 mile from the head of the loch, where there are depths of 14 to 18m.

Rubha na Leacaig to Cape Wrath

5.32 The coast between **Rubha na Leacaig** (58°27'N., 5°04'W.) to **Am Meall** (58°29'N., 5°07'W.), a peninsula, contains two bays with conspicuous, sandy beaches. Gently sloping hills back the shores of the bays and rocky shoals lie as far as 0.3 mile offshore.

Eilean an Roin Mor (58°29'N., 5°08'W.) is an island marked by three high conspicuous hummocks. Between the island and Rubha na Leacaig are several islets and numerous above and below-water rocks. The shores NW of Loch Clash are backed by steep high hills.

Rubh' a Bhuachaille (58°32'N., 5°05'W.) is a minor point at the N end of an unbroken stretch of cliffy coast. Dubh Sgeir (58°29'N., 5°08'W.), a group of rocks and rocky islets, lies 0.5

mile offshore. The sea breaks over a 2m shoal lying 150m N of the N islet of the group.

Am Balg (58°33'N., 5°07'W.), a detached rocky islet rising steeply from the sea, is encircled by foul ground. This islet is a breeding place for puffins and guillemots.

5.33 Sandwood Bay (58°33'N., 5°05'W.), on the NE side of Rubh' a Bhuachaille, has a broad sandy beach at the head of the bay which is very conspicuous at LW. The coast from the bay NNE to Cape Wrath consists partly of reddish vertical cliffs indented by rugged coves. The only landing possible is in **Bay of Keisgaig** (58°35'N., 5°01'W.).

Fishing Bank (58°32'N., 5°22'W.) lies 10 miles WSW of Sandwood Bay and has general depths of 40 to 50m. A wreck, having a depth of 40m, lies in the S extremity of the bank.

Cape Wrath (58°37'N., 5°00'W.), marked by a light, is described in paragraph 7.3. The cape, a bold headland of cliffs rises precipitously. During poor visibility, ships approaching the cape from W should not close the coast in soundings of less than 55m.

Tidal currents are shown on charts of the area.

About 7 miles NW of Cape Wrath, the currents set ENE and WSW on the flood and ebb, respectively. An eddy sets N with an ebb current along the coast S of the cape. The ENE current forms an eddy close inshore of Cape Wrath. There is turbulence off the cape where the main tidal currents and eddies meet.

Harris and Lewis—East Coast

5.34 The E coast of Harris and Lewis present a barren, rough and generally desolate appearance. The numerous points marking inlets lochs and bays are not easily distinguished. There are but few prominent features. A church at the S end of Harris, the lighted tower on Scalpay (57°01'N., 6°39'W.), the light on Gob Rubh' Uisenis (57°56'N., 6°28'W.), Kebock Head (58°02'N., 6°22'W.), and the Eye Peninsula, about 10 miles NNE of the head, are all salient features.

Landmarks include Beinn Mholach (58°15'N., 6°30'W.), the highest of four distinct peaks visible from all directions, and Muirneag (58°21'N., 6°18'W.), a 246m high and prominent mountain which appears to have a flat double peak on some bearings.

Depths are variable on the numerous banks lying in The Minch. The northbound route passes over a least charted depth of 35m in position 57°44'N., 6°18'W. There is a least depth of 30m on the recommended southbound navigational track in a position 2.5 miles E of Scalpay (57°52'N., 6°40'W.), however, detached shoals, (57°59'N., 6°22'W.), with a least charted depth of 23.5m, lie up to 2.2 miles offshore, inside the recommended track.

The coast, generally steep-to, is closely fronted by the 20m and 50m curves. The principal dangers are in detached rocks and rocky patches lying in the lochs and their approaches.

Tidal currents along the E coasts of Harris and Lewis are greatly effected by the wind, especially at neaps. The set is generally NE and SW between the Sound of Harris and East Loch Tarbert. Between Kebock Head (58°02'N., 6°22'W.) and the Eye Peninsula, the tidal current sets NNE and SSW. Between the Butt of Lewis and Cape Wrath the prevailing SW



Eilean Glas Light

wind causes an ENE current to set across the entrance of North Minch. During strong NE winds the current is reversed.

Renish Point to Rudha Bocaig

5.35 Renish Point (57°44'N., 6°58'W.), the S point of Harris, appears from the offing as three rounded hummocks.

Roineabhal (57°46'N., 6°58'W.) is a prominent eminence N of the point which attains an elevation of 458m.

Loch Rodel (57°44'N., 6°58'W.), a minor inlet, sheltered by the islets of Vallay, Flodday and Corr Eilean, has a deepwater entrance, but shoals extend off both sides of the inlet. South gales raise a heavy sea in the loch. Duncan Rock, with a depth of 0.6m, lies 0.3 mile N of Renish Point and 100m offshore. A prominent house, with a conspicuous church standing on rising ground above it, is located on the NE shore of the loch. Anchorage can be taken, during offshore winds, in depths of 18 to 22m, about 0.5 mile within the loch entrance. A dark projecting point at the head of the loch, aligned 333° with Strondeval (57°45'N., 6°59'W.), leads NE of Duncan Rock.

5.36 Loch Finsbay (57°46'N., 6°54'W.) is entered between Finsbay Island and Rubha Quidnish (57°47'N., 6°52'W.), a rocky steep-to point with a cave in it. The island is green-topped and steep-to SE. Eilean Quidnish is the highest and most peaked of several islets lying 0.2 mile SW of the point. Above and below-water rocks lie NE and NW of Finsbay Island.

Eilean Druim an Tolla (57°46'N., 6°54'W.) lies on the outer edge of a rocky, drying reef. Entrance to the loch is effected by passing close to Eilean Quidnish, avoiding the rocks off Finsbay Island. Loch Finsbay is the only loch along the E coast of Harris which is considered safe to enter without local knowledge, although it is difficult to distinguish in misty weather. A hill, 61m high, with a sheer face E, bearing 305° and open N of Eilean Druim an Tolla, leads into the loch as far as that islet through an entrance channel at least 0.1 mile wide. Anchorage can be taken, in a depth of 15m, in mid-channel NE of Eilean

Druim an Tolla, or 0.1 mile E of that islet. Small vessels find sheltered anchorage, in a depth of 5m, mud, about 0.1 mile NNW of the promontory at the head of the loch.

Loch Flodabay (57°47'N., 6°52'W.), an open bight encumbered with sunken rocks, is entered between Rubha Quidnish and Aird Mhanais (57°47'N., 6°51'W.), a promontory having a bare, rocky point with a cliffy SW side. Above and below-water rocks lie as far as 0.3 mile E of the point. Anchorage sheltered from W gales, however, exposed to NE and E winds can be taken in the entrance to the loch 0.5 mile NE of the extremity of Rubha Quidnish, in a depth of 49m.

A submarine cable, which crosses Little Minch to the Water-nish Peninsula, is landed at Loch Gheocrab, lying N of Aird Mhanais.

Loch Stockinish (57°49'N., 6°50'W.) is entered between Aird Mhor (57°48'N., 6°51'W.) and Stockinish Island lying 0.5 mile E. Caolas Beag, the preferred channel, with a depth of 3.7m and a width of 27m, leads along the E side of the island. Caolas Beag can be entered by steering a course of 339° for the E end of Stockinish Island. Anchorage can be taken, in depths of 16 to 22m, in mid-channel off Hard Rock. The anchorage is reached by keeping close to the SW side of Caolas Beag and on leaving the channel steer a course to pass 0.1 mile E of Am Maoladh, keeping the channel open astern. The sheltered inner part of the loch has a depth of 22m, mud.

Am Maoladh, a peninsula, is located midway along the W side of the loch. Hard Rock, a drying rock, lies 0.8 mile NNW of Am Maoladh.

5.37 Loch Grosebay (57°49'N., 6°46'W.) is entered between Rubha Chluar (57°48'N., 6°48'W.) and the S end of Reibinish, a peninsula 1.5 miles NE. Rubha Chluar, a rugged point, is recognized from NE by a deep dark chasm near its summit. Cairam, an islet, lies 0.7 mile NNE of Rubha Chluar. Glas Sgeir, a smaller islet, lies close NW of Cairam. Sgeir a' Chais (57°50'N., 6°47'W.), a group of above-water rocks, lies 0.2 mile from the head of the loch. Anchorage can be taken, in a depth of 9m, mud, above Sgeir a' Chais by passing about 0.3

mile NW of Glas Sgeir and then shaping a course to pass close SW of Sgeir a' Chais.

Loch na H-Uamha (57°49'N., 6°45'W.) lies adjacent to Reibinish and is unsafe for anchorage. Loch Scadabay, a constricted inlet entered about 0.4 mile NW of the entrance to Loch na H-Uamha, affords anchorage, in a depth of 2.1m, to small vessels.

East Loch Tarbert—Outer Part

5.38 East Loch Tarbert (57°54'N., 6°48'W.) is entered between Rubha Bhocraig (57°50'N., 6°44'W.), the E extremity of Reibinish, and Rubha Crago (57°53'N., 6°40'W.). The loch contains numerous rocks throughout its length, but transit can be accomplished during daylight hours. Terrain adjacent to the loch is rocky, desolate and without vegetation. Bare hills rise to mountains in the interior. Scalpay, an island, along with numerous islets and rocks, lie in the entrance of the loch. Two navigable channels lead into the loch N and SW of Scalpay.

The **Sound of Scalpay** (57°52'N., 6°41'W.), with depths of 15 to 29m, is free of dangers in the fairway and has a navigable width of about 100m. A car ferry crosses the sound near its mid-point. A submarine power cable, laid between Carnach and a small bay 0.3 mile SSE, is marked at its landing places by beacons. A pipeline is laid across the sound in a S direction from position 57°53'N., 6°42'W.

A bridge, with a vertical clearance of 20m, crosses the sound.

Elliot Rock, 0.2 mile SSW of Rubha Crago, consists of three heads, the center having a swept depth of 2m and the NE having a swept depth of 3.8m. A 4m rocky patch lies between Elliot Rock and Scalpay. The N and S sides of the sound are generally steep-to W of Elliot Rock.

5.39 Braigh Mor (57°51'N., 6°43'W.), the deep-water channel SW of Scalpay, has an uneven muddy bottom interspersed with rocks. Rubha Bhocraig (57°50'N., 6°44'W.), the SW entrance point of the channel, is difficult to identify. Bogha Bhocraig (57°50'N., 6°43'W.), above and below-water rocks, lie 0.4 mile ESE of the point. The highest peak of Scotasay (57°53'N., 6°45'W.), bearing 339° and open E of The Gloraigs (57°51'N., 6°44'W.), leads 0.3 mile E of Bogha Bocaig.

The Gloraigs, a group of islets and rocks, lies as far as 0.8 mile off the SW shore of the loch and within 0.2 mile of the entrance fairway. Eilean na Sgaithe (57°50'N., 6°44'W.) is the S islet of the group, with Dun Corr Mor (57°51'N., 6°44'W.), a peaked islet, lying less than 0.3 mile W of the fairway.

A light is shown from the N side of Dun Corr Mor. The alignment of the SW coast of Sgeir Ghlas on a bearing of 153° with Dun Corr Mor Light clears 0.1 mile ENE of Little Whiting Rock. The white sector, 319°-329°, of Sgeir Ghlas Light leads into Braigh Mor, but includes within the sector, three detached shoals, the least depth being 3.8m lying 0.3 mile E of Dun Corr Mor Light.

Scalpay (57°52'N., 6°40'W.), a large island lying in the entrance of East Loch Tarbert, rises to Beinn Scoravick near its E end. Meall Challibost (57°51'N., 6°40'W.), a headland, is the S extremity of the island.

Eilean Glas (57°51'N., 6°38'W.), a small steep-to rocky peninsula, forms the SE end of Scalpay. A light is shown from a

conspicuous tower standing on the summit of Eilean Glas. A racon is located at the light.

Sgeir Inoe (57°50'N., 6°33'W.), drying 2.4m, lies 3 miles ESE of Eilean Glas. A rock, awash, lies on a narrow bank, with a least depth of 0.3m, extending 0.3 mile SW of the drying rock. The alignment, 034°, of Rubh' Uisenis with Srianach, 4.5 miles NE, clears NW of Sgeir Inoe.

Between Eilean Glas, Sgeir Inoe, and the Shiant Islands (57°54'N., 6°23'W.), the tidal currents usually set ENE and SW. At neaps the current begins to set NNE, gradually turning to an E set over a period of 8 hours 30 minutes.

There are several excellent anchorages inshore of The Gloraigs available to small vessels with local knowledge. Anchorage can be taken, in depths up to 24m, in South Harbor (57°52'N., 6°42'W.), about 0.2 mile N and E of Hamarsay (57°51'N., 6°42'W.).

East Loch Tarbert—Inner Part

5.40 Scotasay (57°53'N., 6°45'W.), an island covered with heather, lies in the central part of East Loch Tarbert. The approach channels through Braigh Mor and the Sound of Scalpay are joined N of Scotasay. A passage, with a least depth of 13.7m in the fairway, separates Scotasay from Stiughay (57°52'N., 6°43'W.).

Sgeir Ghlas (57°52'N., 6°45'W.), an islet lying E of the fairway, is steep-to on its W side and is marked by a lighted tower. Many of the numerous dangers encumbering the inner part of the loch are covered by light sectors of Sgeir Ghlas Light.

The fairway through Braigh Mor leads W of Sgeir Braigh Mor (57°51'N., 6°44'W.) and Sgeir Ghlas. Tidal currents set in and out through Braigh Mor, round Scalpay and the adjacent islands and set in and out of the Sound of Scalpay. Northwest of Scotasay there are no currents.

North Harbor (57°53'N., 6°42'W.), a bight at the NW end of Scalpay, is a small fishing harbor with depths of 1.8 to 5.5m. Scalpay House (57°52'N., 6°42'W.), with two chimneys, is a conspicuous landmark at the head of the bight. A 54m long pier at the SE corner of the harbor, has a depth of 1m alongside at its end. A light is shown from the pierhead. Two beacons mark rocks lying off the pier.

Loch Ceann Dibig (57°53'N., 6°48'W.), a bay indenting the coast W of Scotasay, is entered between Eilean Arderanish (57°52'N., 6°47'W.) and Aird Diraclett (57°53'N., 6°47'W.), a headland. Numerous drying rocks lie in and near the loch which is entered from Braigh Mor by passing 0.1 mile N of Eilean Arderanish and then keeping its N end aligned astern, 096°, with the S end of Scotasay. Anchorage can be taken in Loch Ceann Dibig, in a depth of 15m, mud, about 0.3 mile from the head of the loch.

5.41 Craobhag (57°54'N., 6°48'W.) is a conspicuous, vertical cliff located at the S entrance of the harbor of East Loch Tarbert. A beacon stands on the N end of the cliff. Rubha Dubh, a steep-to promontory about 1 mile ENE of Craobhag, forms the N side of the harbor entrance. Oban Rocks, drying, lies 0.2 mile SE of Rubha Dubh. The Free Church (57°54'N., 6°48'W.), bearing 289° and open S of Rubha Dubh, leads close S of the rocks. There is a T-head pier located 150m W of the church. A light is shown from the head of the pier. There are

small piers with a depth of 3m alongside at HW at Tarbert (57°54'N., 6°49'W.), a village. Anchorage is preferred in mid-channel at the head of the loch between Craobhag and Rubha Dubh, in a depth of 16m, mud.

Loch Seaforth

5.42 Loch Seaforth (57°54'N., 6°40'W.), entered between Rubha Crago (57°53'N., 6°40'W.) and Aird a' Bhaigh (57°55'N., 6°37'W.), a headland, is the longest loch in the Outer Hebrides and partly divides Harris from Lewis. The loch entrance is an open bay encumbered with several above and below-water rocks. The desolate, rocky coast extending NE from Rubha Crago is indented by several lochs, with conspicuous mountain ranges rising in the interior. Toddun (57°56'N., 6°44'W.) is a conical mountain prominent from the E.

Seaforth Island (58°00'N., 6°44'W.) lies in the fairway of Loch Seaforth, with a clear channel E and W of the island. The loch proper is deep and free of dangers as far as the island. The channel E of the island has a least depth of 10.2m, the channel W of the island, 5.9m. Anchorage can be obtained in the entrance with Rubha Bridog, bearing 345°, distant 1.2 miles, in a depth of 28m, and with the same point bearing 334°, distant 0.5 mile, in a depth of 29m. Both positions are sheltered from N and SW winds with good holding ground, in soft mud and broken shell.

Rubha Bridog (57°55'N., 6°39'W.), the E entrance point of the loch proper, rises to a steep hill and appears as a cliff with a bare point of rock extending from it. Between Rubha Bridog and **Ard Caol** (57°55'N., 6°41'W.), at the W entrance, the loch is 0.5 mile in width, but becomes constricted within 0.2 mile. High, sheer cliffs, steep-to, form the sides of the loch. The mountains backing the shores of the loch cause sudden, often violent wind squalls.

Loch Trollamarig (57°55'N., 6°42'W.), entered S of Ard Caol, is open and affords no shelter. There are islets, some steep-to and others fringed by drying rocks, lying in the entrance of the loch and E to Rubha Bridog.

5.43 Loch Maaruiig (57°57'N., 6°44'W.), on the W side of Loch Seaforth, is entered between Maaruiig Island, lying close offshore, and a black, cliffy point forming the N entrance of the loch. A rock lies about 100m SE of the island. There are least depths of 12.8 in the loch. Landmarks include Aline Lodge (58°00'N., 6°45'W.), and its adjacent buildings; and Kenmore (57°58'N., 6°42'W.), a point topped by an isolated hill, which is very conspicuous.

Upper Loch Seaforth, the shoal head of the loch, is very constricted. Tidal currents are strong in the narrows leading to the upper loch, although they are weak in the loch proper.

Anchorage can be taken about 0.1 mile off the S shore of Loch Maaruiig, just within the entrance. Small vessels can anchor, in depths up to 15m, S of Maaruiig Island. A sheltered basin inside Maaruiig Point, with a depth of 7m, mud, affords mooring anchorage. Anchorage can be taken, in depths of 13 to 18m, between Seaforth Island and Aline Lodge. Vessels anchoring in Loch Seaforth should pass 0.2 mile E of Sgeir an Daimh, an above-water rock lying almost 1 mile NNE of Rubha Crago, and pass W of Sgeir Hal. A mid-channel course leads through the loch proper.

Loch Claidh to Loch Shell—The Shiant Islands

5.44 Loch Claidh (57°55'N., 6°36'W.), entered between Aird a Bhaigh and Rubha Bhalamuis Bhig (57°55'N., 6°34'W.), is important only as a small vessel anchorage. The shores of the loch are unindented, steep-to, and backed by hills becoming mountainous near the head. A steep point, less than 0.8 mile within the entrance, is prominent, as is a high cliff rising at the SW head of the loch. Drying rocks lie as far as 0.5 mile WNW of Rubha Bhalamuis Bhig. Eilean Hingarstay (57°56'N., 6°36'W.), an islet, lies 1.2 miles within the E entrance point.

Pender Rock (57°55'N., 6°36'W.) is the outermost of three above and below-water rocks. Tidal currents raise turbulent seas, dangerous to small vessels, in the vicinity of the rock.

Anchorage can be taken in the middle of Tob Smuaisibhig (57°57'N., 6°37'W.), an inlet indenting the NE shore of the loch, in a depth of 13m, shell, clay, and stones. South gales raise a sea in the inlet.

5.45 Loch Bhrollum (57°56'N., 6°32'W.) is entered between Rubh' a' Bhaigh (57°55'N., 6°32'W.), a low, sloping point, and Rubha Bhrollum (57°56'N., 6°31'W.), a vertical cliff. Drying rocks lie as far as 0.1 mile off the entrance point and cliff. Anchorage may be obtained in the N part of the loch, above Meall Mor, 1 mile NW of Rubha Bhrollum, in depths of 5 to 20m, clay. Both shores are clear of dangers in this area, however, the loch is only 0.1 mile wide and open S.

Gob Rubh' Uisenis (57°56'N., 6°28'W.), a smooth sloping headland terminating in a rocky point, is in sharp contrast with the coast extending N. A deep dark fissure near Gob Rubh' Uisenis is prominent when viewed from the NE. The headland and light tower standing on the point are reported to be good radar targets at a distance of 9 miles.

The **Shiant Islands** (57°54'N., 6°22'W.) consist of two islands and several islets and rocks. Sheep are grazed on the islands, but there are no permanent residents. The **Sound of Shiant** (57°55'N., 6°27'W.), the passage separating the islands from the coast NW, has a least depth of 23.5m, with an uneven bottom.

5.46 Eilean an Tighe (57°53'N., 6°21'W.), the S part of the largest island of the group, is connected by a low, narrow neck of gravel with Garbh Eilean (57°54'N., 6°21'W.), the highest, N part of the island. Eilean an Tighe has precipitous cliffs on its E side. A chain of above-water detached islets and rocks extends 1.2 miles W from the NW end of Garbh Eilean.

Eilean Mhuire (57°54'N., 6°20'W.) is an islet terminating S in an above-water rock. Drying reef flats extend 0.2 mile S and W of the islet, and shoals lie SE as far as 1.5 miles.

Shiant South Rock (57°51'N., 6°25'W.) is steep-to with a depth of 5m.

Shiant East Bank (57°54'N., 6°07'W.), an extensive fishing ground, has a least depth of 20.4m, lying 11 miles NW of Rubha Reidh.

Between Gob Rubh' Uisenis and the Shiant Islands, the tidal current sets NE and SW. Heavy tide rips occur NE of the banks in the vicinity of the Shiant Islands and the Sound of Shiant, where strong NE winds and tidal currents provide a dangerous situation for small vessels. Northeasterly weather conditions

cause the normal SW current to have a S set. The Shiant Islands, lying across the direction of the tidal currents, cause eddies to form. East of the islands the tidal currents set S, turning W and WSW, and joining the main current through Little Minch after clearing the islands. Heavy tide rips occur 1 mile SE of the S islands during the E and ENE tidal current, especially during spring tides. South and SW winds raise the highest tides in Little Minch. Generally, in moderate weather, if the flood tide is higher than normal, a S or SW gale can be expected. Northeast gales bring the heaviest swell, but SW gales raise a rough sea.

Anchorage can temporarily be taken during the summer, in a depth of 16m, hard sand, between the two Shiant Islands, with the gravel neck joining the islands bearing 250°, distant 0.2 mile. This berth is open to SE and SW winds, with SW gales raising a heavy swell.

Loch Shell to Loch Erisort

5.47 Rubha Ailltenish (57°59'N., 6°27'W.) is the S entrance point of Loch Shell (58°00'N., 6°27'W.). The coast S is fronted by high, steep cliffs and the point is nearly joined SSE at LW to Sgeir Ailltenish, a low islet that is rarely submerged.

Srianach (58°00'N., 6°23'W.), a headland, marks the N entrance of the loch which has depths of 20 to 27m in the principal fairway. Srianach is steep-to, rugged and precipitous, with a sheer face W. The S shore of Loch Shell is high and steep and the N side is indented by Tob Lemreway (58°01'N., 6°26'W.) and Tob Eishken (58°01'N., 6°31'W.). Eilean Iubhard (58°00'N., 6°26'W.), a high steep-to island, lies in the loch entrance.

5.48 Caolas a Ibath (58°00'N., 6°25'W.) is the passage N and NE of Eilean Iubhard. The W entrance is constricted and rock-encumbered. Sgeir Fhraoich (58°00'N., 6°26'W.), a rock, lies in the middle of this entrance. Rubha Buidhe (58°00'N., 6°27'W.) is a promontory with slopes falling to the water's edge.

Anchorage can be taken, in a depth of 11m, about 1.5 miles NW of Srianach, where a bight allows 0.1 mile of swinging room. Larger vessels can anchor close E of Sgeir Fhraoich in a depth of 20m, stiff mud. West gales cause violent squalls at this anchorage. The preferred anchorage, sheltered from all gales, lies close within the entrance of Tob Eishken in a depth of 33m, stiff mud, with the lodge at the head of the inlet bearing 337°, distant 0.7 mile. Anchorage can also be taken, in a depth of 9m, about 0.5 mile from the head of Loch Shell.

Gob na Milaid (58°01'N., 6°22'W.), located 1.2 miles NNE of Srianach, is the S extremity of Kebock Head. A light is shown from a white tower on Gob na Milaid and a waterfall on a cliff nearby is conspicuous.

Kebock Head (58°02'N., 6°22'W.) is the N end of a bold headland formed of high, vertical cliffs ending at Creag Mor (58°02'N., 6°22'W.). A drying rock lies close N of the head.

5.49 Loch Odhairn (58°03'N., 6°23'W.) is deep and free of dangers in mid-channel. On a NE approach, the loch is identifiable by the abrupt change in the lay of the land at Creag Mor. Within the entrance, the terrain forming the sides of the loch is bold and steep, sloping gradually as the head is approached. Cottages stand amidst cultivated land at Gravir

(58°03'N., 6°26'W.), a village at the head of the loch. Anchorage can be taken, in a depth of 24m, mud, in the middle of the loch. Small vessels can find sheltered anchorage, in depths up to 9m abeam a conspicuous ravine. Squalls are prevalent during SW gales.

Rubha Stanngraidh (58°07'N., 6°24'W.), a coastal point terminating in a cliffy hillock, rises inland to a high double-peaked hill. The coast from Loch Odhairn to Rubha Stanngraidh is high and steep-to. Several islets and small islands fringe the coast in the vicinity of Rubha Stanngraidh. Included are Eilean Thoraidh (58°06'N., 6°22'W.) and Eilean Rosaidh, lying 0.2 mile N, with a steep cliff along its E side. Owen Shoal, with a least depth of 6.8m, lies ENE of Eilean Rosaidh.

Loch Erisort to Stornoway Harbor

5.50 Loch Erisort (58°07'N., 6°24'W.) is entered between Rubha Stanngraidh and Raerinish Point (58°08'N., 6°22'W.). Stanngraidh, a steep-to islet, lies close N of Rubha Stanngraidh to which it is connected by a drying reef. The E side of the headland is broken, cliffy, cavernous, and steep-to. Braigh an Stac, the SE extremity of the headland, consists of a vertical cliff and high mound. Stac, a flat-topped islet, lies close S. A knoll of bare rock rising 0.2 mile NW of Stac is conspicuous on a SE approach. A shoal, The Carranoch, with a depth of 29.5m, lies approximately 1 mile E of Stac.

Tabhaidh Mhor (58°07'N., 6°23'W.), an island with sloping banks and low cliffs, lies in the entrance of Loch Erisort. The island is steep-to except on its S side. A drying rock lies 150m S, and Tabhaidh Bheag, a rock steep-to on its N side, lies close W of Tabhaidh Mhor. A light is shown from the N side of Tabhaidh Bheag. The entrance channels N and S of Tabhaidh Mhor, leading into Loch Erisort, are about 0.5 mile in width, unencumbered and deep as far as Bones Rock (58°07'N., 6°24'W.), with a depth of 4.1m lying in the fairway N of Rubha Stanngraidh. The loch W of Bones Rock becomes constricted and encumbered with rocks that are visible at LW.

Caution.—A rock, with a depth of 3.5m, lies about 0.4 mile NE of Tabhaidh Mhor.

5.51 Eilean Chaluim Chille (58°06'N., 6°26'W.) is an island joined to the S side of the loch by a drying reef.

A mid-channel course can be steered through Loch Erisort in a depth of 10m until near the head of the loch, where the shores close in and the depths decrease. Local knowledge is necessary.

Tob Cromore (58°06'N., 6°25'W.), a basin in a cove, has depths of 1.5 to 5m, clay, and is an excellent boat harbor. Loch Leurbost (58°08'N., 6°25'W.) is a N branch of Loch Erisort. Crossbost Church, within Loch Leurbost, is prominent.

Anchorage can be taken, in depths up to 16m, mud, in Cromore Anchorage, adjacent to Tob Cromore and about 275m off the S shore. There is anchorage, in depths of 13 to 18m, about 3 miles WSW of Eilean Chaluim Chille. Loch Leurbost affords tenable anchorage in a depth of 13m, mud, about 0.7 mile inside the entrance and opposite Crossbost Church. Cromore Anchorage can be approached by passing between Stanngraidh and Bones Rock, or by-passing N of Tabhaidh Mhor and S of Tannaraidh, a steep-to double-peaked island. The SW side of Tannaraidh, aligned 312° with Crossbost Church (58°08'N.,

6°25'W.) leads close SW of Bones Rock, and course can then be changed SW for the village of Cromore.

Loch Leurbost is entered by passing W of Tannaraidh (58°07'N., 6°25'W.). **Loch Grimshader** (58°09'N., 6°22'W.), a narrow inlet, is entered close N of Aird Raerinish (58°08'N., 6°22'W.), the blunt peninsula backing the point. The S entrance point of the loch is a cliffy head. An unusual rock, which resembles a lion's head, appears on the edge of a cliff at the S side of the entrance. The loch has a least depth of 2.2m in the fairway. Foul ground extends off the N entrance point and a drying rock lies in the fairway. An overhead cable with a vertical clearance of 12m, crosses the channel between the head of Loch Grimshader and Loch Beag.

Rubha Hurnavay (58°09'N., 6°22'W.) and **Arnish Point** (58°11'N., 6°22'W.) are two points located along a coast that is precipitous and steep-to. Prominent hills rise inland. A conspicuous stone beacon stands atop a hill (58°11'N., 6°23'W.) SW of Arnish Point. Anchorage can be taken, in depths up to 13m, about 0.2 mile from the head of the loch.

Stornoway Harbor and Approaches

5.52 Stornoway is approached from SE between Rubha Hurnavay and Chicken Head (58°11'N., 6°15'W.), a steep-to point at the S extremity of the Eye Peninsula (58°13'N., 6°11'W.). The peninsula is connected at its W end to Lewis by a low isthmus. The low peninsula and isthmus appear as an island from the offing. Chicken Rock, a drying rock, marked by a beacon, lies 0.3 mile SW of Chicken Head.

Stornoway is the chief town of the Outer Hebrides. Its buildings SW of Arnish Point (58°11'N., 6°22'W.) are the most conspicuous objects when approaching the harbor.

Branahuie Bay (58°12'N., 6°18'W.), open S, recedes 1.5 miles between Chicken Head and Holm Point (58°11'N., 6°21'W.). The narrow gravel isthmus connecting the Eye Peninsula with Lewis is located at the head of the bay. Depths of 27m and greater, in the bay entrance, diminish to its head. Anchorage is considered unsafe in the bay. A military fuel pier, which can accommodate vessels with a maximum draft of 7m, extends from Gob Shilldinish, on the W side of the bay.

Holm Island (58°11'N., 6°20'W.), connected to the shore by a drying reef, lies 0.5 mile E of Holm Point. Eilean nan Uan lies on the outer edge of foul ground 1 mile E of Holm Point.

5.53 Stornoway Harbor (58°11'N., 6°22'W.) (World Port Index No. 33020) is entered between Arnish Point (58°11'N., 6°22'W.) and Holm Point (58°11'N., 6°21'W.). The depths in the harbor and its convenient location, are assets making the harbor the most important in The Hebrides. Although the holding ground in the inner part of the harbor is indifferent, vessels frequently seek shelter in the harbor from W gales. The port is also a supply center for oil exploration.

Stornoway Home Page

<http://www.stornoway-portauthority.com>

Tides—Currents.—Tides rise about 4.1m at springs and 1.7m at neaps.

Depths—Limitations.—There is a least depth of 12m in the

harbor entrance, with depths decreasing to less than 3.7m near the head of the harbor. The fairway leading into the harbor and to an anchorage SW of Eilean na Gobhair (58°12'N., 6°23'W.) has a least depth of 6.5m.

No. 1 Pier has a berth on its W side 128m long, with a ramp at the inshore end providing ro-ro facilities. There are depths of 4.5 to 7.6m alongside the berth. The E side is 130m long, with depths of 1.0 to 7.3m alongside.

No. 2 Pier, consists of E and W berthing. The E berth can accommodate tankers having a length of 70m and an alongside depth of 5.2m, at its outer end. The W berth has a length of 80m with an alongside depth of 5.2m. Depths are maintained by dredging.

No. 3 Pier has a berth on the E side with a length of 140m and a dredged depth (2015) alongside of 6.0m. A ro-ro berth on the W side, with a length of 140m and a dredged depth (2015) alongside of 5.5m, is used by local ferries.

Esplanade Quay, N of the root of No. 1 Pier, is 122m long, with depths of 4.5 to 4.9m alongside.

North Beach Quay extends 175m from the N end of Esplanade Quay, and has depths of 2.4 to 4m alongside.

Cromwell Street Quay extends 259m NNE from the E end of North Beach Quay and has depths of 2.4m at the S end, with shoaling to 1m at the N end.

Vessels of up to 13,250 gt, 136m in length, and 5.8m draft have been accommodated alongside. Vessels of up to 20,150 gt and 6m draft have anchored in the bay. Arnish Pier has a length of 100m and an alongside depth of 6.5m and receives general cargo. The NATO Fuel Jetty can accommodate vessels with a draft up to 7.0m.

Aspect.—Three sector lights lead into the harbor. The first is Sandwich Bay Light, showing a white sector from 341°-347°. The second is River Creed Light, showing a white sector from 282°-290°. The final sector light, showing a white sector from 325°-352°, is shown from the SW corner of No. 1 Pier.

The square stone turreted War Memorial on the summit of Cnoc nan Uan 2 miles NNW of Arnish Point is conspicuous. Three chimneys at the power station on Inaclete Point are conspicuous. Lews Castle College at the head of the harbor is a gothic structure with three towers. Situated on rising ground the college is visible over the town from seaward and is conspicuous. High Martins Church Spire, 0.3 mile SE of Lews Castle College, is prominent.

Inaclete Point (58°12'N., 6°22'W.), a promontory, is located midway along the NE side of the harbor. Foul ground and drying reefs fringe the shores SE and NW of the point.

Eilean na Gobhair (58°12'N., 6°23'W.), an island lying on a reef, is joined to Inaclete Point by a causeway and to the shore N by a drying gravel spit. A lighted beacon marks the SE end of Inaclete Point.

Mol Sandwick (58°12'N., 6°22'W.) is a shallow bay affording no anchorage.

Pilotage.—Pilotage is compulsory for vessels carrying dangerous substances in bulk, vessels engaged in towing, vessels restricted in their ability to maneuver, and passenger vessels over 5,000 gt. Pilotage is available 24 hours on request to the harbormaster. If requesting a pilot, send the vessel's ETA 24 hours in advance, with a confirmation sent 2 hours in advance. Pilots board in the following positions:

1. Inner—position 58°11'26.4"N, 6°21'45.0"W.



Tiumpan Head Light

2. Outer—position 58°10'36.0"N, 6°21'00.0"W.
0.25 mile E of Arnish Point Light.

Regulations.—Vessels arriving or departing the harbor must contact Port Control on VHF channel 12 and request permission prior to movement. Vessels should also maintain a listening watch on VHF channel 12.

Contact Information.—Stornoway port can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1851-702688
3. Facsimile: 44-1851-705714
4. E-mail: information@stornoway-harbour.co.uk

5.54 Arnish Point (58°11'N., 6°22'W.) is marked by a lighted white tower. A conspicuous water tower stands about 0.6 mile WSW of the point.

Reef Rock, a drying reef extending 0.1 mile N of Arnish Point, is marked by a lighted buoy moored close E of its extremity. Drying rocks, marked close N by a beacon, extend almost 0.1 mile N of the point.

Glumaig Harbor (58°11'N., 6°23'W.), indenting the shore W of the Arnish Peninsula, has depths exceeding 9m and is the quarantine anchorage. The bold coast extending from the W entrance of the harbor to the head of Stornoway Harbor is fringed by rocky, partly drying foul ground. There is an oil rig fabrication base at the S end of Glumaig Harbor. The complex includes two tidal docks and a number of conspicuous buildings.

Anchorage.—Anchorage can be taken, in a depth of 14m, midway between Eilean na Gobhail and a salient point about 0.4 mile SSW. Glumaig Harbor affords good anchorage, in a

depth of 12m, with the factory at the head of the harbor bearing 172° and Seid Rocks bearing 055°.

Caution.—Seiches, attaining heights of 0.5m and occurring when a low pressure area passes through the harbor, may last for 20 to 25 minutes.

Stornoway Harbor to the Butt of Lewis

5.55 Rubha na Strianaich (58°11'N., 6°13'W.) is the SE point of the Eye Peninsula. The coast between Chicken Head and the point is rocky, has cliffs and is generally steep-to. A conspicuous above-water rock lies offshore midway along this stretch of coast.

Bayble Bay (58°12'N., 6°12'W.) affords protection from W winds. A concrete pier at the head of this small, open bight has a depth of 3.7m alongside its head at HW. Fishing vessels frequently use the pier.

Tiumpan Head (58°16'N., 6°08'W.), the steep-to NE extremity of the Eye Peninsula, rises to a prominent hill, easily visible from S or SW, but difficult to distinguish from E because of the higher terrain in the interior. A light is shown from a white tower standing on the head.

Broad Bay (58°17'N., 6°11'W.) is entered between Tiumpan Head and Tolsta Head (58°21'N., 6°10'W.). The bay is open to E and NE winds, which raise a heavy sea. Depths of 24 to 29m in the entrance decrease to less than 9m, about 1.5 miles from the head of the bay.

McIver Rock (58°15'N., 6°15'W.), steep-to and drying, lies in the middle of the bay. A ridge, with a least depth of 9.8m, extends about 275m N from the rock. Tolsta Head, high, conspicuous and steep-to, has a sheer cliffy face on its E side. **Cre-**

ag Fhraoch (58°18'N., 6°15'W.), a cliff, is a salient feature.

Tides—Currents.—The currents off the bay entrance and N along the coast set generally N and S. Part of the S current from the Butt of Lewis sets along the E side of the Eye Peninsula. Another part, inshore, sets S along the coast, dividing at Creag Fhraoch, one part skirting the shores of Broad Bay, the other setting toward Tiumpan Head and joining the current along the Eye Peninsula. With strong N winds, the S currents have a greater velocity and run longer than in fair weather, while strong S winds have an opposite effect.

Anchorage.—Anchorage can be taken 1 mile SW of McIver Rock, in a depth of 11m, or 1 mile NE of the rock, in a depth of 20m. Shelter can be obtained 0.4 mile offshore in the bight SE of the rock, in a depth of 13m.

Caution.—With NE and prolonged E winds, a heavy sea soon develops in the bay.

5.56 Rubh' an t Seileir (58°25'N., 6°10'W.) is a point located at the entrance of a broad, open bight. The SW side of this bight contains a large sandbank which is a good landmark in thick weather. Sloping banks and sheer cliffs with caves form the N side of the bight.

Cellar Head (58°26'N., 6°10'W.) consists of sheer cliffs and several sloping points backed by high terrain. The coast N to **Meall Geal** (58°28'N., 6°11'W.) is formed by gravel bays separated by rocky points backed by low cliffs. Meall Geal terminates N in a peculiar peak which falls as a sheer cliff on its N side and slopes SE to a point.

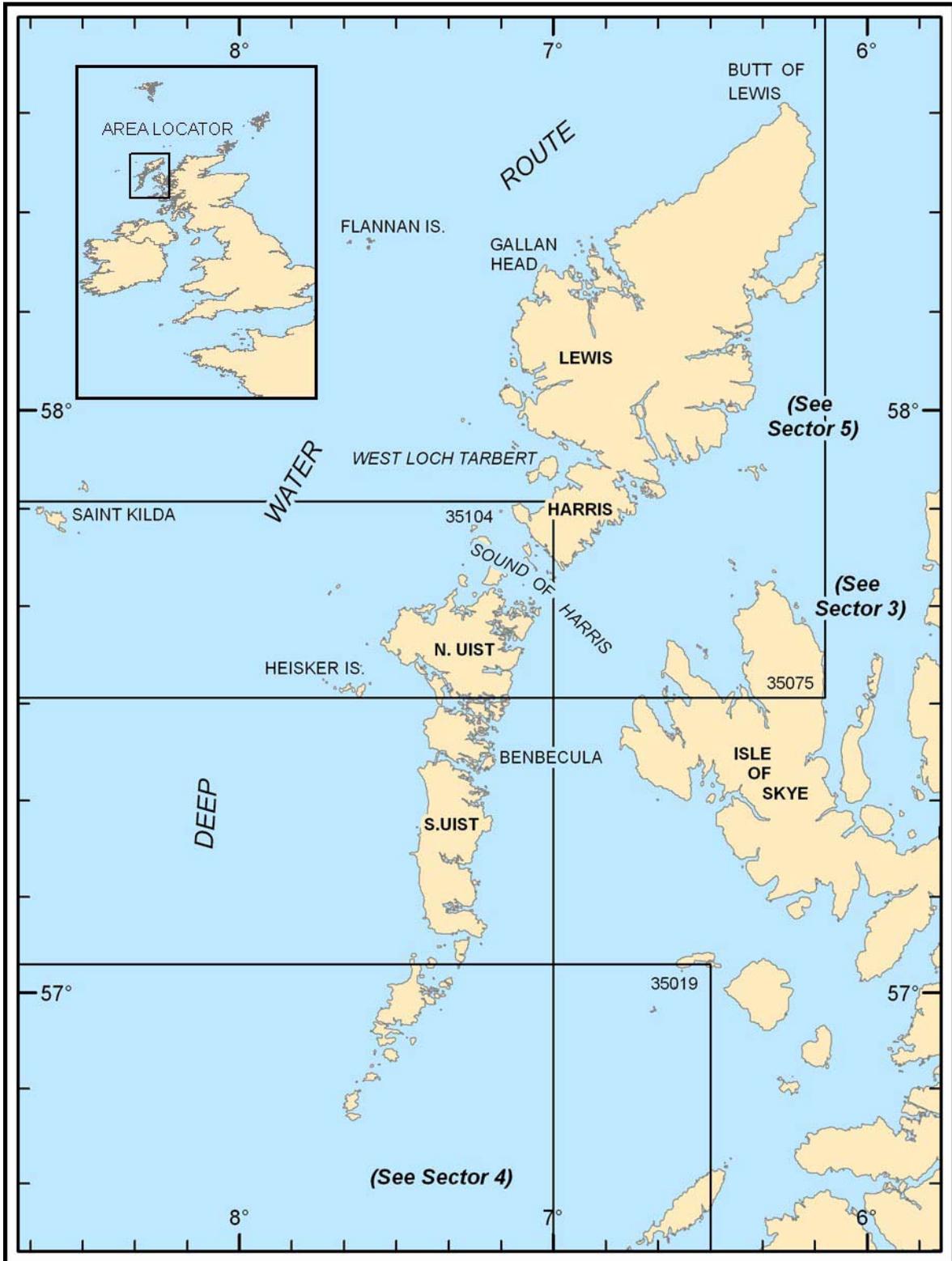
Berie (58°30'N., 6°13'W.) is the N entrance point of a sandy cove, free of dangers, which contains a drying boat harbor. Fishing vessels enter the harbor after half flood. Port of Ness, a fishing hamlet, is located at the boat harbor.

Port Sto (58°31'N., 6°15'W.), a sandy cove with a drying head, is also a fishing harbor.

The **Butt of Lewis** (58°31'N., 6°15'W.) is described in paragraph 6.38.

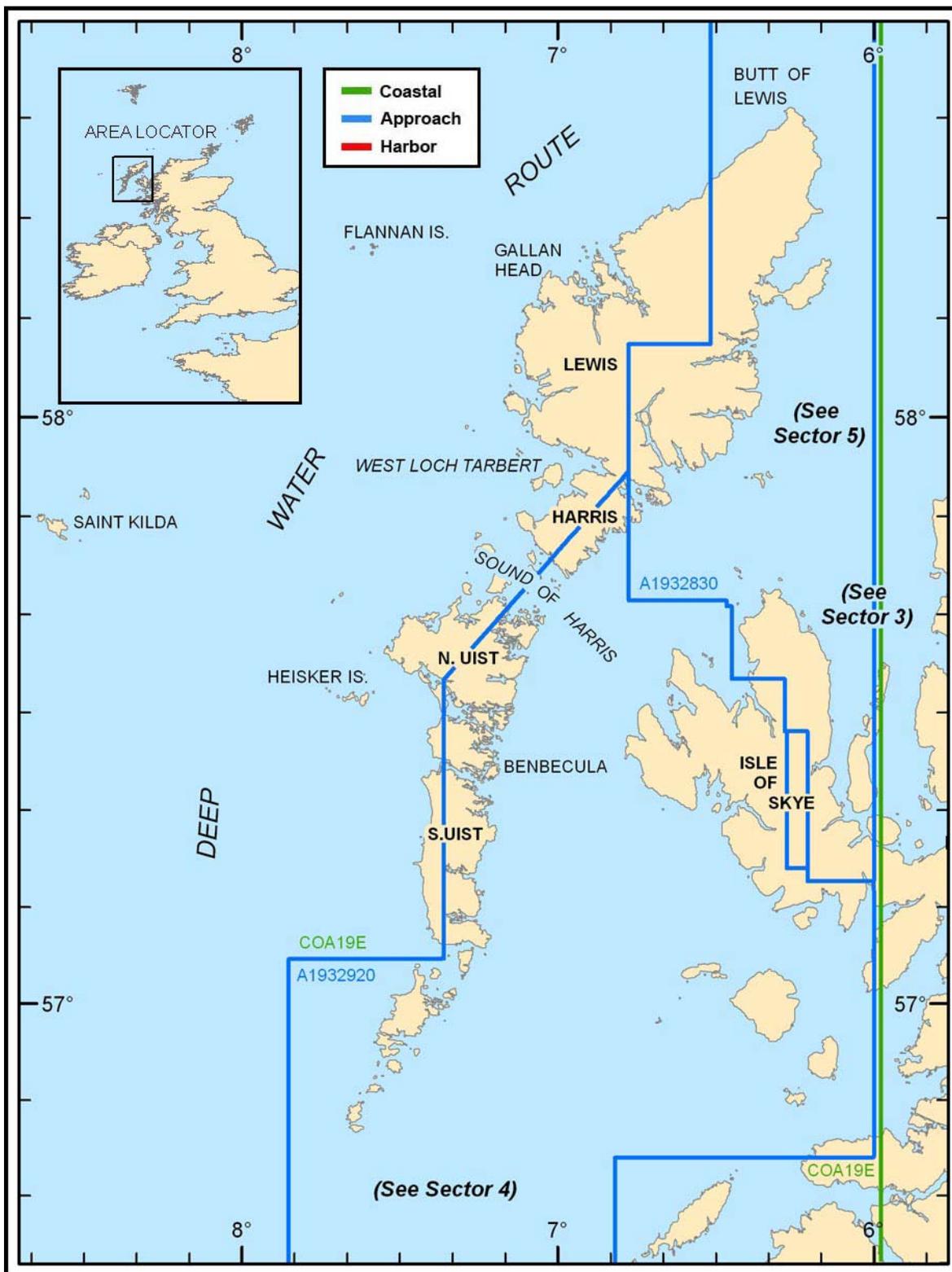
The Minch is a general name given to the channels separating the Outer and Inner Hebrides from the Scottish mainland. Little Minch is the water area bound N by an imaginary line extending from Lewis, S through the Shiant Islands to the N extremity of Skye.

The S limits lie between Usinish and Neist Point. North Minch, with a least width of 20 miles, extends NE of Little Minch and between Lewis and the mainland of Scotland.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 6 — CHART INFORMATION



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SECTOR 6

WEST COAST—THE HEBRIDES

Plan.—This sector describes the W side of the Hebrides. The descriptive sequence is from S to N.

General Remarks

6.1 The Hebrides (Western Isles), formed by two groups of islands, lie between the parallels of 56°45'N and 58°30'N, and the meridians of 5°26'W and 8°40'W. The Outer Hebrides lie W of the N part of Scotland, being divided from it by the Sea of the Hebrides and The Minch. This group extends 113 miles NNE from Barra Head to the Butt of Lewis. Except at the S extremity, the only navigable channels leading between these islands are the Sound of Barra and the Sound of Harris. The islands are comparatively low, being mostly less than 150m high. They consist primarily of bleak stretches of bog or moorland, interspersed with numerous lakes and inlets of the sea, and by ranges of hills in Barra, South Uist, and Harris.

The fundamental rock of The Hebrides generally is gneiss, traversed by veins of granite and trap. The soil is bog and varies up to 6m in depth. On the W side, blown shells and sand mix with the bog and produces good pasture land. With the exception of a portion of the N part of Lewis and a few small patches on the other islands, the E coasts are bleak and mostly sterile.

Tides—Currents.—The tidal currents along the W side of The Outer Hebrides are somewhat uncertain in direction, but may be expected to set NE during the rising tide and SW during the falling tide. These currents are generally weak, but their rates increase off the salient points along the coast and in some of the passages lying between The Hebrides and the off-lying islands. Generally, they attain rates of 1.5 to 2 knots at springs.

Except in the Sound of Causamul (57°N., 7°33'W.) and off parts of the W coast of North Uist (57°36'N., 7°19'W.), the tidal currents may be expected to set NE along the W side of The Outer Hebrides from about 3 hours 45 minutes after HW at Dover until 2 hours 15 minutes before the following HW at Dover. They set SW during the remainder of the cycle. Inshore along the W coast of North Uist and in the Sound of Causamul, the tidal currents turn about 1 hour 30 minutes earlier than those along the rest of the W side of The Outer Hebrides. They set N, parallel to the shore, from 2 hours 15 minutes after HW at Dover until 3 hours 45 minutes before the following HW at Dover and S, parallel to the shore, during the remainder of the cycle.

In contrast with the simultaneous change in direction of the tidal currents along the W side of The Outer Hebrides, the tidal currents along the E side of the islands change direction progressively N along the coast. Along the E side of The Outer Hebrides, the tidal currents off the S islands change direction about 4 hours before those off Lewis, the N most island of the group, the time differences varying proportionately between these extremities. Off the E side of the S islands, the tidal currents set NE from 1 hour after HW at Dover until 5 hours 45 minutes before the following HW at Dover. They set SW

during the remainder of the cycle. Off the E side of Lewis, the currents set NE from 5 hours after HW at Dover until about 1 hour before the following HW at Dover. They set SW during the remainder of the cycle.

The current setting E to the S of Berneray runs for about 4 hours, from 2 hours after HW at Dover until 5 hours before the following HW at Dover. At the beginning, this current sets SE, but it shifts to E and finally sets NE. Generally, it attains a rate of slightly greater than 2 knots. Tide rips are reported to occur to the SE of Berneray. The current setting W runs for 7 or 8 hours, from about 5 hours 30 minutes before until about 2 hours after HW at Dover. It attains a lesser rate than that of the E current.

The tidal currents in the Sound of Berneray (56°48'N., 7°38'W.) follow the same chronological sequence as those to the S of the island of Berneray. Generally, these currents attain rates of 2.5 knots at springs. When an E wind blows with the E current, a dangerous sea develops in the E part of this sound.

The tidal currents set E through the Sound of Mingulay (56°50'N., 7°37'W.) from about 1 hour after to 6 hours after HW at Dover. They set W from about 5 hours 30 minutes before to 30 minutes after HW at Dover. The E current attains a rate of 3 knots at springs and causes heavy tide rips to extend up to 0.3 mile from the N extremity of Mingulay (56°49'N., 7°39'W.). The W current attains a rate of 2 to 2.5 knots at springs. The E current turns S along the E side of Mingulay and joins the current setting through the Sound of Berneray. Whirlpools and rips occur in the area where these currents meet.

In the middle of the Sound of Pabbay (56°52'N., 7°33'W.), the tidal currents set E from 1 hour after to 6 hours after HW at Dover. They set W from 5 hours 30 minutes before to 30 minutes after HW at Dover. Close inshore, the currents turn 3 hours earlier. The E current attains a rate of 3.5 to 4 knots at springs and about half that rate at neaps. It is strongest between its first and third hours. The W current usually attains a rate of 0.8 knot at springs.

The tidal currents in the Sound of Sandray (56°54'N., 7°31'W.) are similar to those in the Sound of Mingulay and change direction about the same times.

The flood current sets E and the ebb current sets W through Vatersay Sound (56°57'N., 7°32'W.) and in the E approach to Castle Bay (56°57'N., 7°29'W.). However, the flood current sets into and the ebb current sets out of the bay itself. The tidal currents in Vatersay Sound are similar to those in the Sound of Mingulay and change direction at about the same times.

The flood current sets into both the E and W entrances of the Sound of Barra (57°04'N., 7°22'W.) and the ebb current sets out of both entrances. Generally, there is no tidal current in Oitir Mhor (57°02'N., 7°21'W.). The tidal current sets SE into the W entrance and NW into the E entrance from 1 hour 15 minutes after HW at Dover to 4 hours 45 minutes before the following HW at Dover. They set in the opposite directions for The Obbe the remainder of the cycle. The tidal currents setting

in the Sound of Hellisay (57°00'N., 7°21'W.) and the Sound of Eriskay (57°05'N., 7°16'W.) are similar.

In Drover Channel (57°04'N., 7°22'W.), where the currents attain rates of 3 to 4 knots, the SE current has a strong tendency to set vessels toward the foul ground lying N and NW of Fuday (57°03'N., 7°23'W.) and the NW current has a strong tendency to set vessels toward Drover Rocks (57°04'N., 7°23'W.).

The tidal currents must be carefully considered when navigating the Sound of Barra, in the vicinity of the Heisker Islands (57°31'N., 7°38'W.), in the Sound of Monach (57°33'N., 7°33'W.), and in the Sound of Causamul.

The tidal currents in the Sound of Monach are the same as those along the rest of the W side of The Outer Hebrides. They set NNE through the sound from 3 hours 45 minutes after HW at Dover until 2 hours 15 minutes before the following HW at Dover and SSW through the sound during the remainder of the cycle. Generally, these currents attain a rate of 2 knots at springs.

Closer inshore and in the Sound of Causamul, the tidal currents turn about 1 hour 30 minutes earlier than those along the rest of the coast. They set N, parallel to the shore, from 2 hours 15 minutes after HW at Dover until 3 hours 45 minutes before the following HW at Dover and S, parallel to the shore, during the remainder of the cycle. After passing through the Sound of Causamul, the N current turns NE to set along the NW coast of North Uist and the S current turns SE to set along the SW coast of the island and toward the islet of Baleshare. This latter current passes to the E of the Sound of Monach.

The tidal currents in the vicinity of Haskeir Island (57°42'N., 7°41'W.) set NE from 4 hours after HW at Dover to 2 hours before the following HW at Dover and SW during the remainder of the cycle. Along the N coast of North Uist and in the passages leading between the islands that lie to the N, the tidal currents set E from 1 hour 30 minutes after HW at Dover until 5 hours before the following HW at Dover. They set W during the remainder of the cycle.

The tidal currents set strongly through the Sound of Berneray and attain rates of 2.5 knots at springs. In the Sound of Shilley (57°31'N., 7°41'W.), the tidal currents attain rates of 1 knot at springs. In the NE part of the Sound of Harris (57°43'N., 7°06'W.), the tidal currents in the narrow parts of the navigable channels attain rates of 5 knots at springs and not much less at neaps. In the open parts of these channels, the currents do not exceed a rate of 2.5 knots. These currents do not appear to be much influenced by the wind.

The tidal currents set NW through the islands of the Hermetray Group (57°40'N., 7°04'W.) from 2 hours 15 minutes after HW at Dover until 3 hours 45 minutes before the following HW at Dover. They set SE through the group from 3 hours 45 minutes before until 2 hours 15 minutes after HW at Dover. These tidal currents attain rates of 3 knots at springs in some of the narrow parts of the channels.

Between Toe Head (57°50'N., 7°08'W.) and Gallan Head (58°15'N., 7°02'W.), the tidal currents are weak except near Gasker (57°59'N., 7°17'W.), where they occasionally attain a rate of 2 knots. Between Loch Roag (58°13'N., 6°50'W.) and the Butt of Lewis (58°31'N., 6°15'W.), the tidal currents set NE along the coast from 3 hours after HW at Dover until 2 hours 15 minutes before the following HW at Dover. They set SW from 2 hours 15 minutes before HW until 3 hours 45 minutes

after HW at Dover. Both the NE and SW currents attain rates of 1.5 knots at springs. Farther offshore, the tidal currents are rotary in character.

Near the Butt of Lewis, the tidal currents close inshore attain rates of 4 to 5 knots at springs. At a position about 1 mile N of the Butt of Lewis, their rates are reduced to about 3 knots at springs. The flood current sets NE and gradually veers to ENE from about 3 hours 30 minutes after HW at Dover until 2 hours 30 minutes before the following HW at Dover. The ebb current sets between WNW and NW from about 2 hours 15 minutes before HW until 3 hours 15 minutes after HW at Dover.

In the Sound of Taransay (57°53'N., 6°56'W.), the flood current sets E and N and the ebb current sets S and W. However, both of these currents are weak. The tidal currents are not perceptible in West Loch Tarbert (57°55'N., 6°53'W.), in Loch Resort (58°03'N., 7°00'W.), in Loch Tealasavay (58°03'N., 7°03'W.), and in Loch Tamanavay (58°04'N., 7°03'W.).

At a position about 1 mile W of Scarp (58°02'N., 7°08'W.), the flood current sets NNW and attains a rate of 0.8 knot at springs. Outside the entrances to West Loch Roag (58°13'N., 6°53'W.) and East Loch Roag (58°14'N., 6°47'W.), the tidal currents set E from 3 hours 45 minutes after HW until 2 hours 15 minutes before the following HW at Dover and W for the remainder of the cycle. These currents do not attain rates of more than 1 knot at springs and are mostly insignificant inside the lochs.

At a position about 6 miles SW of Sula Sgeir (59°06'N., 6°09'W.), the tidal currents set in a SE direction from 6 hours before until HW at Dover and in a NW direction for the remainder of the cycle. These currents attain rates of 1 knot at springs.

At a position about 9 miles E of Rona (59°07'N., 5°50'W.), the tidal currents set E from 6 hours before HW until the time of HW at Dover and W for the remainder of the cycle. They attain rates of 0.5 knot.

Deep Water (DW) Route.—An IMO-adopted Deep Water Route has been established between the Outer Hebrides (58°00'N., 6°38'W.) and the off-lying islands of Saint Kilda (57°49'N., 8°35'W.) and the Flannan Isles, 42 miles NE.

The Deep Water Route is 4 miles wide and leads N from a position 14 miles W of Barra Head (56°47'N., 7°39'W.) to a position 20 miles SE of Saint Kilda, then to a position 11 miles E of Flannan Isles Light, and ending at a position 10 miles NW of Butt of Lewis.

The route has a least depth of 34m in position 57°48'N, 7°57'W that can be avoided with careful navigation by keeping in depths of 50m or more. The designated route has been completely surveyed to modern standards.

Regulations.—Laden tankers over 10,000 gt should not make a passage E of the Outer Hebrides through Little Minch and North Minch (58°20'N., 5°40'W.) except during severe weather conditions. For reporting requirements for Little Minch and North Minch, see paragraph 5.1.

Caution.—Concentrations of fishing vessels may be encountered from June to December within the waters described in this sector.

Submarines exercise frequently, both surfaced and submerged, within the waters described in this sector.

An area of traffic convergence lies about 15 miles W of the Butt of Lewis. Vessels following the IMO route described in

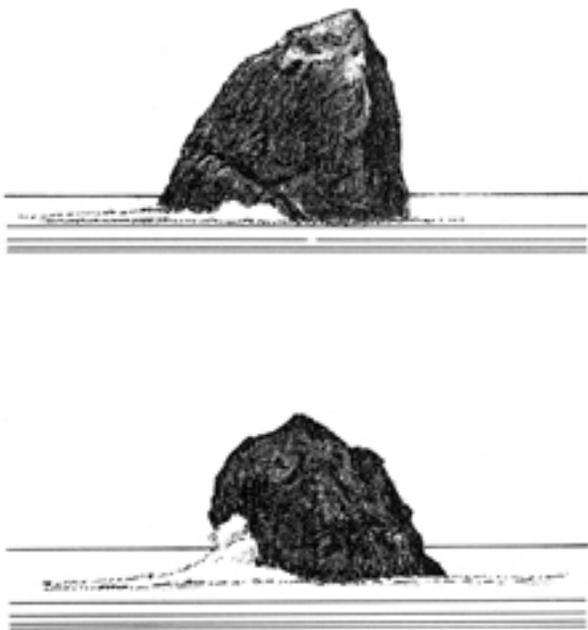
this sector cross the Atlantic route leading between Cape Wrath and ports on the E coast of North America.

Several areas lying outside and adjacent to the IMO route, described in this sector, have not been fully surveyed to modern standards.

Ships passing to the W of Saint Kilda (57°49'N., 8°35'W.) and the Flannan Isles (58°17'N., 7°35'W.) are advised to keep well to seaward of these islands and the adjacent areas of incomplete surveys.

Off-lying Islands and Dangers West and North of The Hebrides

6.2 Rockall (57°36'N., 13°41'W.), a conspicuous rocky islet, lies 200 miles WNW of Barra Head and is 19m high. It consists of coarse granite and is reported to be highly magnetic. The summit is sharp, pointed, and whitened by the deposit of sea birds. This islet, which is 25m wide at its base, has been reported to be radar conspicuous.



Two views of Rockall

Hasselwood Rock, 0.1 mile N of Rockall, is a small drying rock on a ridge separated from the islet by a channel with a depth of 55m. Helens Reef, lying 2 miles ENE of Rockall, is small and has a least depth of 1.8m. It is steep-to and generally marked by breakers. The summit of this reef has been seen in the trough of the seas at LWS, but at HW and during good weather, it breaks only at long intervals. It was reported that breakers have been observed 3 to 4 miles E of the reef.

Rockall is surrounded by a bank with charted depths of less than 100m to its E edge. The sea is reported to break in a position 5 miles E of Rockhall. A large number of pinnacles, with depths of less than 100m, also lie within 6 miles of Rockall. Within the surrounding bank, a narrow ridge, with depths of less than 75m, extends 0.6 mile S and 0.5 mile N from Rockall.

Other isolated banks and seamounts are in the vicinity are Rosemary Bank (59°10'N., 10°10'W.), 150 miles NE of Rockhall; Anton Dohrn Seamount (57°25'N., 11°10'W.), 83 miles E of Rockhall; and Hebrides Terrace Seamount (56°28'N., 10°22'W.), 127 miles SE of Rockhall.

Many other unnamed seamounts, with depths of over 450m, are scattered over the area.

Caution.—A local magnetic anomaly exists in the vicinity of Rockall. The normal magnetic variation is reported to increase or decrease by up to 6° within 15 miles of the islet.

6.3 Rockall Bank (57°00'N., 14°00'W.), with depths of 65 to 220m, extends 25 miles N from a position 100 miles SSW of Rockall. The SW extremity of Rockall Bank is known as Empress of Britain Bank, although it is separated from Rockall Bank by a channel with depths of 200m. Many other banks exist between Rockall and Empress of Britain Bank. Bryony Bank lies 42 miles SW of Rockall.

Rockall Plateau (56°00'N., 19°00'W.), 230 miles wide, extends 400 miles SW from George Bligh Bank (59°00'N., 14°00'W.), which is centered 80 miles N of Rockall. Hutton Bank (58°15'N., 18°30'W.), on the NW side of the plateau, and Rockall Bank, on the SE side of the plateau, are separated by Hutton-Rockall Basin.

The **Saint Kilda Group** (57°49'N., 8°35'W.) consists of three islands and several rocks. The coasts of these islands and rocks are precipitous and are formed by great cliffs of a dark color, honey-combed with large caves.

The tidal currents in the vicinity of this group set NE from 1 hour after HW at Dover until 5 hours before the following HW at Dover. They set SW for the remainder of the cycle. These currents generally attain rates of 3 knots at springs.

From the vicinity of North Uist, this group of islands and rocks has the appearance of a number of pillars on the horizon, but the mountains become more distinct when closer in.

Caution.—Constantly recurring periods of bad weather prevail in this region and haze, mist, or fog often prevent the Saint Kilda Group from being seen until within a distance of 5 miles or less.

It is reported that strong magnetic anomalies exist in several areas within 10 miles of the Saint Kilda Group.

The inshore area around the Saint Kilda Group is largely unsurveyed. Extreme care should be exercised when proceeding inside the 50m curve.

6.4 Saint Kilda (Hiort) (57°49'N., 8°35'W.), the principal island of the group, rises to a peak, 424m high, at Conachair, near its NE end. This mountain has a smooth, conical appearance from the N and forms the highest cliff in the British Isles. The remainder of the island is hilly and has coasts formed by precipitous cliffs, 60 to 300m high. There are no trees or shrubs, but the hills are green to their summits. A gully, containing a stream, runs down the hillside on the W side of Conachair. This island was reported to be very radar conspicuous.

Dun, a small isle, lies close off the S end of Saint Kilda and is separated from it by a narrow channel which dries. Gob an Duin, on which stands the crumbling and inconspicuous ruins of a castle, is the SE extremity of this rock. Bioda Mor, a hill, forms the summit of Dun. It is 174m high and serrated in a fan-

tastic manner. A high and natural tunnel penetrates the rock 300m W of Gob an Duin. The sea flows through this tunnel, but below-water rocks make it unsafe for boats.

Levenish, a large and isolated rock, lies 1.2 miles E of Dun. It has nearly vertical sides and a round summit, 60m high. A ridge of rocks, which dries 1.5m, fronts its N side. A shoal, with a depth of 11m, lies about 0.4 mile W of this rock and there is often a confused sea in its vicinity. When the wind opposes the tidal current, tide rips are sometimes formed in the channel lying between Dun and Levenish.

6.5 Village Bay (57°48'N., 8°34'W.) lies on the E side of Saint Kilda and forms a small natural harbor. It is entered between Rubha an Uisge, the E extremity of the island, and Dun, 1 mile S. A village is situated near the head of the bay. It is reported that several buildings, built by a military detachment, stand in the vicinity of the village. A lighted buoy is moored off the N side of the entrance to the bay and two lighted buoys are moored N of the W part of Dun.

A certain amount of swell is caused in the bay by strong SW winds and, during gales, violent squalls may come down from the hills. However, the holding ground is good and the bay affords safe anchorage. It is protected from the strength of all winds except from those between NE and SE. The bay is mostly frequented by trawlers seeking shelter during bad weather. The best anchorage is in a depth of 20m, sand over rock, in the middle of the bay. Two mooring buoys are situated in the bay and several small craft moorings lie close offshore. A lighted range, shown from cairns, leads to the anchorage. However, the cairns are reported to be difficult to distinguish.

6.6 Glen Bay (Loch a' Ghlinne) (57°49'N., 8°36'W.), a small indentation, lies on the N side of Saint Kilda. It is sheltered except from the N and affords anchorage to small vessels, in a depth of 38m. This anchorage is not comfortable because of the swell, but is often used by trawlers when a SE gale is blowing into Village Bay.

Soay lies close WNW of Saint Kilda. This island has a rounded summit, 374m high, which descends on its W side in a nearly vertical black cliff. The E side slopes to the coast in a steep grassy incline and terminates to the N and S in vertical cliffs.

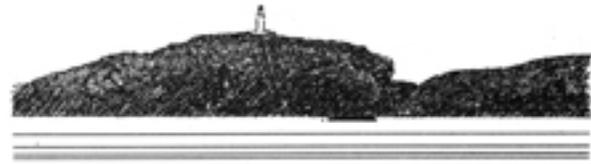
Boreray lies 3.5 miles NE of Saint Kilda and rises to a pinnacle summit, 382 high, near its center. The coasts of this island consist of black cliffs which rise into curiously-shaped peaks, 100 to 300m high. The S side of this island is covered with grass.

Stac Lee, lying 0.3 mile W of Boreray, and Stac an Armin, lying 0.2 mile NNW of Boreray, are two prominent rocks which are similar in outline. The former is 172m high and the latter is 196m high. Gannets breed on these rocks and their upper parts, in consequence, are quite white in appearance. A navigable channel, which is free from dangers, leads between Stac Lee and the W side of Boreray.

Whale Rock (57°55'N., 8°01'W.), with a least depth of 5.1m, lies 18 miles ENE of Saint Kilda and is marked close SE by a lighted buoy. This rocky shoal is steep-to and the sea does not break over it, even in heavy weather.

6.7 The Flannan Isles (58°17'N., 7°35'W.), lying 44

miles WSW of the Butt of Lewis, consist of several islets and rocks which are separated into three detached groups. These groups are fringed by shoals and foul ground. Gealtaire More, the easternmost rock, is 7.6m high and Eilean More, the largest islet, is 86m high. A light is shown from a prominent tower, 23m high, standing on the NE side of the latter islet.



Flannan Isles Light

A shoal, with a depth of 4.6m, lies close SSE of the NE extremity of Sgeir Righinn, the southernmost islet of the E group. The sea breaks on this shoal in bad weather. Another shoal, with a depth of 2.3m, lies about 0.2 mile NW of the N extremity of Soray, which is located 300m N of Sgeir Righinn. The Flannan Isles are reported to be radar conspicuous.

Caution.—The inshore area around the Flannan Isles is largely unsurveyed. Vessels passing W of Saint Kilda and the Flannan Isles are advised to keep far to seaward. Extreme care should be exercised when proceeding inside the 50m curve.

6.8 Sula Sgeir (59°06'N., 6°09'W.), a precipitous and rocky islet, lies 35 miles N of the Butt of Lewis. It is uninhabited, but is visited by fishermen in the summer. The SE and NW sides of the islet should not be approached too closely because of several off-lying rocks. A light is shown from a structure, 5m high, standing on the S extremity of this islet.

Rona (59°07'N., 5°49'W.), an uninhabited islet, lies 10 miles E of Sula Sgeir and is triangular in shape. Its N part is low and flat, while its S part consists of a steep hill. Vertical cliffs stand along the SE and W parts of the islet. A light is shown from a tower, 9m high, standing on the hill in the S part of the islet. Three buildings are situated close to the light.

Caution.—Rona should be approached with extreme care due to the surrounding seabed, which is very irregular and consists of numerous rock pinnacles and boulders. In addition, the N extremity of the islet is difficult to distinguish from the N against the high background.

The Hebrides

6.9 Berneray (56°47'N., 7°38'W.), a seabird haven, is the southernmost island of The Outer Hebrides. It is uninhabited and wedge-shaped when viewed from the NE or SW. The S side of the island consists of rugged cliffs. Shelter Rock, which dries 2.4m, lies about 150m N of the middle of the N side of this island. Anchorage can be taken, in a depth of 15m, about 0.3 mile ENE of the rock. The swell is not felt in this anchorage area, but it is not safe when a heavy sea is running.

Barra Head (56°47'N., 7°39'W.), 208m high, forms the S extremity of Berneray. Barra Head Light is shown from a prominent stone tower, 18m high, standing near the W end of Berneray, 0.7 mile NW of Barra Head. For a description of the waters lying E of Berneray, see paragraph 4.18.



Courtesy of Damian Entwistle

Barra Head

Mingulay (56°49'N., 07°39'W.) is an island lying close N of Berneray, with six small and compact peaks. Its W side consists of precipitous cliffs, 35 to 270m high, which are densely populated by seabirds. Its E side slopes gradually down from the summits of the peaks. Landing in moderate weather can be made at the ends of a sandy beach, but the best landing place is at Skipisdale, 0.5 mile SW of the bay entrance. Anchorage is available, in depths of 16 to 18m, off the entrance to Mingulay Bay, which indents the E side of the island.

The Sound of Berneray is the passage leading between Berneray and Mingulay. Its fairway has a least depth of 12.8m, a least width of 0.2 mile, and is free of detached dangers. Geirum More, an islet, lies in the W end of this sound, about 200m SW of the S extremity of Mingulay. It is 49m high and has black cliffy sides. Vessels proceeding E through this sound usually experience a smooth passage.

Pabbay (56°51'N., 7°35'W.), an uninhabited steep-to island, lies 2 miles NE of the N end of Mingulay. The cliffs on the SW side of this island are marked by dark vertical clefts. Above and below-water rocks lie as far as 0.1 mile offshore. **Rosinish** (56°51'N., 7°33'W.), a high projection extending 0.5 mile SE from the vicinity of Pabbay, has a connecting ridge, covered at HW.

The Sound of Mingulay is the passage leading between Mingulay and Pabbay. Its fairway has a least depth of 26m and is free of dangers and obstructions except for Outer Heisker and Inner Heisker. The former is a group of four small islets, 36m high, lying 0.8 mile N of the N end of Mingulay. The latter is a group of three small islets lying 0.3 mile SW of the SW extremity of Pabbay. During heavy weather, the unevenness of the bottom between Outer Heisker and Inner Heisker causes the sea to break in this area. Therefore, vessels should pass to the S of Outer Heisker when a heavy sea is running.

The Sound of Pabbay leads between Pabbay, on the S side, and the islands of Sandray and Flodday, on the N side. The islets of Lingay and Greanamul lie near the middle of this sound, but the channels passing on either side of them are safe and the fairways have a least depth of about 14m.

Lingay, a circular-shaped islet, lies 0.5 mile N of Pabbay. It is 82m high and has cliffy, bold sides. Greanamul, 25m high,

lies 0.7 mile E of Lingay. This islet is fringed by shoals on the NW and SE sides and a large rock lies close W of it. A shoal, with a least depth of 8.3m, lies close W of Lingay and the sea breaks over it in heavy weather.

6.10 Sandray (56°54'N., 7°30'W.) lies 2 miles NE of Pabbay. This island is uninhabited, 204m high, and a prominent sandy beach fringes its E side. A small shoal area, with depths of 12 to 16m, lies 1.8 miles E of the NE extremity of the island. It is reported that the sea in the vicinity of this shoal area is dangerous for small vessels during very strong SE winds.

Flodday lies 1 mile W of the NW end of Sandray. This island is 41m high and has black cliffs along its W side.

The Sound of Sandray is the passage that leads N of the islands of Sandray and Flodday and S of the islands of Muldoanich and Vatersay. This sound has a least width of 0.5 mile, but numerous rocks and shoals, which may best be seen on the chart, restrict the fairway to a least width of about 0.2 mile. The fairway has a least depth of 10.9m, but local knowledge is necessary because of the numerous dangers.

Vatersay (56°56'N., 7°33'W.) lies with its S end located 0.5 mile N of Sandray. This island is divided into two parts by a low and sandy isthmus. The N part of the island rises to a summit, 189m high. Tide rips are reported to occur off the W side of the N part of this island and vessels should avoid the area.

Vatersay Sound is the passage leading between the N side of Vatersay and the S side of Barra Island. The fairway has a least depth of 6.4m. It has a least width of only about 200m and is so encumbered with numerous rocks and shoals that local knowledge is essential for transit. Tide rips occur at several places within this sound and the sea breaks heavily in a number of locations lying off both entrances.

6.11 Barra Island (57°00'N., 7°28'W.), an inhabited island, is located on the N side of Vatersay Sound and is the largest island of the S group of The Outer Hebrides. This island has many hills and mountain peaks. Ben Heaval, the summit of this island, is 381m high and rises near the center of its S part. Ben Tangaval, 331m high, is prominent and rises at the SW side of the island.

The E coast of Barra is indented by numerous, small and rocky bights fronted by foul ground and above and below-water rocks lying as far as 1.5 miles offshore.

The W side of the island consists of several rocky promontories and sandy bays. Doirlinn Head is located 0.7 mile N of the SW extremity of the island. It is formed by a high vertical bluff which is penetrated by a large cavern. Greian Head, a conspicuous point, is located 2.8 miles NNE of Doirlinn Head and is 43m high.

Ben Eoligarry stands on the peninsula of Kilbar near the N extremity of the island. This large hill is 101m high and green colored. A two-storied building stands on the NE slope of the hill and is conspicuous from the SE, but is difficult to distinguish from the NE. The ruins of several churches lie close SE of this building.

The N end of the Barra terminates in a peninsula which is connected to the main island by a low neck of land. Several small sand hills, over which the sea washes at HW, stand on this low neck. Ben Erival, a hill, rises 2.7 miles S of the N extremity of the island and is 198m high. The Fall of Ben Erival

is a prominent point, where the N slope of this hill drops abruptly to the sea, near the S end of the low neck. Dun Scurrial, a steep hill, rises 1 mile S of the N extremity of Barra Island. It is 65m high and surmounted by some ruins.

For a description of the channel leading to Castle Bay, on the S coast of Barra Island, see paragraph 4.25.

6.12 The Sound of Barra (57°02'N., 7°20'W.) is the passage leading between Barra Island and the S end of South Uist, 3.5 miles NE. It is encumbered with numerous islands, rocks, and shoals. In the S and middle parts of the sound, many of the shoals are marked by weeds and are visible during the day, but breakers are the only indication of the shoals lying in the N part. The navigable channel within the sound is winding and narrowed in places to a width of less than 400m. The main fairway has a least depth of 6.7m. Natural ranges are often used when navigating this passage and great caution should be exercised as they are often quite indefinite. Local knowledge is essential for transiting the channel, but pilots are not available.

Weavers Castle (57°03'N., 7°18'W.), a very conspicuous building, stands on the S part of the Stack Islands, which lie near the NE entrance of the sound, 0.5 mile SSW of the S end of Eriskay.

Eriskay (57°04'N., 7°17'W.), a large island, lies 5 miles ENE of the N end of Barra Island and 1 mile S of the SE end of South Uist. Ben Scrien, a sharp and well-defined peak, is the summit. It is 183m high and rises near the center of the island.

Fuday lies 2 miles E of the N end of Barra; this island is 87m high and has three flat-topped hills. Gighay lies 2.5 miles SE of Fuday; this island is 93m high and has a summit with a cliffy face at its SW side. Hellisay lies close SW of Fuday; this island is 71m high and has two distinct peaks. Greanamul, a small islet, is 25m high and covered with grass. It is the outermost danger in the chain of obstructions which extend up to 1 mile NW from the W side of Hellisay. Drying rocks and shoal water extend up to about 350m W of this islet.

Traillisker, a wedge-shaped rock, lies about 0.3 mile N of the W extremity of Fuday. It is 1.2m high and black. This rock is conspicuous, except at HW, as it contrasts with the white sand in the vicinity.

6.13 Fiaray (57°04'N., 7°39'W.), forming the SW entrance point of the sound, lies 0.8 mile N of the N extremity of Barra Island. This island is low and fringed by foul ground. It has two flat hills, the highest of which is 32m high. Two beacons are situated on the NE side of this island. The Sound of Fiaray, a narrow passage, leads between this island and the N extremity of Barra Island. It has a least depth of 3m, but the approach at the E side is obstructed by shoals with depths of less than 1.8m.

Lingay (57°05'N., 7°22'W.), a grass-covered island, lies 1.5 miles W of the W extremity of Eriskay and is 49m high. It appears to have a single summit when viewed from the NW, but two peaks are visible from the S. Numerous islets and rocks lie between this island and the coasts of Eriskay and South Uist. The entire area is foul and can only be used by small craft.

Orosay (57°05'N., 7°22'W.), a small island, forms the NW entrance point of the sound. It lies close off the SW side of South Uist about 3 miles NNW of Lingay. This island is 30m high and lies on an area of drying sands. Except at HWS, it is

connected to the SW side of South Uist by these drying sands.

Washington Reef (57°06'N., 7°28'W.), with a least depth of 2.4m, lies about 2 miles NNW of Fiaray. It consists of an extensive shoal area, which is marked by breakers, lying on the N side of the main channel.

Temple Rock, with a least depth of 2.1m, lies 0.7 mile N of the NW extremity of Fiaray and on the S side of the main channel.

Outer Hasgeir Fiaray, a group of rocks, is located 2 miles NNE of Fiaray. It lies on the NE side of the main channel and the highest rock dries 2.1m. Another group of rocks, the highest of which dries 2.4m, lies 0.4 mile ESE of Outer Hasgeir Fiaray.

Drover Rocks, a group of drying rocks, lies about 0.3 mile N of the N extremity of Fuday, on the N side of the main channel. Old Womans Rock, which dries, lies on the S side of the main channel, about 0.5 mile W of the N extremity of Fuday.

6.14 McGillivray Patch (57°03'N., 7°20'W.), a reef, lies about 1.5 miles WNW of the S extremity of Eriskay. It has a least depth of 2.1m and lies on the NE side of the main channel. McVean Rock, which has a least depth of 2.4m, lies on the SW side of the main channel, 0.3 mile W of McGillivray Patch.

Bo Tanna, a two-headed rock marked by a buoy, is located about 1 mile E of the E extremity of Fuday. It dries 0.7m and lies on the SW side of the main channel.

Binch Rock (57°02'N., 7°17'W.), with a least depth of 3.1m, lies about 1.2 miles ENE of the NE extremity of Gighay. It forms the easternmost danger of the sound and is marked by a buoy.

Although only one channel completely traverses the Sound of Barra, different names are applied to certain reaches. Washington Channel is that reach of the fairway which passes between Washington Reef and the shoals lying N of Temple Rock. Drover Channel is that reach of the fairway which passes between Drover Rocks and the N extremity of Fuday.

Temple Channel, a secondary reach, for moderate-draft vessels, passes S of Washington Channel and enters the W end of the sound by passing over the shoals that lie between the N extremity of Fiaray and Temple Rock. It has a least depth of 4.6m and is preferred to Washington Channel, by those vessels able to negotiate the shallower depths, because of the comparative smoothness of the water and the distinctness of the natural ranges. However, caution is also necessary because several shoals lie close adjacent to the fairway on either side. This channel joins the main channel of the sound close NE of Fiaray.

6.15 The central group of The Outer Hebrides are those islands that extend 40 miles N from the Sound of Barra to the Sound of Harris. South Uist, Benbecula, and North Uist, the three largest islands, are separated only by very narrow and partly-drying waterways and, for purposes of navigation, can be considered as being one large island.

South Uist (57°14'N., 7°19'W.) lies on the N side of the Sound of Barra. The W side of this island is mostly low and flat with a hilly middle part. Easaval, a long and flat-topped hill, is 241m high and rises 1 mile inland, near the S end of the island. Cruachan, another hill, is 168m high and rises 1.7 miles E of Easaval. The dip or point where the S slope of Easaval ap-

pears to meet the N slope of Cruachan is used as a navigation mark by vessels transiting Washington Channel.

The E part of the island is mountainous and barren. Benmore, the N and highest range, has three prominent summits. It rises on the E side, 10 miles N of the S end of the island and is 618m high.

Benbecula (57°26'N., 7°18'W.) lies between South Uist and North Uist and is connected to both by causeways. An airport is situated on this island. Most of the inhabitants of Benbecula live along the sandy W coast of the island. The E coast is very rocky and indented. With the exception of Rueval, a hill rising to a height of 123m in the N part, this island is flat and low.

North Uist (57°26'N., 7°18'W.) is hilly, with the E part being considerably higher. Ben Eaval, the summit, is 345m high and rises 1.5 miles NW of the SE extremity of the island. This mountain appears wedge-shaped, when viewed from the E or W, and a peculiar and distinct double-peaked hill, 143m high, stands on its S slope. Several hills stand along the E and N sides of the island and two round-topped hills rise near the N extremity. Ben More, the S and higher of these two hills, is 189m high and Ben Bhreac, the N hill, is 148m high. The W side of the island is comparatively flat, but has a few hills, 120 to 150m high.

6.16 Rubha Ardvule (57°14'N., 7°27'W.), a conspicuous point, is located 9 miles N of the S end of South Uist. A ruined castle is situated 0.5 mile inland, 2 miles NE of this point.

Ardivachar Point (57°23'N., 7°25'W.) is located 9 miles N of Rubha Ardvule. The N part of this point is low and rocky, but the S part rises to a height of 18m. Several drying rocks and foul ground extend up to about 1.5 miles W of this point. A conspicuous church building stands near the shore, 1 mile E of this point. It is long, plain, and has a slatted structure with a belfry.

Rubha More (57°34'N., 7°29'W.) is located 6.5 miles NW of the SW extremity of North Uist. A prominent square rock, which resembles a castle, stands on a small hill which rises 1 mile ENE of this point.

Caution.—At night or during conditions of low visibility, vessels are advised not to approach the W coast of South Uist in depths of less than 30m because of the existence of numerous shoals, rocks, and obstructions.

6.17 The Heisker Islands (Monach Islands) (57°31'N., 7°38'W.), a group of five, lies between 4 and 7.5 miles WSW of Rubha Mor. These islands are low and fronted by numerous dangers. During the winter, heavy swells and dangerous seas may be encountered in the vicinity of this group.

Shillay (57°31'N., 7°42'W.) is the westernmost island of the group. A light stands on the SW side of this island.

Ceann Iar (57°31'N., 7°40'W.) lies 0.3 mile E of Shillay. A flat-topped hill, 13m high, rises 0.2 mile SW of the N extremity of this island and is prominent.

Ceann Ear (57°31'N., 7°37'W.) the largest island of the group, lies 0.5 mile E of Ceann Iar. The tallest peak of this island is 15m high and rises on its NE side.

The Sound of Shiles leads between Shillay and Ceann Iar. A chain of rocks extends across this sound from the E extremity of Shillay to the W extremity of Ceann Iar. This chain of rocks, together with several reefs, transforms the N part of the sound

into a sheltered harbor. The harbor is narrow, but affords safe anchorage for very small vessels. The reefs and detached dangers restrict the navigable fairway in the sound to a least width of about 100m. The entrance channel has a least depth of 7m, but shoals lie close to the sides of the fairway. Edward Rock, which dries 3.3m, forms the E entrance point and lies at the N end of a reef that extends N from the W extremity of Ceann Iar. Several detached shoals and rocks lie up to 0.6 mile NE of Edward Rock. Calf Sgeir, the northeasternmost rock, has a least depth of 1.2m. Anchorage is available within the sound, in depths up to 11m, clay, for very small vessels. Local knowledge is advised.

6.18 Huskeiran (57°33'N., 7°34'W.), a reef, lies between 0.7 mile and 1.5 miles NW of Shillay. West Dureberg, another reef, lies N and almost parallel to Huskeiran, between 1.7 and 2.3 miles NNW of Shillay. Raiskier, a prominent rock, is 6m high and is the tallest part of an above and below-water reef which extends up to 0.6 mile SW of Ceann Iar. Middle Dureberg lies 2.3 miles ENE of West Dureberg. This reef dries up to 2m in its SW part and is marked by breakers when covered. A rock, with a least depth of 5m, lies about 1.2 miles WSW of Huskeiran. Johns North Channel, which passes between Middle Dureberg and West Dureberg, is deep and free of dangers.

Causamul (57°36'N., 7°36'W.), an islet, lies 1.5 miles W of Ard an Runair, the W extremity of North Uist, and is 8m high. Its S part is covered with grass and its N part is formed by bare, flat rock.

Charlotte Rocks (57°35'N., 7°37'W.), one of which dries 0.9m, is a group of rocks lying about 0.8 mile S of Causamul. Deasker is a bare and flat rock, 3m high. It stands on the reef which lies about midway between Causamul and the Heisker Islands.

The Sound of Monach and the Sound of Causamul are two passages which lead between the W coast of North Uist, on the E side, and Causamul and the Heisker Islands, on the W side. The Sound of Monach lies between Stockay Reef and the foul ground that extends up to about 2 miles WSW from Rubha More. Its fairway has a least width of 0.3 mile and a least depth of 7.3m. The Sound of Causamul lies between Causamul and Ard an Runair, the W extremity of North Uist. Causamul Rock, with a depth of 2.4m, lies about midway between the islet and the mainland. At LW, this rock sometimes breaks, but in heavy weather it is always marked by breakers. The fairway, which has a least depth of 9.1m, passes between Causamul Rock and Molla Rocks, which extend up to about 0.5 mile S from the W extremity of North Uist. The sea within this sound is comparatively smooth even during strong W winds.

Caution.—Deasker and Causamul should not be closely approached as undiscovered dangers may exist in their vicinity.

6.19 Off-lying dangers.—The area lying W of the Heisker Islands consists of a large number of rock pinnacles which rise steeply from the seabed. An area of pinnacles, with a least depth of 28.5m, lies centered 8 miles WNW of Shillay; another area, with a least depth of 30m, lies 5 miles W of Shillay; and another area, with a least depth of 17.4m, lies 3.5 miles SW of Shillay.

Haskeir Island (57°42'N., 7°41'W.) lies 7.5 miles NW of Ard an Runair, the W extremity of North Uist, and is 36m high

in its SW part. This island, which is marked by a light with a racon, appears as two separate islets when viewed from the NW or SE. It should be given a wide berth. Anchorage in the vicinity of the island is poor because of the rocky bottom, but in fine weather, anchorage is possible, in depths up to 13m, rock, about 250m ESE of the S extremity.

Haskeir Aag (57°41'N., 7°43'W.), lying 1 mile SW of Haskeir Island, is a group consisting of five bare rocks, the tallest being 25m high.

6.20 Ard a Mhorain (57°42'N., 7°19'W.) is the N extremity of a low and sandy peninsula that extends N from the N side of North Uist. It is 38m high at the W side and gradually slopes E to a low and stony point. Numerous detached rocks and shoals lie up to 1.5 miles offshore between Griminish Point, located 3.6 miles NE of Ard an Runair, and Ard a Mhorain. Griminish Point has a narrow neck which is perforated by caves on both sides and has two surface holes. During gales, conspicuous water spouts rise into the air from these two holes and are reported to be visible from up to 10 miles seaward.

Leac Bhan (57°42'N., 7°12'W.), the N extremity of North Uist, is located 3 miles E of Ard a Mhorain. A hill, 65m high, rises 0.5 mile S of this point.

A causeway connects the point to Berneray, close N.

A shallow bay indents the coast between Ard a Mhorain and Leac Bhan and is fronted by a large wedge-shaped area. This area extends up to 4 miles N and is encumbered by a group of islands and several shoals. Channels used by small vessels lead between some of the islands and shoals. The shallow bay is fringed by drying sands and its W half is foul. Lingay, an islet, lies at the edge of the drying sands in the NE part of the bay. It is grassy and 32m high. Although the entire bay is shallow, anchorage for very small vessels is available, in depths up to 5m, close SW of this islet and the approach has a least depth of 3.6m. Local knowledge is required.

Berneray (57°44'N., 7°10'W.) lies close N of Leac Bhan. Bays Loch indents the SE side of this hilly island. Anchorage is available, in a depth of 3.6m, mud, within this bay, but the approach is so encumbered with rocks and shoals that entry is only practical for very small vessels with local knowledge. A pier, protected by a breakwater, is situated near the head of the bay and is used by fishing vessels.

6.21 Pabbay (57°46'N., 7°14'W.), an island, lies 4.5 miles NNE of Ard a Mhorain and Beinn a Charnain, a sharp-peaked hill, rises in its NE part. This conspicuous hill is 194m high and has much the same appearance from all directions. Anchorage is available, in a depth of 11m, sand, about 0.2 mile E of the island. Spuir Reef, which dries, lies 1.4 miles WSW of the S extremity of Pabbay. Spuir, a small and dark islet, lies 0.8 mile SW of this reef and is surrounded by foul ground. The Sound of Spuir leads between the islet and Pabbay. This passage has depths of 5.5 to 10.3m in the fairway, which is 0.5 mile wide between Spuir Reef and the foul ground extending SW from the SW side of Pabbay. Spuir Reef and McIver Rocks, lying 1 mile SSE, are marked by breakers. During NW gales, the swell is reported to break across this sound. Local knowledge is advised for transiting this passage.

Vallay (57°40'N., 7°26'W.) lies close off the N coast of North Uist and is marked by a light at its W end. Griminish

Harbor, an inlet, is entered between the W extremity of this island and the N shore of North Uist. It is shallow and obstructed by drying rocks. A pier is situated within the inlet and is used by fishing vessels. Local knowledge is essential for entering.

Shillay (57°48'N., 7°16'W.) lies 1 mile N of Pabbay and is 77m high. The slope on the N side of this island terminates abruptly in dark cliffs, 30m high, but the S side slopes gradually to the shore. Little Shillay, a black rock, lies 300m SW of the SW extremity of the island and is 28m high.

The Sound of Shillay is the passage leading between Pabbay and Shillay. The fairway of this sound lies midway between the islands, is free of dangers, and has a least depth of 10.5m. Temporary anchorage, sheltered from winds from NW through N to NE, is available, in depths up to 9m, sand and rock, about 0.3 mile SW of the E extremity of Shillay. The tidal current in the sound attains a rate of 1 knot at springs.

6.22 The Sound of Harris (57°44'N., 7°05'W.) and the Sound of Barra are the only navigable channels leading through The Outer Hebrides. However, navigation in or through these passages without local knowledge is not advisable because of the many dangers, intricate fairways, and strong tidal currents.

The bottom consists, in general, of fine white shells and sand, interspersed with rocks. A reddish-brown seaweed grows on almost all the rocks, which may easily be distinguished during favorable conditions.

The main channel in the Sound of Harris leads along the NE shore from Renish Point, the SE extremity of South Harris, to Jane's Tower (57°46'N., 7°02'W.), a conspicuous cairn resembling a haystack, where it divides into two branch channels, the E being Leverburgh Channel and the W being Stanton Channel. These branch channels converge again to the S of Red Rock Beacon and form Outer Stromay Channel. Stanton Channel has a controlling depth of 4.9m and Outer Stromay Channel has a least depth of 5.5m. Leverburgh Channel has a controlling depth of 4.2m, but is very constricted. The Sound of Stromay branches off from Leverburgh Channel and leads directly to the open sea. It has a least depth of 7.3m in the fairway, but is very narrow and unmarked.

Leverburgh Pier (57°46'N., 7°02'W.) has a length of 31m, with a depth of 3.2m at MLWS alongside its outer end. The pier is situated on the S side of the entrance to the Obbe (57°46'N., 7°01'W.).

The NW approach from the Atlantic Ocean is marked by hills, islands, and headlands, which can be easily identified. Ben Chaipaval, 364m high, stands on the N side of the entrance and has a double peak. It can be seen above the other mountains from less than 6 miles off the coast.

There are no licensed pilots for the Sound of Harris, but fisherman acquainted with the channels may be available at several small places. A recommended route track through the sound is shown on charts of the area.

In the narrow channels, the tidal currents may attain rates of up to 5 knots at springs. In the wider channels, these currents attain lesser rates, but are still strong.

6.23 Toe Head (57°50'N., 7°08'W.), the NW extremity of the peninsula of Taobh Deas, is a bold, bluff, and cliffy point. Rubha an Teampuill, a point, is located 2 miles SE of the head

and surmounted by the isolated and conspicuous ruins of an ancient building. Bideinan, which has a notched appearance when viewed from the SE, is a prominent bare ridge standing 1.3 miles SE of Rubha an Teampuill. Rubha Charnain, located 0.7 mile SE of the ridge, is a flat point, 6m high. Kyles Lodge, a large white building with a slate roof, stands on the S side of this point and is conspicuous. The upper part of this building is visible from the NW, but is more conspicuous from the S.

Coppay (57°50'N., 7°10'W.), a small island, lies in the NW entrance to the sound, 1.2 miles WSW of Toe Head. This island is 32m high and its green and grassy top contrasts with the black rocks of its lower part. Kelpy Rock, with a least depth of 6.1m, lies 0.4 mile N of the island.

Ensay, 47m high, lies with Rubha nan Sgarbh, its N extremity, located 4 miles SE of Coppay. A sandy beach extending between the NW and N extremities of this island shows up distinctly. A prominent house is situated on the E side of the island. Killegray, 43m high, lies close S of Ensay. A peculiar, flat-topped mound, covered with grass, rises on the NW extremity of this island and a house, fronted by a small jetty, stands on the E side of the island.

Caution.—The sea bottom between Rubh an Teampuill and Toe Head and more than halfway across the NW entrance of the sound affords poor holding ground. It consists mainly of smooth rock covered thinly in a few places by patches of sand. Although the tidal currents in this vicinity are weak, anchorage is reported to be unsafe, even for a few hours.

6.24 Isle of Lewis (58°00'N., 6°50'W.) extends 55 miles NE from the Sound of Harris to the Butt of Lewis and has two names. Harris, the S part of the Isle of Lewis, is mountainous and Lewis, the N part, is comparatively low, with only three hills. Harris is also divided into South Harris and North Harris by West Loch Tarbert.

The W coasts of Harris and Lewis, between Toe Head and Gallan Head, 24 miles N, appear bold and rugged from seaward. From Toe Head to West Loch Tarbert, 7 miles N, the land is not as rocky or desolate in appearance as that farther N, the coast being sandy in places. However, it is difficult to distinguish one part of this coast from another in thick weather.

Gasker (57°59'N., 7°18'W.) lies 6.5 miles off the coast of North Harris and 10 miles NNW of Toe Head. This islet is fringed by a reef; seals herd on it during the autumn. Gasker Beg, a bare rock, lies 0.7 mile ESE of the islet and is 10m high.

Gallan Head (58°14'N., 7°02'W.), a flattish headland, terminates in cliffs, 15 to 60m high. A lighted radio mast, 257m high, stands 0.4 mile S of this headland and is very conspicuous.

From this headland, which forms the S entrance point of East Loch Roag, to the Butt of Lewis, 23 miles NE, the coast is comparatively low and level. A few white farmhouses and churches are the only buildings to be seen along the W side of Harris and Lewis, but these are mostly indistinguishable until close offshore.

Clisham (57°58'N., 6°49'W.), the highest mountain of The Hebrides, rises on North Harris, 13 miles NE of Toe Head. This mountain is 797m high, but its conical summit is generally obscured by clouds.

Generally, the hills rising on Lewis do not approach in height those rising on Harris. Muirneag, 246m high, rises inland 10

miles S of the Butt of Lewis. When seen from the S or N, this prominent hill appears with a double flat summit, but from the E or W, it appears with a single summit sloping gradually on either side. A prominent radio mast, 172m high, stands on the summit of Eitshal, which is 367m high, and rises 15 miles ESE of Gallan Head.

6.25 Taransay (57°54'N., 7°01'W.), 265m high, is divided into two parts by a low sandy neck. This island occupies a large part of the S approach to West Loch Tarbert and is separated from the mainland by the Sound of Taransay. Corran Raah, a low and sandy point, extends 0.4 mile into this sound from the middle of the E shore of the NE part of the island.

Middle Bo lies about 1.2 miles SSW of the SE end of Taransay. This shoal has a least depth of 5.3m and breaks in very heavy weather. Aird Vanish is the SW and smaller part of Taransay. Old Rocks lies about 1 mile SE of the S extremity of Aird Vanish. It consists of two rocks, the S one has a least depth of 0.7m and the N one is awash. Bo Usbig, a rock, lies about 0.5 mile E of Old Rocks and dries 2m.

Camus Nam Borgh (Borve Bay) (57°50'N., 7°03'W.) lies NE of Toe Head and indents the NE side of South Harris. It affords temporary anchorage, in a depth of 24m, sand and rock. Good shelter can be found here in SW gales. However, the bay is exposed to the W and NW and can be dangerous with strong winds from these quarters.

The NE part of the Sound of Taransay is sheltered and affords the best anchorage along this part of Harris for large vessels. There are depths of 9 to 16m over a bottom of muddy sand. The recommended anchorage lies about 0.3 mile E of Corran Raah where the tidal currents are very weak. Anchorage can also be taken, in depths up to 16m, farther N, about 0.3 mile offshore and midway between Corran Raah and the NE extremity of Taransay. However, during strong NW winds, vessels should anchor nearer to Corran Raah in order to obtain better shelter.

6.26 West Loch Tarbert (57°56'N., 7°00'W.) is entered between Aird Vanish, the SW part of Taransay, and Horsanish, 4.3 miles N.

Bo More, which dries 0.8m, lies about 2 miles W of Horsanish and is the westernmost of three rocks known as Old Rocks. A shoal patch, with a depth of 12.3m, lies about 0.3 mile WNW of Bo More and the sea breaks on it during heavy gales. Taransay Glorigs, a group of above and below-water rocks, lies between 2 and 3 miles SW of Horsanish. Gloruig Sgoillte, a conspicuous rock, is 12m high. It is the largest rock and lies near the S end of the group.

Bo Meadhonach, a rock, lies about 2 miles WSW of Horsanish. It has a least depth of 3.8m and is located about midway between Old Rocks and Taransay Glorigs.

Soay Beag and Soay Mor are two islets which lie 1.4 miles NE of the N extremity of Taransay. Both of these islets are 35m high and are fronted by foul ground.

Isay (57°55'N., 6°54'W.), a flat and green islet, is 17m high and lies in the middle of the loch, 2.5 from the head. An above-water rock lies 0.5 mile NE of this islet. The principal anchorage within the loch is, in depths of 12 to 22m, mud, ESE of Isay. Although this anchorage is somewhat open to the NW, there is never a heavy sea. However, heavy squalls sometimes

come down from the shore during strong S winds. Small vessels can obtain anchorage about 200m WNW of a pier which projects from the S side of the head of the loch.

Loch Bun Abhainn-Eadar, a small inlet, is entered 1 mile NE of Isay. It provides safe anchorage and is clear of dangers. Small vessels can obtain anchorage, in depths of 5 to 13m, mud, about 0.5 mile within this loch. Loch Meavig, another small inlet, lies 1.5 miles NNW of Isay. It has a least width of 100m and general depths of 3.6 to 9m, soft mud with oysters. This loch provides anchorage to small vessels, but halfway up this loch the depths shoal rapidly and the head dries. An overhead power cable, with a vertical clearance of 21m, spans this loch.

Loch Leosavay is entered 0.5 mile NNW of Soay Beg. This inlet has a least width of 100m and depths of 5 to 16m. Its outer part is clear of dangers, but several rocks lie near the head. Glas Sgeir, a pillar-shaped rock, lies 250m offshore in the entrance. Small vessels can anchor, in depths of 6 to 7m, mud, off the NE shore and about 0.5 mile NW of this rock.

Tarbert (57°54'N., 6°49'W.), a village, stands at the head of the loch on a narrow isthmus which separates East Loch Tarbert from West Loch Tarbert. Two small piers project from the head and are used by small craft.

6.27 Hushinish Bay (57°59'N., 7°05'W.) lies 1.4 miles NW of Horsanish, the N entrance point of West Loch Tarbert, and is sheltered on its N and W sides by a small peninsula of which Hushinish Point is the SW extremity. Hushinish Glorigs, a group of above-water rocks, lies in the S approach to the bay, 0.8 mile SE of Hushinish Point. The bay affords temporary anchorage, in a depth of 12m, sand, but local knowledge is advised.

Scarp (58°02'N., 7°08'W.), 306m high, lies with its S extremity located 1 mile N of Hushinish Point and is fringed by foul ground and rocks. Caolas an Scarp, a shallow strait, leads between this island and Lewis, but should not be used without local knowledge. A bar, with a depth of about 1m, extends across the middle of this strait. Fladday, a small islet, lies in the N entrance of the strait. During the summer, small vessels can anchor, in a depth of 8m, in the S part of this strait, close S of the bar. Small vessels can also anchor, in depths of 9 to 10m, in the N part of the strait between the NE side of Scarp and the W side of Fladday. Both of these anchorages are unsafe in winter and the sea breaks over this strait during gales.

Kearstay (58°03'N., 7°09'W.), fringed by foul ground, lies close off the N side of Scarp. This prominent islet rises to a peak near the W end where it is divided by a rocky cleft. Temporary anchorage can be obtained, in depths of 9 to 16m, sand, at the E entrance of the channel which lies between this islet and the N side of Scarp.

Duisker, a group of above and below-water rocks, lies centered 1 mile NW of Kearstay and is marked by breakers, except in very good weather. The tallest rock is black and 6m high. Bo Ban, the westernmost rock, dries 3.5m and lies 1.4 miles WNW of Kearstay. Buachaille Rock, with a least depth of 2m, lies 0.8 mile N of Bo Ban and is the northwesternmost rock of the group.

Mealasta Island (58°05'N., 7°08'W.), fringed by foul ground, lies 2.3 miles NNE of Kearstay. This island is 75m high and its W side consists of prominent reddish quartz rock

and patches of grass. The main approach to Loch Resort lies S of the island.

6.28 Loch Resort (58°03'N., 7°00'W.) is entered between Rubha Glas, 2.5 miles E of the N extremity of Scarp, and Grobadh nah Uinneag, 0.3 mile S. A basin, lying 2.5 miles within the loch, opens to a width of 0.4 mile and provides safe anchorage, in a depth of 13m, soft mud, for small vessels. Above this basin, the loch narrows toward its head and the bottom consists of soft mud with oyster beds. Taran More, 301m high, is a conspicuous cliff which rises on the S side of the loch, 0.7 mile SE of Rubha Glas. During strong S winds, the squalls which come down off this cliff are the most violent.

Loch Tealasavay (58°03'N., 7°02'W.) is entered 1.5 miles N of the entrance to Loch Resort. Creagan Gorra Cleite, 118m high, is a conspicuous hill which rises at the head of this loch. The loch is mostly used by only small craft.

Loch Tamanavay (58°04'N., 7°03'W.) is entered 0.5 mile N of the entrance to Loch Tealasavay. Bo Thorcuil, a group of below-water rocks, lies up to 0.5 mile SW of the NW entrance point of the loch. Anchorage can be obtained by small craft at several locations within the loch, but local knowledge is necessary as marine farms are situated along the shores.

6.29 Aird Brenish (58°08'N., 7°08'W.), a broad and rocky headland, is located 2 miles N of Kearstay. Several small islets and rocks lie offshore between this latter island and the headland. The headland is fringed with bare rocks sloping to the sea and is backed by very high land.

Aird Fenish (58°09'N., 7°07'W.), a salient point, is located 0.8 mile NE of the N extremity of Aird Brenish. This point is bare, rocky, light brown, and slopes abruptly to the sea.

Camus Uige (Camus Uig) lies on the NE side of Ard More Mangersta. This bay has an entrance 0.7 mile wide and is open between N and WNW. It affords temporary refuge to small vessels during SW gales. Anchorage is available, in a depth of 24m, sand, about 0.2 mile within the entrance and about 200m offshore. Mealisval Peak, 572m high, rises 3.5 miles S of the entrance to the bay and is conspicuous. Several large and prominent sand hills rise near the head of the bay. Sheilavig Skerry, an islet, lies close off the NE entrance point of the bay. It is 7m high and is fronted by foul ground. A shoal patch, with a depth of 5.2m, lies about 0.3 mile SE of this islet.

Ard More Mangersta (58°11'N., 7°06'W.), a promontory, is located 1.8 miles NNE of Aird Fenish and rises to a height of 69m. It is fronted by near vertical cliffs and four prominent radio masts stand on the NW extremity. Eilean Molach, a prominent small island, lies close offshore, at the S end of this promontory.

6.30 Loch Roag (58°15'N., 6°52'W.) lies between Gallan Head and Tuimpan, 8.2 miles ENE. It recedes SE and is divided by a chain of islands and rocks into West Loch Roag and East Loch Roag. East Loch Roag is the only harbor on the W coast of The Hebrides which is easily accessible by large vessels during approaching gales. All vessels over 24m in length must notify the Harbor Authority of their intended arrival and destination within the loch by e-mail (harbourmaster@cne-siar.gov.uk)

West Loch Roag (58°16'N., 7°00'W.) is entered between

Gallan Head and Old Hill, an islet lying 4 miles ENE. It extends 7 miles SE to the head. The inner part of this loch provides extensive and sheltered anchorage, in depths up to 22m, mud. However, it is not easily accessible as the approach is encumbered by numerous islands, islets, and rocks.

Old Hill (58°17'N., 6°55'W.), a conspicuous islet, is 92m high and has a peculiar lump-like appearance when seen from the E or W. From the N, it appears more elongated. The N side of this islet consists of dark and cavernous cliffs.

Bearsay, a small islet, lies 0.3 mile SE of Old Hill and is separated from it by a deep and clear channel. This islet is 54m high and has a flat top. A troublesome sea is reported to occur in the channel when the wind opposes the tidal current. Floday, another islet, lies 0.4 mile S of Bearsay and is 18m high. Tamna, a flat and grass-covered islet, lies close S of Floday and is 7m high. Fleasgeir is a conspicuous, sharp-pointed, and barren rock. It is 13m high and the tallest of a chain of rocks which extend N from the N end of Floday.

6.31 Harsgeir (58°16'N., 6°54'W.) lies 0.6 mile SW of Floday. This islet is flat, 12m high, and prominent. Sgeir Na Galla, a rock, lies about 0.5 mile W of Floday. It dries 3.1m and always shows in the trough of the swell. Little Bernera, 39m high, lies 0.5 mile E of Floday. This small island consists of soft, grassy knolls and its shores are fringed with white sand.

Great Bernera lies close S of Little Bernera. This island is 85m high and has undulating features. Greinam, a small islet, is 15m high and lies close off the W side of Great Bernera, 1.2 miles S of Floday. The Ugly Rocks, which dry 1.5m, lie between 0.6 and 0.8 mile S of Greinam and extend up to 0.4 mile from the W side of Great Bernera.

Pabay More (58°14'N., 6°56'W.) is an island with a prominent summit rising near its S end. Vacsay, another prominent island, lies 0.3 mile SE of Pabay More. Caolas na Sgeire Leithe, a channel, leads between these two islands. It has a least depth of 6.7m, but should not be attempted without local knowledge.

Kyles Pabay, a shallow strait, leads between the W sides of Pabay More and Vacsay and the NE side of Lewis. Valtos, a small village, is situated on the SW side of this channel. It is fronted by a jetty which is used by fishing vessels.

6.32 Stung (58°13'N., 6°55'W.), 33m high, is a steep and salient point located at the entrance to the Sound of Vuia. Vuia Mor, an island, lies 0.5 mile SE of Vacsay and Mullach na Beinne, 67m high, rises near its center. This hill is conspicuous and slopes steeply on its SW side.

Bogha Maighdein lies 0.3 mile N of Vuia More and dries 2.1m. Sgeir Dubh Beg lies close E of Bogha Maighdein. This small and black rock is 2.4m high. Sgeir Dhubh More, another small and black rock, lies 150m SE of Sgeir Dubh Beg and is 5.5m high.

The Sound of Vuia, which is the recommended channel, has a navigable width of about 0.2 mile and leads between Vuia More and Lewis. Geile Sgeir, a rocky islet, is 4m high and lies in the fairway at the N entrance to the channel, midway between Rubha Rollanish and Stung. Vessels can pass on either side of this islet. Boghna na Muilne, which dries 0.6m, lies midway along the sound in the middle of the fairway.

Vuia Beag, an island, is 67m high and lies 0.3 mile S of the

end of the Sound of Vuia. Middle Shoal, with a least depth of 6.1m, lies about 0.3 mile W of this island. Gousam, a grassy islet, is 14m high and lies 0.5 mile WNW of Vuia Beag. Floday, a heather-covered islet, is 44m high and lies 0.6 mile W of Vuia Beag. A narrow boat channel, with depths of 2 to 5m, leads between Gousam and the NE side of Floday. Cliatasay, a heather-covered islet, is 28m high and lies close E of Vuia Beag. Glas Eilean, a green islet, is 8m high and lies 0.4 mile ENE of Cliatasay. Anchorage may be obtained, in depths up to 14m, mud, within Miavaig Bay which lies W of Gousam and Floday. The entrance fairway leading to this anchorage is narrowed to a width of about 250m by shoal water extending up to about 100m from Gousam and from the N shore. The tide rises in this bay about 3.8m at springs and 2.4m at neaps.

Loch Miavaig (58°12'N., 6°57'W.), which provides a harbor for small vessels, has general depths of 3.6 to 9m with a bottom of very soft mud. It is entered 0.4 mile W of Floday. The NE shore of the loch is formed by a low spit of well-cultivated land on which stands Free Church Manse, a conspicuous house. An overhead power cable, with a vertical clearance of 21m, crosses this loch.

Anchorage can be obtained, in depths of 11 to 22m, mud, within the Bay of Floday, which lies between Floday and Vuia Beag. Good anchorage can also be found, in depths of 12 to 26m, mud, to the N of Cliatasay and Glas Eilean.

6.33 East Loch Roag (58°16'N., 6°50'W.) is entered between Old Hill and Tuimpan, a conspicuous point 4 miles ENE. This inlet is the only harbor on the W coast of The Hebrides which is easily accessible by large vessels. The loch is open to the N, but the swell gradually decreases as it narrows and almost disappears 3 miles within the entrance. The fairway has general depths of 22 to 37m, which gradually decrease, over a bottom of shells, sand, and mud with occasionally small patches of rock.

The N side of the entrance to the loch is formed by the peninsula of Ard Laimishader. Loch Carloway indents the S side of this peninsula and has depths of 8 to 18m, over a bottom of stiff mud, which decrease gradually. This small loch provides shelter for small vessels in the summer, but there is considerable swell during NW gales. Tin Rocks, a group of below-water rocks which dry up to 1.8m in places, lies in the middle of the fairway, about 0.3 mile within the entrance of this loch. The fairway leading N of this group of rocks is about 200m wide and fairway leading S is about 150m wide. Creag More, a hill, rises close to the S shore of the loch. It is 66m high and has a conspicuous blunt peak. Bindalein Island, which forms the S entrance point of Loch Carloway, is steep-to except on its SE side where it is connected to the shore by a drying reef. The best anchorage, in a depth of 9m, sand and mud, is in mid-channel about 0.5 mile within the entrance of the loch.

6.34 Campay (58°17'N., 6°52'W.), an islet, lies 1.5 miles SE of Old Hill. A rounded hill, 36m high, terminates in a vertical cliff at the NE end of this islet. A conspicuous natural arch, through which the sea breaks, has formed at this cliff.

Kealabay, an islet, is 17m high and lies 0.2 mile SE of Campay. Kyles Campay, a deep channel, leads between Campay and Kealabay and its fairway is clear of dangers. Cruitir, a bare rock, is 3m high. It lies 0.3 mile E of Little Bernera and nearly

abreast of Temple Sand, a conspicuous sandy beach, which extends between the NE and SE extremities of the island.

The Kyles of Little Bernera is a constricted channel leading between Great Bernera and Little Bernera. It is only suitable for small vessels and free from the swell. Anchorage may be taken, in depths up to 7m, good holding ground, within this channel. Sgeir a Chaolais, a rock, lies in the fairway of the channel, 0.4 mile W of the entrance. It dries 1.9m and is marked by a beacon. The narrow channel leading N of this rock has a least depth of 4.6m and the channel leading S of it has a navigable width of 60m and a least depth of 7.8m. Small vessels can anchor, in depths up to 8m, mud, about 200m W of the rock.

6.35 Keava (58°13'N., 6°46'W.), an island, is 26m high and lies in the fairway of the S part of East Loch Roag. Greinam, an islet, lies 0.2 mile NNE of Keava. It is 5m high and a light is shown from the S part. Vacasay Island lies on the W side of the fairway, 0.7 mile WNW of Greinam, and has a rather sharp summit, 28m high. Dubh Thob, an inlet, lies on the W side of Vacasay and is occasionally entered by small vessels with local knowledge. A rock, which dries 2.1m, lies in the fairway in the narrowest part of this inlet. The land at the head is low and a small pier is situated on the W side of the inlet.

The navigable channel leading between Keava and Greinam has a least depth of 9m and a least width of 200m. Kyles Keava, the channel lying W of Keava, has a least navigable width of 150m and depths of 9 to 20m in the fairway. Sgeirean Barraglom, a rock which dries 0.6m, lies on the W side of the fairway, about 0.2 mile WNW of the NW extremity of Keava. Water Rock, which dries 0.6m, lies on the E side of the fairway about 100m NNW of the NW extremity of Keava. Eilean Kearsay, an island, lies in the middle of the loch, 0.3 mile S of Keava, and is 36m high. Narrow channels lie on each side of this island. The W channel has a least depth of 9.7m in the fairway and a least navigable width of 50m. The E channel has a least depth of 2.7m, but is seldom used. Submarine cables extend across both of these channels.

The wide clear bay located between Eughlam, a narrow islet lying off the E side of Great Bernera, and Eilean More affords safe anchorage, in depths up to 26m, muddy sand, with good holding ground. It is reported that large vessels have remained at anchor here for up to 6 weeks during the winter, with no crew on board. The bay is open to the N and some slight swell comes in during gales from that direction.

The entire width of East Loch Roag in this vicinity affords anchorage, in depths of 12 to 20m, if required, but the holding ground on the E side is not as good as that on the W side.

6.36 Breasclete Bay (58°13'N., 6°45'W.) lies on the E side of the loch and E of Keava. It affords good and safe anchorage in depths of 7 to 14m, mud, with good holding ground. Vessels are advised to anchor, in depths of 9 to 11m, about 0.3 mile NE of the SE extremity of Keava.

Port A Chaoil (58°14'N., 6°47'W.), an inlet, lies on the E side of East Loch Roag, 0.7 miles within the entrance. It affords good anchorage to small vessels, in a depth of 8m, but several shoals obstruct the approach.

Loch Barraglom is located with its E entrance near the SE extremity of Great Bernera. It is occasionally used by small

vessels, but is mostly shallow and obstructed by rocks. Loch Ceann Hulavig, located at the head of East Loch Roag, is seldom entered by vessels. This inlet is generally shallow and the tidal currents at its entrance are strong. A submarine cable and several submarine water pipelines extend across the entrance to this loch.

Ard Laimishader (58°17'N., 6°49'W.), located 1.5 miles SW of Tuimpan, is the NW extremity of a headland which rises to Ben Laimishader, 114m high. This latter hill has a prominent pointed apex with an abrupt descent on its E side. A light is shown from a conspicuous white hut, 5m high, standing on the point.

The stretch of coast extending between the E entrance point of East Loch Roag and Aird More Bragor, 6.4 miles NE, should be given a wide berth. It is indented by several small inlets which can afford shelter during offshore winds for small vessels with local knowledge.

6.37 Aird More Bragor (58°21'N., 6°40'W.), 37m high, is a broad, rugged, and indented headland. The coast extends ENE for 4 miles from this headland to Aird Barvas. The S part of this stretch consists of cliffs, 15 to 30m high, and the N part is low and interspersed with sandy patches. Between Aird Barvas and Aird Dell, 8 miles NE, the coast consists of grassy banks which slope moderately to the sea.

Toa Galson, a prominent rocky point, is located 1.8 miles SW of Aird Dell and has a black vertical face, 29m high. A conspicuous farmhouse stands 0.7 mile SW of this point.

Hen Shoal, with a depth of 8.8m, lies 1 mile offshore, about 2 miles W of Toa Galson. Dell Rock, which is steep, lies 0.4 mile NNW of Aird Dell.

Cunndal Bay (58°29'N., 6°18'W.) lies between Aird Dell and the SW extremity of the Butt of Lewis. Its shore is fringed by extensive sandy beaches. A church and several houses are situated close inland of this bay and are visible from seaward.



Courtesy of Scottish Radianc

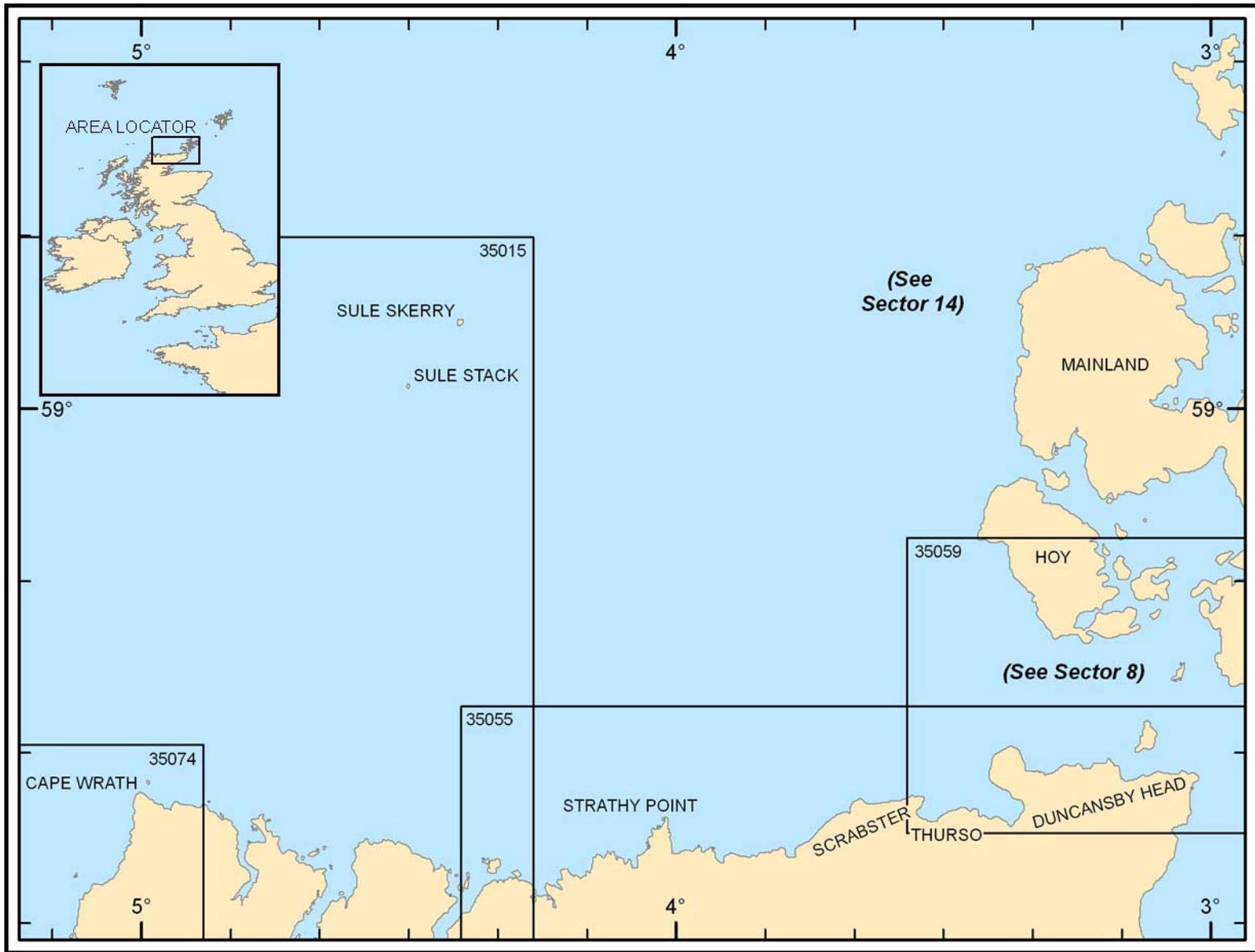
Butt of Lewis Light

6.38 The Butt of Lewis (58°31'N., 6°16'W.), the N extremity of The Outer Hebrides, is fronted with vertical cliffs, 15 to 21m high, and fringed by foul ground. This point, which is very radar conspicuous, rises to a summit, 41m high, about 1 mile S of its N extremity. A light is shown from a very conspic-

uous tower, 37m high, standing on the N extremity of the point, at the brink of the cliff. A prominent two-story building stands close S of the light, but is not visible from the W. Several radio

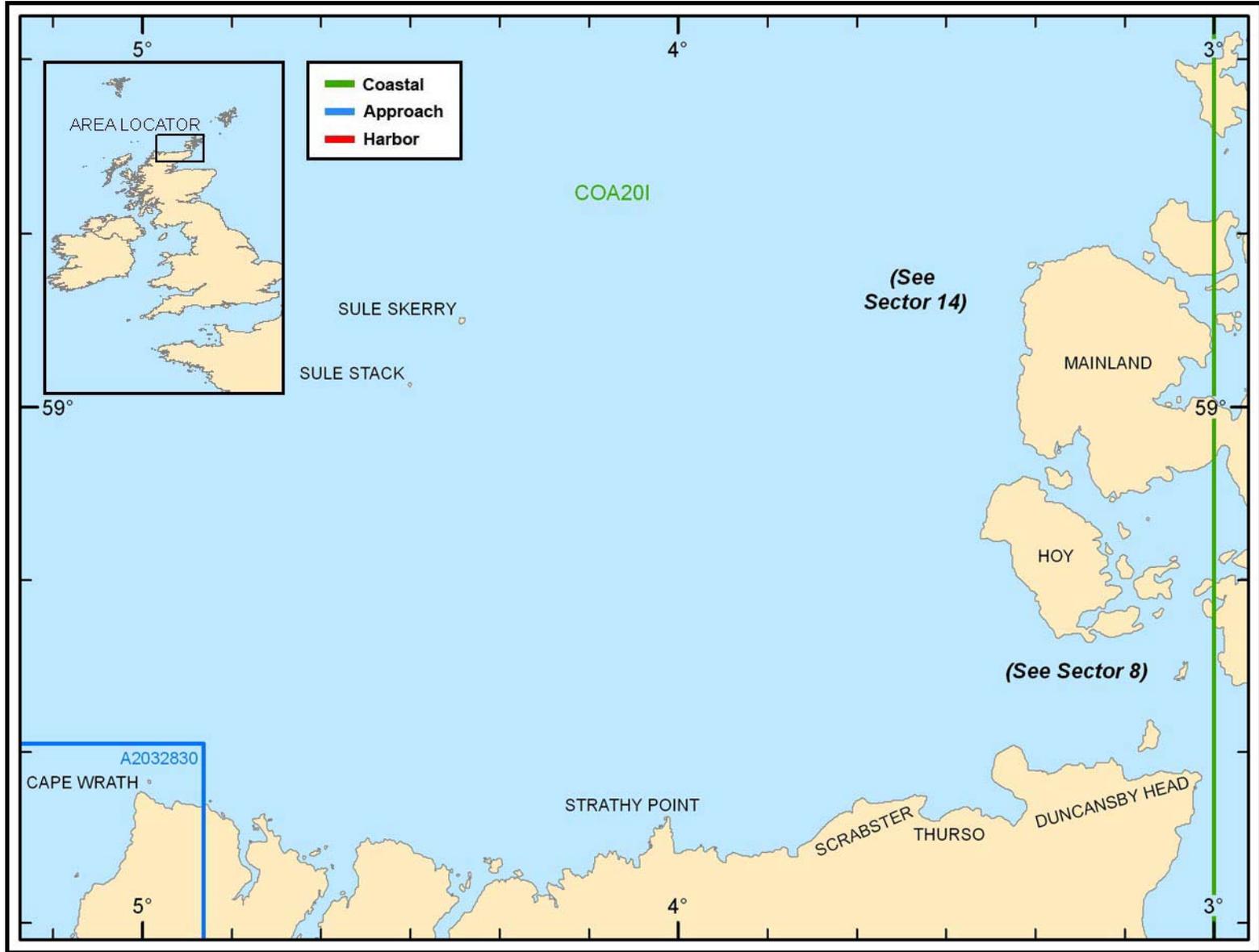
masts stand 1.3 miles S of the light.

Lith Sgeir, a steep-to rock, is the northernmost of several above-water rocks which extend up to 0.2 mile N of the point.



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SECTOR 7 — CHART INFORMATION



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SECTOR 7

NORTH COAST—CAPE WRATH TO PENTLAND FIRTH

Plan.—This sector describes the N coast of Scotland from Cape Wrath to Pentland Firth. Solan Bank, Sule Skerry, Stack Skerry, and Skerry Bank are also described. The descriptive sequence is from W to E.

General Remarks

7.1 The N coast of Scotland extends from Cape Wrath in a general E direction for 52 miles to Dunnet Head, the SW entrance point of Pentland Firth. High land and numerous peaks back the rugged shoreline which is broken by several inlets, coves, and small bays. In general, the coast is steep-to with dangers lying close inshore in many places.

Tides—Currents.—In the vicinity of Cape Wrath and close inshore, the tidal current always sets W, but at a position about 2 miles NE of the cape, it sets both E and W. The E current usually begins 6 hours before HW and the W current at HW at Stromness. At a position about 7 miles NNW of the cape, the tidal currents set ENE and WSW. The ENE current usually begins 4 hours before HW and the WSW current begins 2 hours 45 minutes after HW at Stromness. In this area, the currents generally attain rates of 1.5 knots at springs.

In the vicinity of Cape Wrath, heavy and dangerous seas often result when the tidal currents are opposed by strong winds.

The tides rise about 4.6m at springs and 3.5m at neaps at the Kyle of Durness. The tidal currents run strongly through the shallow channel in the inner part of this inlet, especially near LW when the sands are uncovering, but they are hardly perceptible close outside the bar.

Generally, the tidal currents in Loch Eriboll are weak and only attain rates of up to 0.5 knot in the channel leading W of Chorrie Island.

In the entrance to the Kyle of Tongue, the E current begins 4 hours 45 minutes before HW and the W current begins 1 hour 15 minutes after HW at Stromness. A heavy sea is raised when the latter part of the W current meets the current setting out of the inlet.

At a position about 7 miles N of Torrisdale Bay, the E current begins 3 hours 45 minutes before HW and the W current begins 2 hours 30 minutes after HW at Stromness. These currents attain rates at springs of 1.4 knots.

Off Strathy Point, the E current begins 4 hours 15 minutes before HW and the W current begins 1 hour 45 minutes after HW at Stromness. These currents attain rates at springs of up to 2.5 knots and always set N along the E side of the Strathy peninsula.

Off Brims Ness, the E current begins 4 hours 15 minutes before HW and the W current begins 1 hour 45 minutes after HW at Stromness. These currents attain rates at springs of about 3 knots. During strong winds, a dangerous sea is raised when strong tidal currents set over the Whales Back.

Both the E and W tidal currents enter and circle Thurso Bay and attain rates at springs not exceeding 1.2 knots. In Scrabster Road and Dunnet Bay, the tidal currents are hardly perceptible.

Off Holborn Head, the E current begins 4 hours 15 minutes before HW at Stromness. It sets toward Scrabster Road for the first 2 hours and then part of it gradually turns W and N to form a countercurrent between Little Head and Holborn Head. The tidal current on the W side of Thurso Bay sets N for the duration of the W current.

At a position about 0.5 mile N of Dunnet Head, the W current begins 45 minutes after HW at Stromness and the E current begins 5 hours 30 minutes before HW at Stromness. The current runs N along the E side of Dunnet Bay during both the E and W main tidal currents, the set being due in the latter case to the countercurrent that is formed.

Caution.—Marine farms are situated within many of the inlets and lochs along this stretch of coast.

Off-lying Dangers

7.2 Nun Rock (58°52'N., 4°58'W.), with a depth of 4.3m, lies 15 miles N of Cape Wrath. When the tidal currents are running strongly, this weed-covered pinnacle rock is marked by breakers and tide rips.

Nun Bank extends up to 8 miles N and 1 mile S from Nun Rock. It has depths of 21 to 54m and a bottom of sand, rocks, and broken shell.

Solan Bank (59°04'N., 4°53'W.) has depths of 36 to 55m and a bottom of sand, stones, and shells.

Sule Skerry (59°05'N., 4°24'W.), a flat and grass-covered island, is 12m high and fringed by shallow reefs. A rocky patch, with a depth of 14.6m, lies about 1 mile NE of the island and breaks during W gales. A light is shown from a prominent tower, 27m high, standing on this island. A racon is situated at the light. A rocky patch, with a depth of 18.8m, lies 2 miles N of the light.

Sule Stack (59°01'N., 4°30'W.), a steep-to and rocky islet, is 36m high. It has the appearance of a double rock when viewed from the W and the appearance of a vessel under sail when viewed from the S.



Sule Skerry from S



Sule Stack

Cape Wrath to Dunnet Head

7.3 Cape Wrath ($58^{\circ}37'N.$, $5^{\circ}00'W.$), the NW extremity of the mainland of Scotland, is a bold and rocky headland. It is 110m high and gives very conspicuous radar return. A light is shown from a prominent tower, 20m high, standing on the cape. However, it is reported that this tower is frequently obscured by fog. A wind generator is situated close to the light.

Duslic Rock, which dries 3.4m, lies 0.8 mile NNE of Cape Wrath and is steep-to. Vessels with local knowledge sometimes pass S of this rock in order to take advantage of the prevailing W current in the passage and to avoid the adverse currents setting N of it.

Caution.—Firing exercises involving the use of live ammunition by ships and aircraft take place occasionally within an

area lying off Cape Wrath. This area extends up to 5 miles seaward between the cape and Faraid Head, 7.2 miles ESE. A target buoy is moored 1.7 miles WNW of the latter headland.

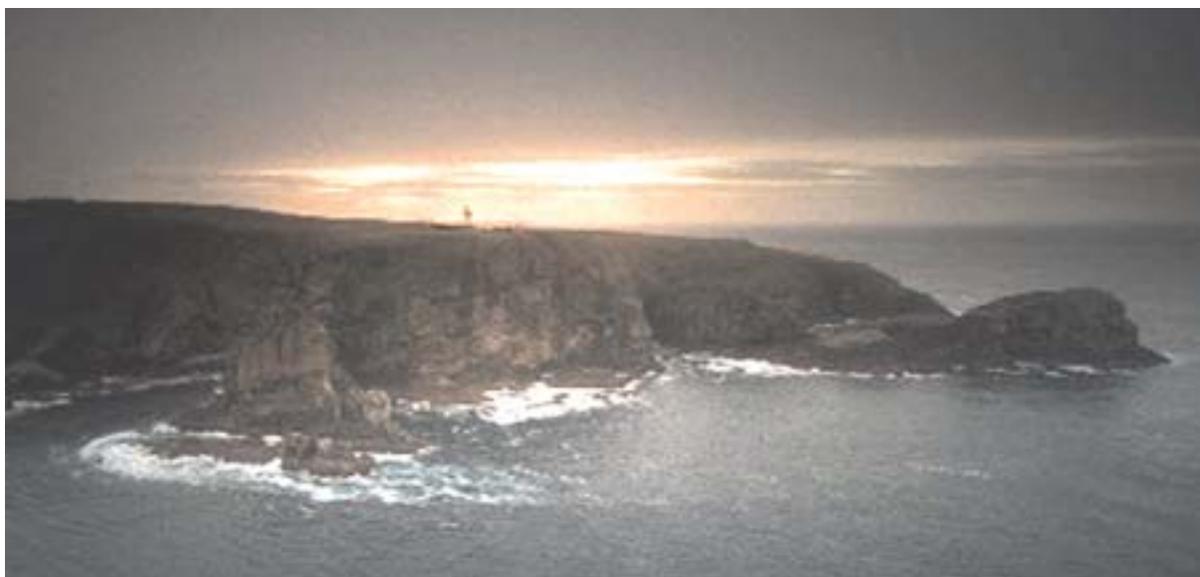
By day, the red flags on the S extremities of the area will be exhibited at half-mast to notify vessels that they are within the area. At night, such notification will be conveyed by the continuous signaling, by searchlight, in the direction of the vessel of the group IB (you should keep clear of the firing range) from the International Code of Signals. When so notified, vessels should leave the area immediately, except in cases of emergency.

7.4 An Garbheilean ($58^{\circ}37'N.$, $4^{\circ}52'W.$), an islet, lies close offshore, 3.8 miles E of Cape Wrath. It is grass-covered and 30m high. A reef, with a least depth of 2.7m, extends up to 0.4 mile NW from this islet.

The **Kyle of Durness** ($58^{\circ}36'N.$, $4^{\circ}49'W.$), an irregular inlet, is entered between Stoir Point, located 6.7 miles ESE of Cape Wrath, and Farout Point, 1 mile E. Immediately within the entrance, this inlet widens slightly to form Balnakeil Bay. A village, with a prominent church, is situated on the SE shore of this bay. The inner part of the inlet, which extends for 5 miles in a S direction, is almost completely filled with drying banks and fronted by a sand bar. Heavy swells from the NW frequently set into this inlet and it does not provide a safe anchorage.

Faraid Head ($58^{\circ}36'N.$, $4^{\circ}46'W.$) is a bold and steep-to headland, 96m high. It is the N extremity of the peninsula which forms the E side of the entrance to the Kyle of Durness. A prominent building is situated 0.3 mile S of this headland.

Clach Mhor na Faraid, a pinnacle rock, is 51m high. It is the tallest of a group of detached rocks and is located 0.2 mile offshore, 0.5 mile SE of Faraid Head.



Cape Wrath

Courtesy of Scottish Radiance

7.5 Sango Bay (58°34'N., 4°44'W.), a small cove, indents the irregular coast midway between Faraid Head and Loch Eriboll. The village of Sangomore is situated at the head of the cove and a radio mast stands on Old Castle Point, the W entrance point.

Hoan Island (58°34'N., 4°41'W.), grass-covered, is the largest of several islands lying on the W side of the approach to Loch Eriboll. An Dubh Sgeir, a rocky islet, is 10m high and lies about 0.3 mile NE of Hoan Island. It is the outermost danger lying off this section of the coast. Several rocks, which break, obstruct the passage leading between this islet and Hoan Island. An Cruachan, a small round-topped rock, is 2m high and lies 0.4 mile NW of Hoan Island. Several other small islets, fringed by rocks, lie close inshore to the SW of Hoan Island.

Anchorage is available, in depths up to 16m, sand, to the S of Hoan Island, but the area is open to winds from the E and NE.

Ant-Aigeach (58°33'N., 4°39'W.), located at the W side of the entrance to Loch Eriboll, is formed by a small peninsula which is joined to the coast by a narrow neck of land. It rises to a well-defined summit, but is difficult to distinguish from the higher hills to the SW.

Eilean Cluimhrig, a small table-topped islet, lies 0.3 mile NE of Ant-Aigeach and has mostly cliffy sides. It is bare, rocky, 13m high, and fringed by rocks. A narrow chasm, located near its center, almost divides this islet into two parts. Several rocks, awash, lie up to about 0.3 mile W of the islet.

Loch Eriboll (58°33'N., 4°38'W.), a steep-sided inlet, has general depths of 36 to 55m and extends inland in a SW direction for about 9 miles. It is entered between Eilean Cluimhrig and Whiten Head, 2.3 miles NE.

Rispond Bay, a small partially drying inlet, lies 0.2 mile S of An-Aigeach. It has a village situated at the head and is used by small craft. A'chleit and Eilean Dubh, two small islets, lie close offshore, 1.8 miles S of Ant-Aigeach. They are both connected to the W side of the loch by drying reefs. Portnancon, a small cove with a village situated at the head, lies close S of Eilean Dubh.

The E side of the loch is more irregular than the W side and drying rocks lie up to 300m offshore in several places. The River Hope flows into the E side of the loch, 3.5 miles S of Whiten Head. Sgeir a Bhuic, a drying reef, lies 0.4 mile NW of the mouth of this river and is surmounted by a small islet, 8m high.

White Head, a prominent cliffy point, is located 1.1 miles WSW of the mouth of the river and is marked by a light. A prominent white patch is located on the rocks below the light.

7.6 Chorrie Island (Eilean Choraidh) (58°29'N., 4°42'W.), lying 2.7 miles SW of White Head, is the largest island within the loch. It is grassy, 24m high, and fronted by reefs. Vessels can pass to the E or W of this island. The E channel is the deepest and safest with a fairway, 0.3 mile wide, and depths of 18 to 51m. The fairway of the W channel is 300m wide and has a least depth of 7.8m.

Ard Neackie, a small peninsula, is located 1.4 miles ENE of Chorrie Island. It is connected to the E side of the loch by a causeway and appears as an island from the N.

Loch Eriboll offers little protection from winds from the NE or the SW. Gales from these directions often sweep up and down the loch during the winter, but the full force of the heavy

seas does not penetrate into the inner part, S of Ard Neackie, because of the conformation of the land. Vessels can anchor as convenient, SW of Ard Neackie, over a bottom of mostly mud.

Camas an Duin, one of the largest bays indenting the sides of the loch, is entered close S of Ard Neackie. Good anchorage is available, in a depth of 14m, in the S part of this bay. However, the N part of the bay is exposed to SW winds and the weed-covered bottom provides a poor holding ground. Good anchorage is also available, in depths of 13 to 27m, mud, in the middle of the loch between the S end of Chorrie Island and the head. However, the anchorage near the head is exposed to the full force of the SW gales which blow down through the mountain ravines with considerable strength. The tidal currents within this loch are generally weak and attain rates of only 0.5 knot.

7.7 Whiten Head (58°35'N., 4°35'W.), the E entrance point of Loch Eriboll, is formed by a cliff located between two headlands. The E headland is dark, red-veined, and 156m high. The W headland is 138m high, white, and very conspicuous when the sun strikes it. The Sisters (Stacan Bana), consisting of a pair of white pinnacle rocks, is located midway between the headlands. These rocks are 46 and 54m high and lie about 200m offshore. Bodach Dearg, another pinnacle rock, is 23m high and lies 100m W of the E headland.

From Whiten Head, the coast trends E for 1.3 miles to Cleit an t-Seabhaig (Babach Head), a prominent red promontory, 160m high. A rock, 4m high, lies close offshore, about 200m N of this promontory.

The coast then extends 3 miles SE to Achaninver Bay, a small sandy-bottomed bight. Cliffs rise up to 240m high in some places along this stretch of shore.

Cnoc Glass (58°33'N., 4°26'W.), 68m high, is the E entrance point of Achaninver Bay and also the W entrance point of the Kyle of Tongue.

7.8 Ben Hutig (Ben Hutich) (58°33'N., 4°31'W.), with a prominent summit, is 406m high and rises 2 miles inland, about midway between Loch Eriboll and the Kyle of Tongue.

The **Kyle of Tongue** (58°32'N., 4°23'W.), open to winds from the N, is the easternmost of the long and narrow inlets indenting the N coast of Scotland. It extends inland in a SSW direction for about 7 miles, but the inner 5 miles consists of a sand-filled area and is fronted by a bar. A causeway carrying a road extends across the inlet, 3 miles from the head. A narrow and shallow channel, which passes under the causeway, leads through the sands to the head.

From the W, the entrance of this inlet is not easily identified and the off-lying islands are difficult to distinguish from each other.

Cnoc an Fhreicheadain (58°30'N., 4°23'W.), a prominent hill, stands on the E side of the inlet. It is 306m high and is a useful landmark when approaching the entrance. A radio mast stands 0.5 mile S of this hill.

Eilean Nan Ron (58°33'N., 4°20'W.), 74m high, lies 0.5 mile N of Torrale Head, the E entrance point. This bold and rocky island is fringed by rocks and two small islets lie close NW of it.

The Kyle of Tongue can be entered, in depths of 14 to 25m, between Cnoc Glass and Eilean Nan Ron. Caol Raineach (Kyle of Rannock), the passage leading SE of Eilean Nan Ron, has a

least depth of 9.1m in the fairway. Local knowledge is advised.

Eilean a Chaoil (58°33'N., 4°26'W.), an islet, lies close offshore, 0.5 mile SE of Cnoc Glass. From Cnoc Glass, the W side of the inlet trends SSE for 2 miles to Ard Sgianaid. Several other islets lie close off this section of the shore.

7.9 The Rabbit Islands (58°32'N., 4°24'W.), consisting of two grass-covered islands, lie 0.5 mile NE of Ard Sgianaid. They are connected to each other and to the side of the loch by a shoal spit which nearly dries. Sgeir an Oir, a rocky islet, is 40m high and lies close N of the northeasternmost island. Dubh Sgeir More (The Skerries), formed by a group of rocks, lies 0.7 mile offshore, midway between Eilean a Chaoil and Sgeir an Oir. No channels lead into the inlet to the W or S of the Rabbit Islands. Temporary anchorage can be taken, in a depth of 7m, sand, SE of the Rabbit Islands.

Skullomie Harbor, a shallow cove, lies on the E side of the loch, 2 miles SSW of Torrale Head, and is used by fishing vessels.

From Torrale Head, the coast extends 10.5 miles ENE to Strathy Point and is indented by several bights.

Neave Island (58°33'N., 4°18'W.) lies close offshore, 1.3 miles E of Torrale Head. It is rugged and 68m high. The stratified formation on the N side gives this island a peculiar striped and prominent appearance.

Strathy Point (58°36'N., 4°01'W.), 35m high, is located at the N end of a peninsula which projects 2 miles N from the coast. Garbh Eilean, a rocky and steep-to islet, lies close W of this point. A disused lighthouse, 14m high, with an attached dwelling stands on the point.



Courtesy of Scottish Radiance

Strathy Point Light (disused)

The W side of the peninsula is fringed by small islets and rocks, and the E side is lined with cliffs.

Between Strathy Point and Holborn Head, 15 miles E, several small bays indent the coast.

Rubha Na Cloiche (58°34'N., 3°57'W.), located 2.8 miles SE of Strathy Point, is a bold and granite point, 79m high. Rubha Bhra (Skerry Point), a rocky headland, is located 0.8 mile E of this point and The Stag of Port, a large drying rock, lies close off it.

Port Skerra (Port Skerry), a very small cove, is entered close E of Rubha Bhra and is used by local boats.

Rubha Antuir (58°34'N., 3°54'W.), 94m high, is a rounded

and bold headland fringed with drying rocks.

7.10 Sandside Head (58°34'N., 3°48'W.) is formed by an overhanging cliff, 75m high. The Stags, consisting of two drying rocks, front this point. Sandside Bay, a bight, is entered E of the point and a small drying harbor, formed by piers, lies on its W side.

In the vicinity of Sandside Bay, the nature of the countryside starts to change. In contrast to the sharp-topped granite peaks to the W, the hills rising to the E of the bay are lower and rolling.

The extensive buildings of Dounreay Nuclear Power Station stand near the coast, 1 mile ENE of the E entrance point of Sandside Bay. These buildings include a very conspicuous sphere, 58m in diameter, and a chimney, 57m high. This site is in the process of being decommissioned. A disused airfield and a heliport are situated behind the buildings.

A lighted buoy is moored about 0.5 mile NW of the sphere and marks the seaward end of an outfall pipeline.

Brim's Ness (58°37'N., 3°40'W.) is a salient point. Its E side is formed by a cliff, 35m high, and its W side slopes gradually to a low point. Whales Back, a steep-to rocky ledge, extends up to 0.4 mile N from the point. The inner half of this ledge dries and the outer half has depths of less than 8m. A conspicuous radio tower, 183m high, stands 1 mile SW of the point.

The coast extending E from Brim's Ness gradually becomes steeper and black, slate cliffs rise to heights of about 90m in places.

Holborn Head (58°37'N., 3°32'W.), the W entrance point of Thurso Bay, is steep-to and 31m high. The Clett (The Cleit), a detached rock, lies close offshore, 0.2 mile W of this point.

7.11 Thurso Bay (58°37'N., 3°30'W.), the largest bay on the N coast of Scotland, lies between Holborn Head and Rough Head, 4 miles ENE. Scrabster Road lies at the W end of this bay and Dunnet Bay indents the E end.

Thurso Bay has general depths in the entrance of 36 to 55m, with a bottom formed of mostly sand, black specks, and shells. Closer inshore, the bottom consists of rock and sand.

The Sands, a bank, lies in the approach to the bay, 1.8 miles NW of Rough Head, and has a least depth of 29.8m. The Grounds, an extensive rocky area, lies 1 mile ENE of Holborn Head and has a least depth of 14m. During NW gales, the sea breaks heavily over this area.

Caution.—Deep sea pilots occasionally board vessels within Thurso Bay. Such actions are carried out by vessels passing N of Scotland that wish to embark pilots before reaching the complex Traffic Separation Schemes (TSS) established in the North Sea.

Salmon nets and lobster pots are situated along the shore of the bay in several places.

7.12 Scrabster Road (58°36'N., 3°33'W.) is the name given to the bight lying at the W end of Thurso Bay. The town of Thurso stands on both banks of the River Thurso which flows into the S part of this bight. A harbor, used by cruise ships, fishing and survey vessels, fronts the town. The prominent ruins of a castle are situated on the E side of the river and a church, with a conspicuous spire, stands in the town.

Scrabster Harbor (58°37'N., 3°33'W.) (World Port Index



Thurso Bay and Holborn Head Light



Courtesy of Scottish Radiance
Holborn Head Light

No. 32780), a medium-size port, lies in the NW part of Scrabster Road. It is a fishing center and a terminal for ferries as well

as cruise vessels. The town stands close W of the harbor.

Tides—Currents.—Tides rise about 4.0m at springs and 1.8m at neaps.

Depths—Limitations.—There are five principal dock areas, mostly lined by quays, as follows:

1. Queen Elizabeth Pier, the easternmost pier, has two berths on its W side. A ro-ro berth lies at its S end. A lay-by berth, lies at its N end.
2. Saint Ola Pier has a ro-ro berth on the SW side, The NW side of Saint Ola Pier is designated as a lay-by berth.
3. Fish Basin is used by fishing vessels and has a dredged depth of 4m.
4. Inner Basin has an entrance 15m wide; it is shallow and used by fishing vessels, small craft, and yachts.
5. Outer Basin has an entrance 28m wide. and is used by small commercial vessels of up to 90m in length. For further berthing information refer to table titled **Scrabster Harbor—Berth Information**.

Pilotage.—Pilotage is not compulsory, but is advised. Pilots board about 0.5 mile SE of Little Head. An ETA is required 24 hours in advance should a pilot be needed.

Scrabster Harbor—Berth Information

Berth	Length	Depth	Remarks
Scrabster Harbor			
SOUTH Wall	85m	4.5m	General cargo, containers, and seafood.
Jubilee Quay	120m	7.5m	General cargo, containers, ro-ro, and petroleum products.
Scrabster Fish Market Terminal			
Fish Market Quay	120m	8.1m	Seafood and fish products.

Scrabster Harbor—Berth Information			
Berth	Length	Depth	Remarks
St. Ola Terminal			
St. Ola Lay-by	155m	5.5m	Passengers.
St. Ola Ro-Ro	115m	5.5m	Ro-ro.
Queen Elizebeth Terminal			
QE Lay-by-berth	180m	8.0m	General cargo and passengers.
QE Ro-Ro berth	160m	9.0m	Ro-ro.
Tanker Berths (Scrabster Harbor)			
Inner Basin	130m	4.5m	Petroleum products.
Tanker	73m	7.5m	Chemical and petroleum. This berth can accommodate vessels up to 250,000 dwt with an loa of 95m, a draft of 6.0m, and a beam of 12.5m.
Fuel	65m	4.5m	Petroleum products.



Scrabster Harbor

Contact Information.—Scrabster Harbor can be contacted, as follows:

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. VHF: VHF channels 12 and 16 | <ol style="list-style-type: none"> 2. Telephone: 44-1847-892779 3. Facsimile: 44-1847-892353 4. E-mail: harbour@scrabster.co.uk (24 hours) |
|--|--|

5. Web site: ops@scrabster.co.uk (office hours)
<http://www.scrabster.co.uk>

Anchorage.—Vessels should anchor, in a depth of 20m, sand, about 0.3 mile E of Little Head.

7.13 Dunnet Bay (58°37'N., 3°24'W.) lies on the E side of Thurso Bay and is entered between Rough Head and Clardon Head, 2.3 miles SW. The S shore of the bay is fringed by a drying reef and several detached rocks. The N shore is fairly steep-to and lined by cliffs which have fallen in places. A sandy beach lies at the head of the bay and is backed by large sand dunes. The villages of Dunnet and Castletown are situated, respectively, at the NE and SW ends of the beach. A conspicuous silo stands 1.7 miles ESE of Dunnet village.

A large radar aerial array and a prominent sphere stand 0.2 mile SW of Clardon Head. A prominent radar tower surmounts

a hill which rises about 2.5 miles SSE of the sphere.

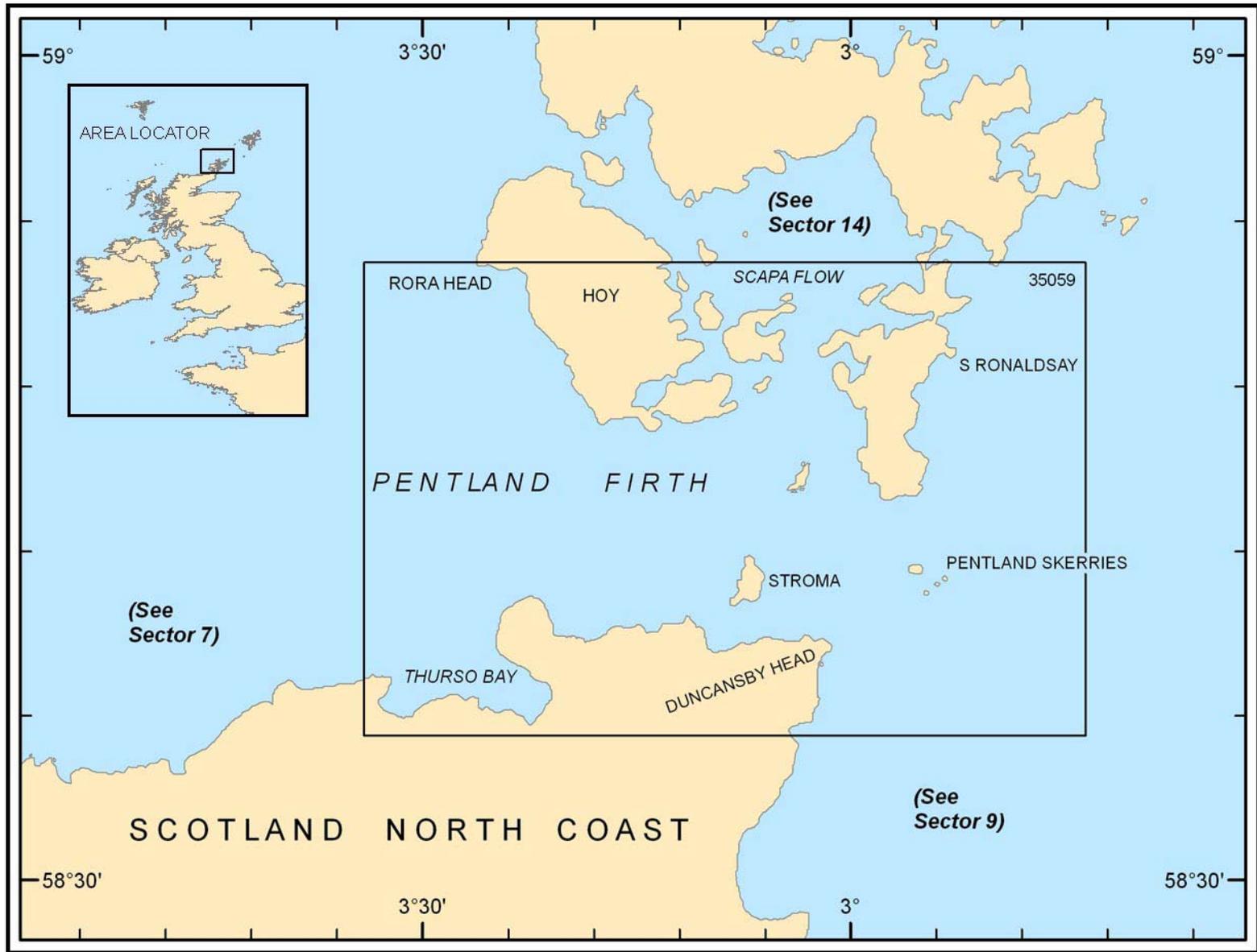
Caution.—During W gales, a heavy swell sets into Dunnet Bay and makes it untenable.

Fishing stakes project from the shores of the bay in several places.

Numerous submarine cables, which may best be seen on the chart, extend seaward from the S and E sides of the bay.

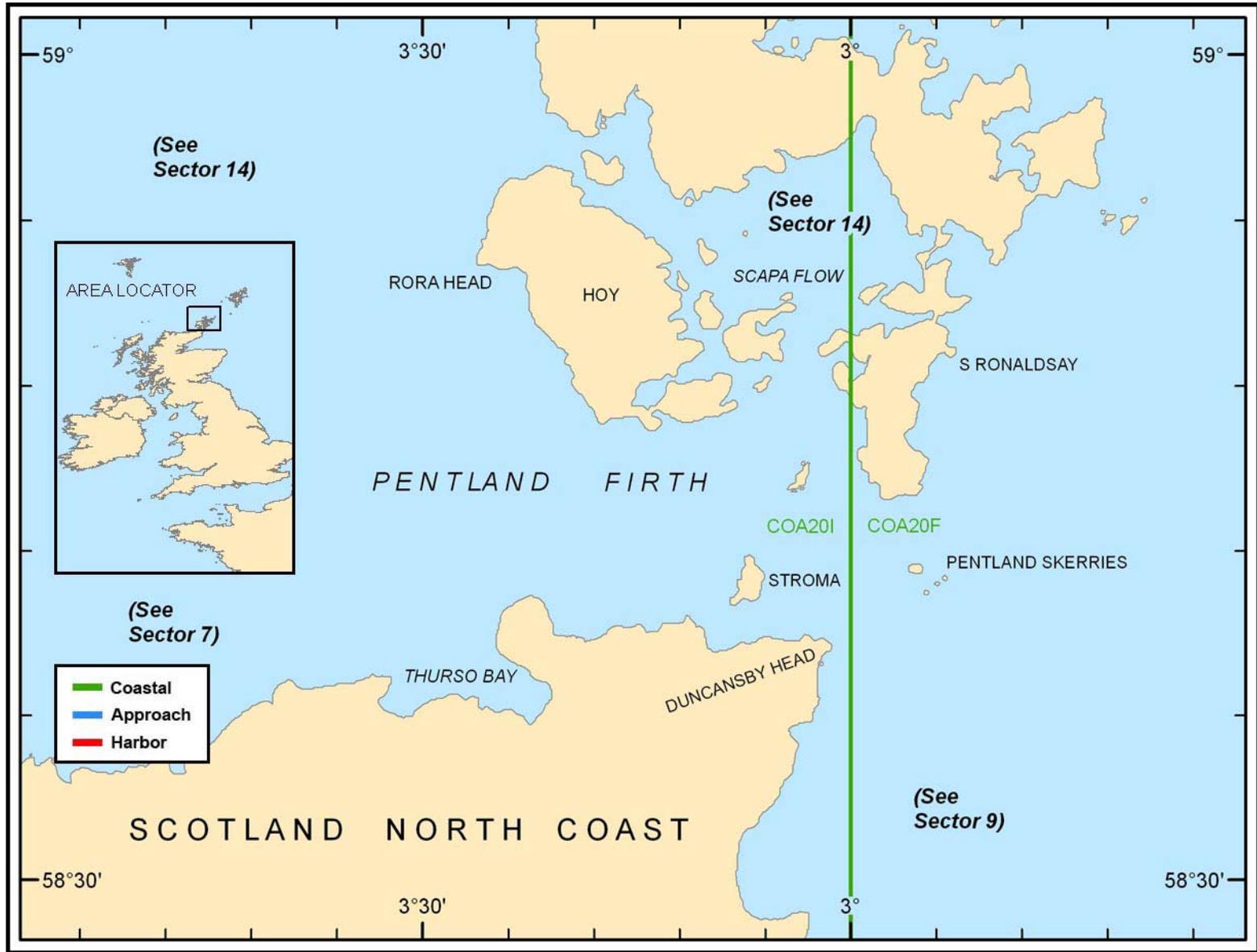
7.14 Dunnet Head (58°40'N., 3°22'W.), the N extremity of Scotland and the SW entrance point of Pentland Firth, is located 2 miles NNE of Rough Head. The coast between consists of steep cliffs. This headland is fronted by a sheer cliff, 125m high.

A light is shown from a prominent tower, 20m high, standing on the headland.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 8 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.

SECTOR 8 — DNC LIBRARY INFORMATION

SECTOR 8

NORTH COAST—PENTLAND FIRTH

Plan.—Pentland Firth is described in this sector. The descriptive sequence is from W to E. The S side of the firth from Dunnet Head to Duncansby Head is described first, then the N side, from Tor Ness to Cantick Head.

Pentland Firth

8.1 Pentland Firth (58°42'N., 3°24'W), 15 miles long, is the strait which separates the Orkney Islands from the N coast of Scotland. The Outer Sound, the main channel, lies between the islands of Stroma and Swona. It is 2.5 miles wide, well marked, and has depths of 54 to 73m. The Inner Sound lies between the island of Stroma and the coast of Scotland. This channel is 1.3 miles wide and has general depths of over 22m.

Pentland Firth is deep and comparatively free of dangers, but navigation within it can be particularly difficult and hazardous at times because of the very strong tidal currents and the resulting unusual conditions. A careful study of the tidal currents should be made before transiting through this passage.

At times, the tidal currents in the Outer Sound attain rates of 7 to 9 knots and those in the Inner Sound attain rates of 4 to 5 knots. The latter channel is naturally preferable when the current is adverse, but it should not be used by large vessels at any time. When the sea is smooth and the wind is light, Pentland Firth is not dangerous. However, vessels can easily get into difficulty because heavy seas are raised when strong winds and swells oppose the strong tidal currents. The rapid change from smooth to rough water and the distinct lines of demarcation between the currents and countercurrents that prevail in the vicinities of the islands and skerries are notable characteristics of this passage. Even large vessels passing from one current area into another may be violently swung around.

Vessels entering Pentland Firth should be prepared for rough weather and extreme caution is necessary in hazy weather. Passage through the strait should not be attempted during fog by low-powered or sailing vessels.

Tides—Currents

The tidal currents for Pentland Firth are shown as insets on the current charts for the Orkney Islands.

The tide rips, overfalls, countercurrents, and eddies resulting from the very strong tidal currents can seriously impede navigation throughout Pentland Firth. The wide variations in the set and drift of these tidal currents and the variability in the extent of the rips and countercurrents make it difficult to allow for their effects with any degree of accuracy. Within the firth there may be an appreciable difference in the direction and strength of the tidal currents over a comparatively small water area.

The tidal currents close W of Pentland Skerries have been observed to attain rates up to 16 knots at times. It was reported that a vessel was unable to make headway in many parts of the firth while making 11 knots through the water.

Peculiarities concerning the audibility of fog signals in Pentland Firth have been observed. At times, the fog signals were reported to be less audible when vessels were proceeding toward the signal with the tidal current than proceeding against the current. For vessels approaching Muckle Skerry from the E, the distance at which the fog signal can be heard has been found to be considerably less during the period of the W current than during the E current. In addition, when N of the skerries, an echo of this signal may be heard coming from Little Skerry.

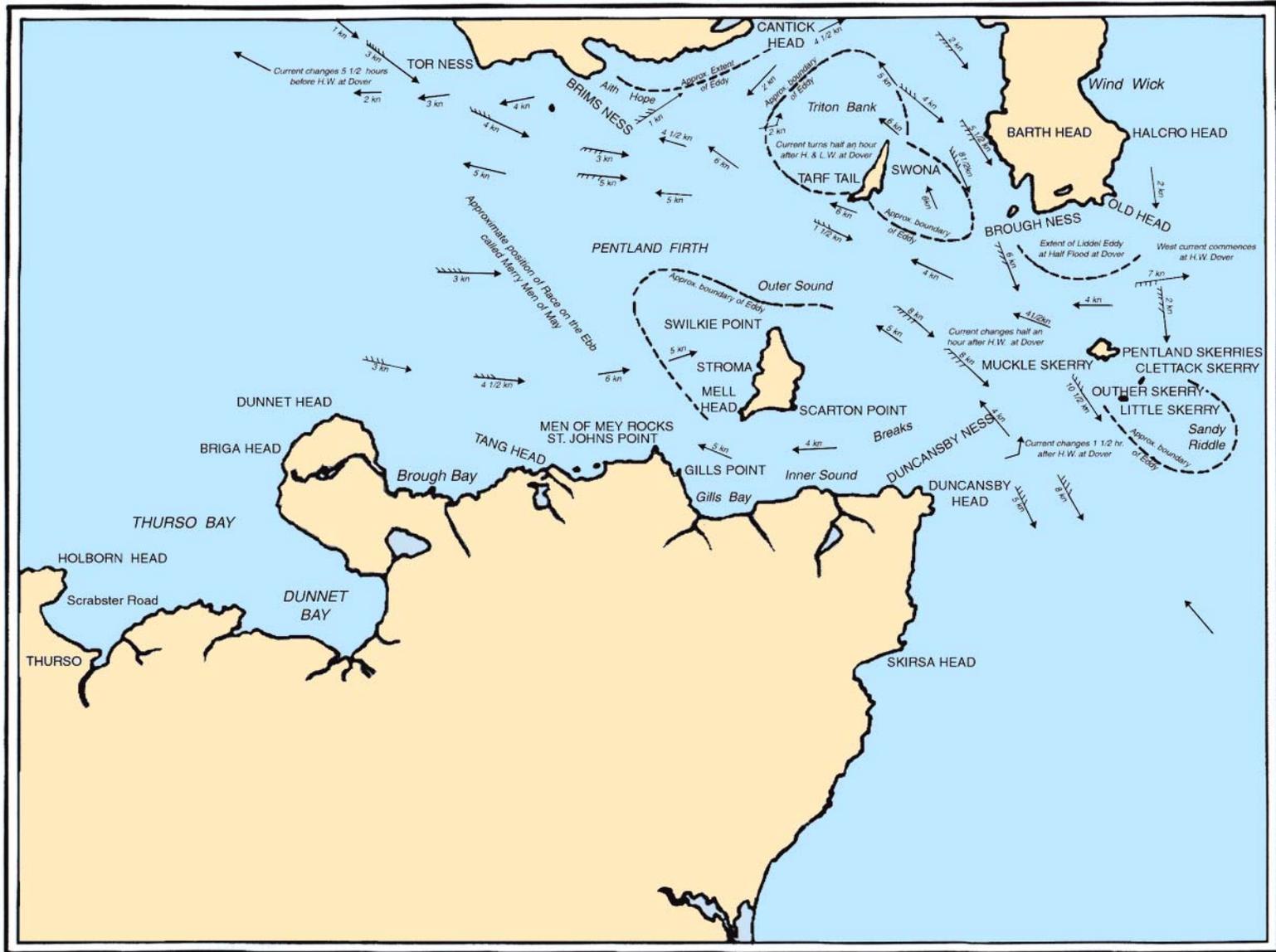
Main Currents.—The main E current sets through the Outer Sound and passes N and S of Pentland Skerries. The S branch sets SE between the skerries and Duncansby Head. The N branch sets NE between South Walls and the island of Swona, partly turning N in Scapa Flow and partly turning S between Swona and South Ronaldsay and rejoining the main current setting through the Outer Sound. The S part of the main E current sets toward the island of Stroma. Close W of this island, it divides, partly setting NE and continuing as the main current and partly turning SE through the Inner Sound and then rejoining the main current off Duncansby Head.

The main W current enters Pentland Firth to the N and S of Pentland Skerries. The S branch sets in a NW direction past Duncansby Head and the main body of the current sets through the Outer Sound. To the W of Pentland Skerries, the N part of the main current branches N and passes between Swona and South Ronaldsay. It then sets W and passes N of Swona to join the current setting S out of Scapa Flow. These combined currents then set SW between Swona and South Walls and merge into the main W current setting through the Outer Sound. The S part of the main W current separates at the island of Stroma. It partly sets through the Outer Sound and partly sets S of the island through the Inner Sound. This latter branch sets NW out of the Inner Sound and then W through the W part of the firth. There is little current at the sides of the channel and both currents begin 3 hours later than in mid-channel. This situation is probably due to the existence of countercurrents.

Tide rips.—In Pentland Firth there are two areas where tide rips occur during both the E and W currents, two areas where they occur during the E current only, and one area where they occur during the W current.

The Bore of Duncansby and the Swilkie occur during both the E and W tidal currents; the West Bore of Huna and the Swona Flood Eddy Race occur during the E current; and The Merry Men of Mey occurs during the W current.

The Bore of Duncansby, a tide rip and overfall, is caused by the current running over the foul ground which extends NW from Duncansby Ness. It begins 5 hours 30 minutes before HW at Stromness, while the W current is still running, and extends toward Pentland Skerries. When the E current begins at about 3 hours 15 minutes before HW at Stromness, the area of broken water gradually shifts around to the NW. At about 30 minutes before HW at Stromness, when the E current is strongest, this rip extends beyond the outer extremity of the foul



Currents in Pentland Firth

ground.

The Swilkie, a tide rip, occurs off Swilkie Point, the N extremity of Stroma. It is caused by the countercurrents running along the E or W side of the island and meeting with the main current setting through the Outer Sound. Rips and whirlpools, which are very heavy when strong winds oppose the main current, are formed. The Swilkie is present at all times except near slack water.

The West Bore of Huna, a tide rip, occurs when the E current is deflected by the island of Stroma through the Inner Sound and toward Huna Ness. It is dangerous during E and SE gales.

The Swona Flood Eddy Race, an area of broken water, is raised when the general E current passing N of Swona turns SE and meets the N countercurrent setting along the E side of the island. The rips and whirlpools in this area extend SE from North Head, the N extremity of Swona.

The Merry Men of Mey, a tide rip, extends entirely across the W end of Pentland Firth during the strength of the W current. It begins about 2 hours 15 minutes after HW at Stromness and when the current begins to set W through the Inner Sound. During the first hour of the W current, this tide rip extends W from the Men of Mey Rocks toward Dunnet Head. As the strength of the current increases, the rip gradually trends NW toward Tor Ness, on the opposite and N side of the firth. At the maximum strength of the current, the rip extends clear across the W end of the firth. Even in fine weather, this tidal rip creates an area of heavy and broken sea. During the last 2 hours of the main W current through the firth, the rip becomes detached from the Men of Mey Rocks, leaving a passage between the rocks and the broken sea. During W gales or swells and when the current is strongest, a terrific and violent turbulence is created across the firth. This violent tide rip forms a natural breakwater across the firth and vessels of sufficient power can safely navigate to the E of it in comparatively smooth water. However, the W current setting out of the Outer Sound can be very strong, with rates in excess of 10 knots, and vessels should take care to avoid being swept into the area of the rip.

Countercurrents.—During strong tidal currents, a countercurrent is set up behind nearly every salient point as the main current sets past.

In the following descriptions, the term “eddy” is often synonymous with the term “countercurrent.”

In Pentland Firth there are seven principal eddies or countercurrents during the E tidal current.

The Brough Bay Eddy is formed by the E current setting past Dunnet Head. It sets N along the land extending between Brough Bay and Dunnet Head during all but about the first 30 minutes of the E current.

The Gills Bay Eddy occurs in Gills Bay and is caused by the E current setting past St. John’s Point. It sets N between Gills Bay and St. John’s Point for about the last 3 hours of the E tidal current.

The Stroma Flood Eddy, which actually consists of two countercurrents, extends up to 1 mile E from the E side of Stroma. Part of the main current sets around the N and S ends of the island and circles around toward the E side. These countercurrents then follow the coast and rejoin the main current off each end.

The Swona Flood Eddy extends up to about 2 miles SE from the E side of the island of Swona. It is similar to the Stroma

Flood Eddy.

The island of Switha lies NE of Cantick Head, the SE extremity of South Walls, and is separated from it by Cantick Sound. The current flowing S out of this sound forces the main E tidal current running along the S side of South Walls away from the land and then sets toward Brims Ness as The Switha Eddy, a countercurrent. The current flowing out of Cantick Sound begins at about HW at Stromness and the countercurrent extends up to about 0.8 mile offshore.

The Liddel Eddy, a countercurrent, flows along the S coast of South Ronaldsay. It is caused by the main E current being forced away from the land by the current setting S along the E side of South Ronaldsay. The latter current begins about 2 hours before HW at Stromness, and as it increases in force, it pushes the main E current offshore and sets W toward Lother Rock. This countercurrent increases in size until about 30 minutes before HW at Stromness when it occupies about half the area between South Ronaldsay and Muckle Skerry. At about 1 hour 30 minutes after HW at Stromness and near the end of the main tidal current period there is only a very narrow band of E current running close N of Muckle Skerry.

The Pentland Skerries Flood Eddy, a NW countercurrent, forms on the SE side of Pentland Skerries and may extend up to 3 miles SE from Little Skerry and Clettack Skerry. It seldom attains a rate exceeding 1.5 knots.

In Pentland Firth, there are four principal eddies or countercurrents during the W tidal current, as follows:

1. The Pentland Skerries Ebb Eddy forms small countercurrents or eddies to the W of Muckle Skerry and to the NW of Little Skerry and Clettack Skerry.
2. Lother Rock Eddy, a countercurrent, forms W of Lother Rock. The main W current curves around this rock and toward the W side of South Ronaldsay.
3. The Swona Ebb Eddy, a countercurrent, is similar to the Swona Flood Eddy, only it occurs on the W side of the island. During the strength of the main W current, it may extend up to about 3 miles NW from the island.
4. The Stroma Ebb Eddy, a countercurrent, may extend as far as the Merry Men of Mey, about 2.5 miles NW of Stroma, during the strength of the W current. It is similar to the Stroma Flood Eddy.

Pilotage

There are no licensed pilots for Pentland Firth available locally. However, the services of Deep Sea Pilots may be obtained on application to the Forth Pilotage Authority at Leith. Such pilots are normally embarked by prior arrangements in Thurso Bay (58°37’N., 3°30’W.). Since such pilots may have to travel considerable distances to the port of embarkation, ample prior notice should be given to the pilotage agency.

Flotta Marine Terminal Pilot Station (58°46’N., 03°07’W.) is situated in the N part of Pentland Firth.

Regulations

Mariners intending to use Pentland Firth should be aware of very strong tidal currents and sets. Difficulties can be encountered when transiting either with or against the tide and masters should ensure that a close watch is kept at all times on the

course, speed, and position of their vessels.

Masters of laden tankers not bound to or from Flotta and Scapa Flow should not use the Pentland Firth in restricted visibility or adverse weather. At other times, there may be a case for transiting with the tide to reduce the time spent in the Firth, although masters should take into account the general navigation warning above.

Vessels desiring to use the voluntary reporting system should contact Aberdeen Coastguard on VHF channel 16 at least 1 hour prior to their ETA at the entrance of the firth and on final departure from the firth, using the reporting format given in the accompanying table.

Pentland Firth	
Designator	Information Required
ALFA	Name of vessel, call sign, MMSI number, port of registry, and flag.
BRAVO	Day of month (2 figures) and time in hours and minutes (UT/GMT in 4 figures).
CHARLIE *	Latitude (4 figures N or S) and longitude (5 figures E or W).
DELTA *	True bearing (3 figures) and distance in miles (2 figures) from a clearly-identified landmark.
ECHO	True course in degrees (3 figures).
FOXTROT	Speed in knots and tenths of knots (3 figures).
GOLF	Last port of call.
INDIA	Destination.
MIKE	VHF channels monitored.
OSCAR	Deepest draft, in meters and centimeters.
PAPA	Type and quantity of cargo.
QUEBEC	Brief details on damage/deficiency/other limitations.
* Either designator may be used.	

Directions

8.2 Full-powered vessels.—Large vessels, with sufficient power to stem an unfavorable tide, will experience fewer difficulties in navigating Pentland Firth. The main channels, which are wide and deep, are mostly free of off-lying dangers. Frequent position fixing is essential to ensure a safe transit and make the mariner aware of deviation from the planned track.

The Outer Sound, which is marked by aids, is the channel generally used, although the Inner Sound may be used when the tidal currents are unfavorable. At night, vessels should only transit through the Outer Sound.

For vessels approaching the firth from the W, the light shown from Muckle Skerry (Pentland Skerries) bearing about 093° and in range with the light shown from Swilkie Point, at the N

end of the island of Stroma, leads through the W entrance of the firth. When about 2.5 miles W of the N end of Stroma, vessels should adjust course and pass not less than 0.5 mile N of Swilkie Point. After passing Stroma, vessels should gradually bring the light shown from the S end of the island of Swona to bear about 328° astern and in range with the light shown from Cantick Head. This astern alignment leads SSE out of the firth, passing between Duncansby Head and Pentland Skerries. After passing the N end of Stroma, an alternative route leads E out of the firth, between Pentland Skerries and Lother Rock.

For vessels approaching the firth from the SE and proceeding between Pentland Skerries and Duncansby Head, the light shown from Cantick Head and the light shown from the S end of Swona in range and bearing about 328° leads NNW into the firth. When about 3.5 miles SSE of Swona, vessels should adjust course to the W and pass about 1 mile N of Swilkie Point, at the N end of Stroma. They should then proceed out of the firth passing about midway between Tor Point and Dunnet Head.

Vessels approaching the firth from the E or NE may steer W through the channel lying between Pentland Skerries and Lother Rock. They should then adjust course to pass S of Swona and continue W through the Outer Sound out of the firth.

Low-powered vessels.—The term low-powered vessels applies to those vessels capable of a speed of no more than 10 knots. Such vessels are advised to employ a deep sea pilot if they are not familiar with the navigation of the firth or have no local knowledge.

The following directions are given for low-powered vessels which may experience difficulty in navigating the firth:

1. **Vessels approaching the firth from W with the E current and intending to pass through the Inner Sound.**—Vessels should keep Duncansby Head bearing less than 110° and open S of Mell Head, the SW extremity of Stroma. This route, which takes advantage of the current, passes about 1 mile N of St. John's Point. Vessels should then adjust course to stay in mid-channel and pass around the S end of Stroma and then SE out of the firth. Vessels should also keep in mid-channel between Duncansby Head and Pentland Skerries in order to retain the last of the favorable E current.

2. **Vessels approaching the firth from W during the W current, if the sea is not too heavy.**—Vessels should pass N of and as close as conditions allow to Dunnet Head. They should then adjust course and steer to pass about 1 mile off St. John's Point. Vessels that cannot stem the adverse current should keep near to the shore of Brough Bay and within 0.5 mile of the coast until near St. John's Point. Vessels should attempt to arrive off St. John's Point during the last 2 hours of the W tidal current when The Merry Men of Mey tide rip has detached from the Men of Mey Rocks, leaving a wide gap. Having passed St. John's Point, vessels should steer toward Mell Head. When close to this point, they should adjust course and steer around Stroma, keeping to the N side of the sound. Alternately, vessels may steer across the sound and into Gills Bay. They may then proceed along the S side of the sound, but care must be exercised as the mainland shore is fronted by several dangers. By keeping to either side of the Inner Sound, vessels will usually experience slack water or possibly a weak countercurrent while the main W tidal

current is still setting in the center of the channel.

3. **Vessels approaching the firth from E during the E current.**—Vessels should keep close to the coast S of and in the vicinity of Duncansby Head. By doing this, vessels will experience comparatively slack water while the main E tidal current sets SE farther to seaward. When close NE of Duncansby Head, vessels should steer in a W direction with Dunnet Head just open N of St. John's Head and bearing not more than 276° . This route leads N of the coastal dangers and inside Duncansby Race. After passing Ness of Duncansby, vessels should proceed through the sound, keeping to the S side of the passage. Care must be exercised as Duncansby Head and the mainland shore between Ness of Duncansby and Gills Bay are fronted by several dangers.

If the E current is still setting strongly in the vicinity of St. John's Point, vessels may wait in Gills Bay for slack water. However, vessels should pass this point before The Men of Mey tide rip forms, shortly after the beginning of the W tidal current.

4. **Vessels approaching the firth from E during the W current.**—Vessels should steer in a NW direction past Duncansby Head and then adjust course to approach the Inner Sound. They should pass through this passage by keeping in the center of the channel and taking advantage of the favorable current. During the W tidal current, the races off Duncansby Head and Ness of Duncansby are negligible. However, The Merry Men of Mey tide rip is active and vessels should pass St. John's Point during the last 2 hours of the current when it has become detached and a gap has formed.

5. **Vessels approaching the firth from NE.**—Vessels may steer W though the channel lying between Pentland Skerries and Lother Rock.

During the W tidal current, vessels should pass Old Head at a distance of about 0.5 mile. They should then proceed away from the S coast of South Ronaldsay by adjusting course toward Duncansby Head. When Swilkie Point, on the N end of Stroma, is bearing more than 264° , vessels should adjust course to steer in a W direction through the Outer Sound and then continue W out of the firth. Failure to proceed away from the S side of South Ronaldsay incurs the risk of being set onto Lother Rock or Swona by the NW part of the tidal current.

During the E tidal current, vessels should avoid the tide rip which forms close off Old Head and remain in Liddel Eddy, between the latter point and Brough Ness. In this way, vessels will avoid the risk of being set onto Pentland Skerries by the strong SE part of the tidal current which flows between Swona and South Ronaldsay. At the last of the E current, vessels can adjust course and steer through the Outer Sound. However, such vessels must also anticipate the risk of being swept into The Merry Men of Mey tide rip by the strong W current.

Caution

Both eddies and races are formed in several parts of Pentland Firth. At times, some of these eddies are very strong and some of the races are extremely violent. At extreme spring tides, the races may be up to a third greater in strength.

Designated areas to be avoided, the limits of which may best be seen on the chart, lie on the N side of Pentland Firth off the E and W sides of the Orkney Islands. In order to avoid the risk of oil pollution and severe damage to the environment, vessels of more than 5,000 gt carrying oil or other hazardous cargoes in bulk should keep clear of these areas.

Numerous fishing pots, marked by small buoys, may be encountered within 100m of the coasts in the vicinity of the firth.

During bad weather and strong gales, vessels may, rather than transit the firth in unfavorable conditions, find it advantageous to pass through Fair Isle Channel which leads between the Orkney Islands and the Shetland Islands.

Large vessels, maneuvering to embark or disembark pilots, may be encountered in the vicinity of Swona.

The large angles required between the actual heading of vessels and their courses to be made good in order to counteract the strong tidal currents may produce deceptive visual aspects, particularly when vessels are proceeding at slow speeds.

Pentland Firth—South Side

8.3 **Dunnet Head** ($58^\circ 40'N.$, $3^\circ 22'W.$), the N extremity of Britain, is marked by a light and fully described in paragraph 7.14.



Courtesy of Scottish Radianco

Dunnet Head Light



View of Dunnet Head

From Dunnet Head, the coast trends generally SSE for 1.8

miles and then E for 2 miles to form Brough Bay. Except for The Cletts of Brough, two rocky islets lying in the SW corner, this bay is free of offshore dangers. It has depths of 14 to 36m, but the rocky bottom makes anchorage mostly unsuitable.

Scarfskerry Point is located 3.3 miles ESE of Dunnet Head. It is double-headed, 9m high, and forms the E entrance point of Brough Bay. The coast extending between this point and St. John's Point is fringed by a reef which extends up to 300m offshore. Mey Bay, a small and shallow bight, lies about midway between these points.

St. John's Point (58°40'N., 3°11'W.) is located about midway between Dunnet Head and Duncansby Head, the NE extremity of Scotland. It is rugged and 15m high. Mey Hill, a prominent hill, is 72m high and rises close S of this point.

The Men of Mey Rocks, a group of partly drying and above-water rocks, is located close N of St. John's Point. The outermost rock of this group lies 0.2 mile offshore.

A shoal bank, with depths of 11 to 18m, lies about 1.6 miles NW of St. John's Point. Another bank, with depths of 24 to 36m, lies about 2.5 miles NNW of the point.

8.4 Gills Bay (58°39'N., 3°09'W.), lying 1.5 miles SE of St. John's Point, is entered between Crees Head and Ness of Quoys, 1.4 miles ESE. Temporary anchorage can be taken in this bay during fine weather, but the rocky and sandy bottom provides poor holding ground. A pier, 260m long with depths of about 4m alongside the E side, is used by the ro-ro ferry to St. Margaret's Hope. The pier, which boats can land in almost any weather, extends from the rocky shores at the head of the bay.

The Ness of Huna, a point off which violent turbulence occasionally occurs, is located 1 mile ENE of Ness of Quoys.

Ness of Duncansby (58°39'N., 3°03'W.) is located 1.5 miles E of Ness of Huna. It is low, grassy, and fringed by a reef. The famous John o' Groat's Hotel stands on a mound, about 0.5 mile WSW of this point, and is prominent. A small boat harbor, marked by a light, fronts the shore below the hotel. Foul ground extends up to about 1.2 miles NNW of the point and heavy breaking seas occur at the outer end. Temporary anchorage, during fine weather, can be taken, in a depth of 13m, about 0.3 mile NNE of the hotel. This berth is clear of the strength of the tidal currents, but the holding ground is not good.

Duncansby Head (58°39'N., 3°01'W.) is located 1 mile ESE of Ness of Duncansby. This point, along with the coast extending S of it, is fully described in paragraph 9.2.

Pentland firth—Off-lying Islands

8.5 Stroma (58°41'N., 3°07'W.) lies on the S side of

Pentland Firth. The Inner Sound, 1.5 miles wide, leads between the S side of this island and the mainland of Scotland. The W side of the island consists almost entirely of cliffs which are fringed by below-water and drying rocks. The E side is mostly rocky and flat. Cairn Hill, the summit, is 51m high and rises close NW of Scarton Point, the SE extremity of the island. A conspicuous church is reported to stand near the center of the island.

Stroma Skerries, marked by a beacon, extend up to about 0.2 mile S from Mell Head, the SW extremity of the island. These drying rocks are steep-to on the W side, but shelve on the S and E sides. A small boat harbor lies 0.7 mile E of Mell Head. Vessels can anchor, in a depth of 15m, shells, about 0.2 mile SSW of this harbor. The berth is clear of the main tidal currents, but the countercurrent attains a rate of about 1 knot in this vicinity.

Swilkie Point (58°42'N., 3°07'W.) is the N extremity of Stroma. A light is shown from a prominent tower, 32m high, standing on this point.

It is reported that a stranded wreck lies close off the SW side of Stroma.

Swona (58°45'N., 3°03'W.) lies on the N side of Pentland Firth. The E side of this island is lined by smooth cliffs and is steep-to. The W side is low and fringed with rocks. Detached rocks lie up to 300m seaward off the W and SE sides of the island. Warbister Hill, with a summit 39m high, rises 0.6 mile ENE of Tarf Tail, the SW extremity of the island. Triton Bank, a rocky shoal area, has a least depth of 32m and lies about 1.3 miles NW of North Head, the N extremity of the island.

A light is shown from a column, 6m high, standing on Tarf Tail and another light is shown from a hut with a pillar, 2m high, standing on North Head.

8.6 Pentland Skerries (58°40'N., 2°55'W.) are the group of islets and rocks which lie in the E entrance of Pentland Firth. Channels leading into the firth pass both N and S of this group.

Muckle Skerry (58°41'N., 2°55'W.), the largest and northernmost of the group, is a flat and grassy islet, 18m high. Reefs fringe this islet and Bow, a shallow rock, lies close off its NW side. Pentland Skerries Light is shown from a conspicuous tower, 52m high, standing near the N side of this islet. A lower tower, surmounted by a fog siren, is situated close S of the light.

Little Skerry lies 0.8 mile SSE of Muckle Skerry. This rocky islet is 8m high and rocks extend up to 0.2 mile W from its W end. The channel lying between these islets has depths of 22 to 36m.

Clettack Skerry, a group of above-water rocks, and Loulther Skerry, an above-water rock fringed by sunken rocks, lie about 0.7 mile and 0.5 mile NE, respectively, of Little Skerry. The narrow passages leading between these dangers are foul.



Muckle Skerry



Courtesy of Scottish Radiance

Cantick Head Light

A rocky bank, about 0.5 mile wide, extends 3.5 miles SE from Little Skerry and has general depths of 12 to 22m. Sandy Riddle lies on the bank, about 1 mile SE of Little Skerry. This small shoal area has a least depth of 11m and the sea breaks heavily over it during SE gales.

Vessels awaiting the turn of the tidal currents can safely anchor on Sandy Riddle when the sea is smooth.

Pentland Firth—North Side

8.7 Pentland Firth is bounded to the N by the S shores of the islands of Hoy, South Walls, and South Ronaldsay.

Tor Ness (58°46'N., 3°17'W.), the SW extremity of Hoy, forms the NW entrance point of the firth. It is low, flat, and fringed by drying rocks. Rocks extend up to 0.1 mile SW of this point. A light is shown from a tower, 21m high, standing on this point. Another tower is situated close SE of the light.

The W entrance of Pentland Firth, which is 7 miles wide, lies between Tor Ness and Dunnet Head.

Brims Ness (58°46'N., 3°14'W.) is located at the S end of a peninsula which projects 1 mile SE from the S end of Hoy. This point is low, rugged, and fringed by foul ground. High seas, resulting from the strong tidal currents, may be encountered off this point.

Aith Hope (58°46'N., 3°14'W.), a small inlet, is entered close E of Brims Ness and is open to the SE. It provides inse-

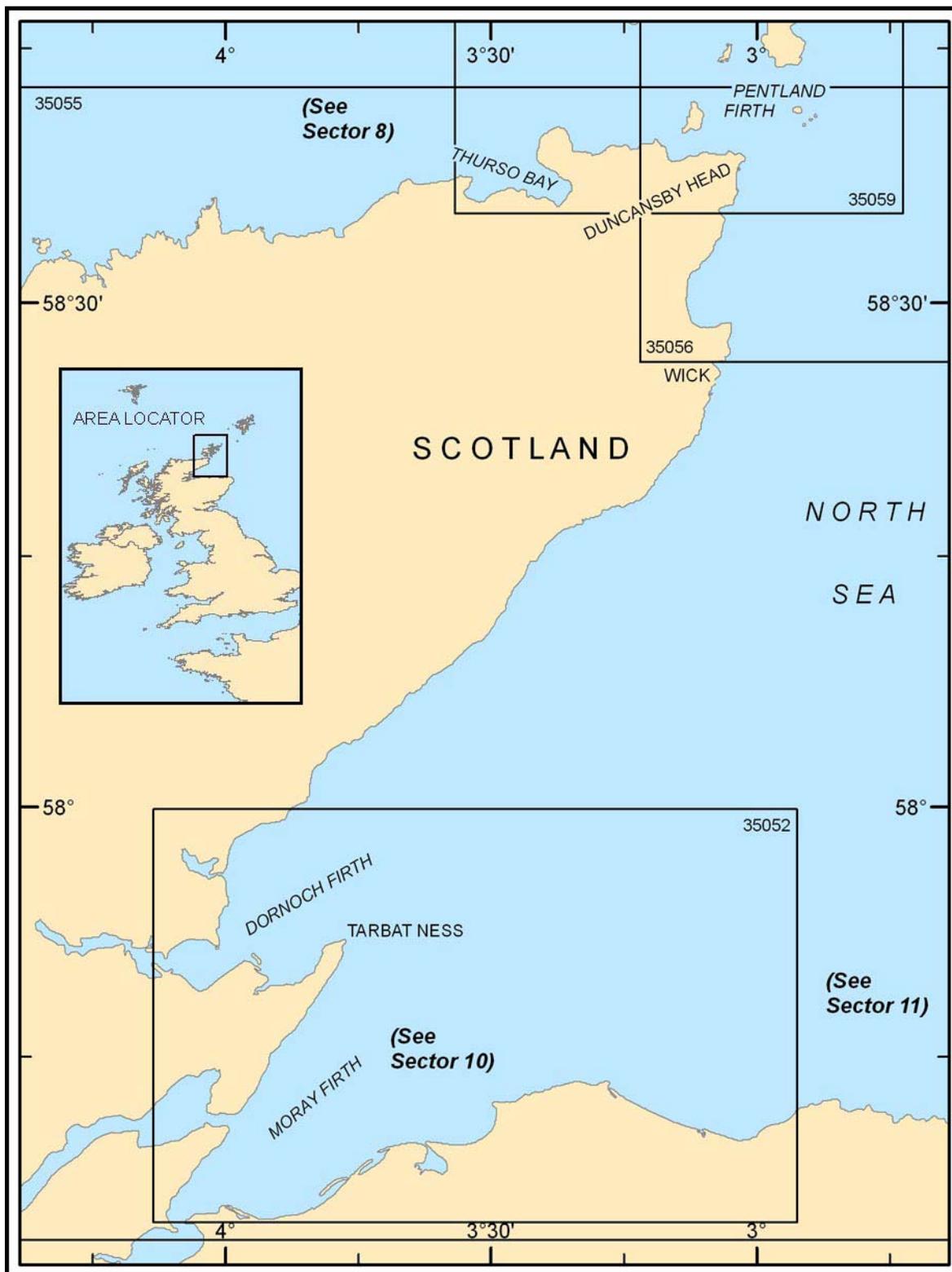
cure and exposed anchorage to small vessels, in depths up to 11m. Long Hope, a mostly shallow and foul inlet, lies between the N side of the island of South Walls and Hoy. A causeway, which separates Aith Hope from Long Hope, connects the W end of South Walls to the S end of Hoy.

8.8 Cantick Head (58°47'N., 3°08'W.) lies at the SE end of South Walls. This steep-sided point is fronted by cliffs, up to 12m high. A light is shown from a prominent tower, with dwellings, standing on the point. A lighted beacon, is situated 0.3 mile N of the light and marks the Ruff of Cantick, a reef, which extends NE from the shore.

The coast extending N of Cantick Head is described with the S approach to Scapa Flow in paragraph 14.64.

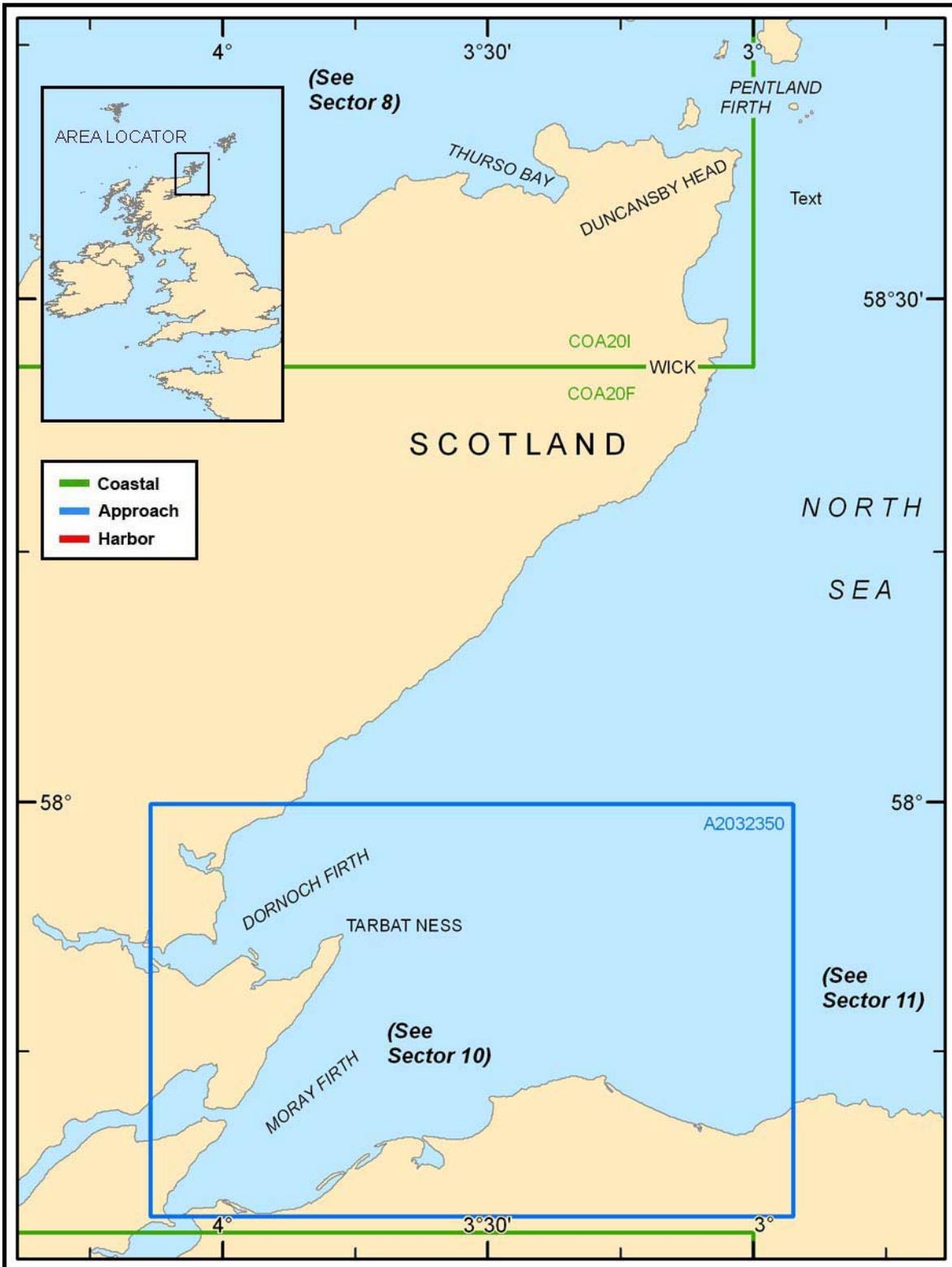
Lother Rock (58°44'N., 2°59'W.), a drying reef, lies 0.5 mile W of Brough Ness, the SW extremity of the island of South Ronaldsay. A lighted beacon, equipped with a racon, is situated near the SW end of this reef.

Between Brough Ness and Old Head, 1.5 miles E, the S coast of the island is fringed with rocks. A disused coastguard lookout building is situated on Brough Ness and is conspicuous. Old Skerries, a reef with several above-water rocks, extends up to about 0.2 mile E from Old Head. The W coast of South Ronaldsay is described with the S approach to Scapa Flow in paragraph 14.64.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 9 — CHART INFORMATION



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SECTOR 9 — DNC LIBRARY INFORMATION

SECTOR 9

EAST COAST—DUNCANSBY HEAD TO TARBAT NESS

Plan.—This sector describes the NE coast of Scotland from Duncansby Head to Tarbat Ness, including Dornoch Firth. The descriptive sequence is from N to S.

General Remarks

9.1 Several bays indent the N part of this stretch of coast and the high, steep cliffs along the shoreline are backed by high hills. Close inland, several of the peaks rise to heights of about 600m. There are only numerous small fishing harbors in this area and no major ports.

Tides—Currents.—A countercurrent sets N along the shores of Freswick Bay, beginning at about 5 hours 45 minutes before HW at Dover. Along the N side of the bay, this countercurrent runs until about 3 hours 15 minutes after HW at Dover.

Along the S side of Sinclairs Bay, the tidal currents set E most of the time.

At a position about 3 miles offshore and to the S of Wick, the S current begins about 5 hours before HW at Dover. The N current begins about 1 hour 15 minutes after HW at Dover. These currents attain rates at springs of 1.8 knots.

At a position about 3 miles ESE of Clyth Ness, the S tidal current begins 4 hours before HW at Dover and the N current begins 2 hours after HW at Dover.

Off Dunbeath Harbor, the S current begins 4 hours before HW at Dover and the N current begins 2 hours after HW at Dover. These currents attain rates of 1 knot at springs.

Off the village of Brora, the N tidal current, which attains a rate of 0.5 to 0.8 knot, begins about 1 hour before HW at Dover and runs for 7 to 8 hours, after which the S current begins. The S current, which attains a rate of 0.5 knot, sets SE and away from the land.

Off Tain Bar, at a position about 3.5 miles W of Tarbat Ness, the SW current begins 5 hours 25 minutes before HW at Dover and the NE current begins 1 hour 20 minutes after HW at Dover. The current, which attains a rate of about 0.5 knot at springs, is more or less rotary, clockwise, with the SW current changing gradually from S to W and the NW current changing from about N to E.

Off Dornoch Point, the W current attains a rate of 1 knot and the E current attains a rate of 1.5 knots at springs.

Off Ard na Cailc, the W current begins 3 hours 30 minutes before HW at Dover and the E current begins 2 hours 15 minutes after HW at Dover. There is practically no period of slack water. The W current attains a rate of 2 knots and the E current attains a rate of 2.5 knots.

In the inner part of Dornoch Firth, the W current runs for only about 3 hours, continuing until the tide has fallen by about 0.6m, after which the E current begins and runs for 9 hours. At half ebb, the current attains a rate of 5 to 6 knots.

Caution.—Submarines exercise frequently, both surfaced and dived, in areas off this stretch of coast.

Several oil and gas fields, with production platforms and submarine pipelines, have been established off the coast and

may best be seen on the chart.

Duncansby Head to Dornoch Firth

9.2 Duncansby Head (58°39'N., 3°01'W.), a steep-sided promontory, is the NE extremity of Scotland. It is 62m high and fringed by several detached rocks. A light, shown from a prominent tower, 11m high, stands on the point. A racon is situated at the light. A radio mast stands close SSW of the light.

Skirza Head (58°36'N., 3°02'W.) is located 3 miles S of Duncansby Head. The coast between consists of sheer cliffs and is fronted by several detached pinnacles of rock standing on drying ledges which extend up to about 200m seaward. The Stack of Duncansby, the largest and highest of these detached pinnacles, stands 1 mile S of Duncansby Head and can be seen protruding over the land. Skirza Head consists of a sheer cliff, 30m high, with numerous caves penetrating its base.

Freswick Bay (58°35'N., 3°04'W.) is entered between Skirza Head and Ness Head, 1 mile SSW. Ness Head is fronted by several shallow rocks and the ruins of a castle are situated near the cliff edge, 0.5 mile S of it. A prominent building stands near the head and a small pier is situated on the N shore of the bay. Coasters can obtain anchorage, in a depth of 6m, sand, about 0.2 mile SSW of the pier. However, local knowledge is advised as a dangerous wreck lies in the entrance of the bay.

Sinclairs Bay (58°30'N., 3°05'W.) lies between Brough Head, located 2 miles SSW of Ness Head, and Noss Head, 4.5 miles SSE. It has no off-lying dangers. The W shore is low and sandy, but the N and S shores are steep and rocky. Keiss Harbor and Ackergill Harbor, both fishing boat harbors, lie on the NW side and in the SW corner, respectively, of the bay. A conspicuous water tower, 20m high, stands on rising ground, 1.4 miles WNW of Brough Head.

9.3 Noss Head (58°29'N., 3°03'W.), the S entrance point, is a bold headland. It has a sheer, dark, and steep-to face, 37m high. A light is shown from a prominent tower, 18m high, standing on the point. Several prominent radio masts stand close W of the light.

Keiss Castle, a modern building, stands 4 miles NNW of Noss Head. It is situated behind the ruins of an ancient castle and is prominent from seaward. Ackergill Tower, a gray building, stands 2 miles W of Noss Head and resembles a castle.

During good weather, vessels can anchor, as convenient, in Sinclairs Bay, but it is not safe in unsettled conditions. With winds from between SW and SE, the best anchorage, in a depth of 16m, is about 1.2 miles WNW of Noss Head.

Staxigoe (58°27'N., 3°03'W.), a prominent village, stands at the head of a small inlet, 1.5 miles S of Noss Head. A dangerous wreck lies about 0.6 mile ESE of this inlet.

Caution.—Due to the existence of submarine cables, a prohibited anchorage area lies within Sinclairs Bay and may best be seen on the chart. Anchorage is prohibited in the SW part of the bay and within 0.7 mile of the S shore.

**Duncansby Head Light***Courtesy of Scottish Radiance***Noss Head Light and Grinogoe Castle Ruins***Courtesy of Scottish Radiance*

9.4 Wick (58°26'N., 3°05'W.) (World Port Index No. 32380), an important fishing center, lies at the head of Wick Bay and consists of two harbors, River Harbor and Main Harbor, which are protected by stone piers. The bay is entered between North Head and South Head, 0.7 mile SSW. It is steep-sided and fringed on both sides with rock ledges.

Winds—Weather.—The bay is very exposed and winds

from between NE and SSW can build up heavy seas. Occasionally, even though W winds or calms are being experienced at Wick, a heavy swell from the effects of E winds in the North Sea can be experienced in the entrance of the bay. During periods of severe frost, with little or no wind, a heavy E swell can also be experienced.

Tides—Currents.—The tides rise about 2.8m at springs and



Ackergill Tower

1.4m at neaps.

There is usually little or no current experienced in the bay, but the tidal currents set strongly parallel to the coast near the entrance.

Depths—Limitations.—The bay has a general depth of 16m. The remains of an old breakwater, marked by a beacon, lie on a partially-drying spit that extends up to 300m NE from the S shore of the bay, midway between South Head and the harbors.

Main Harbor has an entrance, 18.3m wide, and is divided by a jetty into two basins. This harbor provides 1,370m of quayage and is mostly used by fishing vessels. Most areas of the Inner Harbor and Outer Harbor are dredged to 1.8 to 2.3m. The harbor authority should be contacted for most recent depth and allowable draft information. Small vessels of up to 83m in length and 4.9m draft can be handled alongside.

River Harbor, lying NE of the N pier of Main Harbor, has an entrance, 36.5m wide, and has been developed into an oil and gas facility service base. A berth, 137m long, has depths alongside of 5.1m. An approach channel, 40m wide and 300m long, has a least depth of 4.0m. Depths in the harbor in the central and S parts are dredged and range from 0.3 to 4.8m.

Aspect.—A coastguard lookout and signal station tower, 6m high, stands on South Head and is conspicuous. Another tower, a memorial tower, stands among houses on top of the cliffs, 0.4 mile W of North Head.

A prominent light tower, 11m high, stands on the head of the S pier at Main Harbor and a tall chimney stands near the root. The prominent tank of an ice-making plant, 18m high, stands near the outer end of the jetty which projects into Main Harbor. Two framework floodlight towers, each 32m high, stand on the N pier of Main Harbor and are conspicuous.

A directional light is shown from a metal column, 7m high, standing on the N end of a bridge at the head of River Harbor.

Pilotage.—Pilotage is compulsory for vessels over 90 gt, except fishing vessels and yachts. Vessels should send an ETA at least 2 hours in advance. Pilots usually board about 0.5 mile NE of South Head.

Contact Information.—The port can be contacted, as follows:

1. VHF: VHF channels 14 and 16

2. Telephone: 44-1955-602030
3. Facsimile: 44-1955-605936
4. Web site: <http://www.wickharbour.co.uk>

Anchorage.—Good anchorage can be taken in Wick Bay, over a bottom of sand, with winds from SSW through N to NE. However, with winds from other directions, anchorage may be unsafe or untenable.

Caution.—Numerous small fishing boats, fishing with hand lines, may be encountered in the vicinity of Wick Bay.

During strong E gales, seas often roll over both harbor piers and a considerable scend is experienced in the basins.

As the storm parapet on the S pier of Main Harbor obscures the view of the approach to the entrance, vessels should give the head of this pier a wide berth.

An area of foul ground, on which there is unexploded ordnance, is reported to lie on the N side of the bay.

Several dangerous wrecks lie in the approaches to Wick Bay and may best be seen on the chart.

Wick Harbor may be closed to traffic. When the harbor is closed, a black ball by day and a green light by night, will be displayed from the South Head. No vessel may enter River Harbor without permission.

9.5 The coast extending between the S entrance point of Wick Bay and Clyth Ness, 9 miles SW, is mainly dark with rugged cliffs rising in places to heights of 45m. The shore is deeply indented by narrow gullies and closely fringed with detached masses of rock.

Sarclat Haven (58°22'N., 3°06'W.), a small cove, lies on the N side of Sarclat Head. Ruined breakwaters extend from the sides of this cove and form a small fishing boat harbor. The entrance is only 11m wide and is open to the heavy swell that sets in from the E. A dangerous wreck is reported to lie close off the entrance to the cove. A village stands on the high ground above the harbor.

Wester Whale Geo, a small unprotected cove and fishing station, lies 2.5 miles SW of Sarclat Head.

9.6 Clyth Ness (58°19'N., 3°13'W.), a broad and rounded headland, is backed by hills, which rise to heights of 160m, and is fringed by a detached and partly-drying rock ledge. A disused lighthouse stands on this point.

A conspicuous radio mast, 229m high, stands on the slope of a hill, 5 miles WNW of Clyth Ness. An aeronautical light is shown from this mast; a group of masts stands on the summit of a hill, 0.7 mile SSW of it.

The coast extending between Clyth Ness and Dornoch Firth, 27 miles SW, is mostly cliffy with several small boat harbors.

Lybster Harbor lies on the NE side of a small inlet, 2.6 miles WSW of Clyth Ness. This fishing boat station is formed by a small basin and is protected by breakwaters.

Achastle Shore and Forse Cove, two small fishing stations, lie 0.8 mile SW of Lybster Harbor and are separated by a point which is surmounted by the ruins of a castle and a tower, 9m high. Fishing boats are landed on the gravel beaches at these two places.

Latheronwheel, a small fishing boat basin, lies 1.7 miles SW of Forse Cove. It is situated at the mouth of a stream and is enclosed by a pier.



Courtesy of Scottish Radiance

Clyth Ness Light

Dunbeath Bay (58°15'N., 3°25'W.), fringed by rocks, is entered 2.1 miles SW of Latheronwheel. A small fishing harbor, protected by breakwaters, lies at the mouth of a stream on the N side of the bay. A very prominent castle, 21m high, is situated 0.8 mile SW of the harbor. The coast extending NE of this bay consists of cliffs, 6 to 20m high.

Caution.—Anchorage is prohibited in the vicinity of a submarine cable which extends SE from Dunbeath Bay to offshore Beatrice Oil Field.

9.7 Berriedale Ness (58°10'N., 3°31'W.), located 4.5 miles SW of Dunbeath Bay, is backed by a hill, 195m high. Bodach an Uird (The Needle), a pinnacle rock, lies close offshore, 0.3 mile NE of this point. It is 61m high, but cannot be distinguished except from close inshore.

The Paps of Caithness, a ridge of bold peaks, rises 4 miles NW of Berriedale Ness and are composed of white quartz. Scaraben, the summit of the E end of the ridge, is 624m high. Its prominent crest appears from seaward as three distinct peaks of nearly equal height. At times, these peaks appear to be covered with snow. Morven, a mountain, rises 3 miles W of Scaraben. It is 704m high and appears from all directions as a sharp peak.

The coast extending between Berriedale Ness and Helmsdale, 6 miles SW, consists of sheer cliffs divided by deep ravines. The cliffs in the vicinity of the former point are 120 to 150m high and are composed of red sandstone variegated by white streaks and patches. The cliffs nearer to Helmsdale are lower and are mostly composed of granite. This stretch of coast is closely backed by a prominent range of hills known as the Ord of Caithness. The hills rise to heights of over 390m and the summit of the range is surmounted by a conspicuous radio mast.

9.8 Beatrice Oil Field (58°08'N., 3°03'W.), with three production platforms and two wind turbines, lies centered 14 miles E of Berriedale Ness. A submarine power cable extends NW from the field to the shore and a submarine pipeline extends SW from the field to a bay lying on the W side of Moray Firth (58°00'N., 3°00'W.).

Jacky Oil Field lies E of Beatrice Oil Field and is connected to it by pipelines. An offshore wind farm is under development E of Jacky Oil Field.

Helmsdale (58°07'N., 3°39'W.), lying at the mouth of a river, is an important fishing harbor. It is enclosed by a ruined breakwater and a pier. The village is situated on the NE side of the river which is spanned by a prominent road bridge. A conspicuous radio mast stands on the summit of a hill, 2 miles NNE of the village.

An old harbor basin lies above the bridge and is no longer used. A new harbor basin lies at the mouth of the river. It is protected by piers and has an entrance, 17m wide. A bar consisting of boulders and stones, over which the sea breaks during gales from between E and S, extends across the approach, about 100m seaward of the entrance. Fishing vessels of up to 16.5m in length and 3.5m draft can be handled.

Between Helmsdale and Brora Point, 8.7 miles SW, the coast is generally low and a wide sandy beach fronts the S part of this stretch.

Approaches to Dornoch Firth

9.9 The approach to Dornoch Firth lies between Brora Point and Tarbat Ness, 8.7 miles SSE. The firth itself is entered between Dornoch Point and White Ness.

Brora Point (58°01'N., 3°51'W.) is located 8.7 miles SW of Helmsdale and is surmounted by a prominent group of radio

masts. The village of Brora is situated near the mouth of a river, close N of the point. A tall chimney stands on the N bank of the river, 0.3 mile above the mouth.

Lech Robie, a rocky ledge, extends up to about 0.3 mile SE from the point and dries up to 2.7m. Foul ground extends up to 200m seaward of this ledge.

Ben Horn, a conspicuous summit, is 518m high and rises 5.5 miles WNW of Brora Point.

Dunrobin Castle stands on a ridge above the shore, 3.5 miles WSW of Brora Point. It is a conspicuous large turreted building backed by hills.

The village of Golspie, with a conspicuous church spire, is situated 1 mile WSW of Dunrobin Castle. The coast between is backed by cultivated land. This village is fronted by a short and shallow pier which has a tall chimney standing near its root. A bank, with a depth of less than 2m, lies about 0.3 mile seaward of the pier and the sea breaks heavily over it during strong NE winds.

A monument, consisting of a large statue of the first Duke of Sutherland, stands 1 mile NW of the village. It surmounts the summit of Ben a Bhragie, a flat-topped mountain, which is 380m high.

Silver Rock, 260m high and prominent, rises 1.2 miles SW of the monument. This peak is steep-sided with a rounded top. A hospital and a school building, both prominent, are situated at the SW side of Golspie, 0.7 mile SE of the monument.

9.10 Ferry Point (57°56'N., 4°00'W.) is located 2.5 miles SSW of Golspie, at the S end of a low peninsula. It is marked by a beacon and forms the N entrance point of the channel leading into Loch Fleet.

Loch Fleet (57°57'N., 4°03'W.), the estuary of the Fleet River, is a saltwater lagoon which is connected to the sea by Little Ferry, a narrow entrance channel. The loch mostly dries and extends 2.5 miles WNW from Ferry Point to an embankment which carries a road. Sluice gates, situated in the embankment, at the NW end of the loch, control the flow of water from the river. A shifting bar, with a depth of 0.6m, fronts the narrow entrance. Within this bar, there are depths of 1.2 to 3.7m in the fairway. A partly derelict village is situated 0.4 mile W of Ferry Point. Overhead cables, with a vertical clearance of 19m, span the entrance channel close E of the village.

Embo Point, fronted by a small and shallow stone pier, is located 1.9 miles SSE of Ferry Point. The village of Embo is situated 0.5 mile NNW of the point and a conspicuous house, with a white front, stands among trees 0.5 mile SW of it.

Dornoch Point (57°51'N., 4°00'W.), the N entrance point of the firth, is located 4.5 miles S of Ferry Point. The coast between is low and sandy. The point is the S extremity of a flat peninsula, 4m high, which consists of sand and grass and is subject to changes in shape. An airstrip is situated close inland of the point and the small town of Dornoch, with a prominent hotel and cathedral spire, stands 1 mile NNW of it. An area of drying quicksands, known as Gizzen Briggs, extends up to about 1.7 miles E of the point.

9.11 Tarbat Ness (57°52'N., 3°46'W.), a low and red sandstone point, is located at the NE end of a promontory which projects 4 miles NE from the coast. A light is shown from a conspicuous tower, 41m high, standing 0.2 mile SW of the ex-



Courtesy of Scottish Radianc
Tarbat Ness Light

tremity of the point. A racon is situated at the light. A prominent radio tower stands 1.5 miles SSW of the light.

Tarbat Ledge, with depths of less than 8m, extends up to about 0.7 mile NE of the point. Culloden Rock, with a depth of 1.6m, lies on this ledge, about 0.2 mile NE of the point. Vessels are advised to give this point a wide berth and should keep in depths of not less than 22m.

Portmahomack (57°50'N., 3°50'W.), a village, stands along the shore of a small bay, 2.5 miles SSW of Tarbat Ness. The coast between mostly consists of pebble ridges fringed by rocks. This village has two churches and is fronted by a small boat harbor which dries and is protected by an L-shaped pier. Local knowledge is required as foul ground and shallow rocks encumber the approach.

Inver Bay (57°49'N., 3°54'W.), small and filled by drying sand banks, lies 2.5 miles WSW of Portmahomack. A narrow

and tortuous channel leads through the sandbanks to a small fishing village situated at the head of the bay. It is only used by boats with local knowledge.

White Ness (57°51'N., 3°57'W.), a low and sandy point, is the N extremity of a tract of marshes and sand dunes called Morrich More. It forms the S entrance point of Dornoch Firth. Whiteness Sands, an area of drying quicksands, extend up to 1 mile seaward in the vicinity of this point and the shoreline is not easily discernible.

Caution.—A firing and bombing range is situated on Morrich More and extends seaward into the approaches to the firth. A light is occasionally shown from a mast standing on Morrich More in connection with this range. Target floats may be moored in the approaches to the firth.

Salmon fishing is carried out from the middle of February to late August along the W side of the Tarbat Ness promontory; the nets may extend a considerable distance from the shore.

Dornoch Firth

9.12 The firth is entered between Dornoch Point and White Ness, 1.8 miles ESE, and extends 15 miles inland. It is encumbered, especially near the entrance, with numerous shifting sandbanks and is spanned by a road bridge, 3.2 miles WSW of Dornoch Point.

Shallow banks, which extend E from Gizzen Briggs and NE from Whiteness Sands, merge about 3 miles E of Dornoch Point and form Tain Bar. This bar fronts the entrance channel

which leads through the drying banks. It is reported to have a least depth of 1.2m, but is subject to frequent changes. Vessels may anchor, in depths of 6 to 7m, mud and sand with fair holding ground, about 0.8 mile ESE of Dornoch Point. This berth is sheltered from NE swells by Gizzen Briggs.

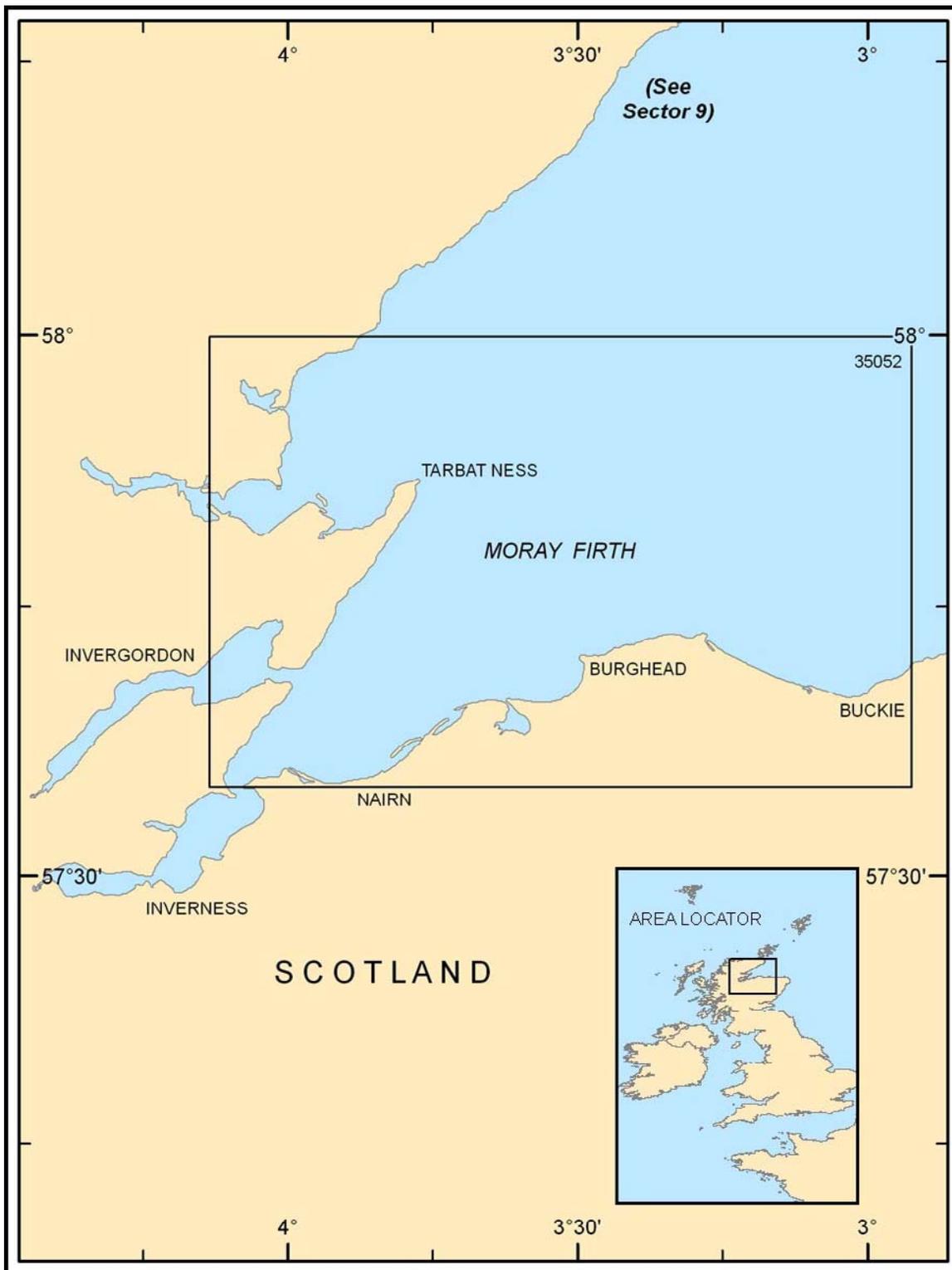
During E gales, the sea is reported to break over Tain Bar, Gizzen Briggs, and Whiteness Sands.

Between the entrance and the road bridge, the firth opens out on both sides. A bight indenting the N shore lies between Dornoch Point and Ard na Cailc, 3.2 miles WSW, and is completely filled with Cuthill Sands and Dornoch Sands, both of which dry. Another bight indenting the S side of the firth lies between White Ness and Ardjachie Point, 4.2 miles W, and is completely filled by Tain Sands, a drying bank.

The small town of Tain is situated at the head of the S bight, 2 miles SE of Ardjachie Point. There is a conspicuous church tower standing in the center of Tain, but the town, which is situated on a slope, merges into the background and is not prominent from the firth. The conspicuous chimney of a large distillery stands 1 mile SE of Ardjachie Point.

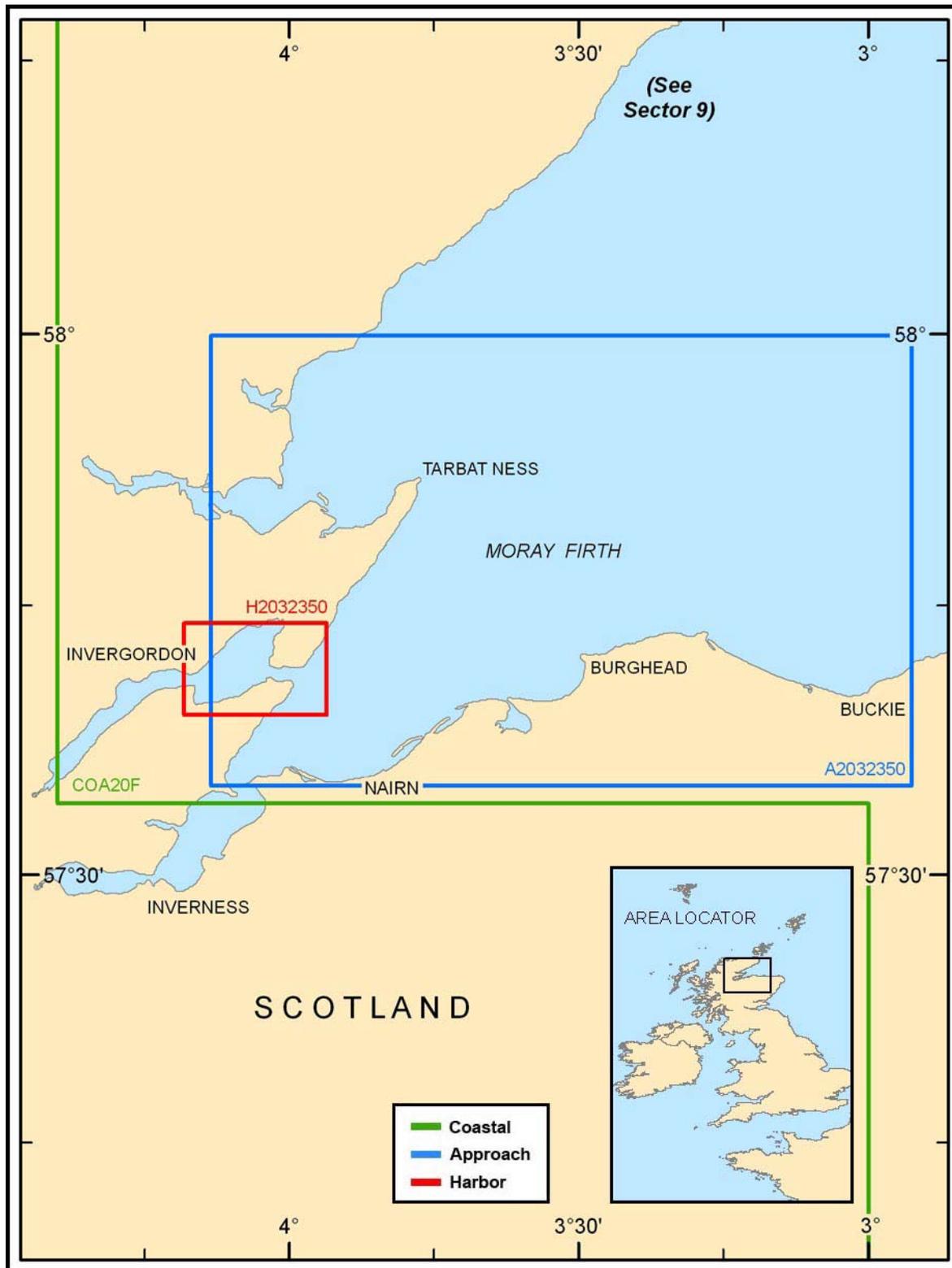
The road bridge, with three spans, crosses the firth close W of Ardjachie Point and has a vertical clearance of 10m. To the W of the bridge, the firth continues inland in a general WNW direction for about 10 miles.

The firth can be entered by small vessels with light drafts. Local knowledge is essential, but licensed pilots are not available.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 10 — CHART INFORMATION



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SECTOR 10 — DNC LIBRARY INFORMATION

SECTOR 10

EAST COAST—MORAY FIRTH—TARBAT NESS TO BURGHEAD

Plan.—This sector describes the area lying between Tarbat Ness and Burghead. Cromarty Firth, Inverness Firth, and the Caledonian Canal are also included. The descriptive sequence is from N to S.

General Remarks

10.1 The approaches to Cromarty Firth and Inverness Firth lie within the inner part of Moray Firth, which is entered between Tarbat Ness and Burghead.

Tides—Currents.—The currents set very strongly off Duncansby Head, but they are weak in the vicinity of the entrance to Moray Firth (58°00'N., 3°00'W.).

In the SE part of Moray Firth, S of a line extending between a position 20 miles N of Kinnaird Head and a position 5 miles N of Covesea, the tidal currents begin at times which differ by nearly 4 hours from those in the NE part of the firth.

At a position about midway between Duncansby Head and Pentland Skerries, the SE current begins 5 hours before HW at Dover and the NW current begins 1 hour 15 minutes after HW at Dover. These currents both attain rates up to 8 knots at springs.

To the SE of Duncansby Head, the rates of the currents decrease, at first very quickly, but later more slowly. In addition, the times at which the currents begin become gradually later.

In a position about 23 miles SE of Duncansby Head, the SE current begins about 4 hours before HW at Dover and the NW current begins about 2 hours 15 minutes after HW at Dover. Both of these currents attain a rate of 1 knot at springs. The SE current is more or less rotary and changes direction from 140° to 190°.

Farther SE, at a position 20 miles NNW of Kinnaird Head, the SE current begins about 3 hours 15 minutes before HW at Dover and the NW current begins about 3 hours after HW at Dover. Both these currents attain rates of 0.5 knot at springs. The SE current is more or less rotary, counterclockwise, and changes direction irregularly from 170° to 140°.

At a position about 25 miles outside the middle of the entrance to Moray Firth, the S current begins 3 hours before HW at Dover and the N current begins 3 hours 30 minutes after HW at Dover. Both these currents attain rates of 0.8 knot at springs. The S current runs in directions varying from 170° to 190° and the N current runs in directions varying from 330° to 360°.

In the middle of the entrance to the firth, the SE current begins about 3 hours 30 minutes before HW at Dover and the NW current begins about 2 hours 45 minutes after HW at Dover. Both these currents attain rates of 0.8 knot at springs. The SE current probably runs in varying directions between SE and S, and the NW current probably runs in a general NNW direction.

In the middle parts of Moray Firth, the currents are generally weak and their directions variable. The WSW current begins about 5 hours 30 minutes before HW at Dover and the ENE current begins about 1 hour after HW at Dover. Both these currents attain rates of 0.5 knot at springs. The WSW current runs in directions varying from 220° to 290° and the ENE current

runs in directions varying from 045° to 100°.

In the inner part of Moray Firth, at a position about 2 miles E of the entrance to Cromarty Firth, the WSW current begins about 6 hours before HW at Dover and the ENE current begins about 30 minutes after HW at Dover. At springs, the WSW current attains a rate of 0.7 knot and the ENE current attains a rate of 1 knot.

The direction of the tidal current at the head of Moray Firth depends largely on the force and the direction of the wind. During W gales, a strong current sets constantly E between the S shore of the firth and a line 3 or 4 miles offshore. However, in the middle of the inner part of the firth the current turns W shortly after LW and sets strongly in that direction. In ordinary weather, the currents run parallel to the coast, turning at the same times as those off Inverness Firth.

At a position about 0.5 mile offshore in the vicinity of Shandwick and Three Kings, the N current begins about 1 hour after HW at Dover and attains a rate 0.5 knot at springs. This N current slackens 6 hours after HW at Dover and slack water prevails for about 2 hours, after which the S current begins and attains a maximum rate of 0.8 knot. At neaps, the S current is almost imperceptible and the water remains slack from about 5 hours before HW until about 2 hours after HW at Dover.

On the NW side of the inner part of Moray Firth, and S of Tarbat Ness, the SW current begins 5 hours 30 minutes before HW at Dover and the NE current begins about 1 hour after HW at Dover. Generally, slack water lasts for about 30 minutes at the end of the NE current, but there is little or none at the end of the SW current. Except at or near springs, the NE current is stronger than the SW current and when S winds prevail, the latter current is imperceptible. In general, the rates of the currents at springs are less than 1 knot. The turn of the currents, duration of slack water, and the rates of the currents are considerably affected by the wind and weather conditions.

In the entrance of Cromarty Firth and up to the vicinity of Invergordon, the W current usually begins about 5 hours 15 minutes before HW at Invergordon, but the time may vary considerably. The E current begins between 15 minutes before and 30 minutes after HW at Invergordon, depending on the wind and the weather. Both currents attain rates of about 1.5 knots at springs, except abreast of Cromarty where rates of 2.5 knots have been observed.

Close W of the outer extremity of the shoals extending SW from North Sutor, the flood current sets SW, diagonally across the entrance of the firth, and the ebb current sets E. Both these currents attain rates of 1.5 knots.

Off Invergordon, the E current may attain a rate of 2.5 knots and a dangerous and variable eddy may be encountered in this vicinity.

At Invergordon, the time of the turn of the tidal current varies considerably with the amount of fresh water flowing into the head of the firth. When the snow is melting in April, an E surface current may exist during the flood tide.

In the inner part of Inverness Firth, both the duration and rate of the E current are increased during freshets and after periods

of heavy rain. The W current is correspondingly reduced. Under such circumstances, the E current setting off Craigton Point may attain a rate up to 6 knots at springs. Heavy tide rips may be encountered in the channel between Kessock and Inverness.

Caution.—Submarines exercise frequently inside Moray Firth and in the approaches.

During the fishing season, from the middle of February to late August, salmon nets may extend up to 0.3 mile from the shores of Moray Firth.

Marine farms and their associated moorings have been established along the shores of Moray Firth. These farms are usually marked by buoys or beacons.

Numerous fishing vessels may be encountered in the waters described within this sector.

Special Area of Conservation.—An area W of a line between Helmsdale (paragraph 9.8) and Lossiemouth (paragraph 11.3), including Beaully Firth (paragraph 10.9), Dornoch Firth (paragraph 9.12) and Cromarty Firth (paragraph 10.4), host a vulnerable population of bottlenose dolphins and has been designated a Special Area of Conservation (SAC) within the European Community Habitats Directive. Mariners are advised to proceed at a safe constant speed through the area and to avoid disturbance to the dolphins. A management scheme is in place to protect the Bottlenose Dolphins and sand banks. A locally-approved code of conduct can be obtained from port or harbor authorities.

Moray Firth—North Side

10.2 Tarbat Ness (57°52'N., 3°46'W.), marked by a light, is fully described in paragraph 9.11.

Between Tarbat Ness and the entrance to Cromarty Firth, 13 miles SSW, the N coast of the firth is generally formed by steep cliffs, 25 to 90m high, and fringed by rocks. A break occurs in the cliffs in the vicinity of Shandwick, where the land slopes to the coast and is fringed by a sandy beach, 30 to 60m wide.

Rockfield, a village, stands 3 miles SW of Tarbat Ness and is fronted by a small jetty. Coasters can obtain anchorage, in a depth of 15m, about 0.5 mile E of this village, but the roadstead is exposed and open. The prominent ruined walls of a castle stand on the cliff edge, 0.8 mile NE of the village.

Cadboll Point, located 6.5 miles SSW of Tarbat Ness, is formed by perpendicular cliffs, 46m high. Creag a Chinn Bhig, a rock conspicuous from NE or SW, lies close offshore, 0.5 mile NNE of this point.

Shandwick Bay (57°45'N., 3°55'W.), a small indentation, is entered 1.7 miles SW of Cadboll Point. The village of Balintore is situated in the N part of this bay and is fronted by a small craft harbor. The harbor is protected by a curved breakwater and dries. It provides fair shelter although the sea breaks over the breakwater during E gales. Exposed anchorage can be taken, in a depth of 14m, sand, about 0.5 mile SE of the harbor breakwater, but this berth is untenable with E winds. A conspicuous black silo is reported to stand 1 mile WNW of Balintore.

The village of Shandwick, which is fronted by a white and sandy beach, is situated 0.5 mile SW of Balintore, at the head of the bay.

10.3 Port an Righ (57°44'N., 3°56'W.), located 1 mile SW

of Shandwick Bay, can be identified by a distinct break in the cliffs through which a stream flows into the sea.

Three Kings, a reef, extends up to 0.8 mile E from the shore, close S of Port an Righ, and is marked by a lighted buoy. This reef partly dries and the sea breaks over it when there is a swell.

Guillam Bank (57°42'N., 3°48'W.), with depths of 11.6 to 17.6m, lies 4 miles ESE of Port an Righ and has a bottom composed of stones, gravel, and shells.

Caution.—A spoil ground area, which may best be seen on the chart, lies 3.8 miles E of Port an Righ.

A submarine oil pipeline, which may best be seen on the chart, extends NE from the vicinity of the S part of Shandwick Bay to the Beatrice Oil Field, which is situated 28 miles NE of Tarbat Ness.

Cromarty Firth—Approaches

10.4 Cromarty Firth (57°41'N., 4°00'W.) is the best harbor of refuge along this part of the coast and affords shelter from all winds at all times. It is entered between North Sutor, located 3 miles SW of Port an Righ, and South Sutor, 0.8 mile SSW.

From seaward, the entrance of the firth appears as a distinct break in the line of cliffs and can easily be identified by the two bold and prominent entrance points; North Sutor and South Sutor. In addition, the conspicuous summit of Ben Wyvis, 1,043m high, rises 20 miles W of the entrance.

Tides—Currents.—Tides at Cromarty Firth rise about 3.6m at springs and 1.7m at neaps.

Depths—Limitations.—The entrance channel, leading between North Sutor and South Sutor, has a least depth of 15.1m at LW and a width of 500m. Within the entrance, the firth widens out and, for 6 miles, affords sheltered anchorage, in depths of 9 to 31m.

Aspect.—An outer fairway lighted buoy, equipped with a racon, is moored about 3 miles ESE of South Sutor.

Pilotage.—Pilotage is compulsory within Cromarty firth in the area W of 4°00'W for vessels of 60m in length and over, for vessels over 20m in length with 12 or more passengers, and for vessels over 40m long carrying hazardous, dangerous, or polluting cargo.

Pilots board tankers bound for Nigg Oil Terminal and other deep-draft vessels in position 57°39'36.0"N, 3°53'20.4"W about 1 mile SE of the Fairway Lighted Buoy. Pilots board all other vessels about 1 mile ENE of The Ness.

Inbound vessels requiring a pilot should send their ETA at the pilot boarding position not less than 12 hours prior to arrival, with an update sent 6 hours prior to arrival. Outbound vessels requiring a pilot should send their request not less than 2 hours prior to ETD.

Regulations.—Vessels should send an ETA 24 hours in advance through Cromarty Firth Port Radio. Vessels should then contact the port on VHF channel 11 when about 30 miles from the Fairway Lighted Buoy. Vessels over 20m in length should also call Cromarty Firth Port Radio when passing Buss Bank Buoy, when secure alongside a berth, and when departing a berth.

Vessels under 20m in length are requested to maintain a listening watch on VHF channel 11.

Contact Information.—Cromarty Firth Port Radio can be contacted, as follows:

1. Call sign: Cromarty Firth Port Radio
2. VHF: VHF channels 11 and 16
3. Telephone: 44-1349-852308
4. Facsimile: 44-1349-854172
5. E-mail: shipping@cfpa.co.uk
6. Web site: <http://www.cfpa.co.uk>

Anchorage.—An outer anchorage for tankers lies, in a depth of 21m, sand, about 3.2 miles ESE of South Sutor.

Caution.—Semi-submersible and jack-up oil drilling rigs are liable to be encountered in the vicinity of Cromarty Firth. Anchors, buoys, and small craft may be encountered up to about 900m from moored rigs. Vessels should give such rigs a wide berth and proceed with caution in their vicinity.

Marine farms are situated in several places along the shores in the vicinity of the firth.

During the summer, a ferry operates in the vicinity of the entrance.

Cromarty Firth

10.5 The firth extends inland for 7.5 miles in a W direction and then for another 9 miles in a SW direction to the town of Dingwall, which is situated at the head. Numerous sand banks encumber the inner part of the firth and a conspicuous road bridge, with a vertical clearance of only 2.5m, spans the firth 2 miles below this town. A causeway, 15m wide, extends about 0.7 mile E, across the drying sand banks, from a point on the shore located 4 miles WSW of Invergordon. A berth, which is mostly used for loading submarine pipelines and offshore supplies, is situated at the head of this causeway. It has a depth of 6m alongside and can accommodate vessels of up to 80m in length.

Cromarty Firth is a major base for the fabrication of offshore oil platforms and an oil terminal is situated on its N side. The port of Invergordon lies 5 miles W of the entrance.

10.6 North side.—**North Sutor** (57°42'N., 3°59'W.), the N entrance point, rises to a summit, 150m high, near its E side. From this summit, it slopes gradually W for 1 mile to Majicks Point, which is fronted by a small pier. North Sutor is bold, prominent, and fringed by drying rocks.

Cromarty Bank, with depths of less than 10m, extends up to about 1 mile ESE of the point and is marked by a lighted buoy.

Nigg Energy Park is situated on an area of reclaimed land immediately W of Majicks Point and a prominent tank farm stands close N of it. Several buildings stand in the yard and include three conspicuous fabrication shops, with gantry cranes, and a large warehouse. A graving dock, 366m long and 125m wide, lies at the E side of the yard and is equipped with three conspicuous gantry cranes. The fabrication yard has a depth

alongside (2015) of 12m.

Nigg Oil Terminal (57°42'N., 4°03'W.) consists of a pier which extends 500m SW from the shore at the SW corner of the fabrication yard. A berth at the head of the pier, which is formed by a central island and mooring dolphins, has a depth of 21m alongside. A light is shown from a framework tower, 27m high and floodlit, standing on the central platform. Tankers are limited by the depths in the entrance fairway, but vessels of up to 158,000 dwt, 290m in length, and 17.5m draft have been handled.

Nigg Bay (57°42'N., 4°04'W.) indents the N side of the firth and extends between the oil terminal and the town of Invergordon. Nigg Sands, an extensive bank, almost completely fills this bay. This partially-drying bank is studded with stones and rocks and weeds cover it in places.

10.7 South side.—**South Sutor** (57°41'N., 4°00'W.), the S entrance point, is 139m high and fringed by a reef and numerous detached rocks. Gallow Hill rises 0.7 mile SW of the point. It has a very prominent summit and is 154m high.

Buss Bank, steep-to and rocky, extends up to about 0.2 mile NE of the NE side of South Sutor and is marked by a lighted buoy.

The Ness (57°41'N., 4°02'W.), a low cape, projects N from the coast, 1.5 miles W of the NE end of South Sutor. A disused lighthouse stands near the N end of the cape.

The village of Cromarty stands on the low ground near The Ness and is fronted by a small harbor, most of which dries. This harbor is used by a ferry, fishing vessels, and small craft.

Hugh Miller's Monument, a large statue resembling a minaret, stands on the hillside, 0.3 mile SSE of The Ness, with a church situated close W of it. Both the monument and the spire of the church are very conspicuous and should not be confused.

From The Ness, the S shore of the firth forms a large bight by trending WSW for 4.5 miles and then N for 1 mile to Chapelton Point (Newhall Point). The E part of this bight is known as Cromarty Bay and the W part as Udale Bay. Drying sands completely fill Udale Bay and extend up to 1 mile offshore in places. A shellfish farm area, the limits of which may best be seen on the chart, lies within Udale Bay.

Invergordon (57°41'N., 4°10'W.)

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10.8 The port of Invergordon lies on the N side of the firth, 5 miles W of the entrance. It has extensive commercial facilities and is also a major support base for the offshore oil and gas industry.

Tides—Currents.—Tides at Invergordon rise about 4.4m at springs and 3.5m at neaps.

Invergordon—Berth Information

Berth	Length	Depth	Remarks
Invergordon Service Base			
1	50m	5.5m	—
2, 3, and 4	288m	8.0-14.5m	Semi-submersible rigs and jack ups.

Invergordon—Berth Information			
Berth	Length	Depth	Remarks
Queens Dock	154m	12m	Semi-submersible rigs and jack ups.
Admiralty Pier	290m	—	Cruise ships.
Saltburn			
Saltburn Pier	200m	11.5m	Cruise and grain.
Highland Deephaven Industrial Estate			
Highland Deephaven Industrial Jetty (Evanton)	128m	6.0m	—
Tanker Berths			
Nigg Oil Terminal			
Jetty No.1	315m	21.0m	Crude oil. Can accommodate vessels up to 150,000 dwt with a maximum draft of 6.0m and a maximum beam of 12.5m.
Tanker Jetty STS Operations	—	21.0m	Crude oil. Can accommodate vessels up to 150,000 dwt with a maximum loa of 290m and a maximum draft of 13.0m.

Depths—Limitations.—At the E end of the port, the British Alcan Pier (Saltburn Pier) extends 0.5 mile SE from the shore and has two berths, with mooring dolphins, at its head. The outer berth, 97m long, has a depth of 11.5m alongside; the inner berth, 61m long, has a depth of 5m alongside. Vessels up to 55,000 dwt, 244m in length, and 11m draft can be handled.

Admiralty Pier, a T-shaped jetty with mooring dolphins, projects SSE from the shore, 0.7 mile W of the British Alcan Pier (Saltburn Pier).

Service and Supply Base It can be used for the refit, inspection, or maintenance of oil rigs. In addition, commercial vessels of up to 274m in length and ro-ro ferries of up to 108m in length can be accommodated alongside.

Queens Dock, at the supply base, It is used as a repair facility for oil rigs and diving support vessels. Land reclamation and construction of a new deep-water berth is in progress W of the Queen's Dock with construction scheduled for completion in late 2015. For further berthing information refer to table titled **Invergordon—Berth Information**.

Aspect.—A disused smelting plant, with several large and conspicuous buildings, is situated 0.7 mile NW of the root of the British Alcan Pier (Saltburn Pier). A prominent distillery, with two towers, stands 0.5 mile W of the root of the same pier. Two prominent storage tanks stand in the supply base and a conspicuous spire is situated 0.3 mile N of them.

Regulations.—Vessels are limited to a speed of 8 knots when proceeding in the channel between North Sutor and Nigg Oil Terminal. With this exception, speeds of up to 15 knots are permissible elsewhere.

Anchorage.—Vessels can anchor, in depths of 9 to 30m, fair holding ground, at designated anchorage berths, which may best be seen on the chart, lying between Cromarty and Invergordon.

Caution.—Oil rigs are frequently moored within the port area and must be given a wide berth.

An area of foul ground lies 1 mile ESE of the head of the British Alcan Pier (Saltburn Pier).

A wreck, with a swept depth of 10.9m, lies about 1.5 miles E

of the head of the British Alcan Pier (Saltburn Pier) and is marked by a lighted buoy.

Several mooring buoys are situated adjacent to the fairway and unlighted barges or pontoons, up to 300m in length, may be secured to them.

Inverness Firth—Approaches

10.9 Inverness Firth is entered between Fort George and Chanonry Point, 0.7 mile SW. This inlet extends SW for 7 miles to where the channel narrows to a width of only 0.3 mile, between Craigton Point and the mouth of the River Ness. Beaully Basin extends W for about 6 miles from Craigton Point and is almost completely filled by shallow sandbanks.

Inverness, the principal town in this area, stands on the banks of the River Ness. The entrance to the Caledonian Canal, a waterway connecting the E and W coasts of Scotland, lies 1 mile W of the mouth of this river.

10.10 Northwest side.—From South Sutor, the coast trends SW for 7 miles to Chanonry Point. A wooded ridge backs the shoreline which is formed by dark red, steep cliffs and fringed by rocks.

A conspicuous television mast, 125m high, stands on the ridge, 3.8 miles SW of South Sutor.

Navity Bank (57°38'N., 4°02'W.) extends about 1 mile offshore, 2.4 miles SW of South Sutor. This shoal has a least depth of 2.4m and is marked by a lighted buoy.

Craigolie lies 3.4 miles SW of South Sutor. This rock dries 24m and is the largest of a group extending up to about 0.2 mile from the shore.

Buckle Rock (57°35'N., 4°06'W.), with a depth of 1.5m, lies on the W side of the entrance channel, 2.8 miles SW of Craigolie.

Chanonry Point (57°34'N., 4°05'W.), the W entrance point of the firth, is the SE extremity of Chanonry Ness, a low spit of sand and shingle, which projects 1.2 miles SE from the general shoreline. A light is shown from a prominent tower, 13m high,

standing on the point. A conspicuous water tower is situated 0.2 mile WNW of the light. A conspicuous radio mast, 245m high, stands on a hill, 6 miles WNW of Chanony Point.

10.11 Southeast side.—The coast between Fort George and Burghead, 21 miles ENE, forms the S shore of the approach to Inverness Firth.

Fort George (57°35'N., 4°04'W.), a military depot, stands on the E entrance point of Inverness Firth. This prominent fort is situated on a low gravel spit and a conspicuous water tower, 25m high and resembling a high house, stands 0.8 mile E of it. A helicopter landing site is situated close E of the fort.



Fort George

Craigmea, a steep-to and stony ledge, extends up to about 0.4 mile N of Fort George and has depths of 2 to 4m. White Ness Sand, an extensive sandy flat, fronts the shore and stretches up to 3 miles ENE from Fort George. It dries and extends up to about 0.7 mile seaward in places.

McDermott Base (57°36'N., 4°00'W.), an oil rig fabrication yard, is situated on an area of reclaimed land, 2.5 miles ENE of Fort George. A very large and conspicuous hangar-like building, 37m high, stands at the yard. A narrow channel, dredged to a depth of 2.8m, extends SE from the S side of South Channel to the yard. It is indicated by a directional light and marked by buoys. A quay, 1,100m long, fronts the yard and has dredged depths of 2.8 to 4.8m alongside.

Nairn (57°35'N., 3°51'W.), a resort town, is situated at the W side of the mouth of the Nairn River. Two piers extend N from the river entrance and form a small harbor which is used by pleasure craft. A prominent clock tower, surmounted by a spire, is reported to stand in the town, 0.5 mile SSW of the harbor entrance.

Fearn Head, consisting of a detached group of drying rocks, lies about 0.2 mile offshore, 0.8 miles WNW of Nairn. The sea generally breaks over these rocks with any breeze.

Ord, the conspicuous summit of the Hill of Urchany, is 213m high and stands 3.5 miles S of Nairn.

10.12 The Bar (Old Bar), a series of narrow and shingle ridges, lies with its W end 1.5 miles NE of Nairn. It extends, parallel to the shore, for about 3.5 miles. The ridges are covered by coarse grass in places and are 3 to 7m high. They lie on a sandy flat which nearly dries and fronts the shore between Nairn and the mouth of the River Findhorn.

The ridges are subject to continual changes and the shoreline in this area is not easily distinguished from seaward. The shore in this area is mostly backed by forest with bare and shifting sand hills in places.

Findhorn Bay (57°40'N., 3°37'W.) which mostly dries, is the estuary of the River Findhorn. It is entered through a winding and narrow channel which is unmarked and subject to frequent change. A bar fronts the seaward entrance of this channel and the sea breaks over it even in moderate weather. The village of Findhorn stands on the E bank of the river entrance and a wind generator is situated 1 mile E of it. The small town of Forres is situated 3 miles S of Findhorn and Nelson's Monument stands close E of it.

Burghead Bay lies between the narrow mouth of Findhorn Bay and Burghead, 5 miles ESE, and is fringed by a sandy beach. Low sand hills, backed by wooded slopes, front the shores of this bay.

10.13 Burghead (57°42'N., 3°30'W.), a bluff and rocky promontory, is 24m high and projects 0.5 mile WNW from the coast. It is located 13 miles SE of Tarbat Ness and forms the S entrance point of the inner part of Moray Firth. Rocky ledges front the N and W sides of this promontory; an outfall pipeline extends 0.5 mile NW from it.

A prominent coastguard lookout tower, 24m high, stands on the NW end of the promontory and is surmounted by a flag-staff. A large and conspicuous concrete building is situated 0.4 mile E of this tower. Several very prominent radio masts are situated E of the promontory.

Burghead Harbor (57°42'N., 3°30'W.), formed by two piers, lies on the SW side of the promontory and is mostly used by fishing vessels. There is a least depth of 0.6m in the approach channel, which is subject to frequent changes, and the entrance is only 18.6m wide. The harbor consists of a quayed basin and has depths of 3.7m at HWN and 4.3m at HWS. Coasters of up to 57m in length and 3.5m draft can be handled.

Pilotage is compulsory for vessels over 40 gt. Pilots can be contacted by VHF and generally board about 1 mile N of the entrance.

The port can be contacted, as follows:

1. VHF: VHF channels 12, 14, and 16
2. Telephone: 44-1343-835337
3. Facsimile: 44-1343-835337

Anchorage may be taken, in a depth of 11m, sand, about 1 mile W of the harbor entrance. Several disused submarine cables lie in this vicinity, but are no longer considered to be a hazard.

Strong winds, especially from the NE or E, usually raise a rough sea in the vicinity of the harbor and a scend may be experienced in the basin during winter gales. However, this harbor, because of its sheltered location, may generally be entered when others in the area are closed.

Inverness Firth

10.14 A middle ground bank lies between the shore banks and obstructs the approach to the firth. Channels lead N and S of this bank and into the entrance.

Riff Bank (57°37'N., 4°00'W.), marked by lighted buoys, lies with its S end located 0.7 mile NNE of Fort George. It ex-



The Kessock Road Bridge

tends NE for about 3.5 miles and has depths of 2 to 5m. A narrow ridge, which dries in places, lies on the SW part of this bank and the sea breaks over it with onshore winds.

North Channel (57°38'N., 4°02'W.), the widest and most used passage, leads NW of Riff Bank. The narrowest part of this channel is about 0.6 mile wide and has depths in the fairway of 6.4 to 11.8m.

South Channel (57°37'N., 4°00'W.) leads SE of Riff Bank. The fairway is deep throughout, but narrows to a width of only 160m at its SW end. There is a least depth of 9.7m in South Channel, but the fairway is not marked and should not be used without local knowledge.

Tides—Currents.—In North Channel and in South Channel, the tidal currents set in the general directions of the fairways. Between Fort George and Chanonry Point, the WSW current usually begins 4 hours before HW at Dover and attains a rate of 2.5 knots at springs. The ENE current begins about 1 hour after HW at Dover and attains a rate of 3.2 knots at springs. Off Fortrose, the tidal currents attain rates of about 1 knot at springs, but they are hardly perceptible at neaps.

Caution.—A ferry operates in the entrance to the firth, between Chanonry Point and Fort George.

During the fishing season, from the middle of February to late August, salmon nets may extend up to 0.3 mile from the shores of Inverness Firth.

Marine farms and their associated moorings have been established in places along the shores of Inverness Firth. These farms are usually marked by buoys or beacons.

Inverness Firth—Outer Part

10.15 From Fort George, the S shore of the firth extends 1.5 miles SE to Campbeltown (Ardersier) and then about 8 miles in a general SW direction to the mouth of the River Ness. Between Campbeltown and the river, the coast is backed inland by a hilly ridge which rises gradually to heights of 150m.

This entire stretch of shore is fronted by extensive drying banks which extend up to about 0.6 mile seaward in places and may best be seen on the chart.

Alturlie Point (57°31'N., 4°09'W.), located 4.5 miles SW of Fort George, forms the S side of Alturlie Bay. This open bay lies on the E side of the point and is completely filled by a drying bank of mud and sand. Petty Bank, which partially dries, fronts this bay and is marked by a lighted buoy. A cairn and several conspicuous white houses stand on the point.

An airfield is situated 3.5 miles ENE of Alturlie Point; a conspicuous water tower, with two black tanks, stands near the shore, 0.8 mile W of it.

Longman Point (57°30'N., 4°13'W.) is the N extremity of the alluvial flat which forms the E side of the entrance to the River Ness. A drying bank extends up to 0.3 mile N of the point and is marked by a lighted beacon.

The **Kessock Road Bridge** (57°30'N., 4°13'W.) spans the narrows lying between Longman Point and Craigton Point, 0.5 mile NW. It has a navigable span, 183m wide, with a vertical clearance of 29m. Two conspicuous towers, each 75m high, support the bridge. A daymark, equipped with a racon and illuminated at night, is situated on the bridge and indicates the center of the fairway.

Caution.—A submarine gas pipeline crosses the narrows, close NE of the bridge, and may best be seen on the chart.

10.16 Fortrose (57°35'N., 4°08'W.), a small harbor, lies 1.2 mile WNW of Chanonry Point. It dries and is used by small craft. A ruined cathedral, with a prominent belfry, and a church, with a conspicuous spire, stand in the small town which backs the harbor. Small craft moorings front the shore in the vicinity of this harbor and Craigan Roan, a rocky ledge which dries 1.8m, lies 0.2 mile ESE of the entrance.

Coasters can obtain anchorage, in a depth of 13m, in the middle of the fairway, about 0.3 mile S of the harbor.

The village of Avoch is situated 1.5 miles WSW of Fortrose. It is fronted by a small drying harbor which is used by small craft and protected by a curving breakwater. Drying flats, consisting of sand and gravel, extend up to 0.3 mile offshore in the vicinity of this harbor.

Munlochy Bay (57°33'N., 4°12'W.), entered 1.5 miles SSW of Avoch, extends W for 2 miles. It almost completely dries and is a bird sanctuary. Wood Hill, 117m high, rises near the N entrance point and Craigiehowe, 127m high, rises near the S entrance point.

Craigton Point (57°30'N., 4°14'W.), located 2.8 miles SSW of the entrance to Munlochy Bay, forms the N entrance point of the inner part of Inverness Firth. A light, obscured from the E, is shown from a conspicuous beacon, 6m high, standing on this point. A steep-to and shallow spit extends up to about 150m SSE from this point.

A wooded ridge backs the shore extending between Munlochy Bay and Craighton Point. It culminates in Ord Hill which rises 0.8 mile N of Craighton Point. This hill is conspicuous and has a bare summit, 189m high.

10.17 Skate Bank (57°34'N., 4°07'W.), with depths of less than 5m, occupies almost the entire area of the NW portion of the outer part of Inverness Firth, between Chanonry Point and Munlochy Bay. It has a maximum width of about 1 mile and may best be seen on the chart. The shallowest part of this bank, which is awash, lies near the middle of its SE edge, about 1.2 miles SW of Chanonry Point. A lighted buoy is moored about 1.7 miles SW of Chanonry Point and 0.5 mile S of the shallowest part.

Middle Bank (57°31'N., 4°10'W.), with depths of 1.2 to 3.6m, extends SW from close S of Skate Bank. A narrow channel separates these banks and has depths of 4 to 6.1m. The SE side of Middle Bank merges into Petty Bank and the SW side is separated from Meikle Mee by a narrow passage. A bar, with a depth of less than 1.5m, extends S from Middle Bank to the S shore of the outer part of the firth.

10.18 Meikle Mee (57°30'N., 4°13'W.), a shoal flat, extends 1 mile ENE from Craighton Point to within about 0.2 mile of the SW end of Middle Bank. It has depths of less than 1m and is marked by a lighted buoy at the SE end.

Two channels lead through the outer part of Inverness Firth, one on each side of Skate Bank and Middle Bank. These channels merge in the shallow area lying SE of Meikle Mee. Vessels proceeding W into the inner part of the firth must cross the bar lying S of Meikle Mee.

The NW channel lies between the shorebank and the N sides

of Skate Bank and Middle Bank. It follows the curve of the shore from off Chanonry Point to near the S entrance point of Munlochy Bay and has a least depth of 6.1m in the fairway as far as that point. This channel then leads S and passes between the E edge of Meikle Mee and the W side of Middle Bank. Vessels should pass close E and S of the lighted buoy marking Meikle Mee and then adjust course to pass under the bridge.

The SE channel provides the most direct route to Inverness. It leads SE of Skate Bank and Middle Bank and has a least depth of only 2.4m in the fairway. Vessels should pass close S of the lighted buoy marking Meikle Mee and then adjust course to pass under the bridge.

Both channels merge in the shallow area lying SE of Meikle Mee and the controlling depth over this bar is about 2.5m.

Inverness Forth—Inner Part

10.19 The inner part of the firth lies W of Craighton Point and is entered through Kessock Road. The port of Inverness lies opposite Craighton Point, at the mouth of the River Ness. To the W of Kessock Road, the firth widens to form Beauy Basin. This W extension of the firth is shallow and almost completely filled by drying sands. The Caledonian Canal is entered on the S side of the firth, 1 mile SW of Craighton Point.

Pilotage.—Pilotage is compulsory for vessels over 50m in length proceeding W of the lighted buoy marking Meikle Mee. Pilots can be contacted on VHF channels 12 and 16, and normally board close NE of this lighted buoy. Vessels or their agents should send an ETA, together with all relevant details including air draft, at least 24 hours in advance.

Kessock Road (57°30'N., 4°15'W.) affords sheltered anchorage, in depths of 9 to 35m, good holding ground. However, the tidal currents are strong and may cause turbulent water at times.

Caution.—A spoil ground area and an abandoned submarine cable, which may be seen on the chart, lie in the E part of the roadstead.

10.20 Inverness (57°29'N., 4°14'W.) (World Port Index No. 32330) is the principal town in the N part of Scotland. The port area occupies both banks of the River Ness and extends for about 0.8 mile above the entrance.

Tides—Currents.—Tides rise about 4.8m at springs and 3.7m at neaps.

Depths—Limitations.—The river entrance and fairway, including turning basins, are dredged to a depth of 2.1m.

Longman Quay, 340m long, lies at the E side of the harbor and has a dredged depth of 5.5m alongside. North Longman Quay, located 150m N of Longman Quay, is 150m long, with depths alongside of 5m. South Citadel Quay, 145m long, with depths alongside of 5.5m is located 0.2 mile S of Longman Quay. Thornbush Quay, 156m long, lies at the W side of the harbor and is privately owned.

Vessels of up to 125m in length can be accommodated alongside with drafts up to 6m at springs and 5.3m at neaps. Vessels of up to 93m in length can be handled at the upper harbor berths. The river bed is formed by soft mud and gravel; vessels can safely take the ground at LW.

Aspect.—The edge of the drying flat extending seaward at the E side of the river entrance is marked by lighted beacons.



The River Ness and the Caledonian Canal

A conspicuous castle stands on high ground at the E side of the river, about 1 mile above the mouth. Several prominent bridges span the river above the harbor and several prominent church spires may be seen in the town.

Red obstruction lights, which have been reported to be visible from a considerable distance, are shown from the top of the suspension towers at the Kessock Bridge. Several floodlight towers, 31m high, stand on the E side of the harbor, in the vicinity of the entrance.

Pilotage.—Pilotage is compulsory. For further information, see Inverness Firth—Inner Part in paragraph 10.19. Entry into the harbor is generally restricted to a 2-hour period prior to local HW.

Contact Information.—Inverness Harbour can be contacted, as follows:

1. Telephone: 44-1463-715715
2. Facsimile: 44-1463-715705
3. E-mail: hm@portofinverness.co.uk

Caution.—A submarine pipeline, that may best be seen on the chart, lies across the harbor entrance.

10.21 The Caledonian Canal (56°50'N., 5°07'W.) provides a sheltered passage between the E and W coasts of Scotland for small vessels. This route is 350 miles shorter than that through the Pentland Firth, North Minch, and Little Minch. The canal was constructed and opened in 1822.

The canal, about 50 miles long, extends SW from Clachnaharry, near Inverness, to Corpach, at the N end of Loch Linnhe, which is described in paragraph 2.28. The canal forms about 18 miles of the waterway; the remainder is formed by Loch Doch-

four, Loch Ness, Loch Oich, and Loch Lochy.

The canal has a least depth of 4m with an average surface width of 33.5m and a bottom width of 12m. It is open throughout the year, but the locks are operated only between certain times, dependent on the time of year. In summer, the locks are generally operated between 0800 and 1800 every day. In spring and autumn, locks are open daily between 0830 and 1730. In winter, they are operated between 0900 and 1600, Monday through Friday, but are always closed for a period of 50 minutes between 1200 and 1400 each day.

It is reported that the volume of traffic is now such that at least 2.5 days are normally required to complete a transit of the canal. During the winter and in any adverse weather conditions, additional time should be allowed.

The sea lock at Corpach can handle vessels of up to 45.7m in length, 10.6m beam, and 4.1m draft. All the locks within the waterway are power operated.

Vessels with a draft in excess of 3.8m are advised to contact the canal authority prior to arrival.

The canal is spanned by ten swing bridges. Vessels approaching these bridges must sound a warning blast on their whistle and reduce speed or stop until the bridge has been swung clear of the channel. It should be noted that several of the larger bridges have restricted opening times due to road traffic concerns. In addition, several high-tension electric cables span the waterway and have a minimum vertical clearance of 33m.

Regulations.—A maximum permitted speed of 5 knots is enforced in the canal.

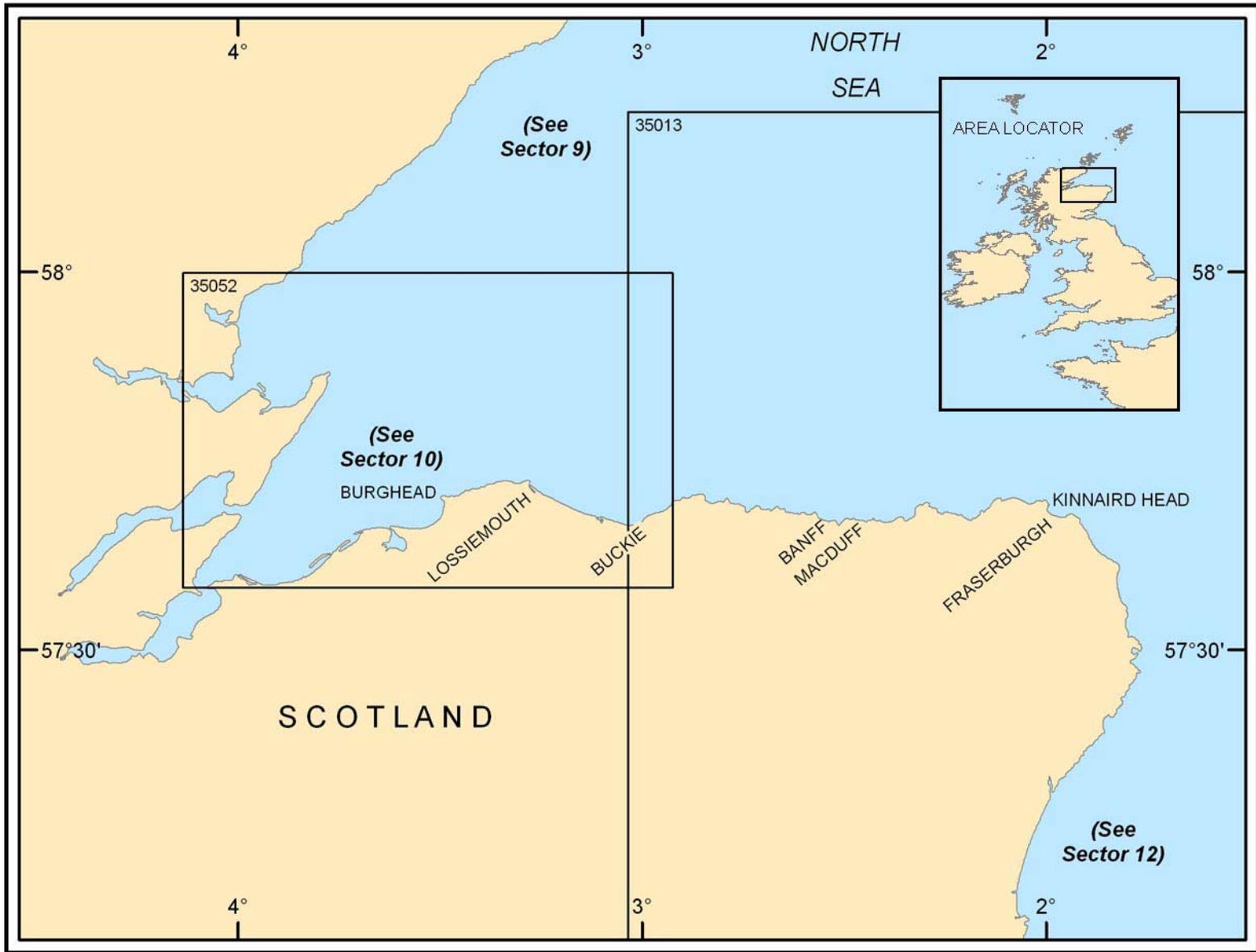
Vessels within or approaching lochs in the canal are requested to turn radars off or to standby mode.

Contact Information.—The Caledonian Canal Authority can be contacted, as follows:

1. VHF: VHF channel 74 (All locks)
 2. Telephone: 44-1463-725500
44-1463-725512 (Clachnaharry Lock)
44-1397-772249 (Corpach Lock)
 3. Facsimile: 44-1463-710942
 4. E-mail: enquiries@scottishcanals.co.uk
- Buoys, posts, beacons, and cairns mark the fairway through

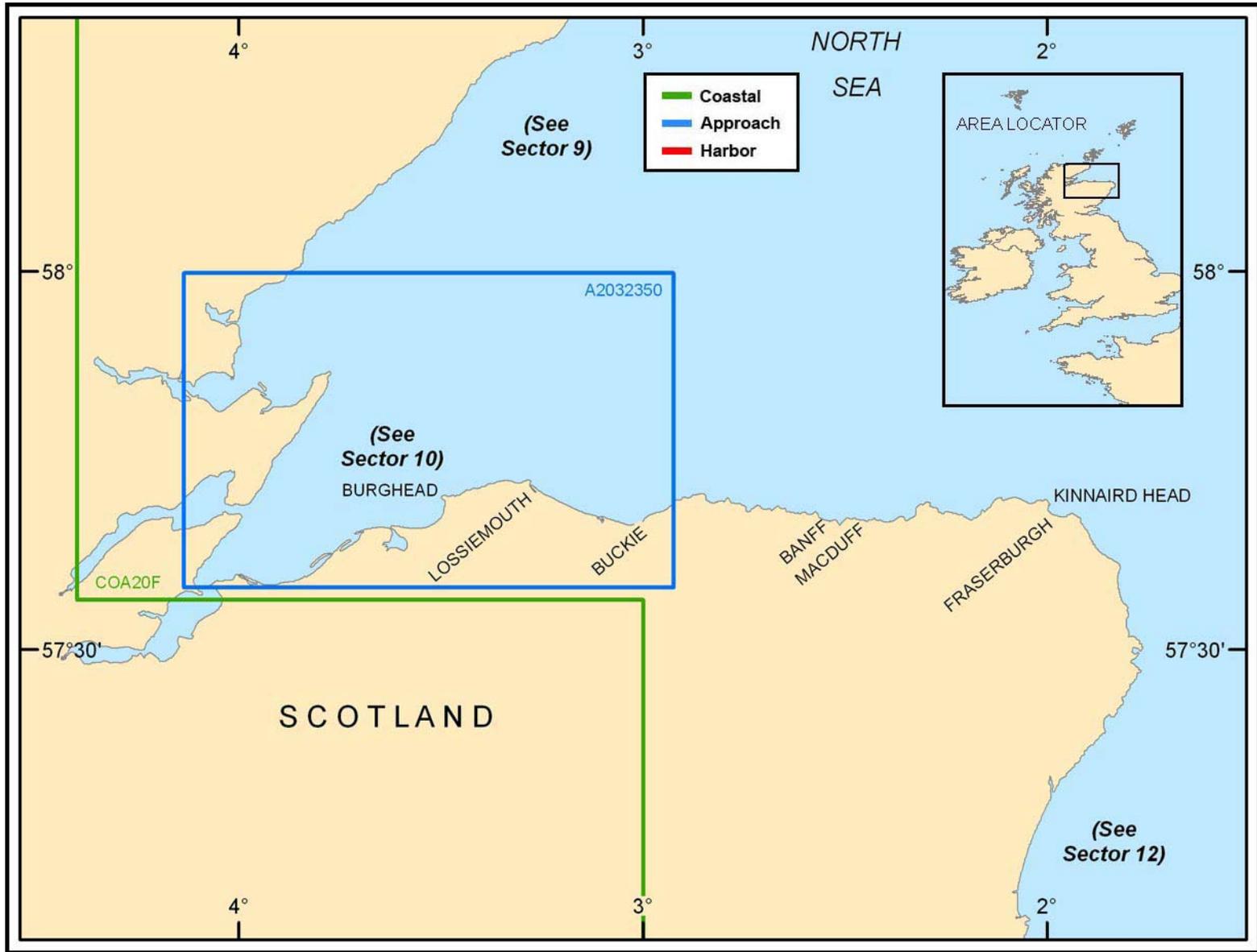
the canal. Bollards are placed at several locations along the canal to assist vessels when warping round the bends. Pilotage is compulsory only at the E end of the canal which lies within the limits of the port of Inverness. Pilotage in the remainder of the canal is not compulsory. However, pilots are available and pilotage is recommended for vessels without local knowledge, especially because of the sharp bends, bridges, and locks. Vessels requiring pilots should make arrangements at least 48 hours in advance.

Several small craft moorings and marinas are situated throughout the canal area.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 11 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.

SECTOR 11 — DNC LIBRARY INFORMATION

SECTOR 11

EAST COAST—MORAY FIRTH—BURGHEAD TO KINNAIRD HEAD

Plan.—The S shore of Moray Firth, between Burghead and Kinnaird Head, is described in this sector. The descriptive sequence is from W to E.

General Remarks

11.1 From Burghead, the S shore of Moray Firth extends almost due E for 48 miles to Kinnaird Head. The E part of this coast is bold and backed by rising hills. The W part is lower with extensive stretches of sandy beach. Several small bays indent the coast, but are exposed to the N and have no protection against N gales. Several rivers empty into the sea along this section of the coast. There are no large ports, but several fishing and pleasure craft centers are situated in the area.

Southern Trench, a submarine valley, lies with its E end located 14.5 miles NE of Kinnaird Head. It extends about 30 miles in a WSW direction, almost parallel to the S part of the outer section of the firth. This valley has depths of over 100m and can give a good indication of the distance offshore during poor visibility.

Tides—Currents.—The currents off this coast and in the outer part of the firth generally differ greatly from those within the firth.

At a position about 20 miles NNW of Kinnaird Head, the SE current begins 3 hours 15 minutes before HW at Dover and the NW current begins 3 hours after HW at Dover. Both these tidal currents attain rates of 0.5 knot at springs.

At a position about 9 miles E of the above position, the current is rather irregular, but begins to set in a W direction 5 hours after HW at Dover. It begins to set in a general E direction 1 hour 15 minutes before HW at Dover. Both these currents attain rates of 0.5 knot at springs.

At a position about 18 miles W of Kinnaird Head, the current is more or less rotary clockwise. The W current changes direction from about 220° to 300° and begins 4 hours 30 minutes after HW at Dover. The E current changes direction from about 050° to 020° and begins 1 hour before HW at Dover. Both these currents attain rates of 0.8 knot at springs.

At a position 4.5 miles N of Covesea Light, the SW current, which sets in a mean direction of 230°, begins 4 hours before HW at Dover. The NE current, which sets in a mean direction of 055°, begins 2 hours after HW at Dover. Both these currents attain rates of 0.5 knot at springs.

Caution.—Submarines exercise frequently, dived and surfaced, in the areas off this stretch of coast.

Numerous fishing vessels may be encountered in the waters described within this sector.

Moray Firth—South Side

11.2 Burghead (57°42'N., 3°30'W.) was previously described in paragraph 10.13. Between Burghead and Covesea Skerries, 5 miles ENE, the coast is fronted by shallow water and foul ground extends up to 0.3 mile offshore in places.

Hopeman (57°43'N., 3°26'W.), a small harbor, lies 2 miles ENE of Burghead and dries. It is enclosed by three piers and has an entrance, facing W, only 17.5m wide. This harbor is mostly used by pleasure craft and entry during heavy weather is quite impracticable. A prominent village stands on the ridge above the harbor.

Neal and Jane, a ridge of drying rocks, lies about 0.2 mile offshore, 1.2 miles ENE of Hopeman.

Between Hopeman and Covesea, the coast consists of sandstone cliffs, up to 49m high, which are indented by numerous caves. Several stone quarries are situated along the face of the cliff.

A conspicuous white lookout tower, 10m high, stands on the top of the cliffs, 0.5 mile W of the village. Several prominent radio masts, each 24m high, stand close S and SW of this tower.

Covesea Skerries (57°44'N., 3°21'W.), a group of rocks, is separated from the coast by a narrow channel. The rocks dry 2m and are rather steep-to on their N and W sides.

Halliman Skerries, another group of rocks, lies about 0.8 mile NE of the light and is separated from Covesea Skerries by a narrow and shallow channel. The rocks dry 0.6m and are marked by a beacon. Local fishermen use the passages leading between these dangers.

11.3 Lossiemouth (57°43'N., 3°17'W.) (World Port Index No. 32300), a small fishing harbor, fronts Stotfield Head, the NE extremity of a promontory. The town of Lossiemouth occupies most of this promontory and two churches, with conspicuous spires, are situated in it.

Tides rise about 4.1m at springs and 3.2m at neaps.

The harbor consists of three basins which have been excavated from the solid rock of the promontory. It is protected by breakwaters and has an entrance only 18.5m wide. There is 610m of quayage, with depths of 1 to 1.3m alongside. Vessels of up to 56m in length and 3.7m draft can enter at HW.

An outfall pipeline, which is buried for most of its length, extends 1 mile NNE from the vicinity of the harbor and is marked by a lighted buoy.

The entrance channel is indicated by a lighted range.

ETA should be advised to the port through the harbormaster 4 hours in advance of expected arrival.

The port can be contacted between 0700 and 1700 as well as one hour before a vessel is expected, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1343-813066
3. Facsimile: 44-1343-813066

Anchorage is available, in a depth of 13m, good holding ground, about 0.7 mile NE of the harbor entrance, but about 0.2 mile E of this berth the bottom is rocky and the holding ground is bad.

Caution.—It is reported that a considerable scend is experienced in the outer harbor basin during E winds.

11.4 Spey Bay (57°42'N., 3°02'W.), a shallow and open bight, lies between Stotfield Head and Scarnose, a rocky headland 14 miles E. The River Lossie flows into the NW side of the bay, 0.2 mile S of the harbor at Lossiemouth. Between this river and the mouth of the Spey River, 6.5 miles ESE, the shore of the bay is fringed by a sandy beach and consists of sandhills, 6 to 15m high. Binn Hill, 66m high, rises 2 miles W of the mouth of the River Spey and is prominent. Several fixed red lights are occasionally shown from a firing range area situated near the shore in the vicinity of Binn Hill.

The River Spey, which is only used by boats, is the most rapidly flowing river in Scotland and one of the most prolific salmon fisheries. Its mouth silts up and changes with the winter floods. The village of Kingston stands on the W side of the mouth and a prominent bridge spans the river 0.7 mile above it.

Port Gordon, a small drying harbor, lies 2.8 miles ESE of the mouth of the River Spey and is only used by small pleasure craft. Whiteash Hill, 262m high, rises 4 miles S of Port Gordon and a conspicuous radio mast, 99m high, stands on its E slope.

11.5 Buckie (57°41'N., 2°58'W.) (World Port Index No. 32290), a small port, lies at the E end of Spey Bay. The harbor consists of five basins and is protected by breakwaters. It is mostly used by fishing vessels and coasters.

Tides—Currents.—Tides rise about 4.1m at springs and 3.2m at neaps.

Depths—Limitations.—The approach to the harbor is obstructed by an extensive reef which lies 0.3 mile offshore. This reef is formed by three detached drying areas. West Muck, lying about 0.2 mile NW of the entrance, dries 2.7m and is marked by a lighted beacon; Middle Muck, lying about 0.3 mile N of the entrance, dries 2.7m; and East Muck, lying about 300m NE of the entrance, dries 2.4m. Foul ground extends up to about 300m N from East Muck. Craigan Roan, which dries 2.3m, lies 1 mile ENE of the harbor and is connected to the shore by drying rocks.

The entrance channel is dredged to a least depth of 3.2m, but is subject to silting. The basins have dredged depths of 2.1 to 5.9m alongside. The harbor entrance faces WNW and is 24.5m wide, but the entrance channel, which passes between the head of a pier and the breakwater, narrows to a width of only 18.2m. Vessels of up to 2,000 dwt, 86m in length, and 4.5m draft can be accommodated at HW.

Aspect.—The twin spires of the church standing in the W part of the town are conspicuous. A prominent group of silos is situated 0.5 mile ESE of the entrance. An ice-making plant, with a conspicuous tower, is situated within the harbor.

Pilotage.—Pilotage is not compulsory, but is available and is recommended for vessels without local knowledge. Pilots can be contacted by VHF on channel 12 and 16 and generally board about 1 mile NW of the harbor entrance. Vessels requiring a pilot should send their ETA 24 hours prior to arrival.

Regulations.—Vessels should contact the harbor authorities 1 hour in advance by VHF in order to obtain the latest tide and traffic information.

Contact Information.—Buckie harbor can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1542-831700
3. Facsimile: 44-1542-834742

Caution.—With offshore winds, vessels sometimes experience a considerable surge within the basins.

A spoil ground area, which may best be seen on the chart, lies 1.5 miles NNE of the harbor entrance.

11.6 Craig Head (57°42'N., 2°55'W.), 61m high, is located 1.5 miles NE of Buckie and surmounted by a prominent obelisk. Between this point and Scarnose, 2.5 miles WSW, the coast consists of rugged cliffs and is fronted by numerous detached rocks which extend up to about 0.3 mile offshore.

Findochty, a small harbor, lies within a cove 0.5 mile E of Craig Head. It has an entrance only 20m wide and is used by pleasure craft.

Portknockie, another small harbor, lies 1.5 miles E of Findochty and is enclosed by piers. In recent years, this harbor has silted up considerably and is reported to be only used by pleasure craft. A church, with a prominent belfry, stands in the resort village which is situated on the slope above the harbor.

Scar Nose (57°42'N., 2°51'W.), the E entrance point of Spey Bay, is a bold and steep-to headland which is fronted by Bow Fiddle, a high detached rock. Bin of Cullen, 318m high, rises 2.5 miles SSW of the headland and is surmounted by a conspicuous cairn. Little Bin, 243m high, rises 0.5 mile E of this peak, from the same base.

Caution.—A measured distance (1,853.2m), which may best be seen on the chart, lies close E of Craig Head and is indicated by two pairs of beacons.

11.7 Cullen Bay (57°42'N., 2°49'W.), a shallow bight, lies between Scarnose and Logie Head, 2 miles ESE. Caple Rock, a steep-to pinnacle, lies about 0.8 mile W of Logie Head and has a least depth of 0.2m. The bay has rocky sides, but its head is sandy.

Cullen (57°42'N., 2°49'W.), a small harbor, lies at the SE side of the bay. It consists of two basins and is protected by two piers. This harbor dries in places and is used by pleasure craft and local fishing boats. Although several detached rocks provide shelter, the harbor is subject to silting and the entrance is hazardous during strong winds from between NW and NE.

The town, which is a small resort, stands on rising ground, S and E of the harbor. A railroad viaduct, which resembles an ancient gateway, is situated close W of the town and is prominent. A conspicuous pavilion, with pillars and a dome, stands close W of the viaduct.

Vessels may anchor, in depths of 9 to 11m, in the outer part of the bay, N of the viaduct.

Logie Head (57°42'N., 2°47'W.) is formed by a sheer cliff, 56m high. Port Long, a cove with a sandy bottom, is entered close W of the point. Knock Hill, 428m high, rises 7 miles S of the point and is prominent.

Crathie Point is located 1 mile ESE of Logie Head; the ruins of a castle stand on the edge of the cliffs, 0.5 mile W of it.

11.8 Sandend Bay (57°41'N., 2°44'W.) lies between Crathie Point and Redhythe Point, 1 mile E. It is free of dangers, but is mostly shallow. A small boat harbor fronts a village which stands on the W side of this bay.

Redhythe Point (57°42'N., 2°43'W.) is rugged and steep-to except on its W side, where it is fringed by rocks. Durn Hill, round-topped and 197m high, stands 2 miles S of the point.

Portsoy (57°41'N., 2°41'W.), a small harbor, lies at the head of a cove which is entered between Redhythe Point and East Head, 1.7 miles E. The harbor consists of two drying basins and is used by pleasure craft and local fishing boats. A rock, with a least depth of 0.7m, obstructs the approach, but does not constitute a danger at HW.

Strathmarchin Bay lies between East Head and Cowhythe Head, 0.8 mile ESE. Cowhythe Hill, 76m high, rises steeply at the head of this bay and is prominent. Several conspicuous lime kilns are situated in the vicinity of Cowhythe Head, which is composed of crystallized limestone, and a ruined castle stands 0.5 mile S of them.

Knock Head (57°41'N., 2°35'W.), a wedge-shaped point, is located 2.5 miles E of Cowhythe Head. Whitestones, a detached reef, lies 0.2 mile N of the point and just dries. A boat passage leads between this reef and the rocks which front the point. Whitehills, a small fishing boat harbor, lies on the W side of the point and is protected by piers.

11.9 Banff Bay (57°40'N., 2°31'W.) is entered 2 miles ESE of Knock Head. Its entrance is 0.8 mile wide and opens to the N. Collie Rocks, a group of detached drying rocks, lies about 0.2 mile N of the E entrance point. This group of rocks is separated from the mainland by a narrow channel which can be used by boats with local knowledge. Hill of Alvah, 217m high, rises 2.5 miles SSW of the head of the bay and is surmounted by a prominent radio mast. The River Deveron flows into the head of the bay, which dries, and brings down large quantities of silt. It is spanned by a prominent arched road bridge, close within the mouth. Anchorage can be taken, in a depth of 12m, off the entrance to the bay.

Macduff (57°40'N., 2°30'W.), a small harbor, lies at the E side of Banff Bay and consists of three basins. It is protected by a pier and has an entrance only 12.5m wide. There are depths of about 3.4m in the approach to the harbor. There is 494m of quayage with depths of 2.8 to 3.4m alongside. The harbor is used by fishing vessels and coasters. Vessels of up to 61m in length, 11.3m beam, and 4m draft can be accommodated.

A light is shown from a prominent tower, 11m high, standing on the head of the pier, at the NE side of the entrance. The entrance fairway is indicated by a lighted range, with the front light being marked by a red triangular daymark; the rear light stands 225m behind and is similarly marked. A conspicuous war memorial tower, 24m high, stands in the middle of the town, 0.2 mile SSE of the light. The Temple of Venus is situated 0.5 mile SSW of the harbor entrance on the Hill of Doune.

Pilotage is not compulsory, but is available and recommended for vessels without local knowledge. Pilots should be requested 24 hours in advance and can be contacted on VHF channels 12 and 16. Pilots usually board about 0.5 mile NW of the entrance.

The port can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 44-1261-832236
3. Facsimile: 44-1261-833612

Gamrie Bay (57°41'N., 2°20'W.), lying 5 miles E of Banff Bay, is entered between More Head and Grovie Head, 1.3 miles NE. More Head, formed by a dark cliff, is 140m high and is fronted by drying rocks which extend up to about 300m offshore. The shores of the bay are also encumbered by numerous detached rocks, some of which dry.

The village of Gardenstown stands at the foot of a steep slope at the head of the bay. It is fronted by a small harbor which is enclosed by piers. This harbor is partially protected by Craig Dagerty, a ridge of rock, which is 7m high and lies close NW of the entrance. The harbor dries and is used by pleasure craft and local fishing boats.

11.10 Troup Head (57°42'N., 2°17'W.), located 1 mile NE of Grovie Head, is the E extremity of a line of cliffs. This prominent headland is 110m high and conspicuous from seaward. A house stands among the trees, 1 mile S of the point. It is situated on high ground and is prominent from the N and E.

During offshore winds, violent gusts sweep down off the near perpendicular cliffs in this vicinity.

Pennan Bay is entered 1.4 miles SE of Troup Head and a village is situated on its S side at the bottom of the steep cliffs. This village is fronted by two small piers which are used by local fishing boats. The approach to the bay is encumbered by several rocks and entry should not be attempted without local knowledge.

Windyheads Hill, 229m high, rises 3.2 miles SE of Troup Head; its summit is surmounted by several radio masts.

Strahangles Point is located 1 mile ESE of Pennan Bay. The coast between consists of purple cliffs, up to 120m high, and is fronted in places by rocky drying ledges.

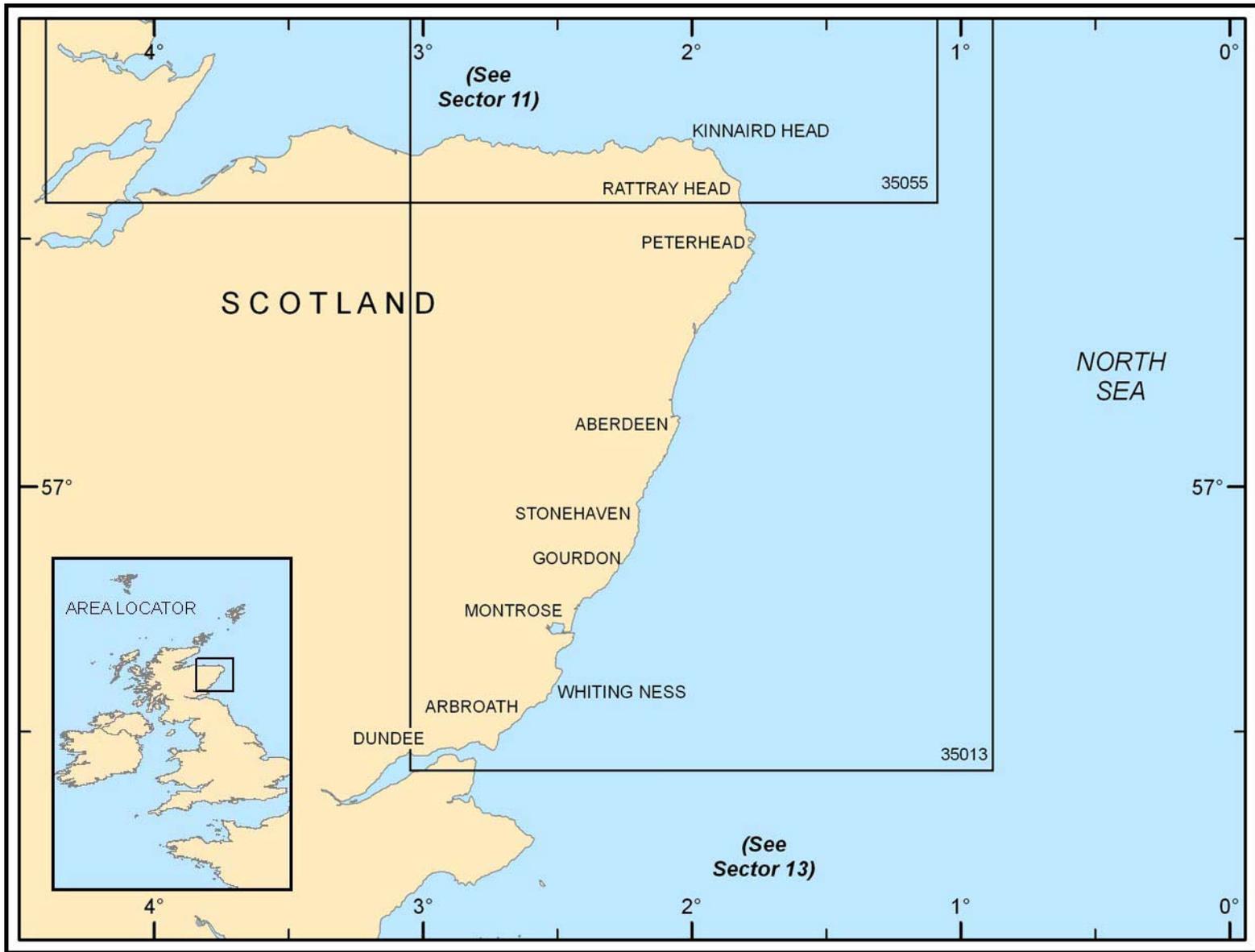
Aberdour Bay (57°40'N., 2°11'W.) lies between Strahangles Point and Quarry Head, 1.7 miles E. A deep ravine, located at the head of this bay, divides the cliffs and forms a distinct notch in the outline of the land. In the vicinity of the ruins of Dundarg Castle, which are situated 1 mile SW of Quarry Head, the nature of the cliffs changes from red sandstone to blue mica slate and they gradually decrease in height toward the E.

11.11 Roseheart (57°42'N., 2°07'W.), a village, stands on a prominent headland, 1.7 miles NE of Quarry Head. This village is fronted by a small harbor which is protected by a pier and only used by pleasure craft. A wide space among the rocks, which is protected by a pier, lies close SE of the harbor. This space, which is known as Port Rae, dries and is used as a shelter for local fishing boats. The approaches are encumbered by rocks and both places should not be entered without local knowledge.

A prominent radio mast, 61m high, and a tower stand 0.5 mile S of Roseheart.

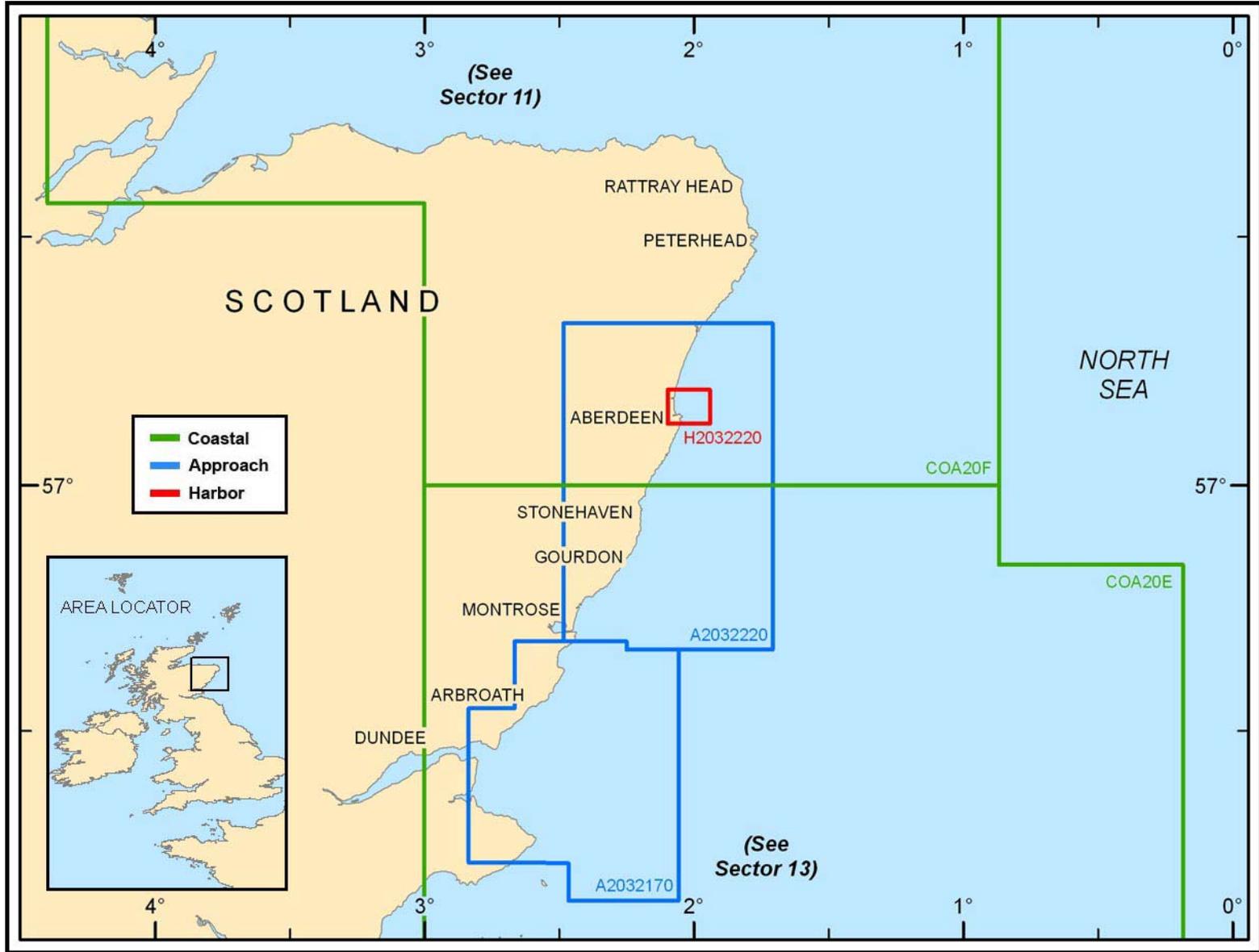
Sandhaven, a small drying harbor, lies 1.7 miles E of Roseheart and is used by pleasure craft. A conspicuous chimney stands 1 mile E of this harbor and 0.8 mile W of Kinnaird Head.

Kinnaird Head (57°42'N., 2°00'W.), the SE entrance point of Moray Firth, is fully described in paragraph 12.4.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 12 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.
SECTOR 12 — DNC LIBRARY INFORMATION

SECTOR 12

EAST COAST—KINNAIRD HEAD TO WHITING NESS

Plan.—The E coast of Scotland from Kinnaird Head to Whiting Ness is described in this sector. The descriptive sequence is from N to S.

General Remarks

12.1 From Kinnaird Head, the coast extends 10 miles in a general SE direction to Peterhead and then SSW for 62 miles to Whiting Ness. It generally consists of rocky cliffs fringed by drying reefs, although there are some sandy stretches in places. Several rivers empty into the sea along this section of shore.

Tides—Currents.—The offshore currents between Kinnaird Head and Whiting Ness set fairly strongly and attain rates of 2 knots at springs off Rattray Head. They decrease in strength to the S. The times at which these offshore currents begin change fairly regularly.

In the vicinity of Rattray Head there is little or no difference between the times at which the currents begin near the land or offshore. However, farther S the difference is considerable, up to 1 hour 30 minutes off Scurdie Ness.

The E current from the S part of Moray Firth sets gradually SE and S round Rattray Head and joins the S offshore current. Similarly, the N offshore current divides and, while one branch trends NW and W into Moray Firth, the other branch continues N. From off Rattray Head, the currents run S and N, parallel to the coast.

At a position 5 miles NE of Rattray Head, the NW current begins 4 hours after HW at Dover and the SE current begins 2 hours 15 minutes before HW at Dover. These currents attain rates at springs of 1.5 to 2 knots.

At a position 4.5 miles SE of The Skares, the SSW current begins 2 hours before HW at Dover. It sets in a mean direction of 210° and attains a rate of 1.8 knots at springs. The NNE current begins 4 hours after HW at Dover. It sets in a mean direction of 025° and attains a rate of 1.7 knots at springs.

At a position 5.8 miles SE of Findon Ness, the S current begins 1 hour 15 minutes before HW at Dover. It sets in a mean direction of 185° and attains a rate of 1.5 knots at springs. The N current begins 5 hours after HW at Dover. It sets in a mean direction of 010° and attains a rate of 1.5 knots at springs.

At a position 9 miles E of Scurdie Ness, the S current begins 45 minutes before HW at Dover. It sets in a mean direction of 190° and attains a rate of 1.2 knots at springs. The N current begins 5 hours 30 minutes before HW at Dover. It sets in a mean direction of 010° and attains a rate of 1.3 knots at springs.

The current at the above four locations is nearly rectilinear, but changes from setting S to setting N though W and from setting N to setting S through E.

At a position about 5 miles E of Peterhead, the N tidal current begins about 4 hours after HW at Dover and the S tidal current begins about 2 hours 30 minutes before HW at Dover. These currents attain a maximum rate of 2.5 knots at springs.

In the area between Buchan Ness and Aberdeen Bay, the N

tidal current begins 5 hours after HW at Invergordon and the S tidal current begins 2 hours before HW at Invergordon. The current, which is rotary, sets in a NNE direction and a SSW direction and attains a maximum rate of 1.8 knots at springs.

Off Aberdeen Bay, the tidal currents attain rates of 1 to 2 knots. The S current begins 2 hours 30 minutes before HW at Dover and the N current begins 3 hours 30 minutes after HW at Dover. The maximum rate of these currents observed at the anchorage in the bay was 1 knot.

The tidal current sets across the entrance to the harbor at Aberdeen. During heavy freshets from the River Dee, the current sets strongly out of the harbor and continues even near to the time of HW.

At Stonehaven Bay, the tidal currents are weak and do not attain rates exceeding 1 knot.

At Montrose, the main obstacle in entering the harbor is the strength of the tidal currents. In the entrance, the W current or flood begins 3 hours before HW at Dover and the E current or ebb begins 3 hours 15 minutes after HW at Dover. Both of these currents are very strong and sometimes attain rates of up to 7 knots. The W current is strongest on the S side of the channel, but it does not attain any considerable strength during the first hour. The E current is strongest on the N side of the channel and sets strongly from its beginning to about 30 minutes before it ends. During this ebb current, the waters off the harbor entrance are turbulent and often dangerous for small craft.

When Annat Bank is dry, the currents set strongly through the whole length of the channel. However, when the bank is covered, they spread out and set across it, becoming weaker in the outer part of the channel. When the snow is melting, and during periods of heavy rain, both the duration and the rate of the ebb current are increased and the flood correspondingly reduced.

Caution.—Submarines frequently exercise in the waters off the stretch of this coast.

Seismic and other survey vessels may be encountered in the waters off and along the stretch of this coast.

Drilling rigs and production platforms associated with oil and gas development are usually encountered in the waters off this stretch of the coast.

Numerous fishing vessels may be encountered in the waters described within this sector.

Off-lying Banks and Dangers

12.2 Long Forties (57°15'N., 0°00'W.), with general depths of 55 to 92m, extends 120 miles NE from the Firth of Forth. Several abrupt deeps lie on the E edge of this bank; Devils Hole, the deepest, has a depth of 238m and lies about 105 miles E of Whiting Ness.

Buchan Deep (57°30'N., 1°15'W.), lying between 12 and 20 miles E of Buchan Ness, extends NNE and has depths of 93 to 119m.

Scalp (56°36'N., 2°00'W.), formed by a group of shoal

patches, lies about 17 miles E of Red Head and has a least depth of 31m. Several other shoal patches, with similar depths, lie up to about 5 miles S and 8 miles W of this group.

Offshore Oil Fields and Gas Fields

12.3 There are a large number of oil fields, gas fields, and combination oil and gas fields in the North Sea. A network of submarine pipelines and cables connect the fields. All the gas extracted from the fields E and NE of Aberdeen is pumped through the pipelines to the Saint Fergus Gas Terminal on the shores of Rattray Bay. Other oil fields not connected to the shore stations pump oil directly into tankers through single point moorings (SPM) or into a floating storage facility situated in the vicinity of the fields. Fields utilizing Single Well Oil Production System (SWOPS), where a well head on the sea bed is serviced by a dynamically positioned tanker, self-propelled drillship, directly above a well head, are few in number. When oil recovery over a well head is in progress, it is lit as an offshore installation and a radius of 500m is claimed as safety zone for protection.

Some developing fields are marked by buoys and others are not, however they may be designated as such on the chart.

Caution.—Production platforms and associated structures, including tanker moorings, storage tankers and platforms on pipelines generally exhibit Mo (U) lights, aircraft obstructions lights, and sound signals. Unauthorized navigation is prohibited within 500m of all structures, including storage tankers that can swing around the moorings. Tankers maneuvering in the vicinity of platforms are to be given a wide berth.

North Sea oil fields and gas fields are served mainly by the following ports on the E and NE part of Scotland:

1. Peterhead (57°30'N., 1°47'W.)—see paragraph 12.9.
2. Aberdeen (57°09'N., 2°04'W.)—see paragraph 12.13.
3. Montrose (56°28'N., 2°57'W.)—see paragraph 12.21.
4. Dundee (57°30'N., 2°04'W.)—see paragraph 13.7.

In the approaches to these ports, heavy traffic is usually encountered by various types of craft; particularly, North Sea support vessels, ferries, and helicopters; they are mostly engaged in carrying personnel, supplies, and machinery parts between ports, rigs, and platforms.

Oil fields and gas fields located E and NE of Scotland are listed in the accompanying table.

For oil fields and gas fields situated N and E of these fields, see Pub. 182, Sailing Directions (Enroute) North and West Coasts of Norway.

Offshore Oil Fields and Gas Fields

Name	Location	Remarks
Alba Oil Field	58°03'N, 1°02'E	—
Andrew Oil Field	58°03'N, 1°24'E	—
Arbroath Oil Field	57°23'N, 1°23'E	—
Armada Gas Field	57°52'N, 1°50'E	—
Auk Oil Field	56°24'N, 2°04'E	Lies about 140 miles ESE of Aberdeen. A combined drilling and production platform stands in this field; the top of the derrick attains a height of 90m and is conspicuous.
Balmoral Oil Field	58°14'N, 1°06'E	Lies 32 miles N of Forties Oil Field. A production platform is situated in the center of this field.
Britannia Gas Field	58°03'N, 1°08'E	—
Banff Oil Field	57°00'N, 1°20'E.	—
Beryl Oil Field	59°36'N, 1°31'E	—
Bruce Gas Field	59°46'N, 1°40'E	—
Buchan Oil Field	57°54'N, 0°02'E	Lies 68 miles ENE of Kinnaird Head. The production platform, which is situated in this field, is a converted semi-submersible drilling rig and two booms, from which excess gas is burned, extend 70m from it.
Buzzard Oil Field	57°48'N, 0°59'W	—
Claymore Oil Field	58°27'N, 0°15'W	Lie 74 miles NE of Kinnaird Head. A production platform stands in this field and an intermediate compression platform (Total) stands along the submarine gas pipeline, 23 miles N of the field.
Clyde Oil Field	56°27'N, 2°17'E	
Captain Oil Field	58°18'N, 1°45'W	—
Chestnut Oil Field	57°59'N, 1°14'E	—
Curlew Oil Field	56°44'N, 1°18'W	—
Ivanhoe Oil Field	58°12'N, 0°07'E	Lies 11 miles S of Tartan Oil Field.
Rob Roy Oil Field	58°12'N, 0°07'E	Lies 11 miles S of Tartan Oil Field.

Offshore Oil Fields and Gas Fields		
Name	Location	Remarks
Dunbar Oil Field	60°38'N, 1°39'E	—
East Brae Gas Field	58°53'N, 1°32'E	—
Forties Oil Field	57°43'N, 0°45'E	Lies 95 miles E of Kinnaird Head. Five production platforms are situated in this field and a submarine pipeline extends W from the field to Cruden Bay.
Franklin Gas Field	56°58'N, 1°52'E	—
Elgin Gas Field	57°01'N, 1°50'E	Lies close W of Franklin Gas Field.
Erskine Oil Field	57°02'N, 2°04'E	—
Ettrick Gas Field	57°54'N, 0°36'W	—
Everest Gas Field	57°45'N, 1°48'E	—
Frigg Gas Field	59°52'N, 2°03'E	—
Fulmar Oil Field	56°29'N, 2°09'E	Lies about 6 miles ENE of Auk Oil Field; SPM buoys, for the use of tankers, are situated within this field. A submarine pipeline, which may best be seen on the chart, extends SW from this field to Saint Fergus.
Gannett Oil Field	57°11'N, 1°00'E	—
Glamis Oil Field	58°10'N, 1°03'E	Lies 4 miles SW of Balmoral Oil Field.
Goldeneye Gas Field	58°00'N, 0°23'W	—
Gryphon Oil Field	59°22'N, 1°34'E	—
Harding Oil Field	59°16'N, 1°31'E	—
Jade Oil Field	56°51'N, 2°15'E	—
Janice Oil Field	56°24'N, 2°15'E	—
Judy Oil Field	56°42'N, 2°21'E	—
Kittiwake Oil Field	57°27'N, 0°31'E	—
Linnhe Oil Field	59°37'N, 1°25'E	—
Lomond Gas Field	57°18'N, 2°10'E	Lies 28 miles W of Montrose Oil Field.
MacCulloch Oil Field	58°19'N, 0°43'E	—
Marnock Oil Field	57°18'N, 1°40'E	—
Montrose Oil Field	57°27'N, 1°23'E	Lies about 115 miles ENE of Aberdeen. A combined drilling and production platform stands in this field.
Miller Oil Field	58°43'N, 1°24'E	Lies 5 miles E of Brae Oil Field.
Mungo Oil Field	57°22'N, 2°00'E	—
Nelson Oil Field	57°40'N, 1°09'E	—
Ness Oil Field	59°34'N, 1°23'E	—
North Brae Oil Field	58°47'N, 1°21'E	—
Pierce Oil Field	57°10'N, 2°18'E	—
Piper Oil Field	58°28'N, 0°16'E	Lies 14 miles E of Claymore Oil Field.
Ross Oil Field	58°06'N, 1°26'W	—
Saltire Oil Field	58°25'N, 0°20'E	—
Scott Oil Field	58°17'N, 0°12'E	—
Shearwater Oil Field	57°02'N, 1°57'E	—

Offshore Oil Fields and Gas Fields		
Name	Location	Remarks
South Brae Oil Field	58°42'N, 1°17'E	—
Tartan Oil Field	58°22'N, 0°04'E	Lies 11 miles SE of Claymore Oil Field. A production platform stands in this field.
Tiffany Oil Field	58°29'N, 1°16'E	Lies 13 miles S of Brae Oil Field.
Toni and Thelma Oil Fields	58°22'N, 1°23'E	Lies 20 miles S of Brae Oil Field.
Triton Oil Field	57°05'N, 0°54'E	—

Kinnaird Head to Aberdeen

12.4 Kinnaird Head (57°42'N., 2°00'W.), the SE entrance point of Moray Firth, is a grassy point, 18m high, which is fringed by drying ledges. A light is shown from a prominent tower, 22m high, standing on the head.

Mormond Hill, 232m high, rises 6 miles S of the head. Its summit is surmounted by a prominent television mast which is equipped with aeronautical lights.

Fraserburgh Bay (57°41'N., 1°58'W.) is entered between Kinnaird Head and Cairnbulg Point, 2.3 miles ESE. The head of the bay is free of dangers and is fronted by a sandy beach. The Water of Philorth, a small river, flows into the SE part of the bay.

Colonel Rock (57°42'N., 1°58'W.), with a depth of 9.4m, lies about 1.5 miles NW of Cairnbulg Point, in the middle of the approach to the bay. This rock is small and, on account of broken water, is dangerous to cross in heavy weather.

12.5 Fraserburgh Harbor (57°41'N., 2°00'W.) (World Port Index No. 32240), an important fishing center, lies on the W side of Fraserburgh Bay, close S of Kinnaird Head. It consists of a series of interconnected basins and is enclosed by Balaclava Pier and Balaclava Breakwater, on the N side, and by South Breakwater, on the S side.

Tides—Currents.—Tides rise about 3.1m at springs and 1.5m at neaps.

Depths—Limitations.—Between Kinnaird Head and the harbor entrance, 0.5 mile SSE, the shore is bordered by rocky ledges which extend up to about 300m seaward. The area lying close S of the harbor entrance is foul.

Several shoals, with depths of less than 5m, lie close SE of the head of Balaclava Breakwater and Burnett Buss, with a depth of 0.3m, lies close SE of the head of South Breakwater.

The entrance to Outer Harbor, which provides access to all the other basins, faces ESE and is 61m wide. Most of the harbor basins are dredged to a depth of at least 3.4m.

Balaclava Harbor, formed by three basins, has 1,189m of quays and an entrance 18m wide. It has a depth of 5.9m and can accommodate vessels of up to 84m in length, 14m beam, and 5.5m draft.

North Harbor has 360m of quays, with an entrance 24.3m wide. South Harbor has 579m of quays, with an entrance 11.6m wide. Both these basins have depths of at least 3.2m. Faithlie Basin has 760m of quays, an entrance 15.2m wide, and depths alongside of 3.2m.

Vessels of up to 95m in length, 16m beam, and 6.5m draft can be accommodated at North Pier, which is situated at the

NW side of Outer Harbor. There are facilities for fishing vessels, yachts, coasters, and oil service supply vessels.

Aspect.—The entrance channel is indicated by a lighted range. Two conspicuous church spires and a tower, with a turret, are situated in the town. A directional sector light, 4m in height, atop a metal pole located on the SE corner of the North Pier, displays a narrow white sector from 289° to 293° leads through the harbor entrance.

Pilotage.—Pilotage is compulsory and is available 24 hours for commercial vessels of 300 gt and over. Pilots generally board in the bay or by arrangement within 2 miles of the harbor entrance.

The pilots can be contacted, as follows:

1. Call sign: Fraserburgh Pilots
2. VHF: VHF channels 12 and 16
3. Telephone: 44-1346-515926

Regulations.—Vessels should contact the port 2 hours in advance and confirm ETA, loa, draft, and beam.

Berthing instructions will be given according to tide and weather conditions.

Signals.—During foul weather periods lights are displayed from West Pier. A fixed red light indicates that arrival or departure is considered dangerous and two fixed lights that the harbor is closed.

Contact Information.—Fraserburgh harbor can be contacted, as follows:

1. Call sign: Fraserburgh Harbor Control
2. VHF: VHF channels 12 and 16
3. Telephone: 44-1346-515858
44-1346-515926
4. Facsimile: 44-1346-516641
5. E-mail: enquiries@fraserburgh-harbour.co.uk
6. Web site: <http://www.fraserburgh-harbour.co.uk>

Anchorage.—Anchorage is available within Fraserburgh Bay, in a depth of 11m, sand over rock, about 0.5 mile E of the harbor entrance.

Caution.—Hydraulically operated storm gates are fitted to the entrances of several harbor basins for use in bad weather.

12.6 Cairnbulg Point (57°41'N., 1°57'W.), the E entrance point of Fraserburgh Bay, is fronted by Cairnbulg Briggs, a drying rock ledge, which extends up to 0.3 mile N. This ledge is fringed by reefs, awash, and is marked by a lighted beacon. A small boat harbor lies on the NW side of the point.

Steratan Rock, with a least depth of 8.8m, lies about 1.5 miles NE of Cairnbulg Point and the sea breaks heavily over it during strong winds.

Cairnbulg and Inverallochy, two small villages separated by

a stream, are situated 0.5 mile SE of Cairnbulg Point. Saint Combs, another small village, is situated 1 mile farther SE.

Strathbeg Bay, a slight indentation, lies between Inzie Head, located 2 miles SE of Cairnbulg Point, and Rattray Head, 4 miles SE. A narrow rocky ledge, with depths of less than 10m, extends about 1 mile E from Inzie Head. The shore of the bay is fringed by a sandy beach. Loch Strathbeg lies close inland, within the sand hills which form the SW side of the bay.

Caution.—Numerous wrecks, which may best be seen on the chart, lie off this stretch of coast.

12.7 Rattray Head (57°37'N., 1°49'W.) is composed of sand hills which are partly covered with bent grass. This headland is higher than the sandy ridges rising to the N and S of it and is fringed by drying rocks. A light is shown from a conspicuous tower, 28m high, standing on The Ron (Ron Rock), a rock, which lies 0.2 mile E of the headland. A racon is situated at the light.



Rattray Head Light

Rattray Briggs, a detached reef, lies about 0.2 mile E of the light and has a least depth of 0.2m. Rattray Hard, with a least depth of 10.7m, is an area of uneven, rocky bottom which lies centered 1.5 miles ENE of the headland. The tidal currents set over this area of uneven bottom and raise a heavy sea in the vicinity of the headland during onshore gales.

Two prominent radio masts stand 2 miles WNW of Rattray Head and another one stands 2 miles W.

Rattray Bay (57°35'N., 1°48'W.) lies between Rattray Head and Scotstown Point, 3 miles S, and is open. Scotstown Hard, a drying ridge of large stones extends 0.5 mile E from Scotstown Point. The bay shelves gradually to a shoreline composed of sandy hills. Annachie Water, an abandoned canal, empties into the S part of the bay.

Caution.—Multiple submarine gas pipelines, from offshore oil and gas fields., as best seen on the chart, land ashore for the gas terminal at Rattray Bay. The gas terminal is situated in the vicinity of the village of Saint Fergus, which stands near the S end of the bay. Mariners are advised not to anchor in the vicin-

ity of these pipelines. Since some pipelines do not lie on the sea bed, an allowance of at least 2m less should be applied to the charted depths.

12.8 Kirkton Head (57°33'N., 1°48'W.), located 1 mile S of Scotstown Point, is fronted by a drying rocky ridge which extends up to 0.5 mile seaward. Craig Ewan, a projecting point, is located 1 mile S of Kirkton Head.

Buchanhaven, a small village, is situated on the S side of the Ugie River which flows into the sea 0.5 mile S of Craig Ewan. Foul ground fronts the mouth of this river and extends up to 0.5 mile offshore. The village is fronted by a small harbor which lies among the rocks on the S side of the river mouth and is used by local fishing boats.

12.9 Peterhead Harbor (Peterhead Bay Harbor) (57°30'N., 1°47'W.) (World Port Index No. 32230), an important fishing and oilfield supply center, lies within Peterhead Bay. The bay, a deep indentation, is entered between Keith Inch, a promontory, and Salthouse Head, 0.7 mile SW. It is protected by breakwaters which form an entrance 208m wide.

Peterhead Harbor Home Page

<http://www.peterheadport.co.uk>

Tides—Currents.—Tides rise about 3.3m at springs and 1.5m at neaps.

Depths—Limitations.—Peterhead Harbor, consisting of three interconnecting tidal basins and several jetties, lies at the N end of the bay and is mostly used by fishing vessels. It has about 1,700m of total quayside with dredged depths of 2.1 to 3.4m alongside. These basins can accommodate vessels of up to 92m in length and 10.4m beam with drafts up to 6.1m at springs and 5.5m at neaps.

Peterhead Bay Harbor includes all the facilities in the bay with the exception of the above basins.

Albert Quay is situated at the outer entrance to the basins.

Two offshore supply vessel bases lie within the bay. The N base, situated close W of the root of the N breakwater, consists of a jetty with 100m of berthage.

The inner part of the N breakwater provides 230m of berthage. It can accommodate bulk vessels of up to 15,000 dwt and is also used by drilling rigs, oil platforms, and supply vessels.

A tanker terminal is situated close W of the S breakwater and consists of several berthing and mooring dolphins. It can accommodate tankers of up to 50,000 dwt, 280m in length, and 11m draft. This terminal berth is also used by bulk, diving, survey, and supply vessels.

Peterhead Harbor—Berth Information

Berth	Length	Depth	Remarks
Albert Quay South	250m	8.9-9.5m	—
Albert Quay East	90m	8.5m	—
Merchant Quay	200m	6.2m	—
Smith Embankment	200m	10.0	—

Peterhead Harbor—Berth Information			
Berth	Length	Depth	Remarks
South Harbor			
Blubber Box Quay	50m	3.0m	Grain, fertilizer. and fish.
Shiprow Quay	150m	3.0m	Grain, fertilizer. and fish.
West Pier	70m	3.0m	Grain, fertilizer. and fish.
Harbor Street Quay	135m	3.0m	Grain, fertilizer. and fish.
Bridge Street Quay	42m	3.0m	Grain, fertilizer. and fish.
North Harbor—Alexandra Basin			
Fish Market Quay	390m	2.7-3.0m	Fish products.
Birnies Quay	144m	2.7-3.0m	—
West Boom Jetty	80m	2.7-3.0m	—
Scotts Pier	80m	2.7-3.0m	—
Port Henry Harbor			
Port Henry Quay	150m	2.0-3.0m	Fish products.
Seagate	195m	2.0-3.0m	—
Model Jetty	100m	2.0-3.0m	—
West Side Birnies Quay	150m	2.0-3.0m	—

The inner part of the S breakwater provides 390m of berthage.

The Princess Royal Jetty, extending NW from the SW part of the bay, is 170m long and has depths of 5 to 7m alongside. North Harbor Alexandra Basin is entered from the South Harbor Junction Canal, which is spanned by a lift bridge. Port Henry Harbor, entered from North Harbor, can accommodate four fishing vessels with a maximum keel length of 27.7m and a maximum beam of 7.2m. For further berthing information refer to table titled **Peterhead Harbor—Berth Information**.

Aspect.—The entrance channel is indicated by a lighted range. A light is shown from a tripod structure, 10m high, standing on the N breakwater head. Another light is shown from a tower, 17m high, standing on the S breakwater head.

Conspicuous landmarks include the spire of the town hall, with an illuminated clock, standing 0.5 mile N of S breakwater head; a storage tank standing 1.2 miles WSW of the spire; a square tower surmounting a hill which rises 1 mile SW of the spire; and a power station chimney standing 1 mile SSE of the square tower.

Pilotage.—Pilotage is compulsory within the bay for all tankers, vessels of 3,500 gt and over, all vessels damaged in any way, vessels carrying more than 12 passengers, and all vessels carrying dangerous cargo. Pilotage is compulsory within Peterhead Inner Harbor for all vessels over 200 gt. Exemptions from the above include vessels of less than 20m in length and fishing vessels of less than 47.5m in length.

Pilots generally board about 2 miles SE of the harbor entrance, or close inside the breakwaters during bad weather.

Peterhead pilots may be contacted, as follows:

- VHF: VHF channel 14
- Telephone: 44-1779-483630

Regulations.—Vessels should contact the harbor 6 hours and 1 hour in advance on VHF to report the following:

- ETA.
- Name and call sign.
- Nationality/flag.
- Length overall, gt, and draft.

Vessels anchored within the bay must maintain a VHF listening watch at all times on channels 14 and 16.

Vessels anchored within the bay should send their ETD 6 hours and 1 hour in advance.

Vessel Traffic Service.—Peterhead Harbor is a United Kingdom-designated port VTS which provides the following services:

- Traffic Organisation Service.
- Information Service.

Contact Information.—Peterhead Harbor may be contacted, as follows:

- Call sign: Peterhead Harbors
- VHF: VHF channels 14 and 16
- Telephone: 44-1779-483630
- Facsimile: 44-1779-471292
- E-mail: tower@peterheadport.co.uk

Anchorage.—Anchorage may be obtained, in depths of 9 to 13m, within the bay. The best holding ground, with a bottom of fine sand over blue clay or mud with occasional boulders, lies leeward of the S breakwater.

In bad weather, vessels anchored in the bay have been known to drag anchor. While at anchor, vessels must maintain a good lookout and a continuous VHF radio watch. Engines are to be held ready for immediate use.

Vessels are advised not to anchor in the area centered 1 mile E of Keith Inch (57°30.15' N., 1°46.20' W) due to the risk of a fouled anchor from discarded wires on the sea bed.

Caution.—During strong E winds, seas frequently break over both breakwaters and a heavy ground swell may be expe-

rienced within the bay. During E gales, the rise of tide may be decreased.

12.10 Sandford Bay (57°29'N., 1°47'W.) is entered between Salthouse Head, the S entrance point of Peterhead Bay, and Meikle Mackie, a small islet, 0.8 mile SSE, which lies close N of Buchan Ness. The bay is foul and fringed with drying ledges. An outfall pipeline extends 0.3 mile SE from the NW shore of the bay and its seaward end is marked by a lighted buoy. Vessels with local knowledge can anchor in the bay, which has good holding ground of mud over clay, but clear of the pipeline.

Buchan Ness (57°28'N., 1°46'W.), a rocky and rugged peninsula, is fringed by drying ledges and connected to the mainland by a narrow isthmus. A light is shown from a conspicuous tower, 40m high, standing on the center of this peninsula; a racon is situated at the light.

The Skerry, a small rocky islet, lies 0.5 mile NNE of the light and is 6m high. Rocks, which break, fringe the N side of the islet and foul ground extends up to about 0.2 mile NNE of it. A stranded wreck lies on the NE side of this islet.

Stirling Hill, 86m high, stands 0.7 mile SW of Buchan Ness and is prominent. A conspicuous structure (radar aerial) is situated 0.5 mile WSW of the hill, in the vicinity of some granite quarries.

Between Buchan Ness and Ward Point, 4 miles SSW, the rugged and steep-to shore is formed by red granite cliffs, 30 to 73m high, which are broken by deep coves and recesses. Several detached masses of rock lie close off the foot of these cliffs.

12.11 Cruden Bay (57°24'N., 1°50'W.), a small bight, lies between Ward Point and The Skares, 1.5 miles SSW. Cruden Burn flows into the N corner of the bay and Port Errol, a small boat harbor, lies in this vicinity. The ruins of a castle (Slains Castle) are situated close N of the point and Slains Lodge, a conspicuous building, stands 0.7 mile NNW of them.

The Skares, consisting of several drying granite rocks, extends up to about 0.3 mile seaward from the S entrance point of the bay. The outermost and tallest rock, which is 3m high, is marked by a lighted buoy.

Two conspicuous oil tanks stand 1 mile SW of the S entrance point of the bay.

Caution.—Submarine pipelines, which may best be seen on the chart, extend seaward from the S part of Cruden Bay to an offshore oil field.

12.12 Hackley Head (57°20'N., 1°57'W.), a rather prominent point, is located 4.8 miles SW of The Skares. The rocky shore changes in the vicinity of this point to sand backed by grass-covered sand hills. Slains Old Castle, consisting of a dark and prominent ruined tower, stands on a projection, 2.2 miles NE of the point. Blindman, a rock, lies close seaward of the castle.

Collieston, a village, is situated 1.2 miles NE of the point and is fronted by a small fishing boat harbor.

The Ythan River flows into the sea 1.8 miles SSW of Hackley Head and two bare white sand hills stand on the N side of its mouth. A bar, which has a depth of 3.4m at HWS, fronts the river entrance, but is constantly changing. Newburgh, a small harbor, lies at the S side of the river, about 1 mile within the en-

trance. It is used by small craft with local knowledge.

Hill of Strabathie, 51m high, stands 6 miles SSW of the mouth of the Ythan River and is prominent. A conspicuous silo stands close SW of this hill.

The River Don flows into the sea 2.1 miles S of Hill of Strabathie. A bridge, with four arches, spans this river close inside the entrance and is conspicuous from seaward. A light is shown from a tower, 8m high, standing on the S entrance point of the river and a prominent radio mast surmounts the summit of a hill which rises 5.2 miles W of it. Another prominent radio mast stands 2.5 miles WSW of the river mouth.

Caution.—A submarine cable extends seaward from a point on the shore located 0.5 mile NE of Hill of Strabathie.

A firing exercise area, marked by lighted buoys, lies 1 mile E of Hill of Strabathie and may best be seen on the chart.

Several salmon fisheries lie off the coast between the Ythan River and Aberdeen and present a danger to small craft navigating inshore.

A measured distance (1,853.2m), marked by beacons, lies 1 mile S of the River Don and may best be seen on the chart.

Aberdeen (57°09'N., 2°05'W.)

World Port Index No. 32220

12.13 The port of Aberdeen lies along the N shore of the mouth of the River Dee which flows into the SW part of Aberdeen Bay. This bay is bordered on the S side by a promontory of which Girdle Ness forms the E extremity. The port is an important fishing center and a main supply base for the offshore oil and gas fields. The harbor entrance is protected by two breakwaters.

There are facilities for general cargo, timber, grain, tanker, ferry, passenger, ro-ro, and fishing vessels. There are also several extensive bases for offshore oil and gas field support vessels.

Aberdeen Harbor serves an area which has a large concentration of paper mills. There are four major mills in the city and two others nearby. Aberdeen is the nearest deep-water port to the mills. Paper and other forest products have been shipped through Aberdeen for more than a century.

Aberdeen Harbor Home Page

<http://www.aberdeen-harbour.co.uk>

Tides—Currents.—Tides rise about 4.3m at springs and 3.4m at neaps.

Depths—Limitation.—The entrance channel has been dredged to a depth of 6m, but this depth may not always be maintained due to silting.

The main facilities are, as follows:

1. Tidal Harbor, with 1,574m of quayage and depths of 9.6 to 13.3m alongside at MHWS.
2. Albert Basin, with 1,525m of quayage and depths of 8.4 to 13.6m alongside at MHWS.
3. River Dee, with 828m of quayage and depths of 8.4 to 10.8m alongside at MHWS.
4. River Dee Dock, with 410m of quayage is reportedly being infilled(2012).

5. Upper Dock, with 429m of quayage and depths of 6.6 to 10.3m alongside at MHWS.

6. Victoria Dock, with 1,500m of quayage and depths of 9.9 to 13.6m alongside at MHWS.

7. Telford Dock, with 520m of quayage and depths of 9.6m alongside at MLWS.

The deep-water berths include:

1. Atlantic Wharf, 137m long, with a dredged depth of 8.7m alongside.

2. Pacific Wharf, 205m long, with a dredged depth of 9.3m alongside.

3. Waterloo Quay West, 172m long, with a dredged depth of 9.3m alongside.

4. Regent East Quay, 255m long, with a dredged depth of 9.3m alongside.

Generally, vessels of up to 165m in length and 26m beam can enter the port with drafts up to 8.5m. It was reported that vessels of up to 166m in length and 23,800 dwt have been accommodated within the harbor after special consultation with the authorities.

The maximum width of the navigational channel is 33.5m and the maximum depth at MHWS is 10.3m. The widest vessel to enter Aberdeen Harbor had a breadth of 31.2m; the deepest vessel to transit the navigational channel had a maximum draft of 9.14m.

It is reported (2013) that dredging has been completed in the approach channel and the harbor.

Aspect.—The entrance channel is indicated by a lighted range which may best be seen on the chart. When conditions in the entrance channel are hazardous, the fixed red lights of the range are changed to green. An outer approach lighted buoy, equipped with a racon, is moored about 1 mile NE of the harbor entrance.

The red and conical roof of a dance hall building, standing 0.8 mile NW of the N breakwater head, is very conspicuous. A gasometer tank and a pavilion, standing about 0.4 mile NW and 0.3 mile S, respectively, of the dance hall building, are very prominent. The tower of Marischal College, standing 1.2 miles WNW of the N breakwater head, is conspicuous and several other buildings, standing close S and SE of it, are prominent.



Aberdeen Harbor

Pilotage.—Pilotage is compulsory except for the following:

1. All vessels under 60m in length.
2. Vessels of 60m and over, but less than 75m in length, which are fitted with at least one operational bow thruster unit.

3. Vessels moving from berth to berth within the harbor with the permission of Aberdeen VTS.

Vessels should send an ETA and a request for pilotage at least 1 hour in advance to Aberdeen VTS. Pilots can be contacted by VHF and generally board in the vicinity of the Fairway Lighted Buoy, 1 mile NE of the harbor entrance.

Vessel Traffic Service.—All vessels must comply with the statutory requirement of participating with Aberdeen VTS procedures; non-compliance will be subject to prosecution. All shipping movements in Aberdeen Harbor are controlled and monitored by the Navigation Control Center located at the inner end of North Pier. It is also equipped with a VTMS Radar Surveillance System and makes use of the light signal movement in the harbor.

All vessels, except fishing vessels and recreational craft, are required to send their ETA to Aberdeen VTS 24 hours prior to arrival, with the following details:

1. Vessel's name.
2. IMO number.
3. Length overall.
4. Maximum draft
5. Last port/location.
6. ETA.
7. Pilotage requirements.
8. Gross tonnage.
9. List of defects.
10. Cargo.
11. Agent.

All vessels, except fishing vessels and recreational craft, are required to contact Aberdeen VTS 1 hour before arrival at the Fairway Lighted Buoy to confirm the ETA and the draft.

All vessels, including fishing vessels and recreational craft, are required to contact Aberdeen VTS 3 miles before arrival at the Fairway Lighted Buoy to obtain permission to enter the VTS area.

All vessels are required to contact Aberdeen VTS when in close proximity the Fairway Lighted Buoy to obtain permission to enter the navigational channel.

All vessels must report to Aberdeen VTS when passing Reporting Points I and B. All vessels must also report when passing Reporting Points A, C, and D, when instructed by Aberdeen VTS. Reports should be made, as follows:

1. Reporting Point I—3 miles from the Fairway Lighted Buoy (Inbound and Outbound).
2. Reporting Point B—Close by Fairway Lighted Buoy (Inbound and Outbound).
3. Reporting Point A—Position 7°08.5'N, 2°04.7'W (at the entrance to Albert Basin.)
4. Reporting Point C—Position 57°08.6'N, 2°04.8'W (at the entrance to Victoria Dock (the Cut)).
5. Reporting Point D—Position 7°08.4'N, 2°04.5'W (at the entrance to River Dee).

The following applies to all vessels operating within the VTS area:

1. No vessel, except in an emergency, or with the express permission of the Aberdeen VTS are allowed to anchor

in the VTS area.

2. All vessels must maintain a continuous listening watch on VHF channel 12 when within the VTS area.
3. All vessels must report upon berthing.
4. All vessels must report upon leaving a berth.

All outbound vessels operating within the VTS area and all vessels shifting their berth must send their ETD to Aberdeen VTS and obtain authorization to depart or shift berth. The request should include the following information:

1. Draft.
2. Destination (next port/location/berth).

Aberdeen VTS can be contacted, as follows:

1. Call sign: Aberdeen VTS
2. VHF: VHF channels 12 and 16
3. Telephone: 44-1224-597000
4. Facsimile: 44-1224-597007
5. E-mail: vts@aberdeen-harbour.co.uk

Signals.—The light signals displayed day or night have the following message:

1. One green light—navigable channel is closed to inward movement.
2. One red light—navigable channel is closed to outward movement.
3. Red light and green light—port closed.

Contact Information.—The port can be contacted, as follows:

1. Telephone: 44-1224-597000
2. Facsimile: 44-1224-571507
3. E-mail: info@aberdeen-harbour.co.uk

Anchorage.—Vessels can anchor as convenient, in depths of 9 to 11m, sand, within Aberdeen Bay.

Caution.—When entering the port during adverse weather conditions, vessels should assess the effects of the wind and tidal current while still seaward of the outer approach lighted buoy. Entry should not be attempted during strong NE gales when the seas are the heaviest.

With S and SE winds, vessels should guard against the strong N set which may be experienced in the vicinity of the N breakwater head, especially during freshets.

A disused explosives dumping area, which may best be seen on the chart, lies about 3 miles E of the harbor entrance.

Aberdeen to Whiting Ness

12.14 Girdle Ness (57°08'N., 2°03'W.) is the E extremity of the promontory which forms the S side of Aberdeen Bay. It is 23m high and fronted by drying ledges. A light is shown from a conspicuous tower, 56m high, standing on the point. A racon is situated at the light.

Girdlestone, a rock, lies about 0.2 mile ENE of the light and has a least depth of 1.9m. The channel leading between this rock and the coast is foul.

Between Girdle Ness and Garron Point, 10.5 miles SSW, the coast consists mainly of steep cliffs which are formed of mica slate over granite and topped by grassy slopes. The cliffs are fringed by reefs in places and several detached rocks lie up to 0.3 mile offshore.

12.15 Nigg Bay (57°08'N., 2°03'W.) lies between Girdle Ness and Gregg Ness, 0.5 mile S, and is fringed by rocky, foul



Courtesy of Geograph

Girdle Ness Light

ground. Greg Ness is a rocky promontory fronted by foul ground and drying patches. The Hasman, a rock, lies close offshore, 1 mile S of this promontory, and dries 3.6m.

A prominent radio mast, 74m high, stands 1.8 miles SW of Gregg Ness. Cove Bay, a village, is situated 2 miles SSW of Gregg Ness and fronted by a small fishing boat harbor. Mutton Rocks and Cove Rocks, which dry 2.1m, lie close seaward of this harbor.

Caution.—Oil drilling rigs are frequently anchored in an area centered 5 miles SE of Gregg Ness and within Nigg Bay.

A spoil ground area, which may best be seen on the chart, lies 1.6 miles SE of Gregg Ness.

An outfall pipeline, partially buried, extends up to 1 mile E of Gregg Ness and is marked by a lighted buoy.

An extension to Aberdeen Harbor is planned for the bay on the S side of Girdle Ness. Survey works and other operations are in progress (2015) in the bay and up to 1 mile offshore. Vessels should navigate with caution in this area.

12.16 Findon Ness (57°04'N., 2°05'W.), a very prominent headland, is located 4 miles SSW of Gregg Ness and is steep-to. The village of Findon stands on the sloping ground which rises to a height of 90m, close W of the headland.

Several radio masts, 110m high, stand 1.8 miles W of the headland and a prominent memorial tower surmounts a hill which rises 1.2 miles WSW of them.

Portlethen, a small village, stands 1 mile SW of Findon Ness. It has a convenient landing for local fishing boats and is fronted by a drying reef. Seal Craig, the outermost part of this reef, dries 2.1m and lies 0.3 mile offshore.

Garron Point (56°59'N., 2°10'W.), a high and rocky promontory, is located 5 miles SSW of Portlethen. Several villages, fronted by landing places, are situated along this stretch of coast. The promontory is narrow, shelves 0.2 mile from its summit, and is steep-to. Garron Rock, an isolated rocky mass, lies close off the point.

12.17 Stonehaven Bay (56°58'N., 2°12'W.) is entered between Garron Point and Downie Point, 1.5 miles SSW. This



Courtesy of Scotland Gazetteer

Stonehaven Harbor

bay has a sandy bottom, but is encumbered by rocky ledges which extend up to about 0.3 mile offshore.

Stonehaven (56°58'N., 2°12'W.), a small harbor, lies near the mouth of the River Carron, at the head of the bay. It consists of inner and outer basins and is protected by breakwaters. The outer basin has a depth of 1.5m and the inner harbor dries. The harbor, which has 550m of quayage, is mostly used by yachts and pleasure craft, but a few local fishing boats are based here. Vessels of up to 34m in length and 3m draft can enter at HW. During E and SE gales, the sea breaks over the breakwaters with great force.

The town, which is a resort, backs the harbor and several prominent hotels are situated in it. A conspicuous railroad viaduct stands 1 mile NNW of the outer breakwater head. A prominent radio mast surmounts the summit of a hill which rises 6.5 miles NW of the harbor and a television mast stands 1.5 miles SW of it.

The port can be contacted, as follows:

1. VHF: VHF channel 12 and 16
2. Telephone: 44-1569-762741
44-774-1050210 (mobile)

12.18 Downie Point (56°57'N., 2°11'W.), the S entrance point of Stonehaven Bay, is marked by a light and fringed with rocky ledges. A detached shoal, with a depth of 3.9m, lies about 0.2 mile NNE of the point.

Strathlethan Bay is entered between Downie Point and Bowdun Head and is fringed by rocky ledges. A conspicuous war memorial stands on Black Hill at the head of this small bay. It is 12m high and has the appearance of a ruined temple. The prominent ruins of Dunnottar Castle are situated on a small headland, 0.3 mile SW of Bowdun Head.

Crawton Ness is located 2.5 miles S of Bowdun Head. Cliffs, 91m high, rise close N of this low point. A conspicuous radio

tower stands on Burxie Hill, which rises 3.5 miles W of the point. Crawton, a small fishing village, fronted by a gravel beach, stands on the W side of the point. Caterline, another small fishing village, stands 1 mile farther S.

12.19 Todhead Point (56°53'N., 2°13'W.) is located 1.5 miles SSW of Crawton Ness. A few small fishing villages stand along this stretch of coast. This point terminates in a cliff, 15m high. A disused lighthouse with a prominent tower stands on the point.



Todhead Point Light (disused)

Shieldhill is located 1.5 miles S of Todhead Point. This headland has an overhanging cliff and a high rock lies close off its SE side.

Craig David is located 2.8 miles SW of Todhead Point. A conspicuous radio mast stands on Bervie Brow which is 136m high and rises close W of this point.

Inverbervie, a small town, stands on the S bank of Bervie Water, 0.5 mile SW of Craig David. A church, with a prominent tower, is situated in this town. The coast extending to the S of this town is backed by grassy slopes, 15m to 21m high. Gourdon, a small drying harbor, lies 1 mile SSW of Inverbervie and is protected by breakwaters. It is used by local fishing boats and pleasure craft. A lighted range indicates the entrance

channel.



Courtesy of Scotland Gazetteer
Gourdon Harbor

Johnshaven (56°48'N., 2°20'W.), a small drying harbor, lies 2 miles SW of Gourdon. It provides good shelter in all weathers and is used by local fishing boats. A lighted range indicates the entrance channel which is narrow and leads through a rocky foreshore.

The Tower of Johnston stands on the Hill of Garvock, 4 miles W of the harbor, and is conspicuous from seaward.

12.20 Milton Ness (56°46'N., 2°23'W.), fringed by rocks, is a wedge-shaped headland with its SE end formed by a low and grassy point. Cliffs, which are known as the Heughs of Saint Cyrus, stand close W of the headland and are about 70m high. Saint Cyrus is situated close inland from these cliffs. A church, with a conspicuous tall spire, stands in this small village.

Between Milton Ness and Montrose, 3.5 miles S, the coast is fronted by a sandy beach and backed by sand hills. The North Esk River flows into the sea, 1.5 miles SW of the headland. A conspicuous radio tower, 37m high, stands close inland, 2 miles SSW of Saint Cyrus. It is surmounted by six framework masts, each 20m high. A prominent bridge spans the North Esk River, 1 mile W of the mouth.

Scurdie Ness (56°42'N., 2°26'W.), a prominent headland, forms the S side of the entrance to Montrose. A light is shown from a conspicuous tower, 38m high, standing on this point. A racon is situated at the light.

Scurdie Rocks lie on a spit which extends up to 0.2 mile E of the headland. Conspicuous beacons are situated close W of the headland and form a range which leads clear of these rocks.

12.21 Montrose (56°42'N., 2°28'W.) (World Port Index No. 32200), a small commercial port, lies at the entrance to the River South Esk, on the N side of Scurdie Ness. The town stands on a low and sandy peninsula, on the N side of the river, which separates Montrose Basin from the sea. The harbor, which is formed by the outlet of the basin flowing into the river, is a fishing center and also serves as an important supply



Courtesy of Kevan Dickin
Scurdie Ness Light

base for the offshore oil fields.

Montrose Home Page

<http://www.montroseport.co.uk>

Tides—Currents.—Tides rise about 4.2m at springs and 2m at neaps.

Depths—Limitations.—Montrose Basin, which dries, lies W of the town, at the head of the harbor. Two bridges span the entrance to this basin and have a vertical clearance of only 2.4m. Small vessels can lie aground in very soft mud within the basin.

The entrance channel leads between the N side of Scurdie Ness and Annat Bank, which dries in places and extends E from the N entrance point of the river. The fairway is 50m wide and is dredged annually to a depth of 5.5m, but is subject to silting.

There is 558m of quayage at the N side of the harbor, with dredged depths of 5.5m alongside. There is a total of 475m of quayage at the S side of the harbor, with dredged depths of 5.5m alongside for 250m and 8m alongside for 225m. There are facilities for general cargo, ro-ro, and fishing vessels. In addition, there are extensive facilities for offshore oil service vessels. Vessels of up to 164m in length, and 7.5m draft can be handled at HW. It is reported that vessels over 135m in length must be fitted with a bow thruster.

Aspect.—The entrance fairway is indicated by a lighted range and marked by lighted buoys. An outer approach lighted buoy is moored about 0.5 mile NE of Scurdie Ness.

A church, with a conspicuous spire, and a conspicuous silo stand in the S part of the town.

Pilotage.—Pilotage is compulsory for the following vessels:

1. All vessels with an loa 25m and over.



Courtesy of Scotland Gazetteer

The Montrose Road Bridge

2. All vessels entering, departing, or transiting within the port with tug assistance of under tow.
3. All vessels with a defect in its hull, machinery, or equipment which might affect navigation of the vessel.
4. Passenger vessels licensed to carry more than 12 passengers.
5. Vessels carrying dangerous substances.

Pilots board 0.85 mile E of Scurdie Ness.

Vessels should remain to the E of the outer lighted buoy when embarking the pilot.

The pilots can be contacted (call sign: Montrose Pilots) on VHF channels 12 and 16.

Regulations.—Vessels should send their ETA 24 hours in advance to Montrose Port Control. The following information should be included in the ETA message:

1. Vessel name.
2. Draft.
3. Gross tonnage.
4. Length overall.
5. ETA.
6. Last 10 ports of call.
7. ISPS security level.
8. Waste.
9. Crew list.

If a vessel will not arrive within 3 hours after the specified ETA an amended ETA must be sent at least 8 hours prior to the originally-stated ETA and at least 12 hours prior to the new ETA.

For voyages with a duration of less than 24 hours, vessels shall send the ETA immediately on leaving its previous port

prior to arriving at Montrose.

Vessels should contact Montrose Port Control 2 hours prior to arrival.

Departing vessels must send an ETD to Montrose Port Control 2 hours prior to departure and include the ETA, next port of call, and sailing draft in the notification.

Contact Information.—Montrose Port Control can be contacted, as follows:

- | | |
|---------------|--|
| 1. Call sign: | Montrose Port Control |
| 2. VHF: | VHF channels 12 and 16 |
| 3. Telephone: | 44-1674-672302 |
| 4. Facsimile: | 44-1674-675530 |
| 5. E-mail: | info@montroseport.co.uk |

Anchorage.—Vessels can anchor, in depths of 15 to 20m, good holding ground, about 2 miles NE of Scurdie Ness, but this roadstead is exposed.

Caution.—During strong gales from the E, a heavy sea is often raised off the entrance and entry is dangerous at all states of the tide.

Vessels are advised to wait E of the 15m depth contour, marked by two lighted bouys.

12.22 Lunan Bay (56°39'N., 2°30'W.) is entered between Boddin Point, located 2.1 miles SW of Scurdie Ness, and the NE extremity of Red Head, 2.5 miles S. The ruins of Red Castle stand on a sandy beach near the center of this bay, on the S side of the mouth of Lunan Water. Except for rocky ledges fronting both entrance points, this bay is free of off-lying dangers and very little tidal current is experienced within it.

Good anchorage can be obtained, in depths of 12 to 15m, sand over clay, within the bay, about 1 mile E of the ruins of Red Castle.

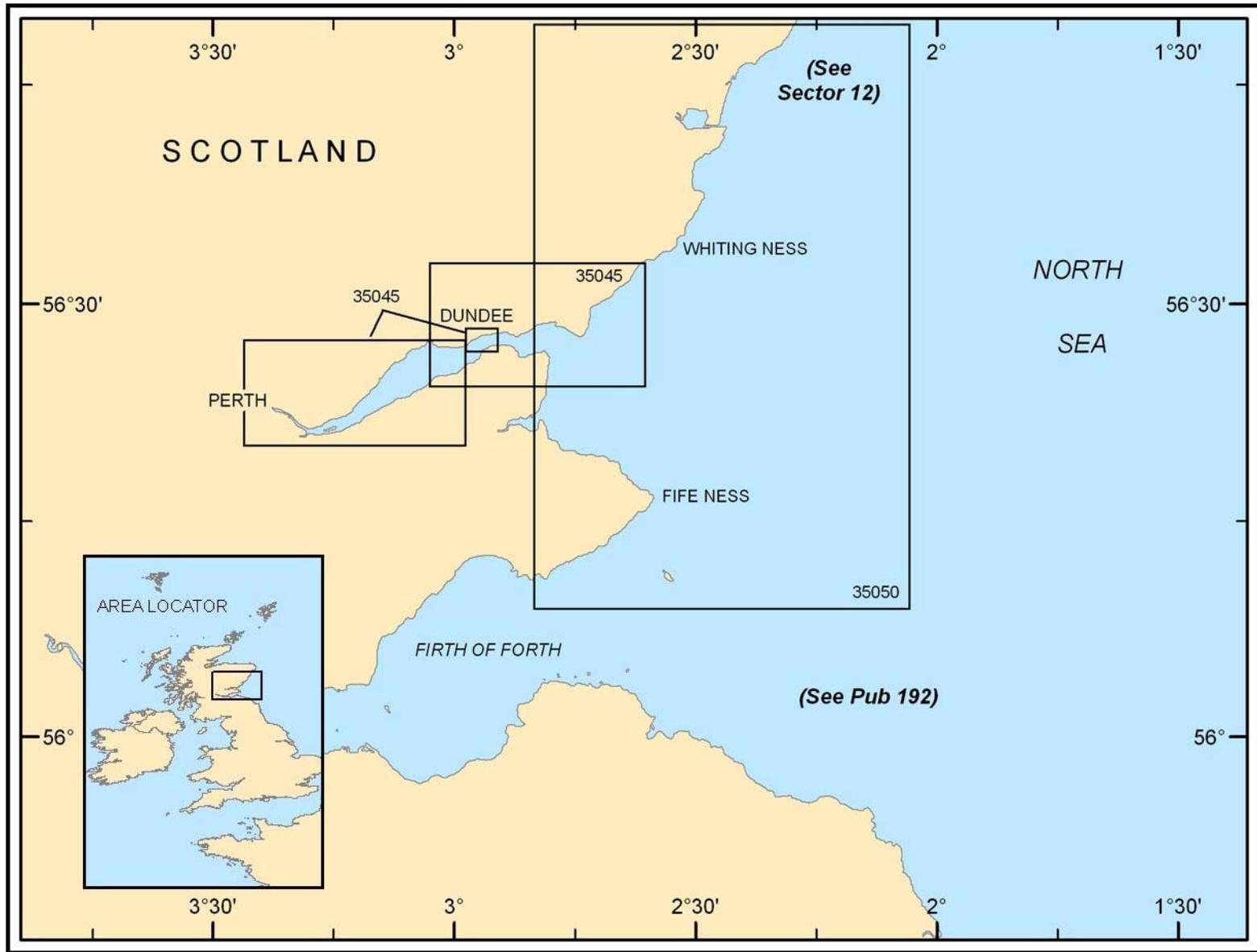
Caution.—A spoil ground area, lies 1.3 miles SE of Boddin Point. Several wrecks lie in the approaches to Lunan Bay and may best be seen on the chart.

12.23 Red Head (56°37'N., 2°29'W.) is formed by a cliff, 79m high. It is steep-to and fronted by rocks. A very conspicuous silo stands 1.2 miles SW of the summit of Red Head.

Whiting Ness (56°34'N., 2°33'W.), the N entrance point of the approaches to the River Tay, is located 4 miles SW of Red Head.

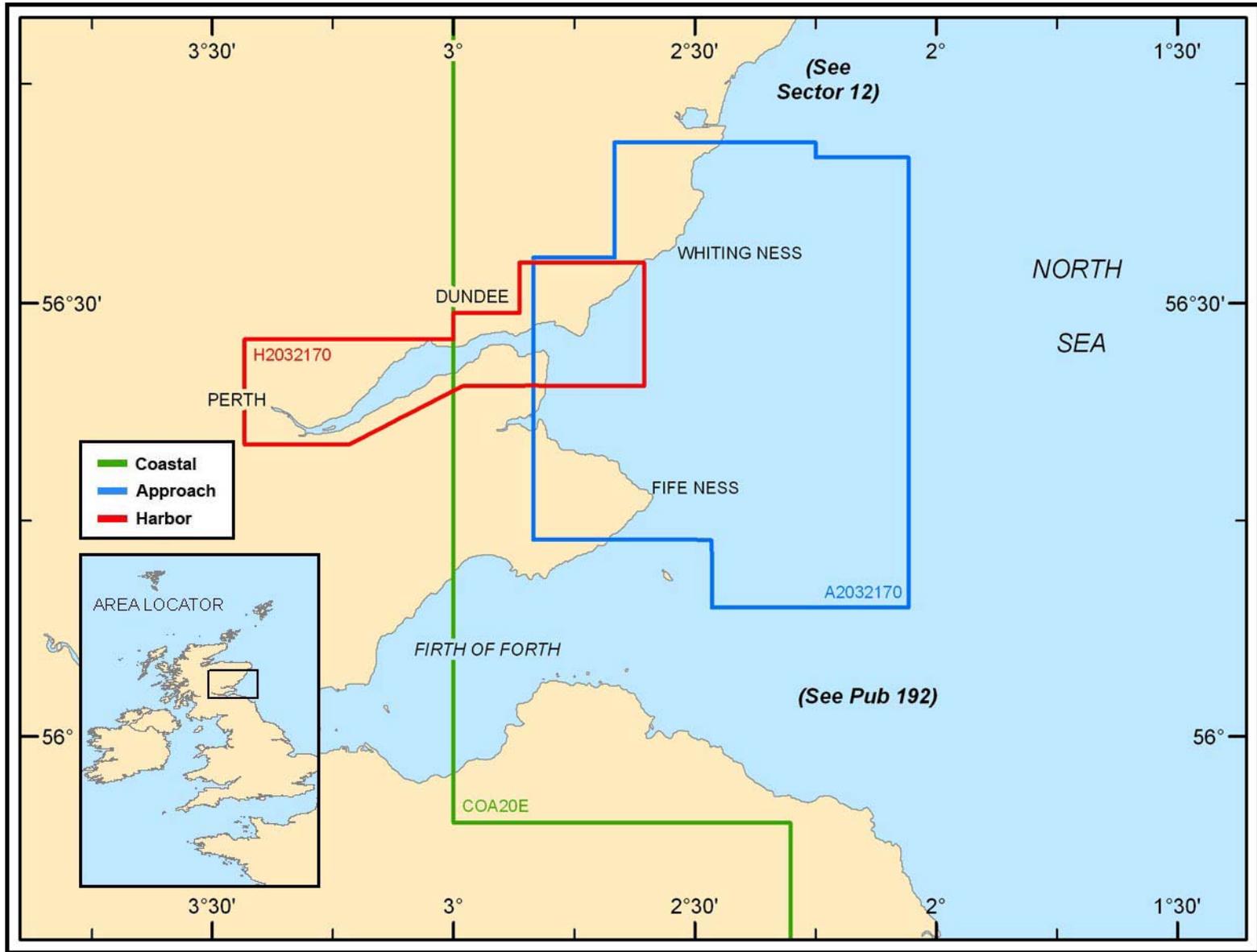
The coast between consists of red sandstone cliffs which are broken occasionally by small bights and caverns. Dickmount's Den, the largest of these caverns, lies 0.3 mile NE of Whiting Ness. Beacons are situated on The Deils Heid, close NE of Dickmount's Den, and on a point located 1 mile NE. They are prominent and formerly indicated a measured distance.

Dickmount Law, a small hill, rises 1.5 miles NNW of Whiting Ness and is surmounted by a clump of prominent tall trees.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 13 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.
SECTOR 13 — DNC LIBRARY INFORMATION

SECTOR 13

EAST COAST—WHITING NESS TO FIFE NESS

Plan.—The E coast of Scotland from Whiting Ness to Fife Ness is described in this sector. The descriptive sequence is from N to S.

General Remarks

13.1 The approach to the River Tay lies between Whiting Ness and Fife Ness, 17 miles S. Dundee, the principal port in this area, lies 7 miles above the river mouth. Bell Rock is the only off-lying danger in the approaches to the river.

Tides—Currents.—At a position off the entrance to the River Tay and about 6 miles W of Bell Rock, the current is more or less rotary clockwise. The SW current, which attains a rate of 1.2 knots at springs, sets in a mean direction of 230° and begins 1 hour 15 minutes before HW at Dover. The NE current, which attains a rate of 1.3 knots at springs, sets in a mean direction of 050° and begins 4 hours 45 minutes after HW at Dover.

Inside the bar of the River Tay and at a position 1.2 miles ESE of Buddon Ness, the flood tidal current begins 1 hour 30 minutes before HW at Dover and the ebb tidal current begins 3 hours 45 minutes after HW at Dover. The flood current attains a rate of 1 knot at springs. It begins to set in a direction of about 290° and then gradually changes through W to set in a direction of about 250°. The ebb current attains a rate of 2.8 knots at springs and sets in a continuous direction of about 100°.

In the vicinity of Bell Rock, the N current begins about 6 hours before HW at Dover and the S current begins at HW at Dover. Both these currents attain rates of not more than 1 knot at springs. The current appears to be more or less rotary, counterclockwise.

Off Fife Ness, the N current, which attains a rate of 1 knot at springs, begins about 5 hours 30 minutes after HW at Dover. The S current, which attains a rate of 1 knot at springs, begins about 45 minutes before HW at Dover.

Caution.—Submarines exercise frequently in areas lying 80 miles ESE of Bell Rock, 130 miles ENE of Bell Rock, and SE of Fife Ness.

Numerous fishing vessels may be encountered in the waters described within this sector.

Off-lying Dangers

13.2 Bell Rock (56°26'N., 2°23'W.), a drying reef formed by a mass of red sandstone and fringed by foul ground, lies 12 miles E of Buddon Ness, the N entrance point of the River Tay. A light is shown from a conspicuous tower, 28m high, standing on the NE end of the reef; a racon is situated at the light. Inch Cape Offshore Wind Farm Meteorological Mast, 116m high, from which a light is shown, stands about 8.75 miles E of Bell Rock Light.

Detached rocky shoals, with depths of 4.4 and 2.5m, lie about 0.2 mile N and 0.3 mile S, respectively, of Bell Rock Light.

Caution.—It is reported that sewage sludge is dumped in an



Bell Rock Light from NW

area lying 7 miles E of Bell Rock from 15 May to 15 October, annually.

For details on offshore oil and gas fields, see paragraph 12.3.

A lighted buoy, used for radar training, is occasionally moored 46 miles E of Bell Rock.

Whiting Ness to the River Tay

13.3 Whiting Ness (56°34'N., 2°33'W.) is the N entrance point of the approaches to the River Tay. The coast in the vicinity of this point consists of red sandstone cliffs. Dickmount Law, a small hill, rises 1.5 miles NNW of the point and is surmounted by a clump of prominent tall trees.

Arbroath (56°33'N., 2°35'W.), a fishing center, lies 0.8 mile WSW of Whiting Ness. The coast between is low and is fronted by rocky drying ledges which extend up to about 0.2 mile seaward. The harbor, which consists of a tidal basin and a wet dock, is protected by breakwaters and fronted by rocks and reefs.

Tides—Currents.—Tides rise about 4.5m at springs and 2.2m at neaps.

Depths—Limitations.—The harbor, which has an entrance 33m wide, is approached from the SE by a dredged channel leading through a gap in the reefs. This channel is dredged to 2.0m to the harbor entrance, then 1.5m to the tidal basin. The entrance to the tidal basin is 15m wide and the entrance to the wet dock is 12.2m wide. Both the basin and the wet dock dry as the gates of the latter are not operational and vessels take the bottom at LW. The harbor provides 845m of total quayside and has a depth of 4.3m at springs.

Vessels of up to 67m in length, 10.9m beam, and 4m draft have been accommodated at HWS. The harbor is mostly used by fishing vessels and pleasure craft.

Aspect.—A lighted range indicates the entrance fairway. A disused signal tower, surmounted by a flagstaff, stands close WNW of the harbor entrance. Two churches, with prominent spires, stand in the N part of the town. A conspicuous ruined abbey is situated in the NW part of the town.

Contact Information.—The Arbroath harbormaster can be contacted, as follows:

1. Telephone: 44-1241-872166
2. E-mail: harbourmaster@angus.gov.uk

Caution.—During strong onshore winds with a heavy ground swell, a strong SW set, with a rate of as much as 1.5 knots, is often experienced across the entrance. Vessels should use extreme care when approaching the harbor under these circumstances.

An outfall pipeline extends 0.5 mile S from the root of the W breakwater and is marked by a lighted buoy.

13.4 Elliot Water (56°33'N., 2°37'W.) enters the sea 1.3 miles SW of Arbroath. Elliot Horses, consisting of several shallow rocks, extends up to about 0.4 mile seaward of the mouth of this river. A prominent chimney stands near the mouth of the river and a chemical plant, with three prominent chimneys, is situated 0.8 mile SSW of it.

Carnoustie (56°30'N., 2°43'W.), a small town, stands 5.5 miles SW of Arbroath and two conspicuous chimneys, 49m high, are situated in its W part. West Haven, an opening in the foreshore rocks, fronts the NE end of the town and provides shelter to local fishing boats.

Between Carnoustie and Buddon Ness, 2.3 miles SW, the coast consists mainly of grass-covered sand dunes, 15 to 18m high.

Buddon Ness (56°28'N., 2°44'W.), the NE entrance point of the River Tay, has grass-covered dunes, 6 to 9m high, rising on its E side and similar dunes, 9 to 12m high, rising on its S side. Old Buddon High Lighthouse, a conspicuous disused light tower, is 32m high and stands 0.6 mile NW of the point. Another disused light tower stands 0.4 mile NW of the point.

Caution.—A military firing range lies close offshore between Carnoustie and Buddon Ness. Red flags are displayed from several flagstaffs standing along the coast when the range is operational. At night, a red light is shown from the conspicuous disused light tower situated near Buddon Ness.

A spoil ground area, which may best be seen on the chart, lies 1.5 miles ESE of Carnoustie.

Entrance to the River Tay

13.5 The River Tay is entered between Buddon Ness and Tentsmuir Point, 3.2 miles WSW. Dundee, a major port, and Perth, a small port, lie 7 miles and 28 miles, respectively, above the river mouth.

The river entrance is encumbered with extensive sands which are liable to change, especially during E gales.

Gaa Sands, which dries, and Gaa Spit front the E side of Buddon Ness. They extend up to about 2 miles seaward and may best be seen on the chart.

Abertay Sands, which dries, extends up to about 3 miles E from Tentsmuir Point. Elbow, an extensive shoal, has shallow depths and extends about 2.5 miles E and NE from the E end of Abertay Sands. Abertay Spit lies on the S side of Elbow. The Bar lies close N of the N end of Elbow. All these obstructions, which may best be seen on the chart, have been extending in an E direction for many years. However, as The Bar has also moved NE, the depths in this part of the entrance have remained fairly constant.

The main navigable channel, which is marked by lighted buoys, leads across The Bar and between Gaa Sands, on the N side, and Abertay Sands, on the S side. This channel is narrow and has a least depth of 4.8m on the centerline at Lady Shoal.

An outer approach lighted buoy is moored about 4 miles ENE of Buddon Ness and marks the seaward side of the bar. Abertay Lighted Buoy, equipped with a racon, is moored on the N side of the channel, 2.5 miles ESE of Buddon Ness.

Tides—Currents.—Tides at The Bar rise about 4.5m at springs and 2.3 m at neaps.

Vessel Traffic Service.—Inbound and outbound vessels to and from the River Tay are required to report to Dundee Harbor Radio on VHF channel 12 when passing following reporting points:

1. Inbound vessels:
 - a. Fairway Lighted Buoy (56°28.3'N., 2°36.6'W.).
 - b. Abertay Lighted Buoy (56°27.4'N., 2°40.3'W.).
 - c. Lady Lighted Buoys (56°27.2'N., 2°46.8'W and 56°27.4'N., 2°46.8'W.).
 - d. Newcombe Lighted Buoy (56°27.7'N., 2°53.5'W.).
2. Inbound vessels to Perth—after clearing the railway bridge.
3. Outbound vessels from Perth:
 - a. Entering the W limit at Balmerino.
 - b. Clear of the bridge.
4. Outbound vessels:
 - a. Lady Lighted Buoys (56°27.2'N., 2°46.8'W and 56°27.4'N., 2°46.8'W.).
 - b. Abertay Lighted Buoy (56°27.4'N., 2°40.3'W.).
 - c. Fairway Lighted Buoy (56°28.3'N., 2°36.6'W.).

Caution.—Crossing The Bar is dangerous during heavy weather.

Passage across Abertay Sands and Gaa Sands is highly dangerous.

Depths in the vicinity of The Bar are liable to change and the authorities should be contacted for the latest information.

The outer lighted buoys marking the entrance channel are liable to break adrift or be off station during heavy E gales.

A spoil ground area, which may best be seen on the chart, lies 4 miles SE of Buddon Ness.



The Tay Bridge

The River Tay

13.6 Between Buddon Ness and Broughty Castle, 4.2 miles W, the N bank of the river forms a bay which is encumbered by Barry Sands, Lady Bank, and Montiefieth Sands. Broughty Castle, a square building, is 24m high and very conspicuous from seaward. Lady Bank extends up to 1.5 miles from the shore and is marked by a lighted buoy.

Lady Shoal, lying about 1.5 miles SW of Buddon Ness, consists of several shoal patches with a least depth of 4.8m. These patches almost form an inner bar across the entrance channel and have a least depth of 3.5m.

Horse Shoe, a shallow ridge of foul ground with large stones, lies close W of Lady Bank. It is located on the N side of the entrance channel, which narrows in this vicinity, and is marked by a lighted buoy. Above this ridge, the channel widens to almost the full width of the river.

A prominent monument, 198m high, stands on a hill which rises 4.2 miles NW of Buddon Ness, but is reported to be obscured by trees.

Tayport, on the S side of the river, lies 0.8 mile SSW of Broughty Castle. This small harbor consists of a drying tidal basin which is formed by piers and has an entrance 25m wide. It has 480m of quayage, with depths of up to 2.4m alongside at HW, and can be entered by small vessels. A main sector light, which indicates the channel, is shown from a tower, 23m high, standing 0.5 mile W of the entrance to the harbor. The tower is reported to be difficult to distinguish except in good light.

Between Tayport and Tentsmuir Point, 2 miles E, the S bank of the river forms a bay which is encumbered by Larick Scalp, Lucky Scalp, and Green Scalp. These drying banks of sand and gravel extend up to 0.7 mile offshore in places and are marked by beacons and lighted buoys. Newcome Shoal fronts the S shore of the river to the W of Tayport and is marked by lighted buoys.

The Tay Road Bridge spans the river 2 miles W of Tayport. The channel leads through two lighted navigational spans, which are 76m wide and have minimum vertical clearances of 21m at the center. Vessels proceeding W must use the N span and vessels proceeding E must use the S span. Vessels are prohibited from passing through the two spans which are situated on each side of the navigation spans.

The Tay Road Bridge for rail traffic, is situated 1.5 miles W of the Tay Road Bridge and has a total of 83 spans. The navigational channel leads between piers 30 and 35 and under the 7th and 8th larger spans counting from the N. The vertical clearance of this bridge, above the channel, is greater than that of the road bridge. An obstruction, the remains of an old bridge, lies between the 4th and 5th spans from the N and this part of the channel is closed to navigation.

A prominent monument stands close SE of the S end of the Tay Road Bridge and a conspicuous television mast stands 0.3 mile ESE of it.

Pilotage.—Pilotage is compulsory for the following:

1. All vessels carrying passengers, excluding local ferries and pleasure craft.
2. Vessels of 40m loa and over.
3. Vessels 85m loa and over, engaged in dredging or other civil engineering operations or anti-pollution operations.
4. Tankers carrying hazardous cargoes or not gas-free.

Pilots board, as follows:

1. Passenger vessels, vessels carrying dangerous cargo, and vessels over 90m loa—Near Fairway Lighted Buoy (56°28.3'N., 2°36.6'W.). The pilot may also board on any vessel near the fairway, but only after making a prior arrangement.
2. Tankers less than 90m loa, in ballast but not gas free—Position 56°27.3'N, 2°45.6'W provided all prearrangements are in order.
3. All other vessels—Position 56°27.3'N, 2°45.6'W only

after granting of special request.

Regulations.—Vessels should send an ETA at the Fairway Lighted Buoy to Dundee Harbor Radio at least 6 hours in advance and confirm with amendments 2 hours prior to arrival on VHF channels 16 and 12. Vessels over 300 gt and all vessels carrying dangerous cargoes should also give 24 hour advanced notice to Dundee Harbor Radio.

Vessels should establish VHF contact when within range and provide the following information:

1. ETA at Fairway Lighted Buoy.
2. Maximum draft.
3. Any defects, including deficiencies and capability of vessel and/or personnel which may affect the safe navigation or maneuverability of the vessel.
4. Confirmation that a pilot passage plan has been prepared.
5. Confirmation that both anchors will be cleared and ready for use before proceeding past Fairway Lighted Buoy.
6. Security information as per the ISPS Code.

Deep-draft vessels are advised to arrive off Outer Approach Lighted Buoy at least 3 hours before HW in order to berth at Dundee on the same tide.

Vessel Traffic Service.—See paragraph 13.4.

Contact Information.—See paragraph 13.7.

Anchorage.—Anchorage is available, in a depth of 6m, about 0.6 mile WSW of Buddon Ness. Anchorage can also be taken, in a depth of 6m, about 0.7 mile NE of the S end of the Tay Road Bridge.

The Port Authority occasionally anchors vessels in the vicinity of West Deep Lighted Buoy (56°27.1'N., 2°56.2'W.), particularly vessels bound for Perth or awaiting HW.

Vessels are prohibited from anchoring in the vicinity of submarine cable crossing the river close W of Tayport High Light and the submarine gas pipeline that runs NNE across the river from Tentsmuir Point. The landing places of the pipelines are marked by lighted beacons.

Caution.—Several outfall pipelines extend from the shores of the river and may be best seen on the chart.

A submarine gas pipeline lies across the channel, about 2 miles E of Broughty Castle, and may best be seen on the chart.

Several submarine cable areas lie within the river and may be best seen on the chart.

Several spoil ground areas, which may best be seen on the chart, lie within the river.

Dundee (56°28'N., 2°57'W.)

World Port Index No. 32170

13.7 Dundee is one of the most important ports on the E coast of Scotland. The town, which backs the port, extends for 3 miles along the N side of the river.

Tides—Currents.—Tides at Dundee rise about 4.8m at springs and 2.3m at neaps.

Forthports Home Page

<http://www.forthports.co.uk/ports/dundee>

Depths—Limitations.—There are facilities for general cargo, ro-ro, tanker, bulk, oil supply, and cruise vessels. In addition, heavy shore moorings allow for the handling of semi-submersible oil rigs. Vessels up to 260m in length, 45m beam, and 8.8m draft can be accommodated in the port.

Caledon East Wharf is no longer in use.

Camperdown Dock and Victoria Docks are no longer used for commercial purposes.

For further berthing information refer to the table titled **Dundee Harbor—Berth Information.**

Aspect.—A conspicuous memorial stands on a hill, 184m high, which rises 1 mile NW of the N end of the Tay Road Bridge. A conspicuous television mast stands close N of this memorial. A church, with a conspicuous spire, stands close NW of the N end of the Tay Road Bridge and a prominent building is situated close S of it. Two other prominent buildings are situated 0.4 mile WSW of the church.

Dundee Harbor—Berth Information					
Berth	Length	Depth	Maximum Vessel		Remarks
			Draft	Beam	
General Cargo					
King George V Wharf	448m	8.5m	8.0m	35m	General cargo and offshore.
Princess Alexandra Wharf	225m	8.0m	—	—	General cargo.
Rigs Terminal					
Prince Charles Wharf	315m	9.5m	—	—	Rigs.
Ro-ro and General Cargo					
Eastern Wharf	215m	8.0m	—	—	Ro-ro and general cargo.
Camperdown Dock	560m	3.0m	—	—	—
Victoria Dock	840m	4.3m	—	—	Leisure market.
Queen Elizabeth	194m	7.0m	—	—	Leisure market.

Dundee Harbor—Berth Information					
Berth	Length	Depth	Maximum Vessel		Remarks
			Draft	Beam	
Tanker Berths					
Nynas Terminal					
Caledon West	70m	9.5m	7.8m	47m	Petroleum products. Can accommodate vessels up to 120,000 dwt with a maximum loa of 265m.



Regulus Tower (St Andrews)

Regulations.—See paragraph 13.6.

Contact Information.—Dundee Harbor Radio can be contacted, as follows:

1. Call sign: Dundee Harbor Radio
2. VHF: VHF channel 12
3. Telephone: 44-1324-498585
4. Facsimile: 44-1324-668480
5. E-mail: ftns@forthports.co.uk

Caution.—Beacon Rock, which dries and is marked by a beacon, is the outermost of several rocks which lie close off the W end of Queen Elizabeth Wharf.

A prohibited anchorage area, the limits of which are shown on chart, fronts the harbor and extends up to about 0.4 mile offshore.

13.8 Perth (56°24'N., 3°27'W.) (World Port Index No. 32180), a small port and yachting center, lies on the W side of the river 19.5 miles above the Tay Railroad Bridge and 0.5 mile below the city of the same name.

Tides—Currents.—Tides rise about 3.4m at springs and 2m at neaps.

Depths—Limitations.—The harbor has 640m of quayage with alongside depths of up to 4.5m at HWS. Vessels lie aground on a mud bottom at LW, but the harbor does not completely dry. Vessels of up to 2,800 dwt, 87.6m in length, 12.8m beam, and 4.2m draft have been accommodated.

The river channel is spanned by a bridge, with a vertical clearance of 25m, and by power cables, with a minimum vertical clearance of 23m.

Aspect.—The channel above Dundee leads through the drying banks in the river and is marked by buoys, beacons, and cairns.

Pilotage.—Pilotage is not compulsory above Dundee, but is available and recommended for vessels without local knowledge.

Vessel Traffic Service.—See paragraph 13.4.

Contact Information.—The port of can be contacted, as follows:

1. Call sign: Perth Harbor
2. VHF: VHF channels 9 and 16
3. Telephone: 44-1738-624056
4. Facsimile: 44-1738-622263
5. E-mail: harbour@pkc.gov.uk
6. Web site: <http://www.perthharbour.gov.uk>

Caution.—High barometric pressure can considerably reduce the predicted rise of tide at the port.

The Tay River to Fife Ness

13.9 Saint Andrews Bay (56°23'N., 2°41'W.) lies between Tentsmuir Point, the S entrance point of the River Tay, and Fife Ness, 13 miles SE. The River Eden flows into the head of the bay, 4 miles S of Tentsmuir Point. The coast between is low and backed by sandhills. The shore is fronted by Tentsmuir Sands which extend up to about 0.5 mile seaward in places.

Caution.—Targets and target buoys may be occasionally moored off the coast between the mouth of the River Eden and Tentsmuir Point.

The **River Eden** (56°22'N., 2°49'W.) flows into the bay 4 miles S of Tentsmuir Point. Its narrow entrance is bordered by wide sandy flats and fronted by a bar which is constantly changing. A small quay is situated 3 miles above the entrance at a place where a railway bridge spans the river. A prominent chimney stands close N of the quay. Generally, there are depths of 5.1m on the bar, 2.7m within the bar, and 2.1m alongside the quay at HWS. The river is only suitable for small craft with local knowledge.

Saint Andrews (56°20'N., 2°48'W.), a small town, stands on an area of flat land, 18m high, located 6 miles S of Tentsmuir Point. It is fronted by a small drying harbor which lies at the mouth of Kinnes Burn. The harbor consists of inner and outer basins and is protected by a pier which stands on The Skellies, a rocky ledge. It has an entrance only 8m wide, which is spanned by a movable pedestrian bridge, and is used by small local fishing boats and pleasure craft.

Regulus Tower, with the ruins of a cathedral close N, stands at the E side of the town and is conspicuous. The university, with a prominent spire, is situated in the NW part of the town. Drumcarrow Craig, a rugged-topped hill, rises 3 miles SW of the town and is prominent. It is 215m high and surmounted by a mast.

Anchorage is available within the bay, in depths of 11 to 13m, sand and clay, about 1.5 miles ENE of Regulus Tower.

The coast forming the S part of Saint Andrews Bay is rocky and mostly consists of cliffs up to 30m high.

13.10 Babbet Ness (56°18'N., 2°35'W.) is located 4.5 miles ESE of Saint Andrews; the village of Kingsbarn, with a prominent church, stands 1 mile S of it. A conspicuous silo and a windpump stand 3.2 miles W and 1 mile W, respectively, of this point.

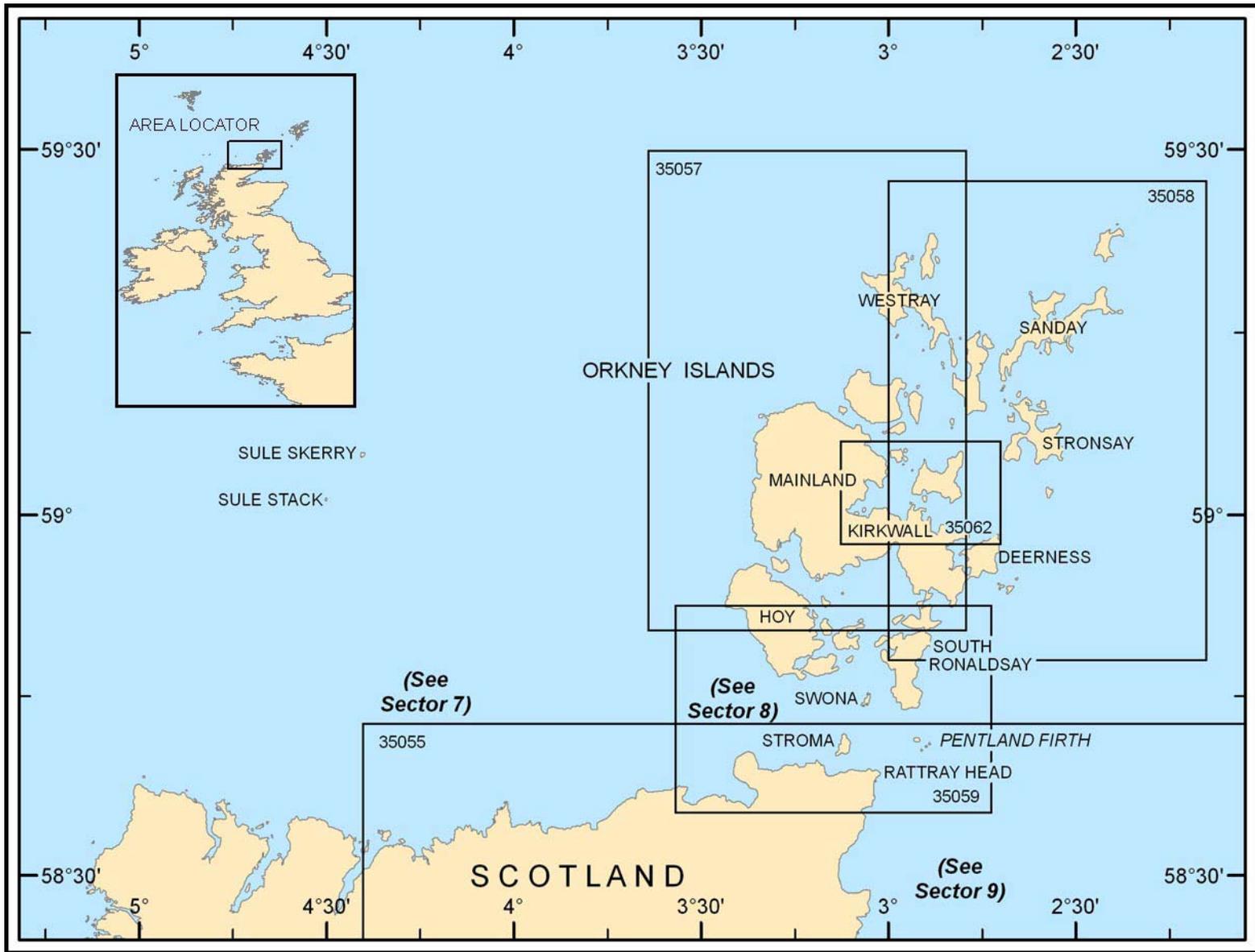
Cambo Ness is located 1.5 miles SSE of Babbet Ness and is fronted by Cambo Ledge, a rocky shoal, which has a least depth of 5.4m and extends up to about 1 mile offshore.

Fife Ness (56°18'N., 2°35'W.) is located 2 miles SE of Cambo Ness and formed by a cliff, 10m high. The coast between is rocky, backed by grassy slopes, and fringed by rocks which extend up to about 0.3 mile offshore. A light is shown from a building, 5m high, standing on the point.

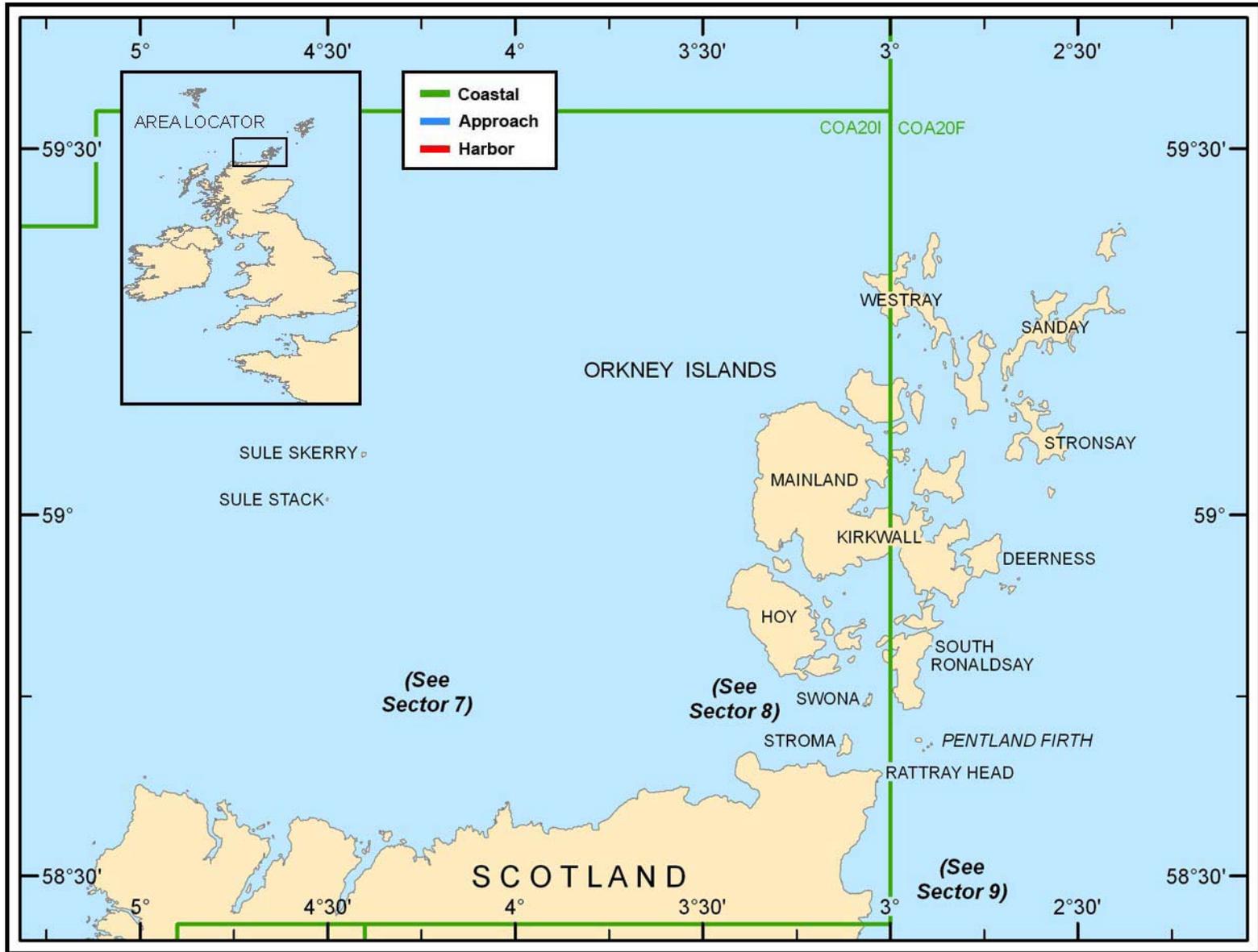
A prominent radio tower stands at a coast guard station situated close SW of the light and a very conspicuous house, with a square tower and outbuildings, is situated 0.7 mile W of it. East Lomond, 421m high, and West Lomond, 519m high, rise about 22 miles W of Fife Ness. Both of these isolated mountains are prominent from seaward.

North Carr Rock, which dries 1.4m, lies about 1 mile NE of Fife Ness and is marked by a beacon, 5m high, which resembles, at a distance, a small vessel under sail. The rock lies at the NE extremity of the shoals and foul ground which extend seaward from Fife Ness; a lighted buoy is moored about 0.8 mile NE of it.

The coast extending S from Fife Ness is described in Pub. 192, *Sailing Directions (Enroute) North Sea*.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).
SECTOR 14 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.
SECTOR 14 — DNC LIBRARY INFORMATION

SECTOR 14

THE ORKNEY ISLANDS

Plan.—The W and N coasts of the Orkney Islands are described in this sector. North Sound and North Ronaldsay Firth are also included. The descriptive sequence is generally from S to N and then from W to E.

General Remarks

14.1 The Orkney Islands, which are separated from the E part of the N coast of Scotland by Pentland Firth, consists of a group of 56 islands, 29 of which are inhabited, and numerous rocky islets. In general, all the islands in the group are low, irregular-shaped, and comparatively steep-to on their seaward sides.

Mainland, the largest and most important island of the group, is about 22 miles long and lies in a NW and SE direction. Kirkwall and Stromness, the principal towns of the Orkney Islands, are situated on Mainland. Several lakes are to be found on each of the larger islands of the group. Loch Stenness and Loch Harray, on Mainland, are the largest, each of which is over 3 miles long. Hoy (58°50'N., 3°15'W.) the southwesternmost island, is the only one that can be considered mountainous. Ward Hill, located near the center of the N part of that island, has an elevation of 475m and is the highest mountain in the Orkneys.

The Orkney Islands are divided into two groups by Westray Firth and Stronsay Firth. Mainland, Hoy, and several of the other larger islands lie S of these firths. Those islands lying N of them are known locally and collectively as the North Isles. The waterway formed by Westray Firth and Stronsay Firth is wide, deep, and straight in contrast to the numerous other firths and sounds that intersect the group, most of which are narrow, constricted, and shoal-encumbered.

The E side of the Orkney Islands has no dangers outside the 60m curve, which runs in a NNE direction and lies about 2 miles seaward of the salient points of the various islands. This curve is nearly straight and does not extend into the various firths and sounds. Outside the 60m curve and S of Lamb Head, the SE extremity of Stronsay, the bottom is very regular and consists of fine sand for up to a distance of about 10 miles offshore. North of Lamb Head, the character of the bottom changes to broken shells. At a distance of about 3 miles E of Start Point, the E extremity of Sanday, the bottom consists of rock and broken mussel shells, and E of North Ronaldsay (59°22'N., 2°26'W.), the NE most island of the Orkneys, it is rocky and uneven.

Soundings on the W side of the Orkney Islands are not as helpful as on the E side as the depths are great and there is little variation in the character of the bottom when in the vicinity of the several off-lying banks. Nun Rock, Sule Skerry, Stack Skerry, and their adjacent banks are described in paragraph 7.2. North Shoal, the other off-lying danger in the W approach to the Orkney Islands, is described in paragraph 14.3.

Pilotage.—The Competent Harbor Authority (CHA) provides pilotage for Flotta Marine Terminal, Kirkwall, Scapa Flow, and Stromness. The CHA is divided into two areas, the

boundaries of which are best seen on the chart, as follows:

1. Scapa Flow and approaches.
2. Wide Firth, Shapinsay Sound, and Kirkwell Bay.

Pilotage is compulsory within the CHA areas, as follows:

1. All passenger vessels over 65m in length.
2. All other vessels over 80m in length.
3. Vessels under tow where the combined overall length of the towing vessel and the vessel being towed is over 65m.
4. All vessels over 300 gross tons carrying persistent oils in bulk.

Pilot ordering, boarding, and disembarking information is, as follows:

1. Wide Firth, Shapinsay Sound, and Kirkwall Bay—An ETA, including draft and destination, at Orkney Harbor limits should be sent at least 12 hours in advance to Orkney VTS with amendments sent at least 2 hours in advance. Pilots for departure should be requested 2 hours in advance.

Pilots board in position 59°00'25.2"N, 2°48'49.8"W (about 0.8 mile NW of Rerwick Head).

Pilots disembark about 0.8 mile NW of Rerwick Head or in position 59°00'25.2"N, 2°48'49.8"W (about 0.6 mile NE of Head of Wok).

2. Scapa Flow and its approaches—An ETA, including intended pilot boarding position, draft, and destination, at Orkney Harbor limits should be sent at least 12 hours in advance to Orkney VTS, with amendments sent at least 2 hours in advance. Pilots for departure should be requested 2 hours in advance.

Pilots board in the following positions:

1. Scapa Flow West—Position 58°45'42.0"N, 3°07'49.8"W (about 2.5 miles WNW of the N extremity of Swona).
2. Scapa Flow East—Position 58°45'49.2"N, 3°01'43.8"W (about 1 mile NE of the N extremity of Swona).
3. Stromness/Hoy Mouth—Position 58°56'36.0"N, 3°21'48.0"W (about 0.75 mile NNW of Braebuster Point).

Pilots disembark in the following positions:

1. Scapa Flow West—Position 58°45'42.0"N, 3°07'49.8"W (about 2.5 miles WNW of the N extremity of Swona) or position 58°50'00.0"N, 3°03'18.0"W (about 0.5 mile N of Hoxa Head Light).
2. Scapa Flow East—Position 58°45'49.2"N, 3°01'43.8"W (about 1 mile NE of the N extremity of Swona) or about 1 mile N of Hoxa Head Light.
3. Stromness/Hoy Mouth—Position 58°56'36.0"N, 3°21'48.0"W (about 0.75 mile NNW of Braebuster Point).

The pilot vessel is on station only when a vessel is expected.

Regulations.—Vessels should contact Orkney VTS (call sign: Orkney VTS) on VHF channel 11 or 16 upon entering or departing the Orkney Harbor Limits and before moving within Scapa Flow and Kirkwall Bay.

A listening watch should be maintained on VHF channels 11 and 16 beginning 2 hours prior to arrival. When within the harbor, listening watches should be maintained on VHF channel

11 and the appropriate VHF channel for their destination.

Vessel Traffic Service.—Participation in the Orkney Islands Vessel Traffic Service (VTS) is mandatory for all vessels of 12m loa and over or certified to carry more than 12 passengers when navigating within the VTS area. Non-reporting vessels are encouraged to participate.

Vessels must maintain a continuous listening on VHF channel 11 when navigating within the VTS area.

All inbound and outbound vessels must report to Orkney VTS (call sign: Orkney VTS) on VHF channel 11 when passing or crossing the following reporting points:

Point	Reference Name	Position
A	Shapinsay Sound	59°00.4'N, 2°49.1'W
B	East of Swona	58°44.0'N, 3°01.1'W
C	West of Swona	58°45.3'N, 3°08.7'W
D	Hoy Sound	58°56.8'N, 3°21.2'W
E	Wide Firth	59°02.0'N, 2°57.3'W
F	Clestrain Sound	58°56.5'N, 3°15.0'W
G	W of Nevi Skerry	58°50.7'N, 3°03.3'W
H	E of Nevi Skerry	58°50.9'N, 3°00.5'W

The following information must be sent to VTS Orkney when crossing the above-listed reporting points:

1. Vessel name.
2. Position.
3. Intentions.
4. ETA at the berth.

Prior to leaving a berth or anchorage in the VTS area, the following information must be sent to VTS Orkney:

1. Vessel name.
2. Intentions.
3. Route.

Orkney VTS can be contacted, as follows:

1. Call sign: Orkney VTS
2. VHF: VHF channels 11 and 16
3. Telephone: 44-1856-873636
4. Facsimile: 44-1856-873012
5. E-mail: marine.ops@orkney.gov.uk
6. Web site: <http://www.orkneyharbours.com>

Radar and AIS surveillance is maintained over Scapa Flow, Pentland Firth, Kirkwall Bay, Wide Firth, and Shapinsay Sound. Coverage may be reduced in poor weather.

Orkney VTS also provides details of ship movements and navigational information on request on VHF channels 11 and 16.

Caution.—Marine farms, which may be fixed or floating structures, and their associated moorings may be encountered in the inner waters of the islands. They are generally marked by buoys or beacons.

An Area to be Avoided, whose limits are best seen on the chart, has been established around the Orkney Islands. In order to avoid the risk of oil pollution and severe damage to the environment of the Orkneys, vessels greater than 5,000 gt carrying oil or other hazardous cargo in bulk should avoid this area.

West Coasts—Tor Ness to Bow Head

14.2 Tor Ness (58°46'N., 3°17'W.), the SW point of Hoy, has been previously described in paragraph 8.7.

Between Tor Ness and Sneuk Head, 4.3 miles NNW, the coast, which is fringed by a narrow reef, is generally low except for The Berry, a reddish-colored cliff. This cliff is 180m high and rises 1.5 miles NNW of Tor Ness. A steep-to rock, with a least depth of 1.8m, lies about 0.3 mile offshore, 1 mile NNW of The Berry.

Rora Head (58°52'N., 3°26'W.), the W point of Hoy, as well as the westernmost point of the Orkney Islands, rises to a height of 101m, 3 miles NW of Sneuk Head.

The central part of Hoy consists of rugged hills and valleys that decrease in height to the SE and S.

Kame of Hoy (58°55'N., 3°24'W.), the S entrance point of Hoy Mouth, lies 3 miles NNE of Rora Head. High, red cliffs rise from the shoreline along this stretch of the coast.

The Old Man of Hoy, a remarkable detached pinnacle rock, is 136m high and stands on the coast 1 mile N of Rora Head. St. John's Head, 346m high and prominent, is located 2 miles NNE of Rora Head.

Ward Hill, 477m high, rises 2.5 miles E of St. John's Head and is the summit of Hoy. Cuilags (West Hill), 434m high, is conspicuous and stands 1 mile NW of Ward Hill. A deep valley extends across the island between these two mountains.

Mainland

14.3 Breck Ness (58°58'N., 3°21'W.), a low peninsula, is 10m high. It forms the SW point of Mainland and the N entrance point of Hoy Mouth. The ruins of Breckness House stand near the shore on the SE side of the peninsula. A narrow reef fringes the shore in the vicinity of Breck Ness and depths of 5m extend up to 0.5 mile offshore. Braga Skerry, a rock which dries 1.5m, lies about 0.2 mile SW of Breck Ness and the sea breaks heavily over it during gales.

Row Head (59°03'N., 3°21'W.), located 5 miles N of Breck Ness, is the S entrance point of the Bay of Skaill. Cliffs, over 30m high, front the intervening shoreline. Strowa Skerry, a detached rock, lies close offshore, 1 mile N of Breck Ness.

In thick weather, Row Head can be mistaken for Kame of Hoy, where the cliffs are considerably higher.

The Bay of Skaill, shallow with a sandy beach at its head, lies between Row Head and Verron Point, 0.5 mile NNE. Marwick Head, 86m high, is located 3 miles N of Row Head. Marwick, a small drying bay, lies close S of this headland. The Kitchener Memorial, a rectangular stone tower, is 13m high and stands on the N side of Marwick Head.

Birsay Bay is entered between Marwick Head and Brough Head, 2 miles NNE. This shallow bay affords no shelter and depths of less than 5.5m extend up to 0.5 mile offshore.

Brough Head (59°08'N., 3°20'W.) is the W extremity of Brough of Birsay. This headland, which is connected to the mainland by a drying reef, usually appears as an island. It can be identified by an unusual triangular-shaped rock lying close off the NW extremity. A light is shown from a prominent tower, 11m high, standing on Brough Head.

Costa Head (59°09'N., 3°12'W.), the NE extremity of Mainland and the SW entrance point of Eynhallow Sound, is 122m



Kitchener Memorial



Brough of Birsay Light from N

high, conspicuous and faced with cliffs. Standard Rock lies close offshore about 0.8 mile W of the point. Costa Hill, 149m high, rises close S of the point and helps to identify it.

Caution.—**North Shoal** (59°13'N., 3°35'W.), a small and almost perpendicular rock, lies about 9 miles NW of Brough Head and has a least depth of 2.1m. Depths in the vicinity of this rock are uneven. With W gales, the sea breaks heavily over North Shoal and its position is marked by tide rips during calm weather.

Rousay

14.4 Quoyinalonga Ness (59°10'N., 3°07'W.), the low shelving point at the W extremity of Rousay, is the NE entrance point of Eynhallow Sound, the passage separating Mainland from Rousay. Sacquoy Head, a low and reef-fringed cape, lies 2 miles NNE of Quoyinalonga Ness, at the N end of Rousay, and forms the S entrance point of Westray Firth.

Westray

14.5 Inga Ness (59°17'N., 3°01'W.), the N entrance point of Westray Firth, lies 5 miles NNE of Sacquoy Head.

Noup Head (59°20'N., 3°04'W.), 75m high, lies 3.5 miles NNW of Inga Ness. This point, which is marked by a light, forms the NW extremity of Westray. The Lees, a group of flat and above-water skerries, extends 0.2 mile NW from the point. A narrow passage leads between the group and the point.

From Noup Head, the N coast of Westray trends in a general

NE direction for 4 miles to Bow Head. Depths of less than 9m extend up to 0.8 mile offshore along the intervening bight.

Bow Head (59°22'N., 2°57'W.), the N extremity of Westray, forms the W entrance point of the N entrance to Papa Sound, which separates Westray and Papa Westray. The Bow, a drying rock, lies on a reef that extends 0.5 mile N from Bow Head. With any swell, the sea breaks over this rock and breakers extend across the N entrance to Papa Sound during gales. Tide rips occur over a bank, with a depth of 21m, which lies about 3 miles N of Bow Head.

Tides—Currents.—The velocity of the tidal currents between Tor Ness and Noup Head generally does not exceed 1 knot at springs, except in the vicinity of North Shoal, where a velocity of about 2 knots has been observed. The E current divides off Rora Point, one part running SE toward Tor Ness and the other running NE toward Hoy Sound.

The W current appears to run regularly along the coast between Tor Ness and Rora Point, and then to the entrance of Hoy Sound, the current runs almost continuously N and NE. The velocity of the current between Tor Ness and the entrance to Hoy Sound usually does not exceed 1 knot at springs. The effect of the W current may be felt for a considerable distance to seaward.

The E current also divides near Bay of Skaill, with one part running S toward Hoy Sound and the other running N toward Brough of Birsay. The W current causes eddies in this vicinity.

Between Hoy Sound and the Bay of Skaill, the current runs continuously S, and almost continuously N from Bay of Skaill to Brough of Birsay. The velocity of the current between the entrance to Hoy Sound and Marwick Head probably does not exceed 1 knot at springs, but the velocity increases on approaching Brough of Birsay.

The E current from Brough of Birsay sets along the shore toward Costa Head and Sacquoy Head. Its rate, which is about 2 knots off Brough of Birsay at springs, increases toward Sacquoy Head. The currents setting out of Eynhallow Sound and Westray Firth may be felt for a considerable distance to seaward.

The NW current from Eynhallow Sound runs in a W direction along the coast from Costa Head to Brough of Birsay, but runs in a NE direction along the coast of Rousay, between Quoyinalonga Ness and Sacquoy Head. The currents setting out of Eynhallow Sound and Westray Firth sometimes produce tide rips and overfalls when they meet the Atlantic swell; a dangerous sea results during gales.

The E current divides at Noup Head, one part continuing in a SE direction into Westray Firth and the other setting E and NE along the N side of Westray.

Caution.—Vessels should avoid the bight lying between Noup Head and Bow Head and keep well N of the latter point. The sea often breaks heavily in depths of 20m along this stretch of the coast.

Papa Sound and North Sound

14.6 Papa Sound separates the NE part of Westray from Papa Westray (59°22'N., 2°53'W.). From the N, the passage is entered between Bow Head and Mull Head, the N extremity of Papa Westray. There is a least depth of only 3.9m in the fairway and the passage is often hazardous as tide rips occur in the



Papa Westray from SW

N part of the sound.

The W shore of Papa Sound lies between Bow Head, at the N end, and Ouse Ness, 2 miles S.

The **Bay of Skaill** (59°21'N., 2°57'W.) is entered between Aiker Ness, a point located 0.5 mile SE of Bow Head, and Vere Ness, 0.8 mile SSW. It is shallow and encumbered by reefs. The Ouse, a shallow lagoon, extends W from the SW end of the bay.

Holm of Aikerness (59°21'N., 2°56'W.), a group of three islets, lies on a drying reef. The two N islets are covered with grass and the S islet is bare and sandy. A cairn stands on the northernmost islet and a rock, with a depth of less than 1.8m, lies 0.2 mile N of it.

Caution.—Submarine cables cross the sound between the Bay of Skaill and Backiskaill.

Passage through the sound should only be attempted by small vessels with local knowledge.

14.7 The E shore of Papa Sound lies between Mull Head and Vest Ness.

Mull Head (59°23'N., 2°53'W.), the E entrance point of the N end of Papa Sound and the N end of Papa Westray, is about 12m high and fringed with drying rocks. Depths of less than 9m lie up to about 0.3 mile offshore NE of the point.

The Bore Rost, a dangerous tide rip, occurs off Mull Head during the W tidal current. At times the sea breaks in depths of 35m. However, vessels may safely pass within 0.5 mile of the headland in fine weather. Small vessels familiar with local conditions can, by keeping close inshore, follow a narrow passage of comparatively smooth water, even when The Bore Rost is

occurring. During the E tidal current with contrary winds, a heavy tide rip extends W and N of Mull Head.

Backiskaill (59°20'N., 2°54'W.), a village, stands on the W side of Papa Westray and has a landing for boats. Between Mull Head and this village, the E coast of Papa Sound is fringed with rocks and shoals for up to 0.2 mile offshore.

Skerry of Backiskaill, a drying stony bank, extends 0.2 mile W from the village. Depths of less than 5m extend across the sound from this bank to Aiker Ness.

Anchorage is available, in a depth of 14.6m, about 1 mile SSW of the village of Backiskaill.

14.8 Vest Ness (59°20'N., 2°54'W.), the S point of Papa Westray and the E entrance point of the S end of Papa Sound, is low and rocky. Depths of less than 5m extend up to 0.3 mile S of the point.

Tides—Currents.—From Noup Head, the NE current runs at a comparatively slow rate and joins the main SE current from the Atlantic at Bow Head. This combined current runs rapidly over The Bow, after which part of it runs through Papa Sound. The remainder of the current continues toward Papa Westray. Between Papa Westray and Holm of Aikerness, where there are eddies and overfalls, the current has a velocity of 2 to 3 knots at springs, but it is weak elsewhere in Papa Sound. The N current setting out of Papa Sound joins the NW current flowing from Mull Head, and little or no W current is felt along the coast between Bow Head and Noup Head.

The part of the SE current that runs from The Bow toward Papa Westray divides off that island. Part of it joins the S current setting through Papa Sound and the other part runs N

along the W coast of Papa Westray and joins the main SE current off Mull Head. The current flowing off the N part of the W coast of Papa Westray runs almost continuously in a N direction. The currents flow around Mull Head at a velocity of 6 knots at springs.

North Sound and Adjacent Sounds

14.9 North Sound is entered between Mull Head and Bur Ness, the N extremity of a peninsula that projects N from Sanday. Bur Ness is located 11 miles ESE of Mull Head. The W shores of the sound are formed by the E coast of Papa Westray and the SE coast of Westray. The SE shore of the sound is formed by the W coast of Sanday. The N entrances to the Sound of Faray, Calf Sound, and Lashay Sound lie on the S side of the sound. North Sound has general depths of up to 45m and the bottom consists principally of sand.

The E shore of Papa Westray between Mull Head and the Head of Moclett, 3 miles S, forms the NW side of North Sound.

Holm of Papa (59°21'N., 2°52'W.), a small and green islet, lies about midway between Mull Head and the Head of Papa. A cairn, which serves as a daymark, stands on the summit of this islet and surmounts the remains of a large mound.

South Wick, close W of the islet, affords anchorage to local small craft.

Teistie Taing, a drying reef, extends 0.1 mile SE from the islet and foul ground extends 0.2 mile seaward from it. A detached shoal, with a depth of 7.3m, lies 0.5 mile SSE of the islet.

The **Head of Moclett** (59°19'N., 2°53'W.), the SE point of Papa Westray, is the NNE entrance point of Pierowall Road. The Bay of Moclett lies close W of this headland. An isolated rocky patch, with a depth of 12.8m, lies 0.5 mile SE of the headland.

Pierowall Road (59°19'N., 2°56'W.) is entered between the Head of Moclett and the Skerry of Skelwick, 1.8 mile SSE. It affords sheltered anchorage, in depths of 13 to 16m, sand and weed with good holding ground. The tidal currents in this roadstead are generally slight.

14.10 The **Skerry of Skelwick** (59°18'N., 2°53'W.) is the principal danger in the approach to Pierowall Road. This rock, 0.6m high, lies at the N end of a spit which extends NE from the coast. Depths of less than 10m lie up to 0.4 mile N of the rock. A passage, with only a least depth of 5.4m, leads between the rock and the coast.

The irregular S shore of the roadstead is indented by several bights which are described from E to W.

Skel Wick, lying close W of Skerry of Skelwick, is unsuitable for anchorage due to the rocky bottom.

The **Bay of Swartmill** (59°18'N., 2°55'W.) lies between Spo Ness and Sneuk, a drying reef extending 0.3 mile N from the shore. With offshore winds, temporary anchorage can be taken in this bay, but the hard bottom is not a good holding ground.

The **Bay of Cleat** (59°18'N., 2°56'W.) lies between Sneuk and the Point of Cott, 0.8 mile NW. Shoals extend up to 0.3 mile N from the latter point.

The **Bay of Brough** (59°19'N., 2°57'W.) is shallow, with depths of less than 5m throughout. A drying reef extends 0.3

mile NE from the Ness of Brough, the W entrance point of the bay.

Caution.—A submarine power cable, which may best be seen on the chart, lies between the Bay of Moclett and the Bay of Swartmill.

The Bay of Cleat is obstructed by abandoned submarine cables and a marine farm.

14.11 Pierowall (59°18'N., 2°59'W.) (World Port Index No. 32410), a small village, is situated at the head of the inner harbor. Gill Point Pier, with a depth of 4.5m alongside its outer end, extends 188m SW from Gill Point. Several buildings stand on the pier and a prominent warehouse is situated near its root.

A breakwater extends SW from the shore, parallel with the pier and 72m W of it. The head of the breakwater extends SE and forms an enclosed harbor with an entrance, 30m wide.

Noltland Castle, built of red granite and in ruins, stands 0.5 mile inland, 1 mile WSW of Gill Point. This castle is easy to distinguish from the gray buildings in the vicinity.

Vessels may anchor as convenient, in depths up to 16.5m, within Pierowall Road, W of Vest Ness. Vessels may also anchor, in a depth of 7m, sand and weed with good holding ground, with the head of Gill Point Pier bearing 295°.

The SW side of North Sound, lies between Skel Wick and Grunavi Head.

Stanger Head (59°16'N., 2°52'W.) is the only bluff on the E side of Westray (59°18'N., 2°58'W.). Rack Wick, a bay, lies close W of this point and is encumbered by rocks.

14.12 Weather Ness (59°15'N., 2°50'W.), the SE point of Westray, lies 1.5 miles SE of Stanger Head. The coast between is steep-to and consists of cliffs up to 46m high.

Weatherness Sound is narrow and leads between Weather Ness and the N end of Holm of Faray, an islet lying 0.3 mile S. Reefs, which extend up to 0.2 mile S from Weather Ness, reduce the navigable channel to a width of about 200m. The fairway has a depth of 9.1m. At springs, the tidal currents in the sound may attain rates of 4 knots.

The Sound of Faray is entered from the N between the N end of Holm of Faray and Red Head, the N end of Eday.

Red Head (59°15'N., 2°45'W.), 64m high, lies 2.5 miles ENE of Holm of Faray. Several detached rocks lie close N of this point.

Red Holm (59°14'N., 2°48'W.), an islet, lies near the middle of the N entrance to the Sound of Faray and is 8m high. The E channel, leading between Red Holm and Eday, has a depth of 6.2m. However, the width of the fairway is restricted by shoals extending from Red Holm and Eday.

Faray (Fara) (59°13'N., 2°49'W.), 31m high, forms the W side of the sound. This island is connected to Holm of Faray at LW by a drying bank.

The **Point of Scaraber** (59°12'N., 2°49'W.), located at the S end of Faray, is the N entrance point of the S entrance to the Sound of Faray. A sandy shoal, with a depth of 3.6m, lies 0.5 mile ENE of this point and obstructs the S part of the sound.

14.13 Fersness Bay (59°12'N., 2°47'W.) forms the S end of the Sound of Faray. It lies between Greenan Nev, on the N side, and Fers Ness, on the S. A detached shoal, with a depth of 8.7m, lies about 0.4 mile W of Greenan Nev. The shore of the

bay is fringed by a shoal bank which extends up to 0.3 mile seaward.

Fers Ness (59°12'N., 2°49'W.) is the S entrance point of the Sound of Faray. Depths of less than 9m extend up to 0.2 mile seaward of this point.

The S entrance connects the Sound of Faray with Westray Firth. The fairway, which lies about midway between the Point of Scaraber and Fers Ness, has a depth of 12.8m.

Vessels may obtain anchorage, in a depth of 7.3m, about 0.3 mile E of Fers Ness.

Tides—Currents.—In the Sound of Faray, the tidal currents turn at the same time as those in Weatherness Sound. They attain rates of about 4 knots at springs in the narrow S part of the sound, but considerably less in the N part.

14.14 Calf Sound (59°15'N., 2°45'W.) is entered from the N between Red Head and Grey Head, the N point of Calf of Eday. Both of these headlands are prominent and rise from the low coasts on either side. A depth of 5.8m was reported to lie in the N entrance, about 0.4 mile SE of Red Head.

The S entrance to Calf Sound leads between the S end of Calf of Eday and Greeny Brae, on Eday.

Hen and Chickens, consisting of several small rocks which are awash at LWS, extends about 150m offshore from a point located 0.3 mile N of Greeny Brae. Except for this danger, the shores of the sound are generally steep-to and free of dangers. At its narrowest point, the navigable channel is 0.1 mile wide.



Calf Sound from S

Calf Sound Light (59°14'N., 2°46'W.), shown from Eday, indicates the fairway leading through the sound. By day, vessels should steer a mid-channel course. At night, the white sector of this light indicates the channel leading through the N entrance. Another white sector indicates the channel leading through the S entrance.

The currents in Calf Sound attain rates of 6 knots at springs. During N gales, the N tidal current sets up dangerous tide rips

at the N end of the sound.

Lashy Sound is entered from the N between Grey Head, located on Calf of Eday, and Grunavi Head, located on Sanday, 2.5 miles ESE. The S entrance lies between Greeny Brae, located on Eday, and Strang Quoy, located on Sanday, 1 mile E.

Calf of Eday (59°14'N., 2°44'W.), 53m high, lies on the W side of Lashy Sound, close E of the N end of Eday. The E side of this island is free of off-lying dangers, except at its SE end where a reef extends 0.5 mile E. The Bow, a rocky shoal, is the outermost danger in this vicinity. It has a least depth of 1.2m and lies 0.5 mile offshore, at the E extremity of the reef. The Scroggs and Lashy Skerry, two groups of drying rocks, both lie inshore of The Bow.

Tides—Currents.—Both the N and the S tidal currents increase in strength from S to N within Eday Sound. Throughout the sound, the S tidal current is appreciably stronger than the N current. The N current from Eday Sound sets directly onto the reefs lying W of The Bow and causes tide rips within the narrows. During N gales, the tide rips are especially strong.

14.15 Eday Sound lies close S of Lashy Sound and together they connect North Sound with Stronsay Firth. The S limit of Eday Sound lies between Ve Ness and Link Ness, 2 miles E.

The W shore of the sound lies between Greeny Brae and Ve Ness, 5 miles S. Mill Bay and London Bay, two small and shallow bights, indent the generally regular shoreline that is steep-to and free of dangers. An area, about 0.5 mile wide, lies in the middle of the sound, about 1 mile NW of Ve Ness, and has depths of 10 to 16.4m.

The SW coast of Sanday between Strang Quoy and Spur Ness, 2 miles S, forms the E shore of Eday Sound. Except for an isolated sandy shoal, with a depth of 5.2m, lying 1 mile NW of Spur Ness, this stretch of the coast is free of dangers. Depths of 10m extend up to 0.5 mile offshore close N of this isolated shoal.

The **Holms of Spurness** (59°10'N., 2°41'W.) lie at the S end of a shoal spit which extends 1 mile S from Spur Ness. It consists of three islets which are connected at LW.

The Keld, the channel lying close S of Spur Ness, has a least depth of 2.7m. It has an uneven bottom and is 0.3 mile wide. The strong tidal currents setting through the channel form tide rips off the entrance towards which the current is flowing.

Links Ness (59°09'N., 2°40'W.), 6m high, is the NW point of Stronsay and the SE entrance point of Eday Sound. Little Linga, an islet, lies on the shorebank which extends NW from this point. Depths of 9m lie up to 0.3 mile N of the islet and the channel leading S of it has a depth of only 6.4m.

Spurness Sound is entered midway between Holms of Spurness and Little Linga. This channel connects Eday Sound with Sanday Sound and has depths of 12.8 to 16.5m in the fairway which is 0.3 mile wide.

Tides—Currents.—At the N end of Eday Sound, the tidal currents attain rates of about 6 knots at springs. Farther S, the currents are weaker, and the direction of the S current is rather irregular. The N current in this position is more or less rotary, changing direction quickly when weak and slowly when strong. During the N current, a S countercurrent flows along the coast of Eday, N of the Bay of Backaland. Within Spurness Sound, the rates of the tidal currents vary between 3.5 and 4.5 knots. Tide rips usually form at the W end of the sound.



Courtesy of George Gilmour

North Ronaldsay old light (foreground) and new light

14.16 The SE shore of North Sound extends 5 miles NE from Grunavi Head, the NE entrance point of Lashy Sound, to Bur Ness, located at the NW end of Sanday.

Except for Runabrake, lying in the approach, and Cuthe Bank, lying farther S, North Sound is free of off-lying dangers.

Runabrake (59°22'N., 2°38'W.), a rocky area, has a least depth of 5.5m. It lies on the E side of the approach to North Sound, 7.5 miles ESE of Mull Head and 3.3 miles N of the Holms of Ire. Runabrake lies directly in the track of vessels bound through North Ronaldsay Firth from Mull Head. The W side of the shoal area is steep-to and the depths increase more gradually on the E side. During bad weather, the sea breaks heavily within 0.5 mile of this shoal area. At other times, very distinct tide rips form in the vicinity.

Cuthe Bank (59°16'N., 2°41'W.), with a depth of 18m, lies 2 miles NE of Grey Head, the NE point of Calf of Eday, in the N approach to Lashy Sound. At times, the sea breaks heavily over this bank.

Tides—Currents.—In the N part of North Sound, the tidal current from Mull Head runs E and ESE toward North Ronaldsay and North Ronaldsay Firth. Its velocity decreases rapidly and, in a position about midway between Mull Head and Runabrake, this current sets at 1 to 1.5 knots at springs. In the vicinity of Runabrake, the velocity of the current is about 3 knots at springs. This rate is probably maintained as far as North Ronaldsay Firth. The W and WNW currents run at about the same velocities. There is little or no tidal current in North

Sound within an area lying S of a line extending between Holms of Ire and Holm of Papa and lying N of the entrances to Weatherness Sound, the Sound of Fara, Calf Sound, and Lashy Sound.

From Grunavi Head, the W coast of Sanday extends 3.5 miles in a general NNE direction to Whale Point. It then extends 2.8 miles W to Whitemill Point, located at the NE end of the Burness Peninsula.

The **Ness of Brough** (59°16'N., 2°36'W.) projects NW from the head of the bight which indents the coast about midway between Grunavi Head and Whale Point. This peninsula divides the bight into two bays, Bay of Brough and North Bay.

Bow of Hermaness, a rocky shoal, has a depth of less than 1.8m and extends about 0.8 mile NW from the Ness of Brough.

Whale Point (59°18'N., 2°37'W.) is the NW extremity of the Burness Peninsula and Roos Wick, a shallow bay, lies close E of it.

The Holms of Ire are the northernmost of several rocky islets, the tallest of which is 3m high, lying on a drying spit extending 0.8 mile NNW from Whale Point. The Lotheran, a group of drying rocks, lies 0.3 mile N of the islets and The Tuo, a rocky shoal, lies about 0.3 mile farther N and has a least depth of 8.2m at its outer end.

14.17 Bur Ness (59°18'N., 2°33'W.) is the N point of the Burness Peninsula; Whitemill Point, the NE point, is located 1 mile E of it. Between Whale Point and Bur Ness, the coast is



Start Point Light

low, rocky, and fringed with reefs.

Riv ($59^{\circ}19'N.$, $2^{\circ}33'W.$), a drying reef, extends 1 mile N from Bur Ness and is marked at its N end by a beacon. Shoals extends 0.3 mile NE from the beacon and 0.5 mile seaward from the entire length of the reef. Baa of Trevan, with a least depth of 3.7m, lies 0.5 mile NNE of the outer extremity of the reef. The NW tidal current sets directly over this shoal. The bay lying between the Riv and the Holms of Ire is dangerous due to the strength of the tidal currents.

Whitemill Bay lies between Bur Ness and Whitemill Point, the SW entrance point of North Ronaldsay Firth.

North Ronaldsay

14.18 North Ronaldsay, the northernmost of the Orkney Islands, lies 13 miles E of Papa Westray and 2 miles N of the N extremity of Sanday. It is 22m high and separated from the latter island by North Ronaldsay Firth. This firth extends for 3 miles and has a greatest width of 1.5 miles at its S end.

Tides—Currents.—The E current divides at a position off the W coast of North Ronaldsay, one part running S into North Ronaldsay Firth and the other part running N and E toward Seal Skerry, where it joins the main SE current. The current sets across Seal Skerry at a rate of 6 knots at springs, and dangerous tide rips often occur in this vicinity during S gales. From Seal Skerry, the current flows SE and S, and produces a countercurrent off the E coast of North Ronaldsay during the last half of its period. This countercurrent runs N from a few minutes after HW at Stromness until about 3 hours before the next HW at Stromness. During the S current, the outer edge of the eddy is well marked, for a distance of about 7 miles SE of Seal Skerry, by a line of tide rips and breakers, known as Dennis Rost, which are especially violent during SE gales.

Twinness Point (Twinness Point) ($59^{\circ}21'N.$, $2^{\circ}26'W.$) is the SW point of North Ronaldsay. The W coast of the island, which is generally steep-to, trends NE for 2 miles from this

point to Tor Ness.

Twinness Rocks, a detached reef, lies 0.4 mile W of the point and has a least depth of 3m. Masewell Rock, with a least depth of 8.8m, lies 1 mile SW of Twinness Point and has depths of 11 to 14m close around it. With W winds, the sea breaks heavily over this rock during the NW tidal current.

Tor Ness ($59^{\circ}23'N.$, $2^{\circ}26'W.$) is the NW point of North Ronaldsay. Altars of Linay, a group of rocks that dry at LW springs, lies 0.3 mile N of this point and depths of less than 10m extend up to 0.3 mile N of it.

14.19 The **Point of Sinsoss** ($59^{\circ}23'N.$, $2^{\circ}23'W.$) is the N extremity of North Ronaldsay. Between this point and Tor Ness, 1.5 miles W, the coast is indented by Linds Wick and Garsow Wick. Depths of less than 10m extend up to 0.3 mile N from the shores of these small reef-fringed bays.

Dennis Head is located 0.5 mile SE of the Point of Sinsoss and a beacon, 21m high, stands on its E extremity.

North Ronaldsay Light is shown from a tower, 42m high, standing 0.4 mile NW of the beacon. A racon is situated at the light.

Seal Skerry, a rocky drying reef, extends 0.5 mile NW from the Point of Sinsoss. Between Dennis Head and the Point of Sinsoss, shoals fringe the coast and extend up to 0.3 mile offshore.

Brides Ness ($59^{\circ}21'N.$, $2^{\circ}24'W.$), the SE point of North Ronaldsay, is a low and shelving point. It is fronted by a shoal bank which extends 0.4 mile offshore.

Linklet Bay, lying between Dennis Head and Brides Ness, has depths of 11 to 14m over a rocky bottom. The shore is fringed by a bank which extends up to 0.3 mile seaward. This bay should only be used as a temporary anchorage during NW gales.

The S side of North Ronaldsay, from Brides Ness to Twinness Point, and Reefdyke, an off-lying danger, are de-

scribed with North Ronaldsay Firth. Masewell Rock is described with the W coast of North Ronaldsay.

North Ronaldsay Firth

14.20 North Ronaldsay Firth, the passage leading between North Ronaldsay and Sanday, is nearly 2 miles wide at its narrowest part and has general depths of 12 to 27m in the fairway.

Tides—Currents.—In North Ronaldsay Firth, the SE current sets strongly past Strom Ness, the S extremity of North Ronaldsay, and clear of Reefdyke toward Start Point. Off Start Point, tide rips form and extend 3 to 4 miles offshore. The heaviest rips occur near the land when S winds oppose the tidal current. The N and NW currents set from Start Point directly toward Reefdyke. Both of these tidal currents produce tide rips within the firth. The rips usually occur between Strom Ness and Tafts Ness during the SE current, and off Twyness Point, during the NW current. During and after W gales, the sea may break in the firth at all the places with depths of 15 to 22m. Both the SE and the NW tidal currents set through the firth at a velocity of about 4 knots at springs.

At springs, the tidal currents in the passage set at rates of up to 4 knots, and at times the tide rips are especially strong.

Caution.—Reefdyke (59°21'N., 2°22'W.) encumbers the NE approach and lies on the E side of a shoal spit which extends 1 mile E from Brides Ness. This reef has depths of 3.6 to 5.4m and its E side is steep-to. During bad weather, the sea breaks over the reef. It is usually marked by tide rips in fine weather.

14.21 North side.—From Brides Ness, the S coast of the firth trends SW for 1 mile to Strom Ness then 1 mile to Twyness Point. Shoals front this stretch of the coast and extend up to 0.3 mile offshore.

Strom Ness (59°21'N., 2°25'W.), the S point of the island, is fringed by a drying reef. South Bay lies between Strom Ness and Twyness Point. A light is shown, between 1 August and 30 April, from the pier fronting Nouster Village, which stands on the NW side of the bay.

Temporary anchorage is available, in depths up to 15m, between Brides Ness and Strom Ness. This anchorage is partially clear of the tidal currents, but the bottom, which is formed of sand and rock, provides only fair holding ground. Small vessels can obtain temporary anchorage, in depths up to 9m, sand, at the E side of South Bay.

14.22 South side.—The S side of the firth lies between Start Point, on the E side, and Whitemill Point, on the W. The coast is indented by, from E to W, Scuthvie Bay, Bay of Sandquoy, and Otters Wick.

Start Point (59°17'N., 2°22'W.) is the SE entrance point of the firth and also the E extremity of Sanday. This point, which is formed by a flat islet, lies at the E end of a drying and rocky spit projecting E from the shore.

A light is shown from a prominent tower, 23m high, standing on the islet. A conspicuous water tower is situated 1.8 miles NW of the light.

When approaching the firth from the E, vessels are cautioned not to not confuse Start Point with Dennis Ness.

Scuthvie Bay, which is foul and rocky, lies between Start

Point and Tafts Ness.

Tafts Ness (59°19'N., 2°25'W.), a low point, is located at the NE end of Sanday and should not be approached within 0.3 mile. A rocky ledge, with depths of 18.2 to 21.9m, extends 1 mile E from this point. During bad weather, the sea breaks heavily over the ledge.

The **Bay of Sandquoy** (59°18'N., 2°28'W.) lies between Crow Taing and West Ayre. A sandy beach, about 1 mile long, fronts the head of this bay.

Otters Wick (59°17'N., 2°32'W.) is entered between Whitemill Point and West Ayre, a low point 1.8 miles SE. From the entrance, this shallow bay extends inland for almost 3 miles.

The Skerry, formed by a group of rocks, extends E from Whitemill Point. Outer Skerry, the outermost rock, lies about 0.8 mile E of the point. This rock has a least depth of 2.1m and a buoy is moored close of it.

Whitemill Point (59°18'N., 2°32'W.), located at the E end of the Burness Peninsula, is the W entrance point of Otters Wick. A small and prominent knoll rises near the point.

Whitemill Skerry, a partly drying reef, extends NE from the point and depths of less than 9m lie up to 0.5 mile offshore in this vicinity. The tidal currents within Otters Wick are weak.

Caution.—Otters Wick provides indifferent shelter. The entrance has a navigable width of only 0.5 mile, and a sea sets into the bay with N and E winds. The landmarks in the vicinity of the bay are difficult to identify and frequently cannot be seen. If possible, vessels are advised to use the anchorage at Pierowall.

The Orkney Islands—East Coasts

14.23 The E coasts of the Orkney Islands, including Sanday Sound, are described next. The sequence, from N to S, is from Start Point to Tres Ness; to Odness; and then to Rose Ness, including Auskerry and Copinsay; Holm Sound; Water Sound; and Grim Ness to Old Head. Old Skerries and Old Head are also described in this sector. The areas lying to the S and W of the islands are described beginning in paragraph 8.8.

Sanday—Northeast Coast

14.24 The NE coast of Sanday is low and many places are barely above the level of HWS tides. Several houses stand along the shore and are the only available landmarks, but they are difficult to distinguish and are frequently obscured by haze.

Tides—Currents.—The tidal currents run strongly past Start Point, and tide rips occur when S winds oppose the current. These rips extend up to about 4 miles seaward of Start Point and are strongest near the shore. When the S current is running past Start Point, a countercurrent sets in a NE direction off the entrances to the Bay of Newark (59°15'N., 2°30'W.) and the Bay of Lopness.

Lop Ness (59°17'N., 2°25'W.), located 0.5 miles W of Start Point, is the N entrance point of a bight which extends 4 miles S to Tres Ness. Whoever Bay, small and shallow, lies between Start Point and Lop Ness. The coast between is fronted by reefs and shoals which extend up to 0.3 mile offshore.

Long Taing of Newark, a drying reef, lies 2 miles WSW of Lop Ness and divides the bight into the Bay of Lop Ness, on the N side, and the Bay of Newark, on the S. Baa Gruna, an ar-

ea of rocky foul ground, encumbers the S bay and extends up to 1 mile offshore.

Tres Ness (59°13'N., 2°30'W.) is the S point of the low flat peninsula which extends S from Sanday. It is also the NE entrance point of Sanday Sound.

Indifferent anchorage is available off Long Taing during offshore winds in summer. The bottom is generally rocky with occasional sandy areas. If it is necessary to anchor in this vicinity during calm weather, vessels should do so, in depths up to 27m, E of a line extending between Tres Ness and Start Point.

Sanday Sound

14.25 The E entrance to Sanday Sound (59°10'N., 2°35'W.) lies between Tres Ness and Odness, a point located on Stronsay, 6 miles S. The W entrance is connected to Eday Sound by Spurness Sound. Several bays and smaller secondary sounds indent the irregular shore of Sanday Sound. Numerous detached rocks and shoals encumber the sound, and two small islands, Holm of Huip and Papa Stronsay, lie close off Stronsay. The tidal currents within Sanday Sound are weak.

Cata Sand, an extensive drying flat, lies close W of the Tres Ness peninsula and The Clogg, a narrow channel, leads over it. Sty Wick lies between Tres Ness and Els Ness. A rocky bottom renders this bight unfit for anchorage. An isolated shoal, with a depth of 9.1m, lies 0.8 mile offshore, S of the entrance to The Clogg.

Els Ness (59°13'N., 2°34'W.) projects 1 mile S; a narrow isthmus, formed by dry sand, connects it to Sanday. Fosky Reef, rocky and with depths of less than 2m, extends 0.3 mile S from this point.

Kettletoft Bay, shallow and encumbered by reefs, is entered between Els Ness and Bea Ness, 0.5 mile NW. Holm of Elsness, a rocky and reef-fringed islet, lies in the approach to this shallow bay, 0.5 mile W of Els Ness.

Kettletoft (59°14'N., 2°36'W.), a small village, is situated on the W side of Kettletoft Bay. A light is shown from a pier which fronts the village. The white sector of this light indicates the channel leading into the bay. The fairway passes between Holm of Elsness and shoal, with a depth of 1.5m, lying about 0.3 mile W. The ruins of a church stand on the NE shore of the bay, about 0.5 mile NNW of the S extremity of Bea Ness.

14.26 Backaskaill Bay (59°14'N., 2°37'W.) lies close W of Bea Nests and depths of less than 9m extend up to 1 mile seaward of its head. With S and E winds, a heavy sea sets into this bay.

From Backaskaill Bay, the coast trends SW for 1.3 miles to Quoy Ness, a low and reef-fringed point. It then trends 1.3 miles SSW to Hacks Ness. Dennis Skerry, a detached reef, has a least depth of 0.6m and lies 0.3 mile offshore, about midway between Quoy Ness and Hacks Ness.

The Bay of Stove is entered between Hacks Ness and Spur Ness. This narrow bay extends inland for 1 mile and its N half dries.

Between Backaskaill Bay and Hacks Ness, the coast is fronted by shoals which extend up to about 0.5 mile offshore.

Spur Ness (59°11'N., 2°41'W.) is the S extremity of Sanday; W of it, a light is shown on a metal mast, 6m in height, from a ro-ro ferry terminal pier, 69m long with a depth of 5m along-

side is situated on the E side, 0.5 mile N of Spur Ness at Loth.

The SW side of Sanday Sound lies between Links Ness and Odness. Numerous rocks and isolated shoal areas encumber this part of the sound. Mill Bay indents the irregular coastline at the S end of the sound.

Holm of Huip (59°10'N., 2°39'W.), 18m high, lies 0.5 mile off the N coast of Stronsay; a cairn stands on its summit. This island is separated from Stronsay by Huip Sound, a narrow channel with a depth of only 3.1m.

Huip Ness, a flat peninsula, extends 0.8 mile SE from the N point of Stronsay. Numerous detached shoals, with depths of 3 to 9m, encumber the area lying N of Huip Ness and extend up to 1.8 miles offshore. Quiabow, a rocky shoal marked by a buoy, has a depth of 1.5m and lies in this area, about 0.5 mile E of the N point of Stronsay.

14.27 Papa Stronsay (59°09'N., 2°35'W.) lies off the NE side of Stronsay. This islet is 12m high; a light is shown from its NE side. A narrow, stony peninsula extends 0.3 mile W from the middle of its W side. A cairn stands on the SE point of this islet and a mound, surmounted by a pile of stones, stands at the N end. Shoals fringe the E side of the islet and extend up to 0.3 mile seaward. Papa Gruna, a shoal, extends 0.8 mile NNE from the islet and has a depth of 3.9m at its N extremity.

Papa Sound (59°09'N., 2°36'W.) lies between Papa Stronsay and the NE coast of Stronsay. Tidal currents in this sound are very weak.

Whitehall (59°09'N., 2°36'W.), a small village, stands on the S side of Papa Sound. It is fronted by a pier, which is marked by a light, and is an important fishing center. The fairway leading to the pier, which is marked by lighted buoys, has a depth of 3.4m.

Mill Bay (59°08'N., 2°35'W.) lies between Grice Ness and Odness, 1.5 miles SE. The bay does not provide good anchorage. However, if necessary, vessels can anchor, in a depth of 12m, about 0.3 mile S of Grice Ness. The bottom within the bay is generally sandy and foul.

14.28 Odness (Odin Ness) (59°07'N., 2°32'W.) is the S entrance point of Sanday Sound. Holm of Odness, an islet, lies on the shore bank close N of this point. The Bow, a small and detached drying reef, lies 0.3 mile N of the islet.

The coast of Stronsay from Odness to Lamb Head and the mainland coast from Mull Head, located on Deerness (58°57'N., 4°00'W.) to Rose Ness are described below, together with Auskerry and Copinsay. The area lying W of a line connecting Lamb Ness to Mull Head is described with Stronsay Firth.

Odin Bay (59°06'N., 2°32'W.) is entered between Odness and Burgh Head, about 2 miles S, and has high shores. The latter point is formed by sheer cliffs up to 45m high.

Lamb Head (59°05'N., 2°32'W.), located at the S end of the Lamb Ness peninsula, is 23m high. Between Burgh Head and Lamb Head, the coast consists of low, broken cliffs. Hells Mouth, a small bight, lies on the N side of Lamb Ness and is encumbered with rocks. Its shores are indented by numerous chasms. The breaking seas crash noisily on the rocks and flow through the chasms, with a heavy roar.

Auskerry (59°02'N., 2°34'W.), a grass-covered islet, lies 3 miles SSW of Lamb Head and is 18m high. A rocky shoal,

with a depth of less than 2m, lies on the N edge of a reef which extends up to 0.3 mile N from the islet.

A light is shown from a prominent tower, 34m high, standing on the S point of the islet. A chapel, in ruins, is situated on the E side of the islet.



Courtesy Des Colhoun

Auskerry Light

Auskerry Sound is described with Stronsay Firth in paragraph 14.42.

Caution.—A rock with a least depth of 4.1m lies about 0.4 mile S of Auskerry.

Auskerry should not be confused with Muckle Skerry, lying at the E end of Pentland Firth, which it closely resembles.

14.29 Mull Head (58°59'N., 2°43'W.), the NE point of Deerness, lies 5.5 miles SW of Auskerry. This steep-to headland is 47m high and forms the S entrance point of the E end of Stronsay Firth (59°06'N., 2°35'W.). Brough of Deerness, 0.5 mile S of the point, is a cliffy peninsula which is nearly separated from the coast by a deep ravine.

Skaill Skeeries, consisting of several detached drying reefs, lies 2 miles S of Mull.

Between Brough of Deerness and Skaill Skeeries, the shore consists of cliffs, up to 15m high, and is fronted by a narrow reef. Between Skaill Skeeries and the Point of Ayre, the coast is fringed with reefs and shoals which extend up to 0.3 mile offshore.

The **Point of Ayre** (58°55'N., 2°43'W.), located 3 miles S of Mull Head, forms the SE point of Deerness.

The Horse of Copinsay, a rocky islet, lies 0.5 mile NNE of North Nevi, the NE point of Copinsay, and is 27m high. The passage lying between this islet and Copinsay is foul. The islets of Ward Holm, Corn Holm, and Black Holm lie NW of Copinsay, on the shoal spit which connects the island to Deerness.

Copinsay (58°54'N., 2°40'W.), an island, lies at the SE extremity of a shoal spit, which extends about 2 miles SE from the Point of Ayre, and is 69m high. A light is shown from a prominent tower, 16m high, on the summit of this island.

To the W of the Point of Ayre, the S coast of Deerness is indented by Newark Bay, which is shallow and foul. A narrow isthmus connects the SW point of Deerness to the island of Mainland. In bad weather, the sea breaks over this narrow strip of land. The SE coast of Mainland is bordered by cliffs, 15 to



Courtesy Kristel Jeuring

Copinsay Light

30m high, and fringed by reefs and shoals.

Rose Ness (58°52'N., 2°50'W.), the SE point of Mainland, is also the N entrance point of the E entrance to Holm Sound. A light is shown from this point and a beacon stands on the cliffs, close NE of the light structure. Ward of Palpay, a prominent hill, stands 1.5 miles N of the point and is 87m high.

Holm Sound—Water Sound

14.30 Holm Sound and Water Sound, which at one time led into Scapa Flow, are now blocked by breakwaters. They are approached from the E between the Point of Ayre, the SE point of Deerness, and the SE point of South Ronaldsay (58°46'N., 2°58'W.) about 13 miles SSW.

Only the E parts of Holm Sound and Water Sound, which are located E of the breakwaters, are described below. The W parts of the sounds, which lie W of the breakwaters, are described with the E part of Scapa Flow.

The island of Burray lies between the SE coast of Mainland and the N coast of South Ronaldsay. It divides the passage leading into Holm Sound into two parts. A conspicuous beacon surmounts the summit which is 78m high and rises at the W

end of the island.

Two islets, Lamb Holm, on the N side, and Glimps Holm, on the S, divide Holm Sound into three smaller sounds. Kirk Sound leads N of Lamb Holm, Skerry Sound leads between the islets, and East Weddel Sound leads S of Glimps Holm.

Tides—Currents.—Since Holm Sound and Water Sound were closed by breakwaters, sufficient observations have not been obtained to determine the direction and rate of the tidal currents in the E parts of these sounds. It is probable that there is no regular tidal current.

14.31 Holm Sound is entered between Rose Ness and Burray Ness, the E point of Burray, 1.5 miles SW. The entrance has depths of 16 to 24m.

A breakwater extends completely across Kirk Sound, between the NW point of Lamb Holm and the mainland.

Skerry Sound is completely blocked by a breakwater which extends between Kirk Point and the NE end of Glimps Holm.

East Weddel Sound is also blocked by a breakwater which extends between Ward Point and the SE point of Glimps Holm.

During offshore winds, small vessels can anchor in the bight lying between Burray Ness and Burray Haas. The holding ground is good and the tidal currents are negligible. However, a heavy sea is quickly formed at this anchorage with E winds. When the wind opposes the tidal current, heavy seas extend into the sound as far as Lamb Holm. Vessels should not attempt to enter Holm Sound when strong S winds oppose the S tidal current.

Water Sound lies between Burray Ness and Grim Ness, the NE point of South Ronaldsay, 2 miles SW. A breakwater extending between Ayre of Cara, on South Ronaldsay, and Burray, to the N, completely blocks this sound. The larger part of Water Sound lies W of the breakwater and the E section is of little importance to shipping.

Caution.—The remains of blockships are reported to extend into Water Sound and up to 0.2 mile from the breakwater.

Submarine oil pipelines, which may best be seen on the chart, lie within Water Sound and connect the North Sea oil fields with Flotta Run.

14.32 From Grim Ness, the E coast of South Ronaldsay extends 5 miles S to Old Head.

Grim Ness (58°49'N., 2°52'W.), a prominent headland, projects E from the NE corner of South Ronaldsay and is 32m high. With W winds, vessels may anchor as convenient, in depths of 16 to 18m, about 0.5 mile offshore, between Grim Ness and Bigore Head. However, this section of the coast is open to the S and E. Wind Wick affords anchorage in W winds, but strong E winds cause a heavy sea in this bay.

Bay of Lime, entered between Grim Ness and Kirk Ness, is shallow and fringed by a narrow reef. Manse Bay, lying in the S part of Bay of Lime, is formed by an indentation in the reef.

Kirk Ness (58°48'N., 2°54'W.), a low and flat point, is fronted by foul ground extending up to 0.3 mile seaward. A prominent church stands close inland of Kirkhouse Point which is located 0.3 mile SW of Kirk Ness and fronted by rocky shoals on its SE side.

Newark Bay lies between Kirkhouse Point and Stews Taing. The N part of this shallow bay is known as the Pool of Cletts. Bigore Head is located 0.3 mile S of Stews Taing. The coast

between this point and Hesta Head is indented by several shallow bights and is backed by cliffs, 60 to 71m high. Wind Bay lies between Hesta Head and Halcro Head, 1.5 miles SSE.

14.33 Halcro Head (58°45'N., 2°54'W.), a bold headland, consists of prominent sheer cliffs. Between this headland and Old Head, the shore is rather irregular and is backed by cliffs, 30 to 36m high. Ham Geo, a narrow inlet, lies 0.3 mile N of Old Head, but a detached above-water rock obstructs its entrance.

Old Head (58°44'N., 2°55'W.), the SE point of South Ronaldsay, is only about 18m high and not prominent from seaward. Old Skerries, a rocky reef, extends 0.3 mile E from this headland.

The areas lying S and W of Old Head are beginning in paragraph 8.8, along with the N side of Pentland Firth.

Tides—Currents.—Off the E entrance to Stronsay Firth and at a position about 5 miles E of Mull Head, the currents are of a rotary nature and their velocities are somewhat irregular, varying between 0.8 knot and 1.5 knots.

Between Mull Head and the Point of Ayre, a countercurrent sets in a N direction during the SE current. With S gales, tide rips occur off Mull Head during the SE current.

In Pass, the tidal currents have a maximum velocity of 3 knots at springs and cause tide rips in the shallow parts of the passage, especially when the wind opposes the current. Under these latter circumstances, the sea may break heavily across the entire width of the passage. It is believed that the currents setting through Copinsay Pass do not set directly through the passage. The NE current is believed to set toward the N side of the channel and the SW current toward the S side.

Before the closing of Holm Sound and Water Sound, the current flowing between Copinsay Pass and Halcro Head was greatly affected by the strong currents running in and out of these sounds. With the blocking of the sounds this effect has ceased and little is known of the currents off this part of the coast.

The strong current running in an E direction out of Pentland Firth causes tide rips between Halcro Head and Old Head. It is believed that these rips may extend along the coast as far N as Grim Ness.

The Orkney Islands—Westray Firth—Stronsay Firth

14.34 The N side of Westray Firth (59°10'N., 3°00'W.) is described first, then the S side. The sequence is from W to E. For Stronsay Firth, the descriptive sequence is from E to W, first the N side and then the S.

Aspect.—Westray Firth and Stronsay Firth, which together form the widest channel through the Orkney Islands, lie between the islands of Westray, Eday, and Stronsay, on the NE side, and the islands of Rousay, Egilsay, Shapinsay, Mainland, and Deerness, on the SW side. The combined length of these firths is about 20 miles and there are general depths in the fairways of 31 to 36m.

With the exception of two islets, which lie near the junction point of the firths, and several detached reefs and shoals, which lie in the N part of the W end of Westray Firth, this waterway channel is comparatively free of off-lying dangers. However,

considerable caution is necessary for navigating these firths because of the rapidity of the tidal currents and the dangerous tide rips that may be encountered under certain conditions.

On its NE side, the channel leading through Westray Firth and Stronsay Firth is connected to the North Sound by the Sound of Faray and Eday Sound, which were previously described in paragraph 14.12. On its SW side, the channel is connected to the approaches to the town of Kirkwall by Shapinsay Sound and by several smaller sounds.

Numerous bays indent the irregular coasts of the islands that border the sides of these firths. Westray Firth and Stronsay Firth join each other in an area lying between War Ness, the S extremity of Eday, and a point, known as The Graand, which is the S extremity of Egilsay.

Westray Firth

14.35 Tides—Currents.—The E current setting from the Atlantic Ocean flows directly into Westray Firth, past Sacquoy Head, and into Saviskaill Bay, where it is very weak. The S current setting from Noup Head also flows into the firth. It flows very strongly across Skea Skerries and then weakly past the Bay of Tuquoy and toward Wart Holm. Between Sacquoy Head and Berst Ness, the current begins to flow into the firth at about 3 hours 45 minutes before HW at Stromness. Because of the two directions from which it sets, this current is rotary in character. At the beginning, the current flows in an E direction, but it changes slowly to run in an ESE direction near the time of HW at Stromness. At this latter time, the current attains its greatest velocity of 3 knots at springs. After HW at Stromness, the current changes direction more rapidly from E to ESE until about 2 hours after HW at Stromness, when the current ends.

In the S part of the firth, near Faraclett Head, the E current begins about 5 hours 30 minutes before HW at Stromness and attains a velocity of about 3 knots at springs.

In the N part of the firth, off Wart Holm, the SE current begins about 2 hours 30 minutes before HW at Stromness and attains a velocity of about 5 knots at springs. Eddies may be encountered in this general vicinity for up to about 1 hour before the current turns.

The united currents flow into the SE part of Westray Firth with great velocity. In a position about midway between Kili Holm and Fers Ness, the SE current begins about 3 hours 20 minutes before HW at Stromness and attains a velocity of 4.8 knots at springs. Between Muckle Green Holm and War Ness, the current starts about the same time and attains a velocity of 7.3 knots at springs. In a position about midway between Muckle Green Holm and Egilsay, the current starts a few minutes later and attains a velocity of about 5 knots at springs.

During the strongest part of the current, a N setting counter-current flows along the E side of Egilsay. At this time, an area of slack water or eddies is also formed. This area usually extends up to 1 mile in a S direction from Muckle Green Holm.

Recent observations, although not obtained in any detail, have shown that the S current in Rousay Sound begins about 4 hours before HW at Stromness and the N current about 2 hours after HW at Stromness. In the narrow and obstructed N part, the currents appeared to attain a velocity of 5 to 6 knots at springs, but were probably weak elsewhere within the sound.

In Fall of Warness, the channel lying between War Ness and

Muckle Green Holm, the NW current begins about 2 hours 15 minutes after HW at Stromness and attains a velocity of 6.8 knots at springs. About midway between Muckle Green Holm and Egilsay, this current begins about the same time and attains a velocity of 5.8 knots at springs. In a position lying 1.5 miles NE of Kili Holm, it begins about 2 hours 30 minutes after HW at Stromness and attains a velocity of about 5 knots at springs.

As the SE end of the firth is approached, the NW current begins earlier on the SW side than on the NE side. Off Faraclett Head, the NW current begins nearly 2 hours after HW at Stromness and attains a velocity of 3 knots at springs. Off Wart Holm, this current begins about 1 hour later and attains a rate of about 4.5 knots at springs. From the vicinity of Wart Head, the current runs in a NW direction across Skea Skerries and then along the W coast of Westray.

Rull Rost, a tide rip, occurs near the middle of Westray Firth, about midway between Faraclett Head and Wart Holm, and is the most dangerous in this locality. Recent observations have shown that this rip may extend up to 2 miles SE from the above position during the strength of both the NW and SE currents. However, no rips were observed at the sides of the firth. It is probable that the extent of Rull Rost depends greatly on weather conditions. During the NW current and with W and NW gales, this rip may extend completely across the firth. However, it appears to only form in the middle of the firth during good weather.

14.36 Westray Firth (59°10'N., 3°00'W.) is entered from the W between Sacquoy Head, the NW point of Rousay, and Inga Ness, located at the W side of Westray. The entrance is about 5 miles wide.

Inga Ness (59°17'N., 3°01'W.) is the NW entrance point of Westray Firth. Fitty Hill, 167m high, rises 0.8 mile NE of this point.

Berst Ness (59°16'N., 2°59'W.), a low point, is located 1.5 miles SE of Inga Ness and appears as an island from the W. Bakie Skerry, an above-water rock, lies close S of this point.

Skea Skerries, consisting of a group of drying rocks, lies 1 mile offshore. These rocks are located at the outer end of a rocky spit, which extends S from Berst Ness, and the sea breaks heavily over them whenever there is any swell. A shoal, with a least depth of 4m, lies 0.5 mile SW of the group.

Between Berst Ness and the Point of Huro, 3.5 miles SE, the shore recedes to form an irregular bight. Bay of Tuquoy is entered between Ness of Tuquoy and Twin Ness. This shallow bay occupies the head of the bight.

Skerry of Wastbist, a drying rock, lies 0.5 mile W of Twin Ness and Swine Skerry, a rocky shoal, lies 0.5 mile S of the same point and has a depth of less than 2m.

The **Point of Huro** (59°14'N., 2°53'W.), the S point of Westray, is formed by the S extremity of a peninsula. Several groups of rocks and islets lie on the shoal spit which extends SW from the point. Wart Holm, a green islet, lies 0.5 mile offshore and is the outermost danger in this vicinity.

14.37 Rapness Sound (59°14'N., 2°51'W.) is entered between the Point of Huro and the Point of Scaraber, the S extremity of Faray. The peninsula, of which the former point is the S extremity, forms the W shore of the sound. Holm of Faray and Faray form the E shore. The N part of this sound is

connected to the North Sound by Weatherness Sound, and the middle of its E side is connected to the Sound of Faray by Lavey Sound. There are general depths of less than 9m, over an irregular bottom, in the N and NE parts of Rapness Sound.

Rusk Holm (59°12'N., 2°51'W.), a flat island, lies near the middle of the S approach. Rocky shoals, with depths of less than 9m, extend up to 1 mile N and 0.5 mile S of this island.

The W coast of Faray is free of off-lying dangers and the channel leading between it and Rusk Holm has a least depth of 9m. However, vessels are recommended to use the fairway passing W of Rusk Holm when entering Rapness Sound.

Harp Skerry, a rocky and shallow shoal, lies at the outer edge of the shore bank which extends about 0.3 mile SW from Scaraber Point.

On the W side of Rapness Sound, the coast is fronted by shoals, which extend up to 0.3 mile offshore. Several isolated depths of less than 9m also lie up to 0.5 mile offshore in this vicinity.

Fers Ness (59°12'N., 2°49'W.), the N point of the W side of Eday, lies 0.5 mile S of the Point of Scaraber. This point, which is also the S entrance point of the S entrance to the Sound of Faray, was previously described in paragraph 14.13.

Except for Seal Skerry, the W coast of Eday between Fers Ness and War Ness is generally steep-to and free of dangers.

Seal Skerry (59°10'N., 2°49'W.), marked by a light, projects 0.5 mile S from the Fers Ness. Seal Skerry Bay, a shallow inlet, lies immediately E of the drying reef.

Caution.—A tidal generating complex consisting of several submerged turbines and connecting submarine cables has been established SE of Seal Skerry. The specific locations of these turbines are best seen on the chart.

14.38 War Ness (59°08'N., 2°47'W.), the S point of Eday, lies 3.5 miles SSE of Fers Ness. Warness Skerry, a group of drying rocks, extends 0.1 mile S from the point. The tidal currents flow over these rocks, with great velocity, and, when S gales oppose the current, the resulting strong tide rips extend up to about 0.8 mile S from War Ness.

The S entrance to Westray Firth is obstructed by several islets, which lie near mid-channel at the junction of Westray Firth and Stronsay Firth.

Muckle Green Holm (59°08'N., 2°50'W.) lies 1.3 miles WSW of War Ness. A smaller islet, Little Green Holm, lies close S of it. Reefs and shoals fringe the islets up to about 0.3 mile seaward. The passage lying between the islets and War Ness is known as the Fall of Warness.

Caution.—A submarine cable, which may best be seen on the chart, lies across Westray Firth in the vicinity of the Point of Huro.

14.39 The N coast of Rousay and the N and E coasts of Egilsay form the S side of Westray Firth.

Sacquoy Head (59°12'N., 3°05'W.), the NW point of Rousay, is a low reef-fringed point.

Rullard Rost, the tide rip that occurs off Sacquoy Head, is believed to form during and after W gales. It is probable that it occurs only during the time, when the current running out of Eynhallow Sound, which runs in a NE direction along the W coast of Rousay, meets the W current from Westray Firth.

Saviskaill Bay (59°11'N., 3°01'W.) lies between Saviskaill

Head, located 0.8 mile E of Sacquoy Head, and Faraclett Head, 2.3 miles ESE. This bay, although deep and free of dangers, affords poor anchorage due to the rocky nature of the bottom.

Faraclett Head (59°11'N., 2°58'W.) is the NE point of Rousay. Scock Ness, a square-shaped peninsula, projects from the coast close SE of this headland.

Egilsay (59°09'N., 2°55'W.), a low island, lies about 1 mile E of the E coast of Rousay. A drying reef connects Kili Holm and Egilsay. The former islet lies on the shorebank extending N from Egilsay. Depths of less than 10m lie up to 0.8 mile off the N coast of the island and up to 0.3 mile off the E coast, between the Point of Crook and The Graand.

The Graand (59°08'N., 2°55'W.) is the S point of Egilsay. A drying reef, Point of The Graand Reef, extends 0.2 mile S from the point. Depths of less than 10m lie up to almost 1 mile S of The Graand and a buoy marks the S limit of the shoalbank in this vicinity.

Benlin Rock (59°07'N., 2°52'W.), an isolated rocky depth of 7.4m, lies near mid-channel in the approach to the passage which leads N between Muckle Green Holm and Egilsay. Another detached depth of 7.9m obstructs the passage about 1 mile NE of The Graand.

Rousay Sound (59°09'N., 2°57'W.), the passage lying between the E side of Rousay and the W side of Egilsay, is entered from the N between Scock Ness and the N point of Egilsay. From the S, the fairway leads between The Graand and the island of Wyre.

14.40 Holm of Scockness (59°10'N., 2°56'W.), a green islet, is 17m high and divides the N entrance into two passages. The Sound of Longataing lies on the W side of the islet and Howie Sound lie on the E. Vessels, with drafts up to 4.5m, can pass through the Sound of Longataing, which is only 0.1 mile wide in places. Vessels using Howie Sound are limited to a draft of 3.3m. These passages should not be attempted without local knowledge.

A detached 5.5m depth lies in the S entrance to Rousay Sound, about 0.5 mile SE of the Point of the Wart, the NE point of Wyre.

The E entrance to Wyre Sound lies between the Point of the Wart and the Point of Aveishay, which is located at the SE end of Rousay 0.5 mile NNW.

A light is shown occasionally from the pier situated in the village of Skail, on the W side of Egilsay.

Rousay Sound affords the most protected anchorage in the vicinity of Westray Firth. Vessels awaiting a tide can find passable anchorage in Rapness Sound. The holding ground is good, but the exposed roadstead is open to S and W winds.

Caution.—Submarine cables, which may best be seen on the chart, lie across the S part of Rousay Sound, from the Point of Aveishay to the vicinity of Skail on Egilsay. Beacons mark the cable landings.

Stronsay Firth

14.41 The E entrance to Stronsay Firth lies between Lamb Head, the SE extremity of Stronsay, and Mull Head, the N extremity of Deerness. The island of Auskerry lies in the N part of the entrance, 2.5 miles SSW of Lamb Head. The width of the firth varies, from about 8 miles at its E entrance, to about 3

miles near its junction with Westry Firth. With the exception of Baas of Linton, a 9.8m shoal lying 1.3 miles off the middle of the E coast of Shapinsay, the firth is comparatively free of off-lying dangers. However, there are several such dangers in the approaches to Eday Sound and St. Catherine Bay, which are located in the N part of the firth. Stronsay Firth is characterized by the great differences in its navigable condition. During periods of calm, even boats can cross the firth in safety, but with S winds and an opposing tidal current, heavy and hazardous tide rips can occur in places.

Tides—Currents.—In general, the tidal currents run regularly and strongly in mid-channel through Stronsay Firth, although there are countercurrents along its SW side. Tide rips form off Mull Head during the SE current. These are especially strong during S and SE gales.

In the E entrance to the firth, the tidal currents have a velocity of about 4 knots at springs, in both directions.

There have been no recent observations of tidal currents in Auskerry Sound, but older information disclosed that the velocity of the current in the sound was between 3 and 4 knots.

During the SE current, tide rips occur in Fall of Warness, the channel lying between War Ness and Muckle Green Holm. During S gales, this channel may become unnavigable. At such times the entire area lying between War Ness and Ness of Ork may be affected by heavily breaking seas.

There is very little tidal current in Linga Sound, St. Catherine Bay, Bay of Holland, and Veantrow Bay.



Rothiesholm

14.42 The S coast of Stronsay from Lamb Head to Rothiesholm

olm Head and the S approach to Eday Sound comprise the N side of Stronsay Firth.

Lamb Head (59°05'N., 2°32'W.), the SE point of Stronsay, is the NE entrance point of Stronsay Firth. Between Lamb Head and Tor Ness, 2 miles W, the coast recedes to form a bight. Ward of Houseby, a point located about midway between Lamb Head and Tor Ness, divides this bight into two shallow bays. Bay of Houseby lies E of the point and Ingale Sound lies W of it. North of a line extending between Lamb Head and Tor Ness, the general depths are less than 5m and depths of less than 1.8m extend up to 1 mile offshore in places. Ingale Skerry, a drying reef, lies on the S edge of the rocky shoal which extends S from Lamb Head.

Auskerry Sound (59°03'N., 2°35'W.), the passage lying between Stronsay and Auskerry, has depths of 15 to 34m. The fairway leads between the reefs and has a width of almost 0.5 mile. The sea often breaks on a shoal that lies close off the N side of Auskerry and when the tidal current opposes the wind, a heavy sea forms in the passage.

Tor Ness (59°04'N., 2°36'W.), a low and reef-fringed cape, is the S point of Stronsay and also the E entrance point of the Bay of Holland. This latter bay, which extends inland for about 2 miles, is entered between the cape and Greenli Ness, 1.3 miles W.

Rothiesholm Head (59°04'N., 2°41'W.), located at the SW end of the Rothiesholm peninsula, is the SW point of Stronsay. The S coast of the peninsula is generally cliffy, and with the exception of Dowie Sand, is free of dangers up to about 0.3 mile offshore.

Dowie Sand (59°04'N., 2°38'W.), a rocky depth of less than 8m, lies about 0.8 mile SSW of Greenli Ness. In fine weather, this rocky patch is generally marked by tide rips, but when the tidal current opposes the S wind, a heavy sea occurs in the vicinity.

The entrance fairway, at the E end of Stronsay Firth, is 5 miles wide and leads between Mull Head and Auskerry.

14.43 Deer Sound (58°58'N., 2°45'W.) is entered between Mull Head and Rerwick Head, 3 miles NW. This sound lies between the NW and W coasts of Deerness and the N part of the E coast of Mainland.

The outer part of the sound is deep and free of off-lying dangers. This part of the sound lies between a line extending from Mull Head to Rerwick Head and a line extending from Northquoy Point to The Ness, 0.8 mile NW. The inner part of the sound, which lies S of the line extending from Northquoy Point to The Ness, is shallow and of no importance to shipping. The head of the sound is formed by the narrow isthmus, which connects Deerness with Mainland.

Between The Ness and Rerwick Head, the coast is rather steep-to and formed by cliffs up to 15m high.

Rerwick Head (59°00'N., 2°48'W.), a low headland, forms the W entrance point of Deer Sound and the S entrance point of the E end of Shapinsay Sound. Rerwick Point, a drying reef, extends 0.2 mile NW from this headland. Scarf Skerry lies on the E side of the reef and foul ground extends up to 0.1 mile N and NW of it.

Haco's Ness (59°01'N., 2°49'W.), the S extremity of Shapinsay, lies nearly 2 miles NNW of Rerwick Head and forms the N entrance point of the E end of Shapinsay Sound. This low

point is fronted by reefs and shoals which extend up to 0.1 mile offshore.

From Haco's Ness, the E coast of Shapinsay extends in a general N direction for 4 miles to Ness of Ork, the NE point of the island.

Baas of Linton (59°03'N., 2°46'W.) is the only off-lying danger. This steep-to shoal has a least depth of 6.5m and lies 1.3 miles offshore, about midway between Hackness and Ness of Ork.

Ness of Ork (59°05'N., 2°48'W.) is a low and rocky point. A detached shoal, with a depth of 7.3m, lies 0.5 mile NW of this point and several other depths of less than 8m lie between it and the shore.

Veantraw Bay (Vantrow Bay) (59°04'N., 2°52'W.) is entered between Holm Taing, located about 1.5 miles SW of Ness of Ork, and Galt Ness, the NW point of Shapinsay. Depths of less than 9m extend up to 1 mile seaward from the shores of the bay.

Galt Ness (59°05'N., 2°54'W.), the low extremity of a narrow peninsula, is the SE entrance point of Wide Firth (59°02'N., 2°58'W.). A beacon stands 0.5 mile S of the point.

Depths of less than 10m extend up to almost 0.8 mile N from this point. Galt Skerry, a drying reef, lies close NE of point. Two 8.4m rock patches lie close together, 0.5 mile N of the point, and are marked close N by a lighted buoy.

Sweyn Holm (59°06'N., 2°57'W.), an islet, forms the NW entrance point of Wide Firth. This islet, which is 15m high, also forms the S entrance point of Gairsay Sound.

14.44 The S approach to Eday Sound lies within a line extending NW from Rothiesholm Head, on Stonsay, to Way Ness, the SW point of Eday. Two isolated shoal areas lie in the approach and divide the fairway into E and W channels.

South Skerry (59°07'N., 2°43'W.), the southernmost shoal area, has a least depth of 1.5m.

Eday Gruna (59°08'N., 2°43'W.), the N area, has a least depth of 2.3m and is marked by a lighted buoy moored close N.

The passage leading between these two shoal areas is 0.3 mile wide and has depths of 11 to 12.8m.

On the E side of the approach, the irregular shoreline curves E to form a shallow bight, known as St. Catherines Bay. Linga Holm, an islet, and Swarf, a drying reef, lie in the entrance to this bight.

The Orkney Islands

14.45 The descriptive sequence is from Eynhallow Sound to Shapinsay Sound (59°00'N., 2°52'W.) The String, and then to Wide Firth. The smaller bays and sounds are described with their adjacent water areas.

Kirkwall (58°59'N., 2°57'W.), the capital and principal city of the Orkney Islands, is situated near the middle of the NE coast of the mainland and is described in paragraph 14.56. It lies at the head of Bay of Kirkwall, which, in turn, lies at the S end of Wide Firth. This latter body of water is bounded by the NE side of Mainland, the W side of Shapinsay, and the S side of Gairsay. Wide Firth can be entered from the W by way of Eynhallow Sound, which is a comparatively narrow channel leading between the N side of Mainland and the islands of Rousay, Wyre, and Gairsay. It can be entered from the E and the N via Stronsay Firth. The E entrance, which can be used by

deep-draft vessels, is approached through Shapinsay Sound. This latter sound is connected to Stronsay Firth at a place lying between Rerwick Head, on Mainland, and Hacks Ness, on Shapinsay. The N entrance, which lies between the W side of Shapinsay and the E side of Gairsay, is encumbered by islets, reefs, and shoals. It can only be used by vessels with drafts of less than 4.9m and having local knowledge.

Tides—Currents.—In the W entrance to Eynhallow Sound, between Costa Head and Quoynalonga Ness, the SE current attains a probable velocity of 2 to 3 knots at springs. The current divides in a position NW of Eynhallow and flows through the narrow and obstructed channels, lying NE and SW of the island, at a velocity of about 7 knots at springs. Tide rips occur in these channels when the current is strong, and, during these times, an area of eddies or slack water extends up to about 1 mile in a SE direction from the island.

The two branches of the current join each other at a position SE of Eynhallow and continue to flow through Eynhallow Sound at a considerably lower velocity. After the current passes Aiker Ness, it is probable that weak currents branch off into Wyre Sound and Gairsay Sound, but the main part continues in a SE direction through the channel leading between Gairsay and Mainland. The SE current attains a velocity of about 3.5 knots at springs. The NW current in Eynhallow Sound, between Gairsay and Mainland, attains a velocity of about 3.5 knots at springs. Off Aiker Ness, it attains a velocity of about 2.5 knots at springs.

After the NW current passes Aiker Ness, it divides in a position SE of Eynhallow and flows through the channels leading NE and SW of that island. This current attains a velocity up to 7 knots at springs. Tide rips occur in the channels when the current is strong, and, at these times, an area of eddies or slack water extends up to about 1 mile in a NW direction from the island.

In the W entrance of Eynhallow Sound, between Costa Head and Quoynalonga Ness, the NW current probably attains a velocity of 2 to 3 knots at springs.

In Gairsay Sound, recent observations have shown that the tidal currents are weak and irregular. The velocities of these currents do not exceed 1.5 knots at springs. However, vessels passing through this sound should expect a fairly strong set, either N or S, at any time. Although no recent observations have been made in Wyre Sound, it is believed that the tidal currents are quite similar to those within Gairsay Sound.

14.46 Eynhallow Sound (59°09'N., 3°07'W.) has its W entrance lying between Costa Head, the N extremity of Mainland, and Quoynalonga Ness, the W extremity of Rousay. The sound trends in a general SE direction for 7 miles and connects with the NW part of Wide Firth. Vessels with drafts up to 7.3m can, with local knowledge, proceed through Eynhallow Sound. However, it is recommended that vessels with drafts over 4.9m use the E approach to Kirkwall, via Stronsay Firth and Shapinsay Sound.

Costa Head (59°09'N., 3°12'W.), the SW entrance point of Eynhallow Sound, was previously described in paragraph 14.3.

Quoynalonga Ness (59°10'N., 3°07'W.), the NE entrance point of Eynhallow Sound, is described with Rousay Island in paragraph 14.4.

Eynhallow (59°09'N., 3°07'W.) lies in mid-passage, nearly 2

miles within the entrance of the sound. This islet is 30m high and except for the W side, which is steep-to, is fronted by reefs and shoals.

Weal Race leads between Eynhallow and Rousay. A small drying reef lies in this channel, nearly 0.3 mile NE of the NE point of Eynhallow. Depths of less than 2m extend up to 0.5 mile N of this reef and reduce the fairway to a width of less than 0.1 mile. Due to the narrowness and the strength of the tidal currents, this channel is considered hazardous and should be avoided.

Eynhallow Skerries, a group of small drying reefs, lies near the S end of a shoal, which extends 0.8 mile SE from Eynhallow.

Burgar Rost leads between Eynhallow and Mainland. A bar, with a depth of 8.2m, extends from Eynhallow to the shore bank fronting Mainland. During and after W gales, the seas break across this bar.

Aiker Ness, the S point of a peninsula projecting N from the S side of the sound, is located about 1.5 miles SE of Eynhallow. Quoy, a rocky depth of 2.1m, lies 0.2 mile N of this point. A rocky depth of 4.6m lies 0.2 mile N of Quoy and another rocky depth of 9.1m lies 0.1 mile S of it.

14.47 Wyre (59°07'N., 2°58'W.), 31m high, is separated from Rousay by Wyre Sound, a passage, which is 0.5 mile wide and connects Eynhallow Sound with Rousay Sound. The fairway leading through this passage has a least depth of 5.7m. However, it is narrow, constricted, and should not be attempted without local knowledge.

Wyre Skerries, consisting of five drying reefs, lies 0.5 mile W of Wyre, on a shoal which extends W from the island.

Gairsay (59°05'N., 2°58'W.), an island 101m high, is located 1.3 miles S of Wyre, in the SE entrance to Eynhallow Sound. Sweyn Holm, an islet lying close E of this island, is described with Stronsay Firth in paragraph 14.43.

Gairsay Sound, lying between Wyre and Gairsay, connects Eynhallow Sound with Stronsay Firth. The fairway has depths of 11 to 18.2m, but its width is reduced to only 0.5 mile, at the E end, and less than 0.3 mile, at the W. A detached 9.1m depth lies in the W entrance, about 0.5 mile SW of the W point of Wyre. This narrow sound is not marked and should not be attempted without local knowledge.

The fairway leading into Wide Firth (59°02'N., 2°58'W.) between Mainland and Gairsay, is obstructed by several reefs.

Little Seal Skerry (59°04'N., 2°59'W.) has a depth of 0.9m and lies in mid-passage, almost 0.5 mile S of the SW point of Gairsay. Rendall Holm, a rock 2m high, lies close offshore on a reef located 0.3 mile SW of Little Seal Skerry.

Seal Skerry, a drying reef, lies 0.5 mile S of Little Seal Skerry and is marked by a beacon. Depths of less than 9m lie between Seal Skerry and Little Seal Skerry, and between Seal Skerry and Mainland.

The narrow passage leading between Seal Skerry and Rendall Holm is reported to have a depth of 6m.

Wide Firth is entered from the NW via Eynhallow Sound. The channel leads between the Ness of Boray, the S point of Gairsay, and a point located on Mainland, 1 mile SW.

Protected anchorage is available, in depths up to 12.8m, in mid-channel, S of the SE point of Rousay.

14.48 The E approach to Kirkwall is the only one of the three approaches available for deep-draft vessels. It leads through Shapinsay Sound and The String, a comparatively-narrow channel that connects the W end of Shapinsay Sound with the E part of Wide Firth.

The E entrance to Shapinsay Sound lies between Rerwick Head, the NE extremity of Mainland, and Hackness, the S extremity of Shapinsay.

The fairway leading through Shapinsay Sound and The String is only 0.5 mile wide at its narrowest point. It has general depths of 22 to 29m.

Tides—Currents.—About midway between Twinness and Car Ness, the E current begins in The String, about 4 hours before HW at Stromness. It sets in an ESE direction and attains a velocity of about 3.5 knots at springs. This current is reported to increase to 4 knots in the narrowest part of The String. About midway between Hackness and Rerwick Head, it attains a velocity of about 3 knots at springs.

When the E current in the middle of Shapinsay Sound is strong, countercurrents may run in a W direction along both sides of the sound. Between Rerwick Head and Hackness, it is probable that the current is much stronger in mid-channel than near the land. There is little or no tidal currents within the Bay of Meil, Inganese Bay, Ellwick, and the Bay of Carness.

About midway between Hackness and Rerwick Head, the W current begins 3 hours 20 minutes after HW at Stromness and attains a velocity of nearly 2 knots at springs. Little or no W current is felt in the areas which lie N of a line extending between Hackness and the S extremity of Hellier Holm, or S of a line extending between Rerwick Head and the Head of Work. In a position about 0.5 mile S of Twinness, the current sets in a NW direction and attains a velocity of nearly 4 knots at springs.

Pilotage.—Pilotage is compulsory for certain vessels. See paragraph 14.1 for further information.

14.49 Between Rerwick Head and Yinstay Head, the coast recedes to form a bight, known as Yinstay Bay. Rerwick Head is described with Stronsay Firth in paragraph 14.43.

Yinstay Head (58°59'N., 2°51'W.) consists of cliffs, 11m high, and is fronted by close-lying detached rocks. Skerry of Yinstay, Little Skerry, and Scare Gun are drying reefs lying on Yinstay Spit, a shoal that extends up to 0.5 mile ENE from the point.

Inganese Bay (58°58'N., 2°54'W.) is entered between Yinstay Head and the Head of Holland, 1.3 miles WNW. Reefs and shoals fringe the shore of this bay and depths of less than 9m extend up to 0.3 seaward. The bay has general depths of 11 to 22m, over a bottom of sand and shells with good holding ground, and there is practically no tidal currents.

The **Head of Holland** (59°00'N., 2°54'W.) is formed by sheer cliffs, 15m high, and is conspicuous.

The Bay of Meil lies close N of this point. A stranded wreck, marked by a buoy, lies near the head of this bay, 1.8 mile S of the Head of Holland. Another stranded wreck lies close offshore, 2 miles SSW of the same point.

The **Head of Work** (59°01'N., 2°54'W.) is the SE entrance point of The String. A beacon stands on this bold headland.

14.50 The N side of Shapinsay Sound lies between Hack-

ness and Lufa Ness, 2 miles WNW. In Sandgarth Bay, depths of less than 9m extend up to almost 0.4 mile offshore.

Helliar Holm (59°01'N., 2°54'W.) lies close S of Lufa Ness and a light is shown from its S end. This islet is 27m high and a beacon stands on its summit.

The String, a passage, connects Shapinsay Sound with Wide Firth. The E entrance lies between the Head of Holm and Helliar Holm. The passage is entered from the W between Strombery, the SW point of Shapinsay, and Thieves Holm.

Directions.—Vessels should steer a mid-channel course through The String. From the E, the approach fairway lies within the white sector of Helliar Holm Light. A red sector of this light indicates the W approach fairway.

During W and SW gales, protected anchorage is available within Inganess Bay with a bottom of sand and shell, good holding ground.

14.51 The N part of Wide Firth is connected to the W part of Stronsay Firth at a place lying between Galt Ness, the NW extremity of Shapinsay, and Sweyn Holm, an islet lying close off the NE side of Gairsay. The entrance can only be used by vessels having local knowledge and with drafts of less than 4.9m. Because of the numerous islets, reefs, and shoals, it is recommended that vessels use the approach channels leading through Eynhallow Sound or Shapinsay Sound.

Particular caution is necessary in the navigation of Wide Firth. There are numerous off-lying dangers, some of which are not marked, and there are few landmarks available. Navigation in the firth is often impeded by the misty nature of the climate.

Tides—Currents.—In the channels lying between Gairsay and Shapinsay, the tidal current runs strongly. On the W side and in a position 0.5 mile E of Ness of Gairsay, the S current begins about 4 hours before HW at Stromness and attains a velocity of 3.3 knots at springs. The N current in this position begins about 1 hour 20 minutes after HW at Stromness and attains a velocity of about 2.5 knots at springs. On the E side and in a position about 0.5 mile N of Salt Ness, the S current begins about 4 hours before HW at Stromness and attains a velocity of about 1.5 knots at springs. The N current in this position begins nearly 2 hours after HW at Stromness and attains a velocity of about 1.8 knots at springs. On the W side of the channel, the S current is of a shorter duration, but runs at a greater velocity than that on the E side where the conditions are reversed. In the S entrance and at a position about 0.5 mile NE of Linga Skerry, the S and N currents begin, respectively, about 4 hours 15 minutes before and 2 hours after HW at Stromness. Each current attains a velocity of 3 to 4 knots at springs. In Vasa Sound, it is reported that the currents attain velocities of up to 5 knots at springs.

From the SW end of the channel leading between Gairsay and Mainland, the current flows in a S direction along the coast of Mainland at a velocity of about 1.5 knots at springs. The main body of this current continues in a SE direction across Wide Firth and joins the S current which flows from the channels lying between Gairsay and Shapinsay.

The W current flowing from The String turns in a NW direction around Strombery and sets between Linga Skerry and Shapinsay. In a position about 0.5 mile NE of Linga Skerry, it flows in a N direction. In this position, the W current begins

nearly 2 hours after HW at Stromness and attains a velocity of 1 knot at springs. From a position located between Linga Skerry and Shapinsay, this current flows in a N direction through the channels leading between Gairsay and Shapinsay, and in a NW direction toward the channel leading between Gairsay and Mainland. A small part of the W current flowing from The String sets across Wide Firth toward Crookness where it turns in a N direction toward the channel leading between Gairsay and Mainland. This part of the current attains a velocity of 1 to 1.5 knots at springs.

Pilotage.—Pilotage is compulsory for certain vessels. See paragraph 14.1 for further information.

14.52 The NW side of Wide Firth is formed by the S shore of Gairsay and the part of the E coast of Mainland lying between a point located 1 mile SW of the Ness of Boray and Crookness.

Ness of Gairsay (59°04'N., 2°57'W.) is the S point of Hen of Gairsay, an islet, which is connected to the E coast of Gairsay by a narrow isthmus. Milburn Haven, a narrow inlet, lies close W this islet. Ness of Boray, the SE point of Gairsay, is located 0.8 mile W of Ness of Gairsay.

Boray Holm (59°04'N., 2°57'W.), an islet 6m high, lies at the S end of the spit which extends S from Gairsay. Depths of less than 4m lie between this islet and Gairsay.

Between a point on Mainland, located 1 mile SW of Ness of Boray, and Crookness, 1.5 miles S, the coast extends in a general S direction. Depths of less than 5m lie up to almost 0.3 mile offshore in places along this stretch of the coast.

Crookness (59°02'N., 3°01'W.) lies at the S end of the peninsula that projects S from the coast of Mainland. Harpy Taing, a rocky point, is located 0.2 mile N of the E extremity of Crookness.

14.53 The W coast of Shapinsay, between Galt Ness, the NW point of the island, and Strombery, the SW point, forms the E side of Wide Firth. Depths of less than 5m extend up to 0.2 mile offshore along this stretch of the coast.

Vasa Point (59°03'N., 2°55'W.) is located about midway along the W coast of Shapinsay. Vasa Skerry, an irregular and broken reef, extends 0.2 mile seaward. This reef lies 0.1 mile W of Vasa Point and a beacon stands on its S end. Vasa Sound, the passage separating Vasa Skerry and the point, can be used by vessels with drafts up to 4.9m. Vessels without a pilot should not attempt to enter Wide Firth from the N, except through Vasa Sound.

Caution.—The N part of Wide Firth enclosed by Gairsay, the W coast of Shapinsay, and the E coast of Mainland, has irregular depths and is encumbered by numerous islets, rocks, and skerries. A detached shoal area, with depths of less than 9m, lies in the approach, midway between Galt Ness and Hen of Gairsay.

Boray Skerries, consisting of two groups of rocks awash at LW, lies 0.5 mile SE of Ness of Boray. A detached shoal, with a depth of 2.7m, lies midway between these groups and Ness of Boray.

14.54 Skertours (59°04'N., 2°57'W.), a group of drying rocks, lies 0.5 mile E of Boray Skerries. Grass Holm, an islet, is 6m high and lies 0.5 mile SE of this group of rocks.

Taing Skerry, a rock, is 3m high and located on a drying reef which lies about 0.5 mile S of Skertours.

Broad Shoal, with a depth of less than 6m, extends 0.5 mile S from Grass Holm. Several drying rocks lie on this shoal.

An isolated shoal, with a least depth of 5.4m, lies 1 mile W of Vasa Point.

An extensive shoal area, with depths of less than 6m, extends S from the vicinity of Seal Skerry.

Puldrite Skerry, a drying reef, lies 2 miles W of Vasa Point.

Linga Skerry, with a depth of 0.3m, lies 1.5 miles SW of Vasa Point and is marked by a lighted buoy moored on its SE side.

West Skerries, with a least depth of 0.9m, lies about 0.3 mile SW of Linga Skerry.

14.55 Between Crookness and Ramberry, 1.8 mile S, the shore recedes inland and forms two bays.

Bay of Isbister (59°03'N., 3°02'W.) is entered between Crookness and Mou Ness, 1 mile W. The E side of this bay is bold. The W side and the head of the bay are very flat and shoal. Anchorage is available, in a depth of 11m, mud with good holding ground, within the bay.

Bay of Firth (59°00'N., 3°05'W.) lies between the Point of Backaquooy and Ferry Point, 1 mile SE. This shallow bay is encumbered by reefs, sunken rocks, and shoals. The village of Finstown stands at the head. Holm of Grimbister and Damsay, two islets, lie near the middle of the bay. The passage lying between Damsay and Mainland is known as Damsay Sound.

Ramberry (59°00'N., 3°00'W.) is the W entrance point of the Bay of Kirkwall. Quanterness Skerry, a drying reef, lies 0.3 mile N of the point. Scargun Shoal, with a depth of less than 2m, lies 0.8 mile E of the point and is marked by a buoy, moored close N of it.

Bay of Kirkwall (59°00'N., 2°58'W.) is entered between Ramberry and Car Ness. This bay shelves gradually, having a depth of 14m in its central part and a depth of 5m near the head.

14.56 Kirkwall (58°59'N., 2°58'W.) (World Port Index No. 32440), the capital and principal city of the Orkney Islands, is situated at the head of the Bay of Kirkwall.

Tides—Currents.—The tidal currents in the bay are very weak.

Tides rise about 2.4m at springs and 1.1m at neaps.

Depths—Limitations.—There is a total of 750m of quayage in the harbor. The main ro-ro berth, which is 79m long, and a berth used by coastal tankers have depths of 6.2m alongside. Maximum size of vessels of up to 250m LOA and 9.5m draft can be accommodated at HW.

The Hatson Ferry Terminal consists T-shaped pier with six berths, including a ro-ro berth, with total length of 385m and alongside depths of 8.5 to 9m. The Scapa Pier has a length of 74m and an alongside depth of 6.0m.

Aspect.—St. Magnus Cathedral, a red sandstone building with a conspicuous spire, stands in the city.

The entrance channel is indicated by the white sector of the light shown from the head of the main pier.

Pilotage.—See paragraph 14.1.

Regulations.—Any vessel with an loa of 12m or greater or certified to carry more than 12 passengers, when navigating within 1,000m of the area of Kirkwell Pier or Halston Pier is

required to report its position and intended movement to Kirkwell Harbor Radio.

Any vessel with an loa of 12m or greater or certified to carry more than 12 passengers is required to report its intended movement and position to Kirkwell Harbor Radio prior to departure.

Non-reporting vessels are encouraged to provide this information.

If unable to contact Kirkwell Harbor Radio, vessels are required to contact Orkney VTS on VHF channel 11.

Vessel Traffic Service.—See paragraph 14.1.

Contact Information.—Kirkwall Harbor Radio can be contacted, as follows:

1. Call sign: Kirkwall Harbor Radio
2. VHF: VHF channel 14
3. Telephone: 44-1856-872292
4. Facsimile: 44-1856-870064

Anchorage.—The anchorage area is exposed to N winds, but they seldom cause a heavy sea and the holding ground is good. Vessels with drafts of less than 4.9m can anchor about 0.3 mile N of the main pier. Other vessels may anchor as convenient, in depths up to 12.8m, within 1 mile N of the pier.

Approaches to Scapa Flow

14.57 Hoy Sound, the W approach to Scapa Flow, is described first; then the S entrance is described.

Aspect.—Scapa Flow, the best anchorage in the Orkney Islands, is an extensive body of water bounded by the islands of Hoy, Mainland, Burray, and South Ronaldsay. This roadstead can be approached either from the W or the S.

Hoy Sound, the W approach, is a comparatively-narrow channel which lies between the NE coast of Hoy and the W part of the S coast of Mainland.

The S entrance, which is approached via Pentland Firth, lies between South Ronaldsay and several smaller islands, lying off the SE coast of Hoy.

Tides—Currents.—In the W entrance to Hoy Sound, the E current begins about 5 hours before HW at Stromness and attains a velocity of about 4 knots at springs. In the narrow channel lying between The Ness and the Point of Oxan, the current reaches a velocity of about 8.5 knots at springs. After passing through this narrow channel, the current is deflected by the shoals, lying N of Graemsay, and flows in a general E direction toward Clestron Skerries. The current divides W of Clestron Skerries. One part flows N into the Bay of Ireland and then W through Cairston Road, forming a weak countercurrent. The other part of the current, which is the stronger, flows in a SE direction along the coast of Mainland, leaving a large area of relatively slack water off the E coast of Graemsay. Near Clestron Skerries, the current attains a velocity of 4 knots at springs. Its velocity then rapidly decreases as the current flows S. From Clestron Sound, the current flows through Bring Deeps and then out into Scapa Flow. The velocity of the E current in Bring Deeps does not exceed 1 knot at springs.

It is believed that the W current in Bring Deeps begins about 1 hour 30 minutes after HW at Stromness and that its velocity does not exceed 1 knot at springs. From Bring Deeps, the W current flows toward Graemsay and along the W side of Clestron Sound. It increases in velocity and may attain a rate of

4 knots at springs. A weak branch of this current may flow into Bay of Ireland and W through Cairston Road, but the main part turns in a W direction toward the narrow channel lying between The Ness and the Point of Oxan. Within this channel, the W current attains a velocity of about 7 knots at springs. In the W entrance of Hoy Sound, the velocity of the W current is about 4 knots at springs.

Heavy tide rips occur in Hoy Mouth when the ebb tidal current meets the Atlantic swell. During W gales, these tide rips cause a dangerous sea.

14.58 Hoy Mouth, the W entrance to Hoy Sound, is 3 miles wide and lies between Kame of Hoy, the conspicuous NW point of Hoy, and Breck Ness, on Mainland.

Hoy Sound extends 6 miles from its W entrance to the W limit of Scapa Flow and the fairway has depths of 11 to 43m.

Graemsay lies in mid-channel, 2 miles within the entrance. This island divides the sound into two channels.

Burra Sound, the S channel, is blocked by obstructions (sunken vessels) and the N channel, leading between Graemsay and Mainland, is the only one available to shipping.

Bring Deeps is that part of the sound which lies within a line extending from Bring Head, on Hoy, to Howton Head, on Mainland, and a line extending from Green Head, on Hoy, to Howton Head.

Braebuster Point (Braeburter Point) (58°56'N., 3°21'W.), the N point of Hoy, lies 1.5 miles ENE of Kame of Hoy. Out Taings, a reef, extends up to 0.3 mile N of the point.

Taing of Selwick, a drying reef, extends 0.3 mile N from a point on the shore, 0.5 mile E of Breibister Point.

Bow of Hoy, a rocky 2m depth, lies at the N end of Taing of Selwick, 0.5 mile NE of Briebister Point.

Bu Point (58°56'N., 3°19'W.), the NE point of Hoy, is fronted by Hoy Skerries, which consists of three drying reefs and extends up to about 0.3 mile NE.

Kirk Rocks (58°57'N., 3°20'W.), a danger on the N side of the entrance, lies 0.3 mile offshore, 0.8 mile SE of Breck Ness. With any swell, the sea breaks heavily over this group of rocks.

The Ness, a low and flat point, is located 1.3 miles E of Kirk Rocks and forms the W entrance point of Stromness Harbor.

Skerry of Ness (58°57'N., 3°18'W.), an extensive drying reef, extends up to 0.1 mile S from The Ness and is marked by a light at its S edge.

14.59 Graemsay (58°56'N., 3°17'W.), an island 62m high, lies in the middle of Hoy Sound between Bu Point, on Hoy, and The Ness, on Mainland.

Hoy Sound Low Light is shown from the Point of Oxan, the NW point of the island. Hoy Sound High Light is shown from Sandside Point, the NE point of Graemsay. These two lights form a range and, bearing 104°, indicate the fairway leading into Hoy Sound. Drying reefs and shoals fringe the island on all sides and reduce the channel leading between Mainland and Graemsay to a width of 0.1 mile.

Showbelly, a rocky depth of 3.5m, lies 0.3 mile NNE of the Point of Oxan. An unnamed shoal with a least depth of 4.6m is located 0.25 mile W of Showbelly and is the outermost danger located off the N side of Graemsay.

Lighted buoys mark the N edge of the shoals which extend N and NE from Sandside Point.

Directions.—Vessels entering Hoy Sound from the W should proceed with the light structures standing on the Point of Oxan and Sandside Point in line. This range leads between Kirk Rocks and Bow of Hoy. When S of Kirk Rocks, vessels should steer to pass midway between the Mainland shore and Showbelly, and about 0.2 mile S of the light beacon situated on Skerry of Ness.

After clearing the shoals extending N and NE from Sandside Point, vessels should steer for Hall of Clestrain, a conspicuous grey building situated 1.8 mile NE of Sandside Point. When the light on Sandside Point bears about 198°, vessels should then steer a course of 138° which will lead between Sand Eel and Skerries of Clestron. This course also leads E of Riddock Shoal, E of the 2.4m obstruction lying close SE of the shoal, and into Clestran Sound. An obstruction, best seen on the chart, with a least depth of 5.8m., spans the fairway. After passing midway between Riddock Shoal and the coast of Mainland, vessels should adjust course to the S in order to avoid Peter Skerry and the shoals extending from the shore NW of it.

Caution.—Vessels should not attempt to pass through Hoy Sound at night without local knowledge.

After W gales, low-powered vessels should not leave Hoy Sound with the ebb tidal current because of the heavy overfalls formed in Hoy Mouth.

Submarine cables lie across Hoy Sound and may best be seen on the chart.

14.60 Stromness (58°58'N., 3°18'W.) (World Port Index No. 32450) is the second-largest town in the Orkney Islands. The harbor lies on the N side of Hoy Sound and is entered between The Ness and Outer Holm, an islet lying 0.3 mile NE.

Tides—Currents.—Tides rise about 2.9m at springs and 1.3m at neaps. The tidal currents within the harbor are negligible.

Depths—Limitations.—There are three berths, up to 131m long, with depths of 4.5 to 6.5m alongside. Vessels of up to 100m in length and 6m draft can be accommodated. There are facilities for coastal cargo and ro-ro vessels.

Aspect.—A lighted range, in line bearing 317°, leads into the harbor.

Pilotage.—See paragraph 14.1.

Regulations.—Any vessel with an loa of 12m or greater or certified to carry more than 12 passengers, when navigating within 1,000m of the area of Stromness North Pier and Stromness South Pier is required to report its position and intended movement to Stromness Harbor Radio.

Any vessel with an loa of 12m or greater or certified to carry more than 12 passengers is required to report its intended movement and position to Stromness Harbor Radio prior to departure.

Non-reporting vessels are encouraged to provide this information.

If unable to contact Stromness Harbor Radio, vessels are required to contact Orkney VTS on VHF channel 11.

Vessel Traffic Service.—See paragraph 14.1.

Contact Information.—The Stromness Harbor Radios can be contacted, as follows:

- | | |
|---------------|------------------------|
| 1. Call sign: | Stromness Harbor Radio |
| 2. VHF: | VHF channel 14 |
| 3. Telephone: | 44-1856-850744 |

4. Facsimile: 44-1856-851457

Anchorage.—Protected anchorage is available within the harbor, in a depth of 7.3m, good holding ground. However, the harbor is small and often congested with numerous small vessels. Permission to anchor from the harbormaster is required.



Stromness Harbor

14.61 East of Stromness, the coast curves N and forms the Bay of Navershaw and the Bay of Ireland.

Bay of Navershaw (58°58'N., 3°16'W.) is entered between Rom Ness and Bu Point. Cairston Road lies close S of this bay and provides good anchorage.

Bay of Ireland (58°58'N., 3°15'W.) is entered between Bu Point and Nazegeo Point, 1 mile E. A shoal, with a least depth of 2.7m, extends completely across the entrance.

This bay is generally shallow and of little importance to shipping, although small coastal vessels can anchor there.

Mallow Bank (58°57'N., 3°15'W.) has depths of 1.8 to 5.4m over a bottom of soft and muddy sand. It is almost 1 mile long and lies in the middle of the approach to the bays.

Clestran Sound (58°56'N., 3°15'W.) lies between the E side of Graemsay and the coast of Mainland. From the N, this passage is entered between Sandside Point, on Graemsay, and the Skerries of Clestran.

Except for an obstruction with a depth of 5.8m extending E from Riddock Shoal, the fairway has depths of 11 to 51m. The narrowest part of the passage is about 0.4 mile wide.

Sandside Point is described in paragraph 14.59 with the island of Graemsay.

The Nevi (58°55'N., 3°16'W.) is the SE point of Graemsay. The 10m curve in this vicinity extends up to 0.5 mile S from the point; Sow Skerry and Sour Skerry lie within this curve.

14.62 Skerries of Clestran (58°57'N., 3°14'W.) lie close offshore, 1 mile ENE of Sandside Point. These rocks dry up to 2.1m and form the NE entrance point of Clestran Sound.

Houton Head (58°55'N., 3°12'W.) is a prominent headland, 58m high, which is surmounted by a conspicuous building. Peter Skerry lies within the 10m curve, 0.8 mile NW of the point, and is marked by a buoy, moored close NW.

Hill of Midland, 156m high, rises 1 mile NE of Houton Head and Ward Hill, the highest elevation on Mainland, stands 2 miles NNE of it. This hill is 266m high; a beacon stands on the

summit.

Sand Eel (58°56'N., 3°16'W.), a sandy shoal, lies 0.5 mile NE of Sandside Point and has depths of less than 10m. The least depth of 3.6m lies on the NW side of the shoal.

Riddock Shoal (58°56'N., 3°15'W.), with depths of less than 4m, lies E of Graemsay and is marked by a lighted buoy, moored close E.

Bring Deeps (58°54'N., 3°14'W.) is the water area lying SW of Houton Head. It connects Hoy Sound with Scapa Flow.

Caution.—A spoil ground area, the limits of which are shown on the chart, lies within Bring Deeps, 1 mile SSW of Howton Head.

A submarine obstruction, with a least depth of 5.8m, extends ENE from Riddock Shoal to within 0.3 mile of the shore of Mainland.

Submarine cables are laid across Clestran Sound and may best be seen on the chart.

Scapa Flow—South Approach

14.63 The principal entrance to Scapa Flow lies between Brough Ness, the S extremity of South Ronaldsay, and Cantick Head, the E point of South Walls. The island of Swona lies nearly midway between these two points.

Scapa Flow is covered by surveillance radar. For details of pilotage information, see paragraph 14.1.

14.64 South Ronaldsay.—From Brough Ness, the W coast of South Ronaldsay extends 6 miles in a general N direction to Hoxa Head, the NW point of the island. The coast is fringed by rocks, but there are no known off-lying dangers.

Bur Wick (58°44'N., 2°58'W.), a small and shallow bay, is entered between Brough Ness and The Wing, a 15m high cliff, 0.8 mile NW. This bay lies close N of Lother Rock, which is described in paragraph 8.8.

The Creel, a reef, extends 0.1 mile S from The Wing and a detached shoal, with a depth of 6.4m, lies 0.1 mile farther SE. Barth Head, a sheer slate cliff, is located 1.3 miles NW of Bur Wick and is 48m high.

Herston Head (58°49'N., 3°01'W.), a peninsula, projects NW from the coast and forms the S entrance point of Widewall Bay. Rugged cliffs extend for 3 miles between Barth Head and Herston Head and several small bays indent this stretch of the coast.

Widewall Bay (58°49'N., 3°00'W.) is entered between Herston Head and Hoxa Head. The entrance is 0.5 mile wide and the fairway has depths of 10 to 36m. The N part of the bay has general depths of 7 to 20m and the S part has depths of less than 5m.

Hoxa Head (58°49'N., 3°02'W.), 45m high, is located at the SW end of the peninsula which extends SW from the NW point of South Ronaldsay. This peninsula forms the NW shore of Widewall Bay. It can be easily identified by the numerous concrete gun emplacements and a light, which is shown from a tower standing on the NW side.

Small vessels can anchor as convenient, according to their draft, within Widewall Bay. The bottom is sandy and shelves gradually toward the head. Large vessels are advised not to seek anchorage as the outer part of the bay can be hazardous with W gales.

14.65 Switha (58°48'N., 3°06'W.), a small island, is 24m high. It lies on the W side of the approach to the bay, about 0.8 mile NE of Cantick Head, which is described in paragraph 8.8.

Cantick Sound, which leads between Switha and the E coast of South Walls, is free of dangers. The fairway has a depth of 19.8m and is about 0.3 mile wide.

Long Hope (58°49'N., 3°10'W.) a rather narrow inlet, extends inland for 3.5 miles between Hoy and the N coast of South Walls. The inner half of this inlet, which lies W of a line extending between North Ness and South Ness, is generally shallow, foul, and of little interest to shipping.

Hackness (58°48'N., 3°09'W.) is the S entrance point of Long Hope. A conspicuous martello tower stands close inland of the point.

Crock Ness (58°49'N., 3°10'W.), the N entrance point of Long Hope, is located 1 mile NW of Hackness. A conspicuous martello tower stands on this point. The Ruff, a drying reef, extends 0.2 mile E from the point and is marked by a lighted buoy at its E end.

The fairway leading into Long Hope has a depth of 18m in the entrance. In the narrow passage lying between North Ness and South Ness, which is only about 90m wide, the fairway has a depth of 6.8m.

Caution.—Submarine water pipelines and a submarine cable, which may best be seen on the chart, lie across the channel leading between Hoy and Flotta. Their landing places are marked by beacons.

14.66 South Ness (58°48'N., 3°12'W.), on the N coast of South Walls, is located 2 miles within Long Hope and fringed by a drying spit. A prominent church, with a belfry, stands near the shore, 0.5 mile E of this point. A pier, marked by a light, extends 85m NE from the E side of the point and has a depth of 5m alongside.

Vessels may anchor as convenient, according to their draft, anywhere within the entrance to Long Hope. There are depths of 7 to 13m over a bottom of mud, sand, and weeds. In places, heavy growths of weeds can be found.

An area of foul ground and a wreck lie in the middle of the entrance, 0.5 mile S of Crock Ness.

Directions.—Vessels approaching Long Hope from the S, during the last part of the E tidal current in Pentland Firth, should pass well S and E of Switha. They should then pass through Switha Sound in order to make the best use of the tidal currents.

During the first part of the E tidal current, vessels, in order to make the best use of the tidal currents, should round Cantick Head as closely as possible because the current in this vicinity occasionally attains a velocity of 4 knots and sets in a NE direction.

Low-powered vessels, which are approaching Long Hope from the vicinity of Duncansby Head during the first part of the W tidal current in Pentland Firth, should stay close along the coast of South Ronaldsay until it is convenient to steer for the entrance of Switha Sound. They should then pass between the NE extremity of Switha and the SE extremity of Flotta. Low-powered vessels bound W from Long Hope should be aware that a countercurrent will be found setting around Cantick Head about 10 minutes before HW at Stromnessand. This current sets in a W direction as far as Tor Ness.

Low-powered vessels bound S from Long Hope should arrive off Duncansby Head when the SE tidal current begins, about 3 hours 15 minutes before HW at Stromness. Such vessels should pass through Switha Sound, where they can probably take advantage of the countercurrents, at about 5 hours 30 minutes before HW at Stromness. They should then steer for Barth Head where the W current will carry them towards Duncansby Head and leave them in a good position to take advantage of the first part of the SE tidal current.

14.67 Switha Sound (58°49'N., 3°06'W.) leads between the S side of Flotta and the island of Switha, and between the W side of Flotta and the entrance to Long Hope. The E entrance to this sound lies between North Taing, the NE point of Switha, and Stanger Head, on Flotta. Switha Sound can also be entered from the S between Hackness and the Point of the Pool.

A line extending between Crock Ness and the W extremity of Flotta forms the N limit of Switha Sound. From here, it is connected to Scapa Flow by Gutter Sound and West Weddel Sound.

The fairway in the sound is about 0.5 mile wide for its full length, about 3 miles. It has depths of 16 to 31m at the E entrance and is free of dangers.

Flotta, 56m high, lies on the NW side of the S approach to Scapa Flow.

Stanger Head (58°49'N., 3°05'W.) is the SE point of Flotta. From this point, the coast extends W for 1.5 miles to Innan Neb, the SW point of the island. Stanger Head, marked by a light, is steep-to on its S and E sides. A tower, 50m high, stands 0.3 mile NW of the point and several chimneys are situated close N of it.

Kirk Bay, small and shallow, lies close W of Stanger Head. An outfall pipeline extends 1.3 miles SSE from the head of this bay.

The Orkney Islands—Scapa Flow

14.68 Scapa Flow affords sheltered anchorage in a landlocked harbor, which is protected on its N side by Mainland. The island of Hoy, along with several off-lying islands, protects the SW side and the islands of Burray and South Ronaldsay protect the SE side. There are general depths up to 36m throughout the area over a bottom of mainly mud and sand. Tidal currents within the harbor are negligible. However, with strong gales, there is a surge from side to side, which may be considerable at times.

Pilotage.—See paragraph 14.1.

Regulations.—Any vessel with an loa of 12m or greater or certified to carry more than 12 passengers, when navigating within the area of Scapa Flow and its approaches is required to report its position and intended movement to Orkney VTS.

Any vessel with an loa of 12m or greater or certified to carry more than 12 passengers is required to report its intended movement and position to Orkney VTS prior to departure.

Non-reporting vessels are encouraged to provide this information.

Vessel Traffic Service.—See paragraph 14.1.

Anchorage.—Vessels may anchor as convenient almost anywhere E of Cava, except in the prohibited areas. No matter what the direction of the wind may be, vessels can always find

shelter within Scapa Flow by shifting berth.

The shores of the harbor are generally steep-to with only a few off-lying dangers.

Caution.—Numerous prohibited anchorage areas lie within Scapa Flow and may best be seen on the chart.

14.69 The Sound of Hoxa leads into the SE part of Scapa Flow and lies between the E side of Flotta and the W coast of South Ronaldsay. From the S, this passage is entered between Stanger Head, on Flotta, and Hoxa Head, on South Ronaldsay.

Tides—Currents.—The flood current in the Sound of Hoxa is considerably affected by eddies and never runs across the entire width of the sound. The ebb current is also affected by eddies at first, but from about 3 hours 30 minutes after HW at Stromness until the beginning of the flood current, it runs in a SW direction across the entire width of the sound between Hoxa Head and Quoy Ness.

The flood current off Stanger Head may attain a velocity of up to 4 knots in places at springs. This current usually attains its maximum strength at about 4 hours 30 minutes before HW at Stromness, but it is generally weak between Stanger Head and Hoxa Head. However, off Hoxa Head, the current may attain a velocity of 2 knots at springs.

At about 4 hours 30 minutes before HW at Stromness, the entire channel in the vicinity of Hoxa Head is filled by a large eddy which rotates in a counterclockwise direction. The velocity of this eddy varies between 1.5 and 2 knots at springs. To the N of the eddy, the currents are generally weak with velocities of not more than 0.5 knot.

The ebb current, although more regular, is considerably weaker than the flood current. At about 3 hours 30 minutes after HW at Stromness, this current runs in a SW direction across the entire width of the sound between Roan Head and Hoxa Head. It continues without change until the flood current begins. When the ebb current begins, its velocity, on the W side of the channel off Hoxa Head, is about 1.5 knots at springs. However, elsewhere in the sound, this current does not exceed a velocity of 0.5 knot.

Caution.—Submarine oil pipelines, which may best be seen on the chart, extend E from Curries Firth through Hoxa Sound and Water Sound to the Claymore, Piper, and Tartan Oil Fields.

14.70 The Grinds (58°51'N., 3°02'W.), the northernmost shoal area, is narrow and marked by a lighted buoy moored at its E end.

Nevi Skerry (58°51'N., 3°03'W.), consisting of two drying and steep-to rocks, lies about 0.8 mile E of Roan Head and is marked by a lighted beacon.

Vessels entering or leaving Scapa Flow via the Sound of Hoxa usually pass W of Nevi Skerry. The channel is 0.5 mile wide at its narrowest part and has depths of 22 to 54m.

Caution.—Nevi Skerry should not be approached within 150m from any direction.

14.71 Stanger Head, the SW entrance point of the Sound of Hoxa, is described with the S coast of Flotta in paragraph 14.67.

Quoy Ness (58°50'N., 3°05'W.), the S entrance point of Pan Hope, is located 1 mile N of Stanger Head.

Pan Hope is entered between Quoy Ness and Roan Head, 1

mile NNE. Small vessels can anchor, in depths of 3 to 5.4m, off the S shore of this shallow bay.

Caution.—A submarine pipeline, which may best be seen on the chart, lies in Pan Hope.

14.72 Roan Head (58°51'N., 3°04'W.) is the NE point of Flotta. A light is shown from this headland and a prominent chimney, 30m high, stands 0.5 mile W of it.

A drying reef fronts the shore 0.3 mile NNW of the light and is marked by a beacon.

The Calf of Flotta lies N of Roan Head. This islet is 16m high and is separated from the N side of the headland by Calf Sound, which is shallow. A light is shown from the NE end of the islet and a lighted mooring buoy is situated close SW of the W end.

Hoxa Head, which forms the SE entrance point of Hoxa Sound, is described with the W coast of South Ronaldsay in paragraph 14.64.

Croo Taing, located 1 mile NE of Hoxa Head, is the NE entrance point of the Sound of Hoxa.

Scapa Flow—Southeast Side

14.73 Water Sound, St. Margaret's Hope, Hunda Sound, Echnaloch Bay, East Weddel Sound, Skerry Sound, and Kirk Sound comprise the SE side of Scapa Flow. These water areas will be described in the same order.

Water Sound (58°50'N., 2°57'W.), which lies between South Ronaldsay and Burray, is divided into two parts by a breakwater. The area lying W of the breakwater is described below. The area lying E of the breakwater is described with the E coasts of the Orkneys, under Holm Sound and Water Sound, beginning in paragraph 14.31.

Water Sound is entered from the W between Croo Taing and Bor Taing, the W point of Hunda Island. Dam of Hoxa, a small bay, lies close E of Croo Taing.

St. Margaret's Hope (58°50'N., 2°57'W.) is a small shallow bay indenting the N coast of South Ronaldsay. It is entered between Needle Point and Knockhall Point, on the S side of Water Sound. A narrow channel with a least depth of 1.9m leads into the bay, which affords shelter for small vessels. A small village stands at the head of the bay, its church belfry serving as a landmark. A stone pier, with a depth of 2.7m off its outer end, is situated on the W side of the bay. The port is a busy ferry terminal. Small vessels can anchor, in a depth of 6m, close E of the pier and near the center of the bay. Permission must be obtained from the Harbor Master.

A spit extends about 0.1 mile E from Needle Point and is marked by a light at its E end.

A lighted range, bearing 196°, indicates the fairway leading into the bay. This fairway leads between the end of the spit and an obstruction located 0.3 mile NW of Knockhall Point.

Hunda Sound (58°51'N., 2°57'W.) lies between the islands of Hunda and Burray. This small bay affords sheltered anchorage to small vessels, in depths of 7 to 10m, sand over clay with good holding ground. However, it is reported that several marine farms have been established in the bay and must be avoided.

A reef, which dries and carries a road, blocks this sound and connects Burray to Hunda.

14.74 Echnaloch Bay (58°52'N., 2°55'W.) lies on the N side of Burray, between Swannies and Ward Point. This bay is open to the N and strong winds from that quarter raise a sea within it. Anchorage is not available in the bay due to the existence of several abandoned submarine cables.

East Weddel Sound (58°52'N., 2°55'W.) leads between Glims Holm and Burray. It is blocked by the breakwater which extends N from Ward Point to the vicinity of Tarri Clett, on Glims Holm. The area lying E of the breakwater is described with the E coasts of the Orkneys, under Holm Sound and Water Sound, beginning in paragraph 14.31. The remains of blockships extend up to 0.1 mile seaward of the breakwater.

Skerry Sound (58°53'N., 2°54'W.) is entered from the W between Howequooy Head and the NW point of Glimps Holm. A line extending from Skaildaquoy Point to Kirk Point, on Lamb Holm, indicates the boundary between Skerry Sound and Kirk Sound. The breakwater extending between Glimps Holm and Lamb Holm closes the E entrance to this sound.

Kirk Sound (58°54'N., 2°54'W.) is entered from the W between Skaildaquoy Point and Kirk Point.

The area lying E of the breakwater, between Lamb Holm and Mainland, is described with the E coasts of the Orkneys, under Holm Sound and Water Sound, beginning in paragraph 14.31.

14.75 St. Marys (58°54'N., 2°55'W.), a small village, stands on the N side of the passage. A small pier is situated at the W end of the village, 0.3 mile N of the extremity of Skaildaquoy Point. Another small pier is situated 0.4 mile NE of the latter point.

Anchorage.—Within Scapa Flow there are designated anchoring area to the NE of Flotta Marine Terminal for vessels, each with specific activity, as follows:

Berth STS1 to STS4 are for LNG and crude oil tankers engaged in ship-to-ship cargo transfer operations.

Berths STS1, STS2, STS3, No 9 and No 10 are designated for use by VLCCs and other deep-draft vessels.

Berths No. 2 to No. 8 and Berth No. 11 are general purpose anchorages.

Anchorage is prohibited in the following area:

1. Within 0.2 mile of the submarine pipeline running from position 58°50.3'N, 2°58.8'W, in Water Sound, then crossing Soud of Hoxa and leading to position 58°50.0'N, 3°06.6'W in Curries Firth.

2. Within 0.2 mile of the submarine oil pipeline running from position 58°51.0'N, 3°07.1'W, close N of Flotta Marine Terminal, to SPM1 (58°52.2'N, 3°07.4'W.) and SPM 2 (58°52.3'N, 3°05.9'W.).

Caution.—A submarine cable lies in Skerry Sound and may best be seen on the chart.

Scapa Flow—Southwest Side

14.76 Fara, Rysa Little, Cava, and Barrel of Butter are described with this part of Scapa Flow.

Fara (58°50'N., 3°10'W.) lies between Flotta and Hoy. The S side of this island is located 0.5 mile N of Crock Ness. Thompsons Hill, the summit, rises near the center of the island and is 41 m high. Two mooring buoys, marked by lights, are situated close off the E side of the island.

Flotta Marine Terminal (Scapa Flow Terminal) (58°51'N.,

3°07'W.), a major oil and gas terminal, is situated in the N part of Flotta. It receives oil via a submarine pipeline which extends from the North Sea fields.

Depths—Limitations.—The terminal has a T-shaped jetty, with dolphins, which can accommodate vessels of up to 170,000 dwt loading crude oil or liquified natural gas. The jetty has a minimum depth alongside of 20.1m. Two single point moorings are located 1.5 miles N of the terminal; however, only one is reported (2013) to be currently in use. Submarine oil pipelines extend between these mooring towers and the N coast of Flotta. There are approximate depths at the mooring of 23m and vessels up to 200,000 dwt can be accommodated.

Pilotage.—See paragraph 14.1.

Regulations.—Vessels should send their ETA 5 days, 72 hours, 48 hours, and 12 hours before arrival at the pilot boarding position. VHF contact should be established 3 hours in advance. Vessels should inform the terminal when the pilot is on board.

Contact Information.—Flotta Marine Terminal can be contacted, as follows:

- | | |
|---------------|--|
| 1. Call sign: | Flotta Terminal |
| 2. VHF: | VHF channels 16 and 69 |
| 3. Telephone: | 44-1856-884201 |
| 4. Facsimile: | 44-1856-884222 |
| 5. E-mail: | flomoor@talisman-energy.com |

Caution.—Dangerous wrecks, marked by lighted buoys, lie 0.5 mile WNW and 0.8 mile NNE of the jetty. Several other wrecks and foul areas lie in the vicinity of the terminal and may best be seen on the chart.

14.77 West Weddel Sound, the shallow passage lying between Fara and Flotta, is only 0.3 mile wide. It has a least depth of 3.9m over the bar at the N end. Gibraltar Pier, a ro-ro terminal, is situated on the E side of this sound and has a depth of 3.3m alongside its head. Another pier, with a depth of 3.8m alongside its head, is situated on the SE side of the sound, 0.3 mile SW of Gibraltar Pier.

Between Crock Ness (58°49'N., 3°10'W.), the N entrance point of Long Hope, and Green Head, 3.5 miles NNW, the E coast of Hoy is indented by several small bays.

Ore Bay (58°50'N., 3°12'W.), lying close N of Crock Ness, is shallow and fringed with reefs. Three piers extend from the N shore of this bay. A beacon stands on the slope of a hill, 1.5 miles W of the head of the bay.

Caution.—It was reported that several marine farms are situated within Ore Bay.

14.78 Lyness (58°50'N., 3°12'W.) (World Port Index No. 32490) lies close N of Ore Bay. Lyness Wharf and Golden Wharf, at the E side of the harbor, have depths of 7.9 to 9.4m alongside. A ro-ro ferry terminal is situated on the S face of Lyness Wharf. Vessels with drafts up to 7.6m can be handled in the harbor.

Caution.—Lyness Wharf has been recently (2011) refurbished, to include fenders and concrete block construction. Local dive boats use the wharf, as do ro-ro vessels.

Prolonged W or NW gales usually form a moderate scend off the E face of Lyness Wharf.

14.79 Mill Bay (58°51'N., 3°12'W.) lies between Lyness

and the Point of Cletts, 0.5 mile NNW. A conspicuous house stands on the hillside, 0.3 mile W of the latter point.

Three dangerous wrecks lie about 0.3 mile SE of the Point of Cletts and are marked by a lighted buoy, moored close E.

Small vessels may obtain anchorage in the outer part of the bay, but the bottom is liable to be foul with old wire hawsers.

Gutter Sound (58°51'N., 3°11'W.) is entered from the S between the Point of Cletts and the W point of Fara. A line extending between the E point of Rysa Little and North Point, at the N extremity of Fara, forms the N boundary of this passage. The fairway has depths of 11 to 18m and is 0.3 mile wide. The bottom is fouled with wire hawsers and old electric cables.

Pegal Head (58°52'N., 3°13'W.) lies about midway between Green Head and a point, marked by a post, 1.3 miles SSE. Pegal Bay lies on the S side of this headland and Lyrawa Bay lies on the N side.

Green Head (58°53'N., 3°13'W.) is the S entrance point of the E end of Hoy Sound. It also forms the NW entrance point of Rysa Sound.

Rysa Little (58°52'N., 3°12'W.) lies 0.4 mile E of Pegal Head and on the shallow shorebank. This islet is 20m high. Rysa Sound is entered from the N between Green Head and the N extremity of Rysa Little. This passage is entered from the S between the S point of Rysa Little and Ruberry, located 0.8 mile SE of Pegal Head.

The sound leads between Rysa Little and Hoy. It is only 0.2 mile wide and has a depth of less than 3m over the bar at the S end.

Anchorage is available near the middle of the sound, in a depth of 14m, good holding ground. However, during strong gales, heavy squalls sweep down into the anchorage from the hills in the vicinity.

Good anchorage can be taken, in depths of 18 to 20m, in the middle of the entrance to Lyrawa Bay, but it is exposed to E winds.

14.80 Cava (58°53'N., 3°10'W.), an island, lies 1.3 miles E of Green Head and is 37m high.

A light is shown from Calf of Cava, an islet-like peninsula, which is connected to the N end of the island by a very narrow isthmus.

A conspicuous white building, in ruins, stands in the middle of the N part of the island, 0.5 mile SSE of the light.

A shallow sand spit extends 0.3 mile S from Ward Point, the S extremity of the island.

Barrel of Butter (58°53'N., 3°08'W.), a small rock that almost covers at HW springs, lies 1.5 miles E of the light shown from Calf of Cava and is marked by a conspicuous lighted beacon.

Scapa Flow—Northwest Side

14.81 From Houton Head, the N entrance point of the E end of Hoy Sound, the coast of Mainland trends 6.5 miles in a general ENE direction to the W entrance point of Scapa Bay. This part of the coast is rather irregular and is indented by several bays. A few detached dangers lie off the coast, which is comparatively steep-to.

Holm of Houton, a flat islet, lies 0.3 mile off the SE side of Houton Head and is marked by a light on its E extremity. It is

10m high and connected to the point by a drying reef.

Houton Bay (Howton Bay) (58°55'N., 3°11'W.), a small and shallow bay, lies between Holm of Houton and Midland Ness. The channel leading into the bay is reduced to a width of about 90m by reefs that extend from both sides of the entrance.

Range lights, shown from the NW side of the bay, indicate the center of the entrance fairway which has been dredged to a depth of 3.5m. Two piers, each 130m long, extend S and SW from the head of the bay. The easternmost pier has a ro-ro terminal at its head, with a dredged depth of 3.1m alongside.

Caution.—The area bordered by Holm of Houton, Calf of Cava, and Barrel of Butter is encumbered by numerous wrecks, the majority of which are the remains of the German High Seas Fleet, scuttled in 1919.

14.82 Swanbister Bay (58°56'N., 3°07'W.) is entered between Toy Ness and Ve Ness, 1.3 miles ENE. Smoogro Skerry, a reef, lies 0.8 mile W of Ve Ness and dries in places. A foul area extends up to 0.8 mile S from Ve Ness.

Prominent houses stand about 0.3 mile inland, 1.5 miles W and 1 mile NW of Ve Ness. In summer, with offshore winds, good anchorage is available, in a depth of 11.6m, mud and sand, near the middle of this bay.

Waulkmill Bay (58°56'N., 3°05'W.), lying close E of Ve Ness, is shallow and of little importance to shipping.

Between the E entrance point of Waulkmill Bay and the W entrance point of Scapa Bay, the coast trends 2 miles ENE and is free of off-lying dangers.

Scapa Flow—Northeast Side

14.83 From Howequoy Head (58°53'N., 2°56'W.), the NE shore of Scapa Flow extends 3 miles in a general NNW direction to a point, which is known as Hemp Stack, located 1 mile NNW of the mouth of Burn of Deepdale.

Between Burn of Deepdale and Hemp Stack, the coast is bold, steep-to, and free of off-lying dangers.

A dangerous wreck, that of the HMS Royal Oak, with a least depth of 1.8m, lies 1 mile NW of the mouth of Burn of Deepdale; a lighted buoy is moored close SW of it. This wreck lies within a restricted area.

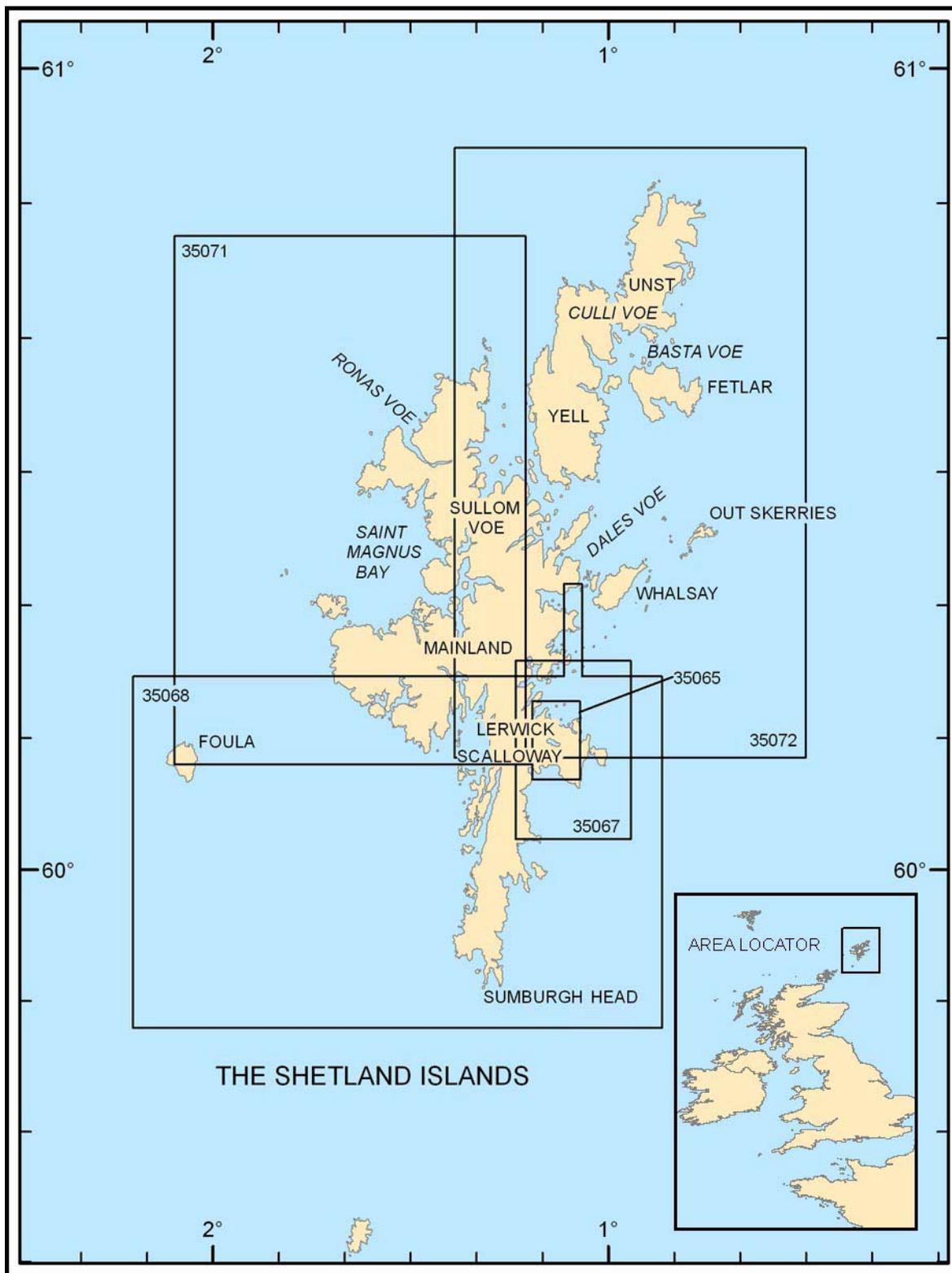
14.84 Scapa Bay (58°57'N., 2°59'W.) (World Port Index No. 32500) is entered between Hemp Stack and Hesti Geo, a small and rocky cove, lying 1.3 miles NW. Scapa Skerry, a reef almost awash, lies in the middle of the entrance channel and is marked by a lighted buoy, moored on its SE side.

A pier, with a dredged depth of 6m alongside its head, extends 183m seaward from the NE shore of the bay. Coastal tankers of up to 80m in length can be handled alongside.

The E side of the bay is fronted by a bank which extends up to 0.2 mile seaward in places. The head of the bay dries up to about 0.2 mile offshore. A prominent house stands near the head and a conspicuous cathedral is situated at Kirkwall, 1.3 miles NNE of it.

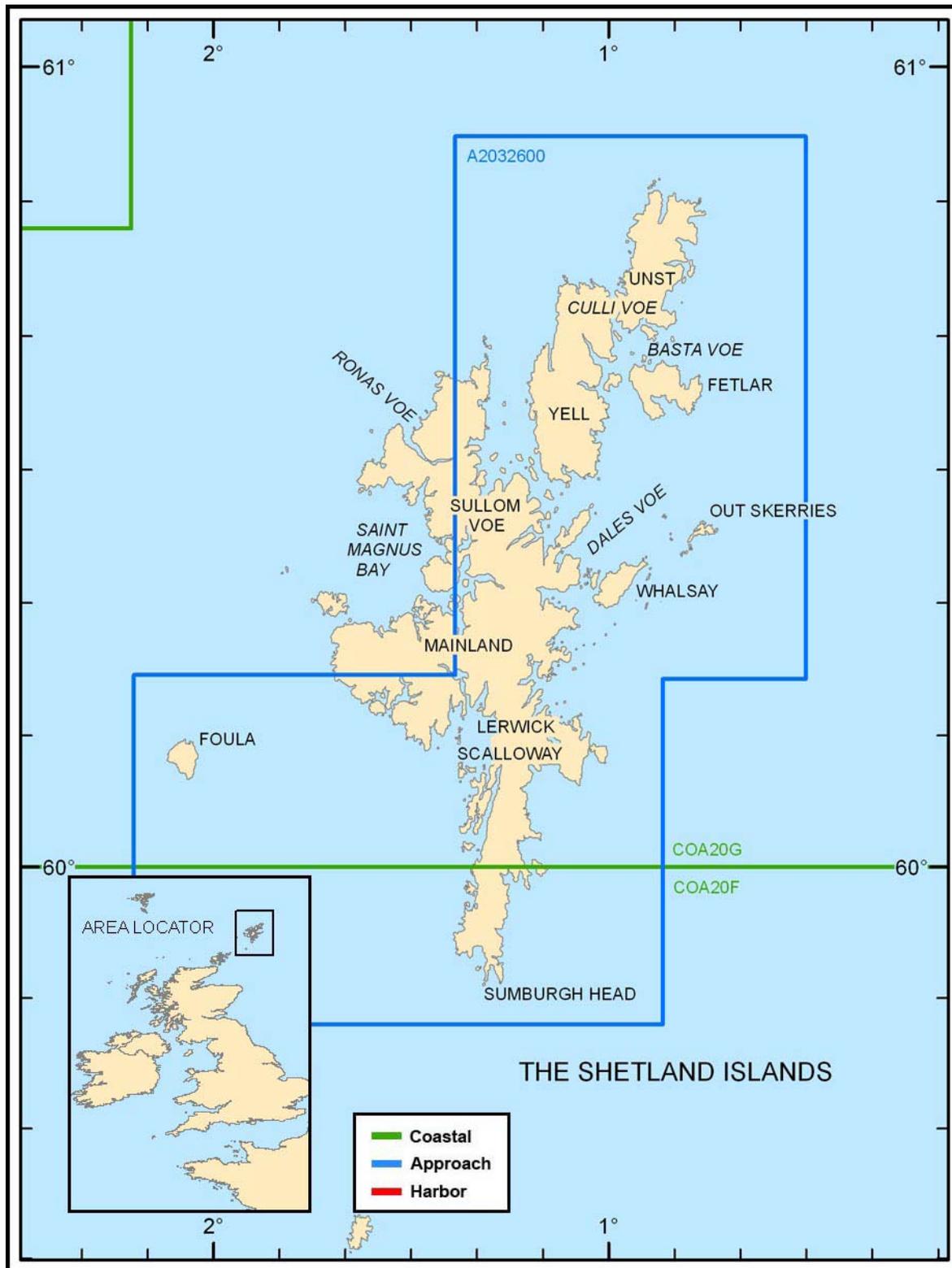
Large vessels are advised to anchor SE of the lighted buoy marking Scapa Skerry. Small vessels may obtain anchorage about 0.3 mile SW of the pier.

Caution.—Winds from the SW cause a considerable sea within Scapa Bay and the anchorage cannot be used.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 15 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 20 (Limited Distribution) disc within the README\GRAPHICS folder.
SECTOR 15 — DNC LIBRARY INFORMATION

SECTOR 15

THE SHETLAND ISLANDS

Plan.—The N and W coasts of the Shetland Islands, from Skaw to Sandness Hill and then to Sumburgh Head, are described first. The island of Foula and Fair Isle are described with the W coast.

The E coasts, from Sumburgh Head to Lunna Holm and then to Holm of Skaw, are described last. Yell Sound and Bluemull Sound are included with the E coast. The descriptive sequences are from E to W, then toward the S, and then toward the N.

General Remarks

15.1 The Shetland Islands are formed by a group of more than one hundred islands and islets, which lie about 50 miles NNE of the Orkney Islands. Mainland, Yell, and Unst are the main islands. Foula, which lies about 12 miles W, and Fair Isle, located about midway between the Orkney Islands and the Shetland Islands, are included in the group. Twenty-nine of the islands are inhabited.

Nearly all of the large islands show evidence of intense glaciation and are deeply indented by bays and voes.

Ronas Hill, standing near the N end of the island of Mainland, is the highest point in the islands.

Lerwick, the capital and principal town of the islands, is situated on Mainland.

In general, the islands present a bleak and barren appearance as there are no trees or shrubs except in the cultivated areas.

Areas to be Avoided.—Vessels of over 5,000gt carrying or having a capacity to carry oil or other liquid hazardous cargo are to avoid the area around S, W, and N part of the Shetland Islands. This regulation includes oil tankers, chemical tankers, gas carriers, and all ships carrying dangerous or polluting packaged cargo. The boundaries of these areas may also be seen on the chart extending up to 18 miles off the Orkney Islands on the N part of Pentland Firth, 6 miles offshore all around Fair Isle, and up to 20 miles offshore around the S, W, and N parts of the Shetland Islands.

Regulations.—The Shetland Islands Council is conscious of the dangers to navigation existing around the Shetland coast. Due to inadequate surveys, offshore obstructions, strong tides, rapid weather changes, and the presence of numerous fishing vessels, the council strongly discourages tanker navigation within 10 miles of the coastline.

An agreement has been reached between the oil industry and the Shetland Islands Council, of which the following is an extract:

1. Masters are strongly recommended to keep at least 10 miles from the Shetland Islands when approaching or leaving Yell Sound. Since Fair Isle is part of the Shetland Islands, it is recommended that vessels navigate Fair Isle Channel approximately midway between Fair Isle and either Mainland Shetland or North Ronaldsay, Orkney.

2. It is further recommended that passage between off-lying islands, skerries, etc., including Foula and Mainland Shetland should not be attempted.

3. For the final approach to or departure from Yell Sound, vessels are strongly recommended to navigate in the Precautionary Areas, the limits of which are shown on the chart. Vessels are also recommended to navigate outside the Areas to be Avoided.

4. When, for any reason of safety or emergency, it is not possible to comply with the foregoing, masters are required to immediately notify Sullom Voe Port Control, by VHF channel 16 or via the agent, of their intentions and reasons.

Precautionary Area.—In order to avoid the risk of oil pollution that result in severe environmental damage and economic loss, precautionary areas have been established in the N and SE approaches to Yell Sound and in the SE approaches to Lerwick. Large and deep-draft vessels with restricted maneuverability are encountered in the SE and the N approaches to Yell Sound and at Lerwick.

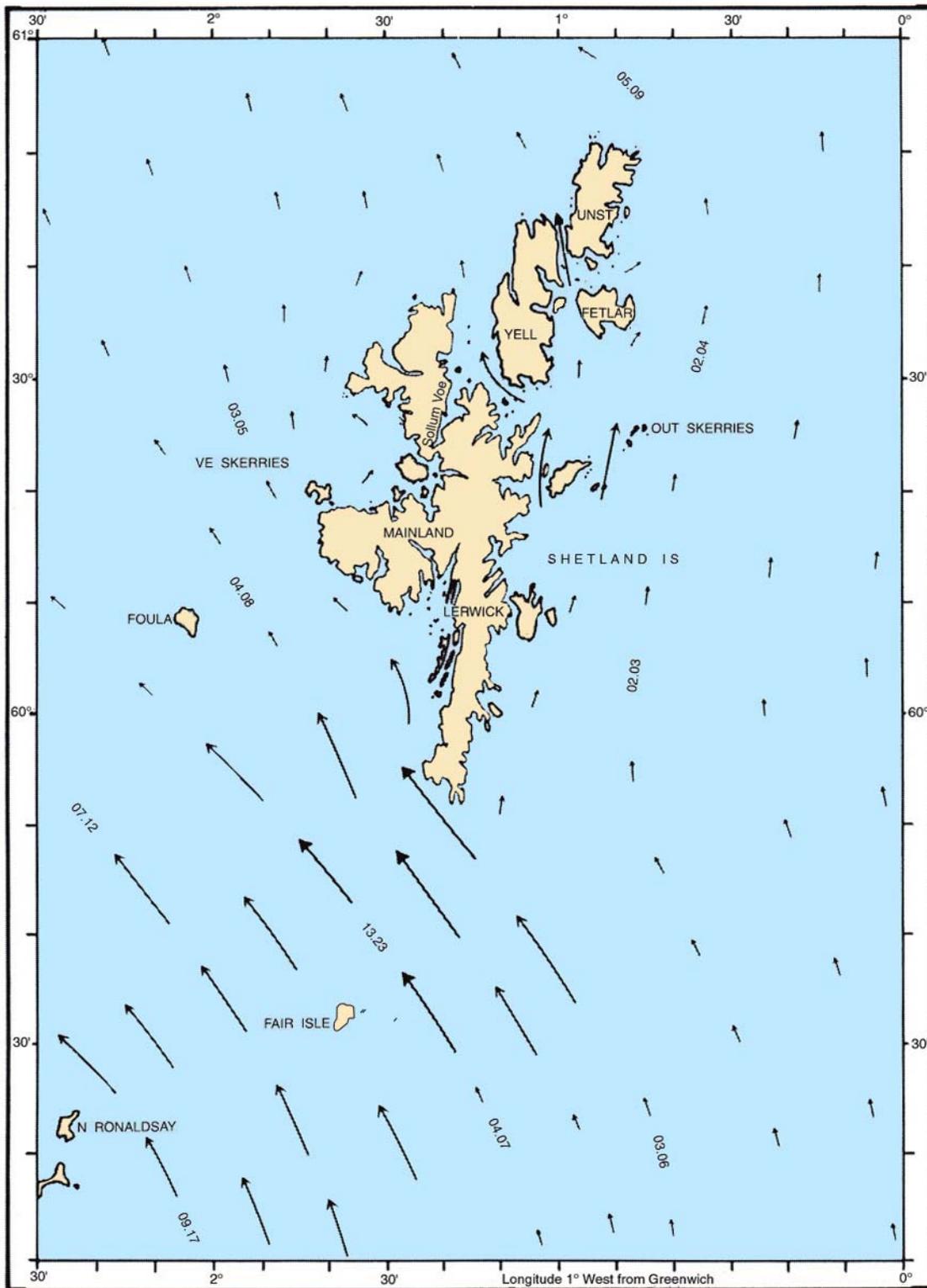
Caution should also be exercised in the vicinity of existing marine farms, which may consist of fixed or floating structures and associated moorings in the inner waters of the islands. They are generally marked by buoys or beacons.

A local magnetic anomaly, which deflected the compass up to 20°, was reported to exist in the vicinity of Papa Bank (59°57'N., 3°16'W.).

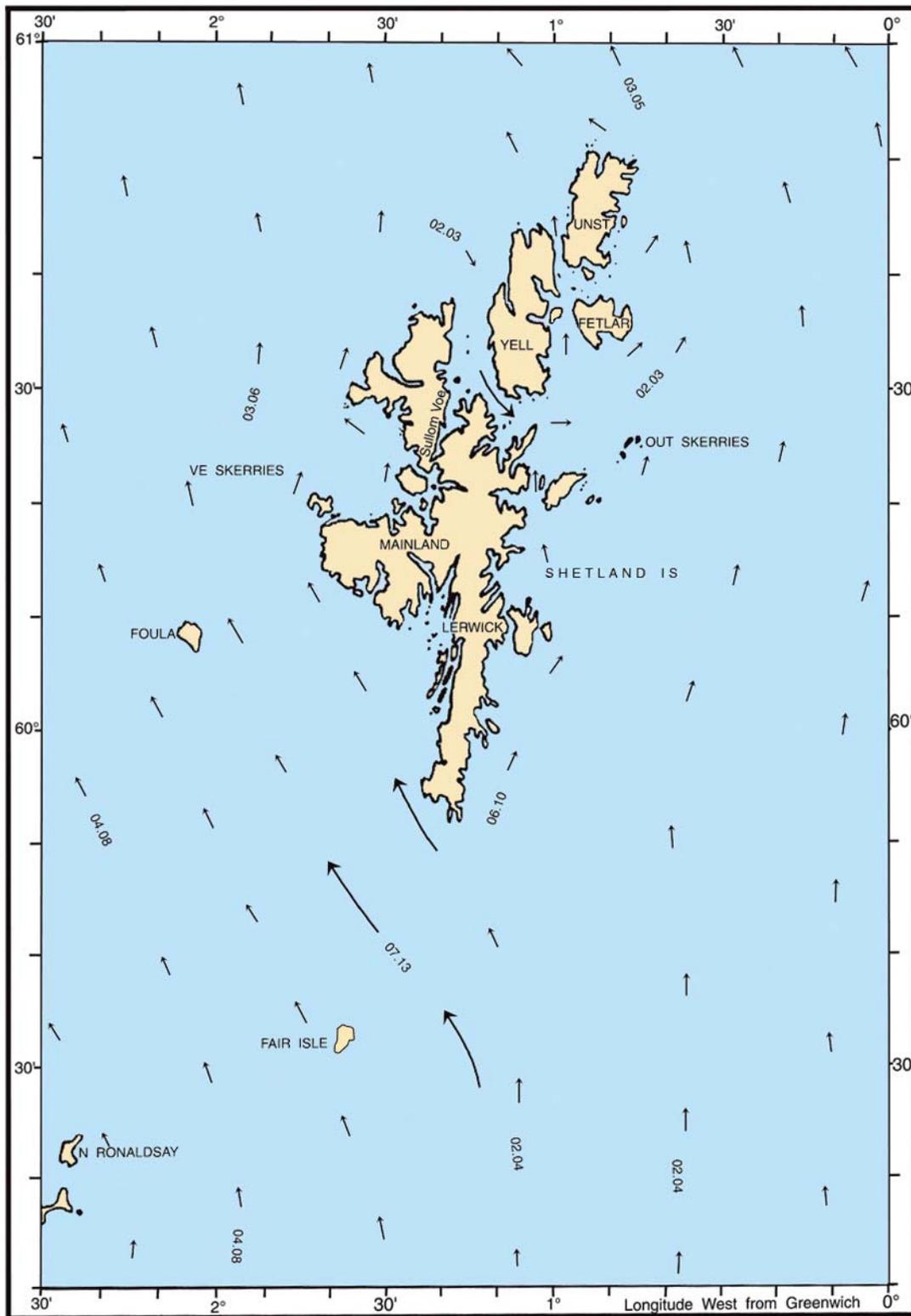
Offshore Oil and Gas Fields.—There are fields with either oil or gas resources, or both in the same field. Networks of submarine pipelines and cables connect the fields. All the gas and a large proportion of oil extracted from the fields are pumped through the pipelines to shore terminals on the NE shores of Scotland, the Orkney Islands, and the Shetland Islands. A smaller portion of the fields not connected to the shore stations pump oil directly into tankers through single point moorings (SPM) or into floating storage facilities. Fields utilizing Single Well Oil Production Systems (SWOPS), where a well head on the seabed is serviced by a dynamically-positioned tanker or self-propelled drill ship directly above it, are few. When oil recovery over a well head is in progress, it is lit as an offshore installation; a safety zone, with a radius of 500m, surrounds the facility.

Development Area.—Some developing fields are marked by buoys; others have no surface structure, but may be designated as such on a chart. For more information on offshore oil and gas fields, see paragraph 12.3.

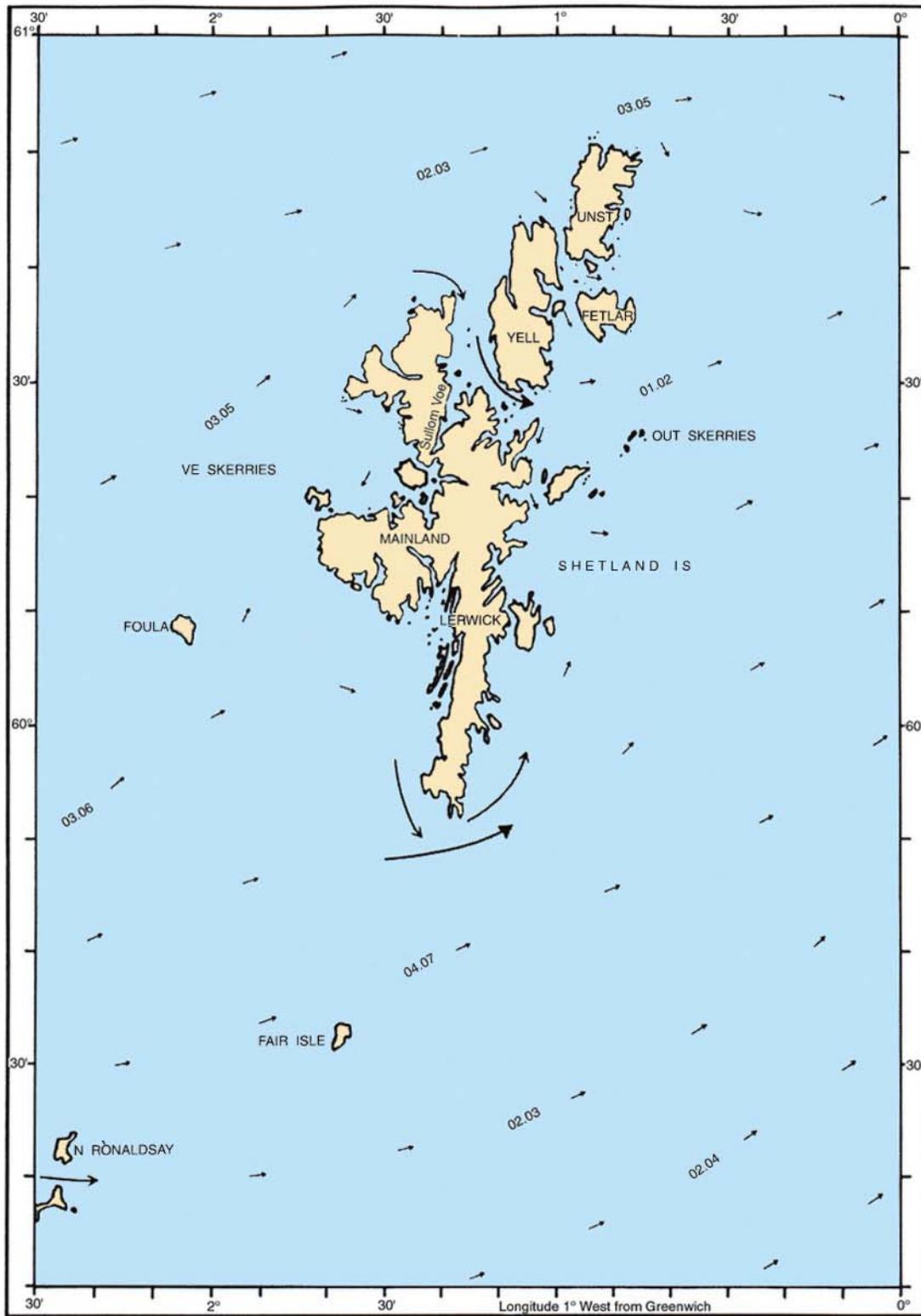
Tides—Currents.—The tidal graphics within this sector show the currents in the vicinity of the islands at hourly intervals commencing 6 hours before HW at Dover and ending 6 hours after HW at Dover. On these graphics, the directions of the currents are shown by arrows, which are graded in weight and where possible in length, to indicate the approximate tidal rate. Hence, an arrow shown in regular type indicates a weak current and one shown in bold face type indicates a strong current. The numerals appearing along the arrows reflect the mean neap and spring rates in tenths of knots. Hence, “19, 34” indicates a mean neap rate of 1.9 knots and a mean spring rate of 3.4 knots. The comma indicates the approximate position at



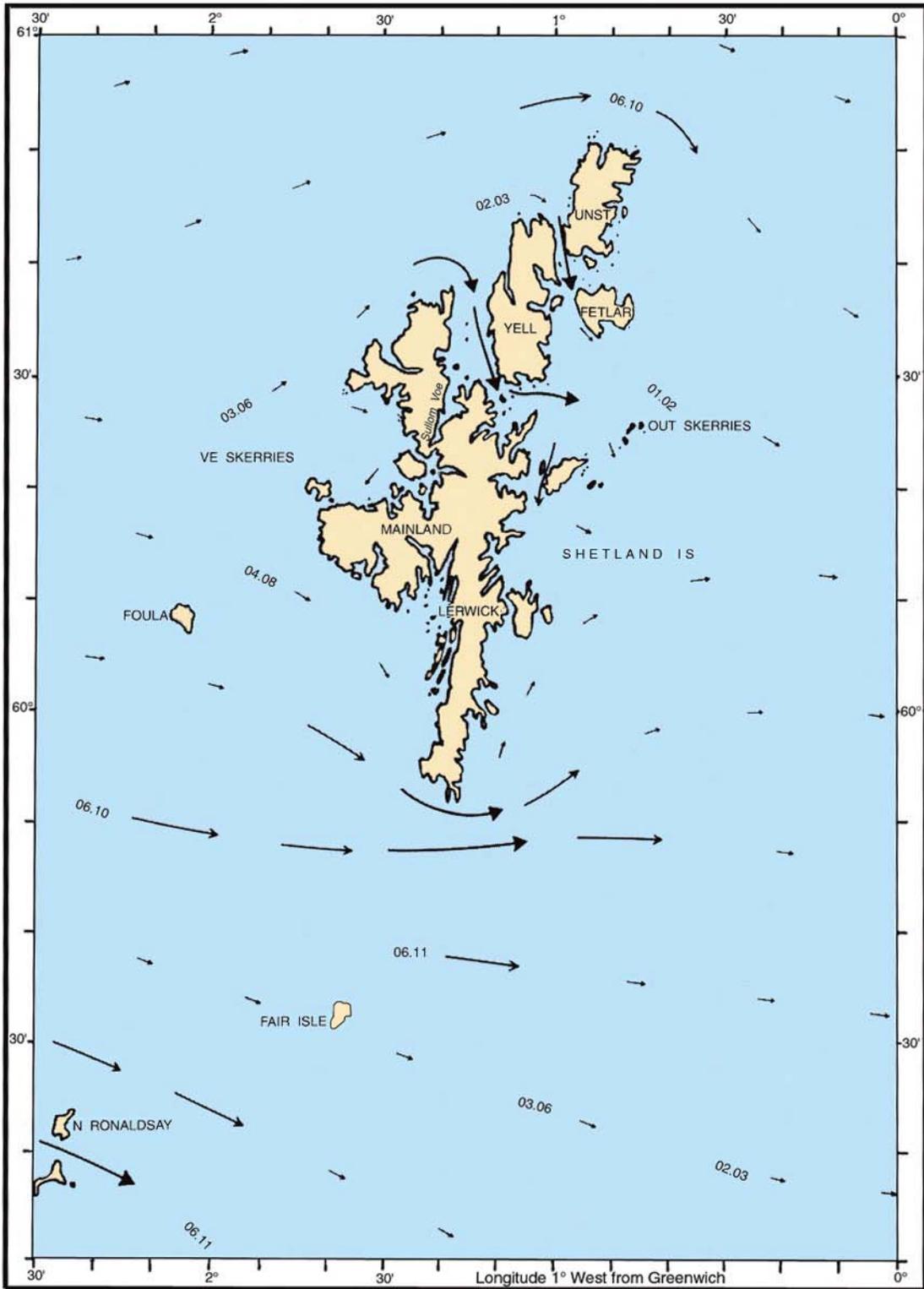
6 HOURS BEFORE HIGH WATER AT DOVER
4 HOURS AFTER HIGH WATER AT ABERDEEN



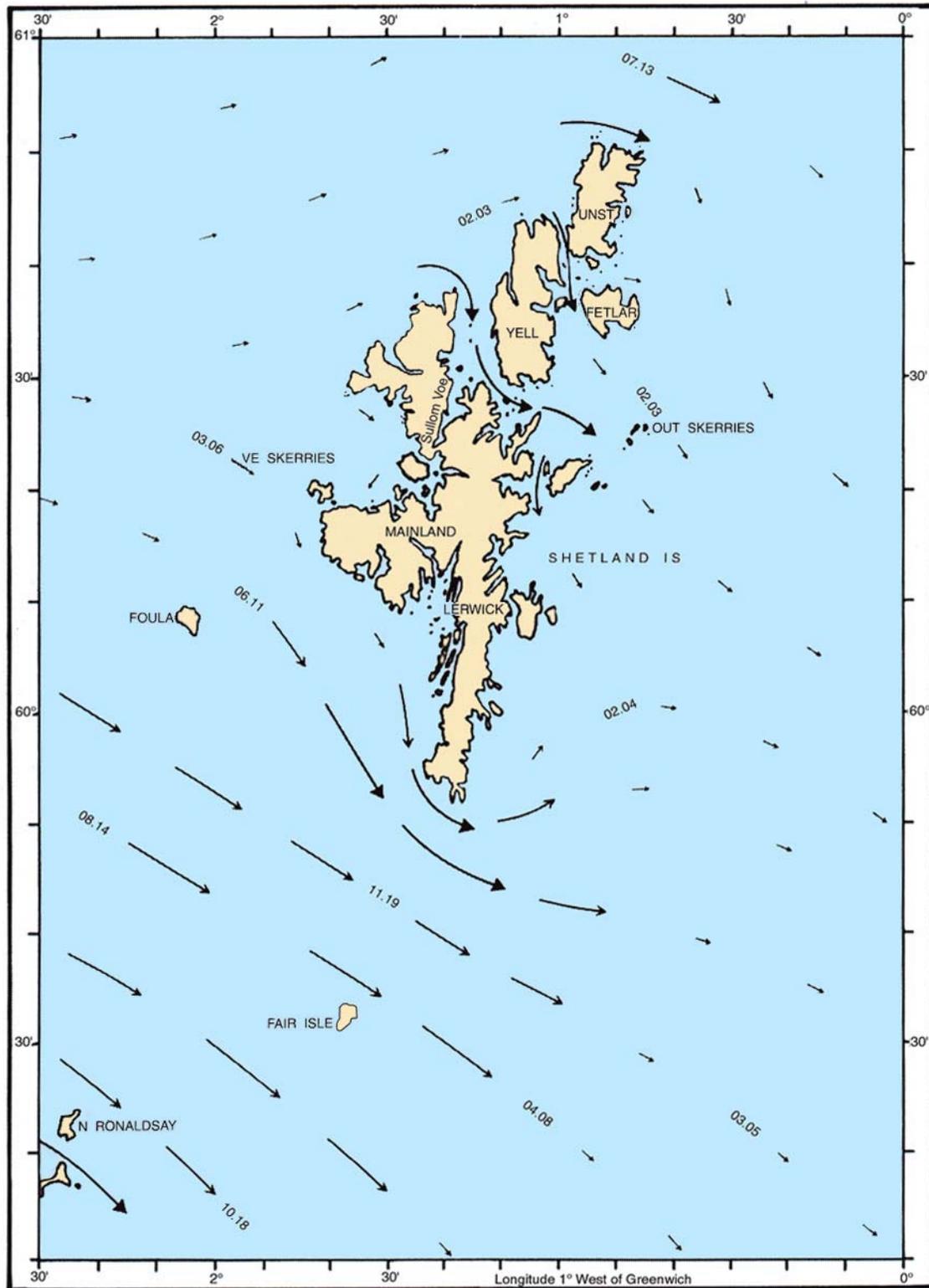
5 HOURS BEFORE HIGH WATER AT DOVER
5 HOURS AFTER HIGH WATER AT ABERDEEN



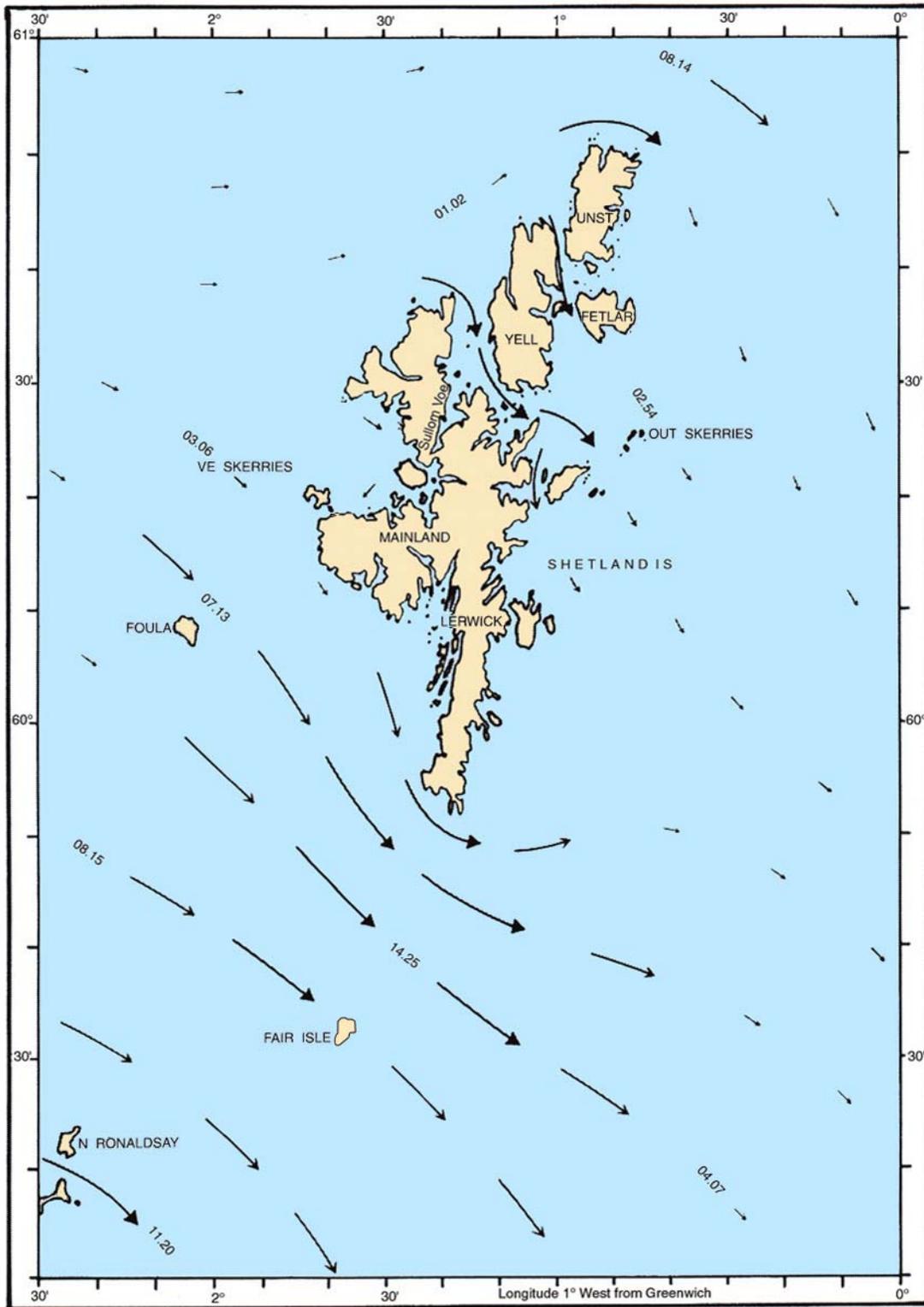
4 HOURS BEFORE HIGH WATER AT DOVER
6 HOURS AFTER HIGH WATER AT ABERDEEN



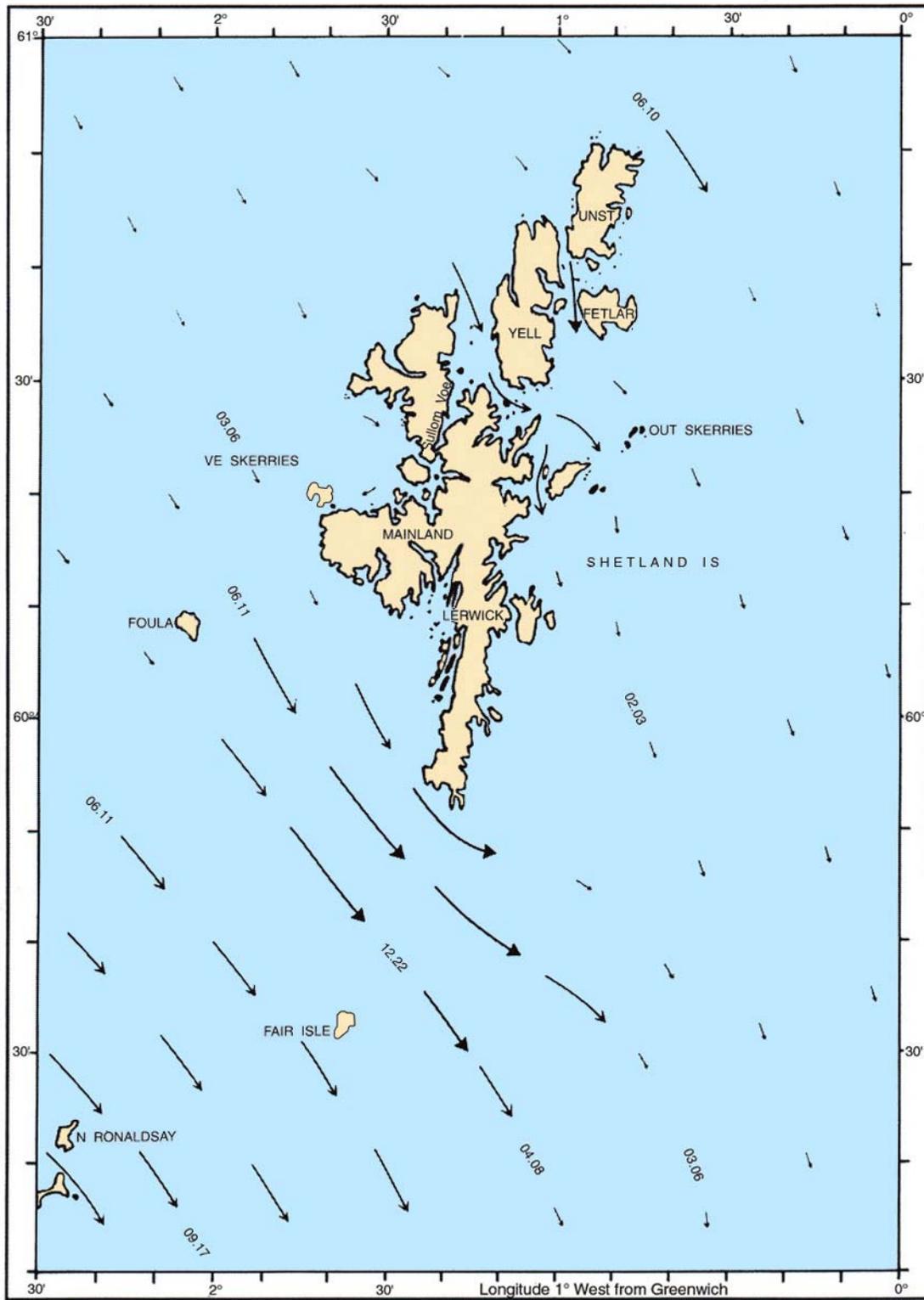
3 HOURS BEFORE HIGH WATER AT DOVER
5 HOURS 20 MIN. BEFORE HIGH WATER AT ABERDEEN



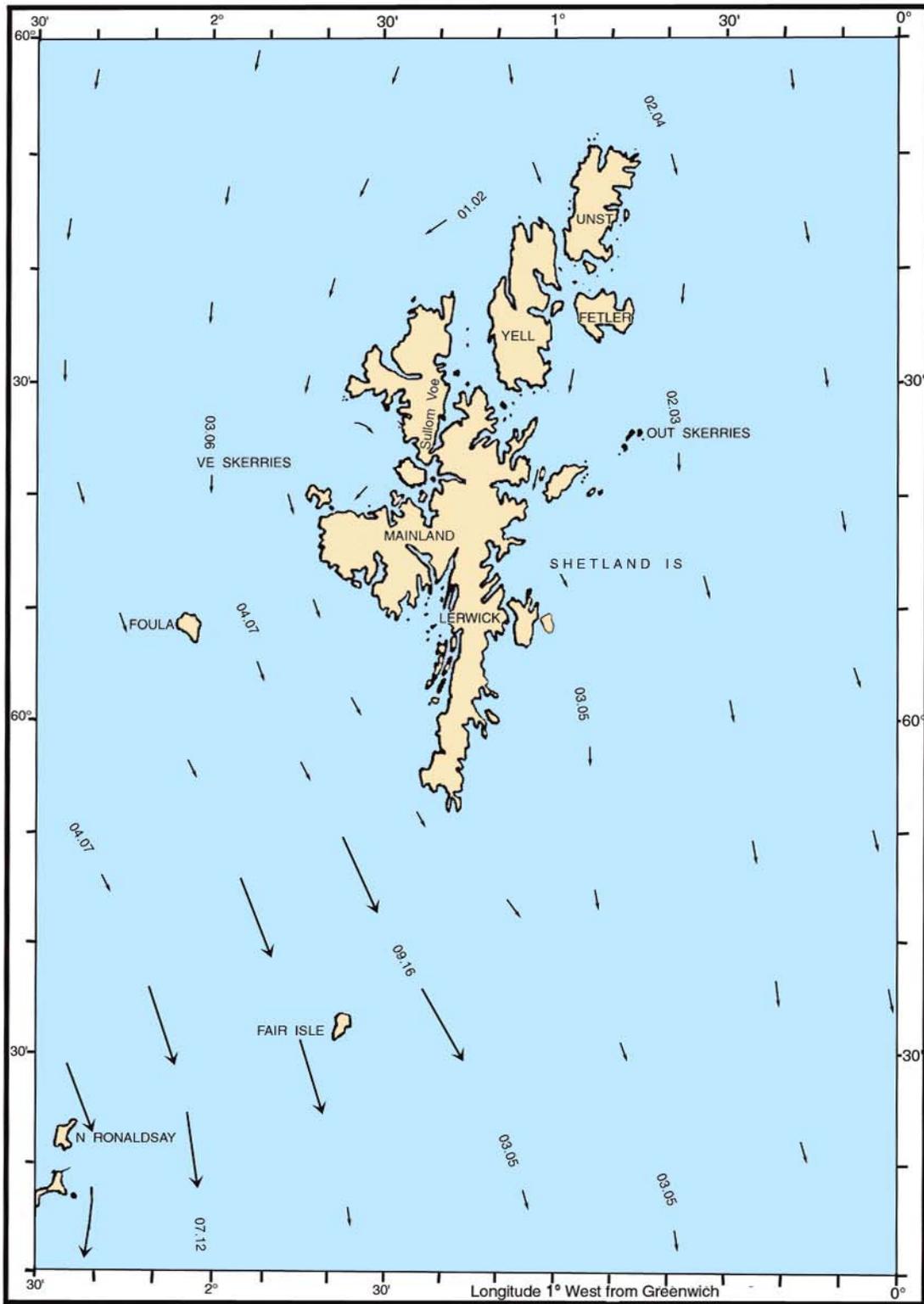
2 HOURS BEFORE HIGH WATER AT DOVER
4 HOURS 20 MIN. BEFORE HIGH WATER AT ABERDEEN



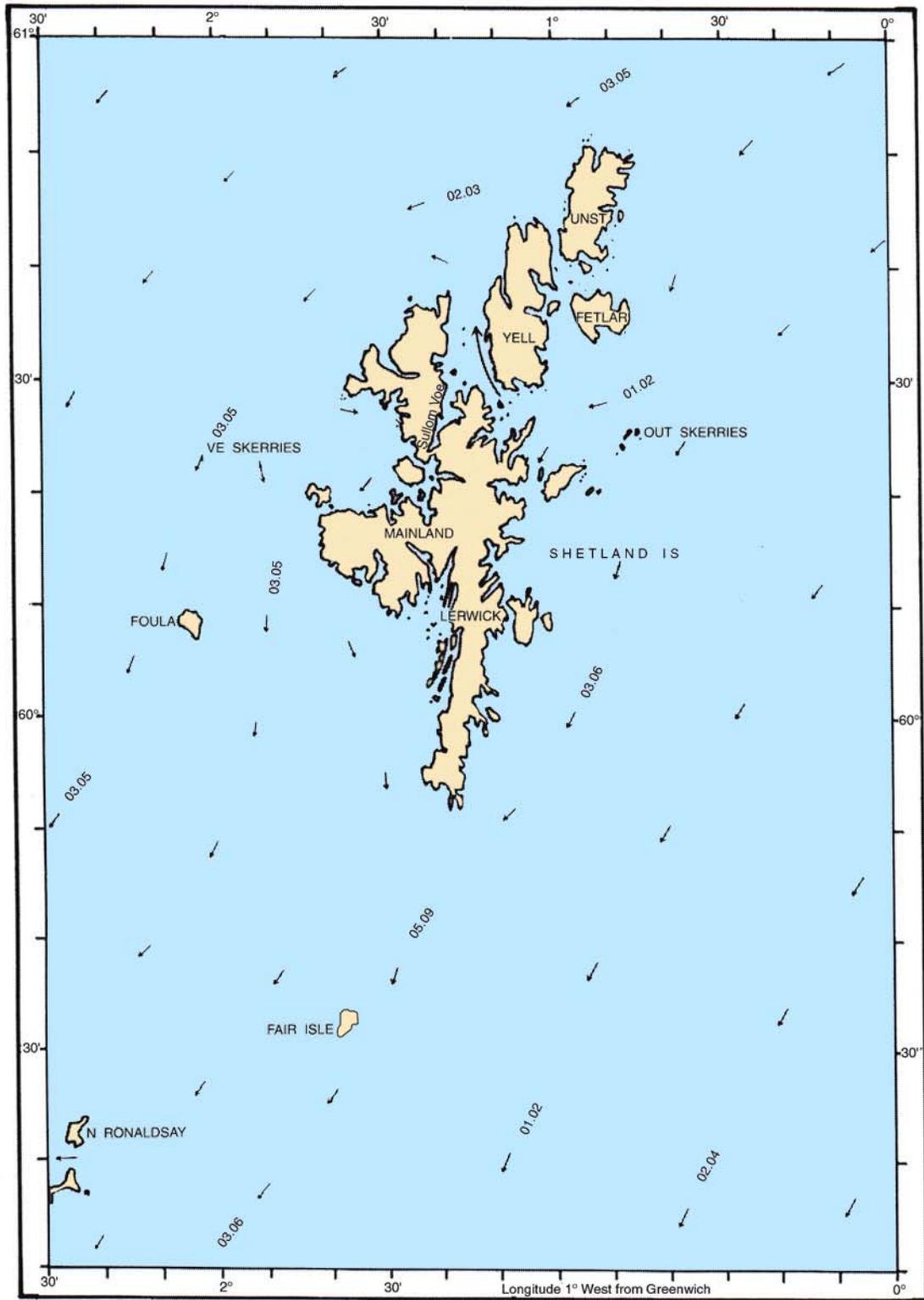
1 HOUR BEFORE HIGH WATER AT DOVER
3 HOURS 20 MIN. BEFORE HIGH WATER AT ABERDEEN



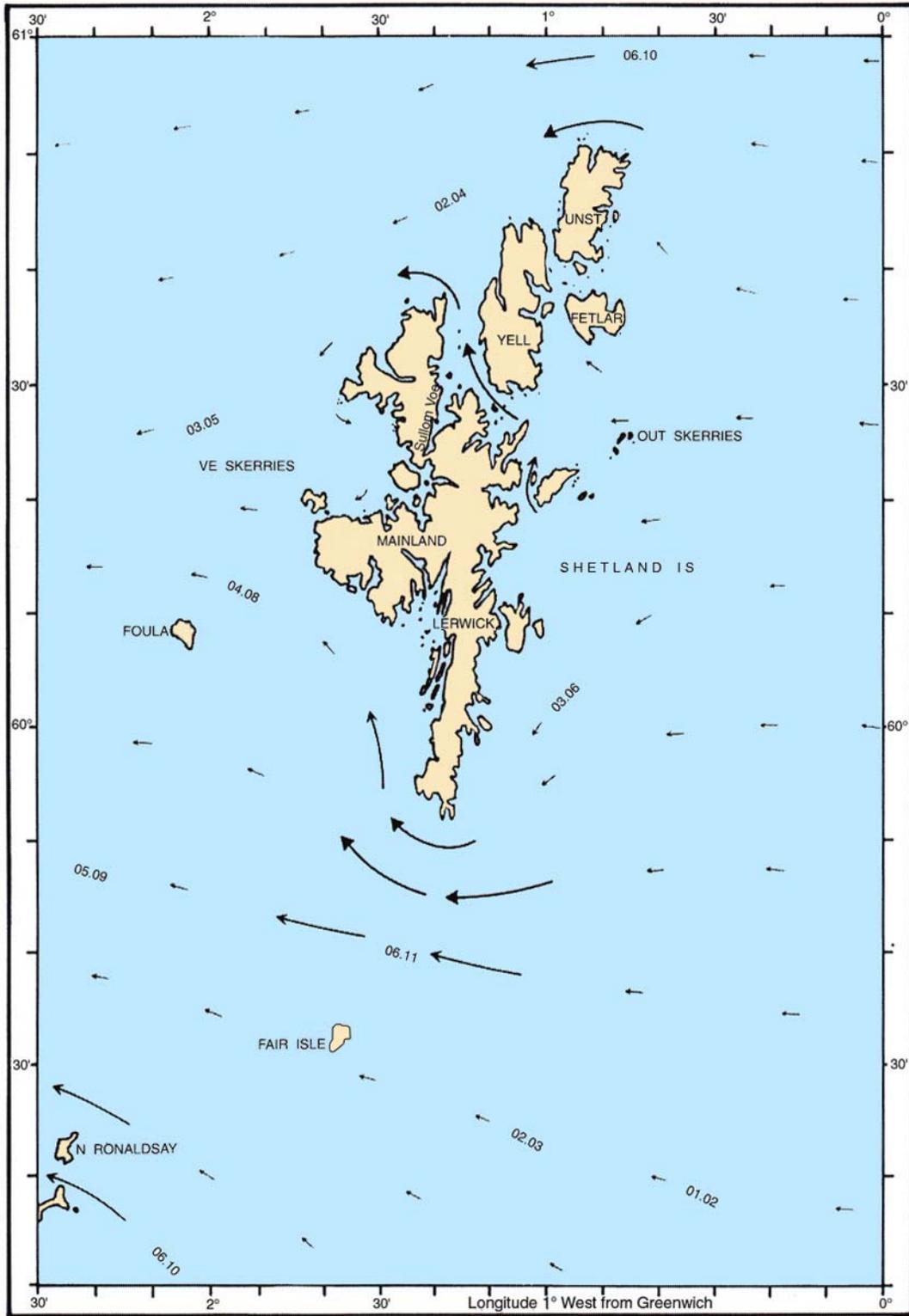
HIGH WATER AT DOVER
2 HOURS 20 MIN. BEFORE HIGH WATER AT ABERDEEN



1 HOUR AFTER HIGH WATER AT DOVER
 1 HOUR 20 MIN. BEFORE HIGH WATER AT ABERDEEN

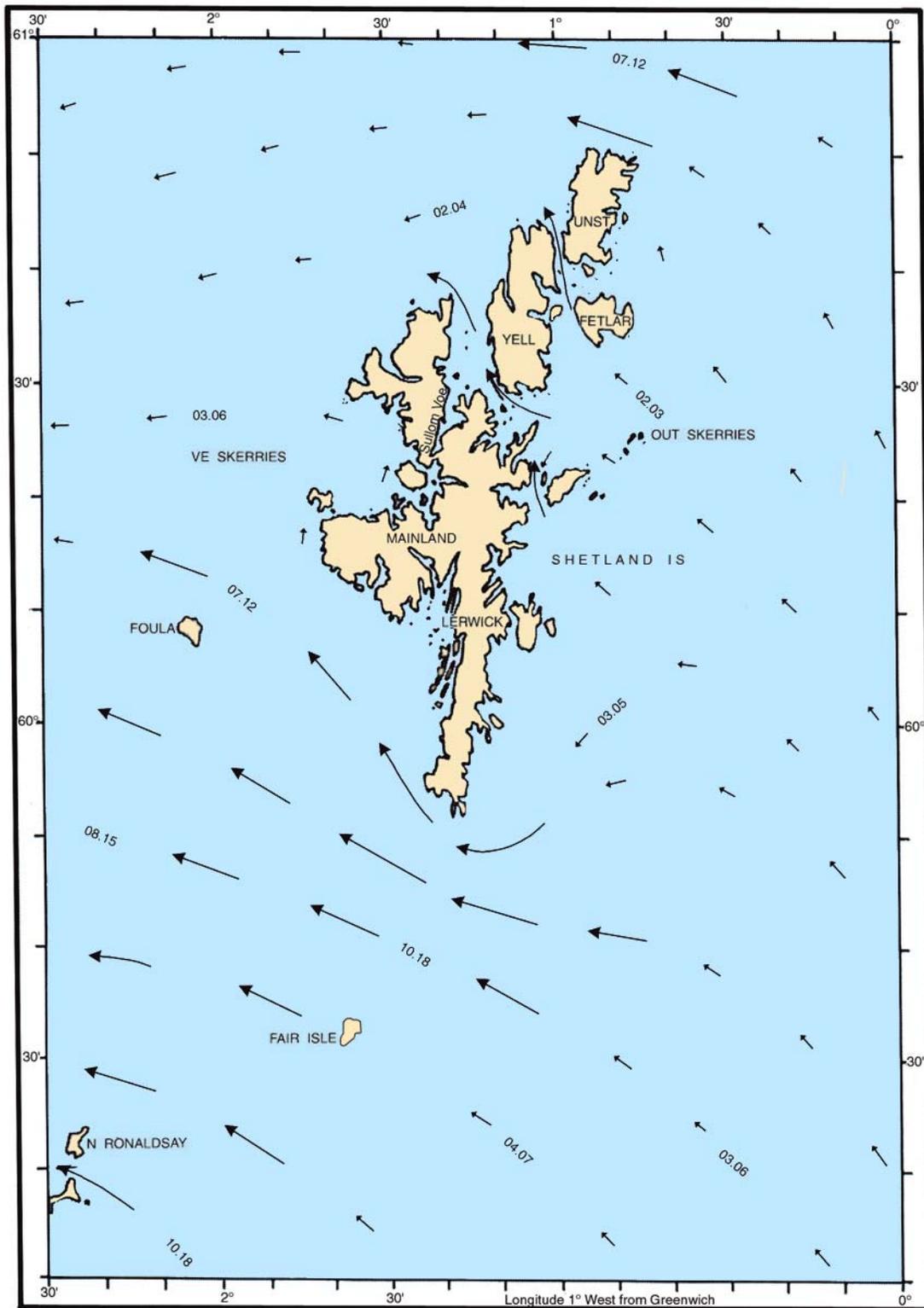


2 HOURS AFTER HIGH WATER AT DOVER
0 HOURS 20 MIN. BEFORE HIGH WATER AT ABERDEEN

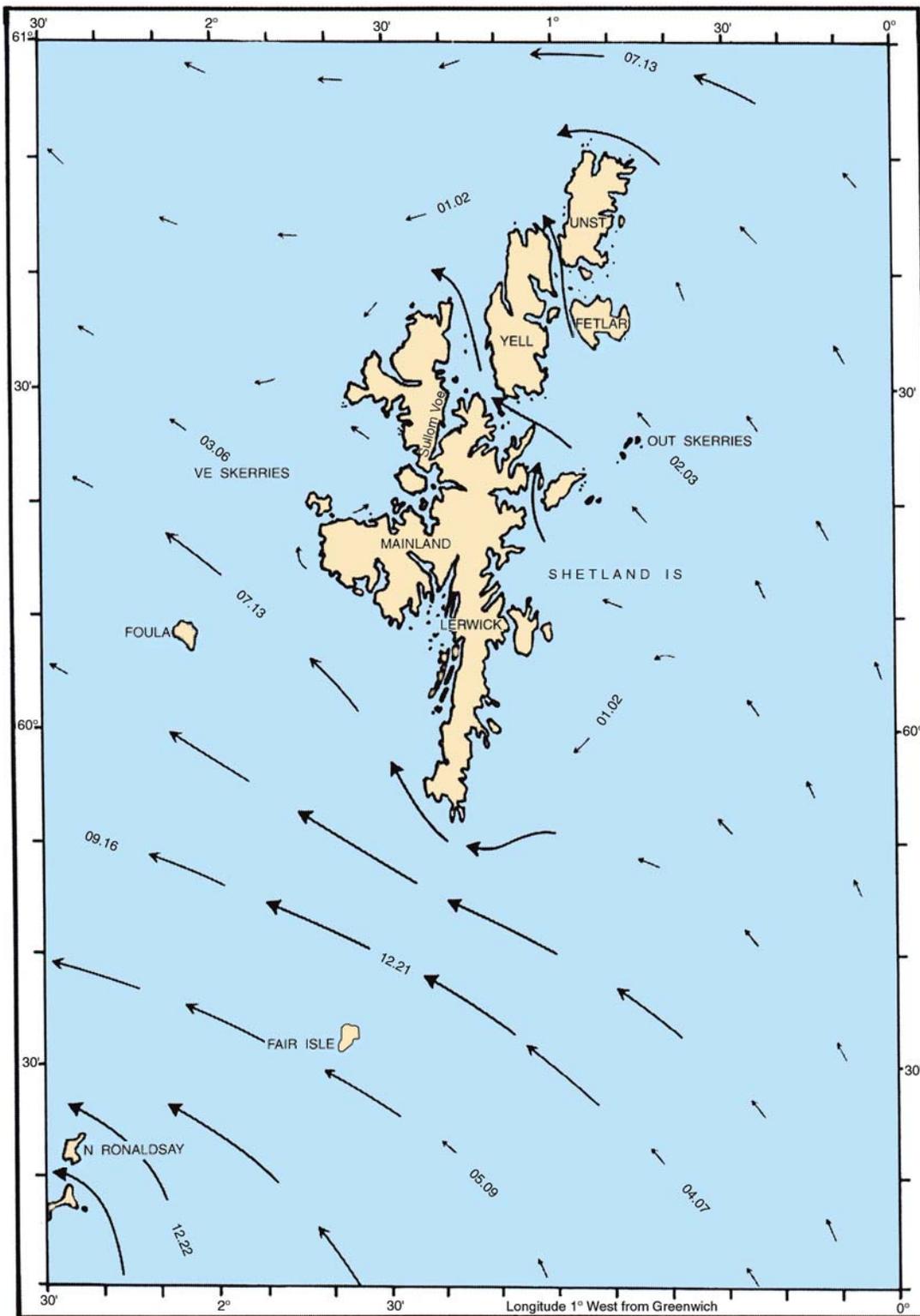


3 HOURS AFTER HIGH WATER AT DOVER
0 HOURS 40 MIN. AFTER HIGH WATER AT ABERDEEN

Sector 15. The Shetland Islands

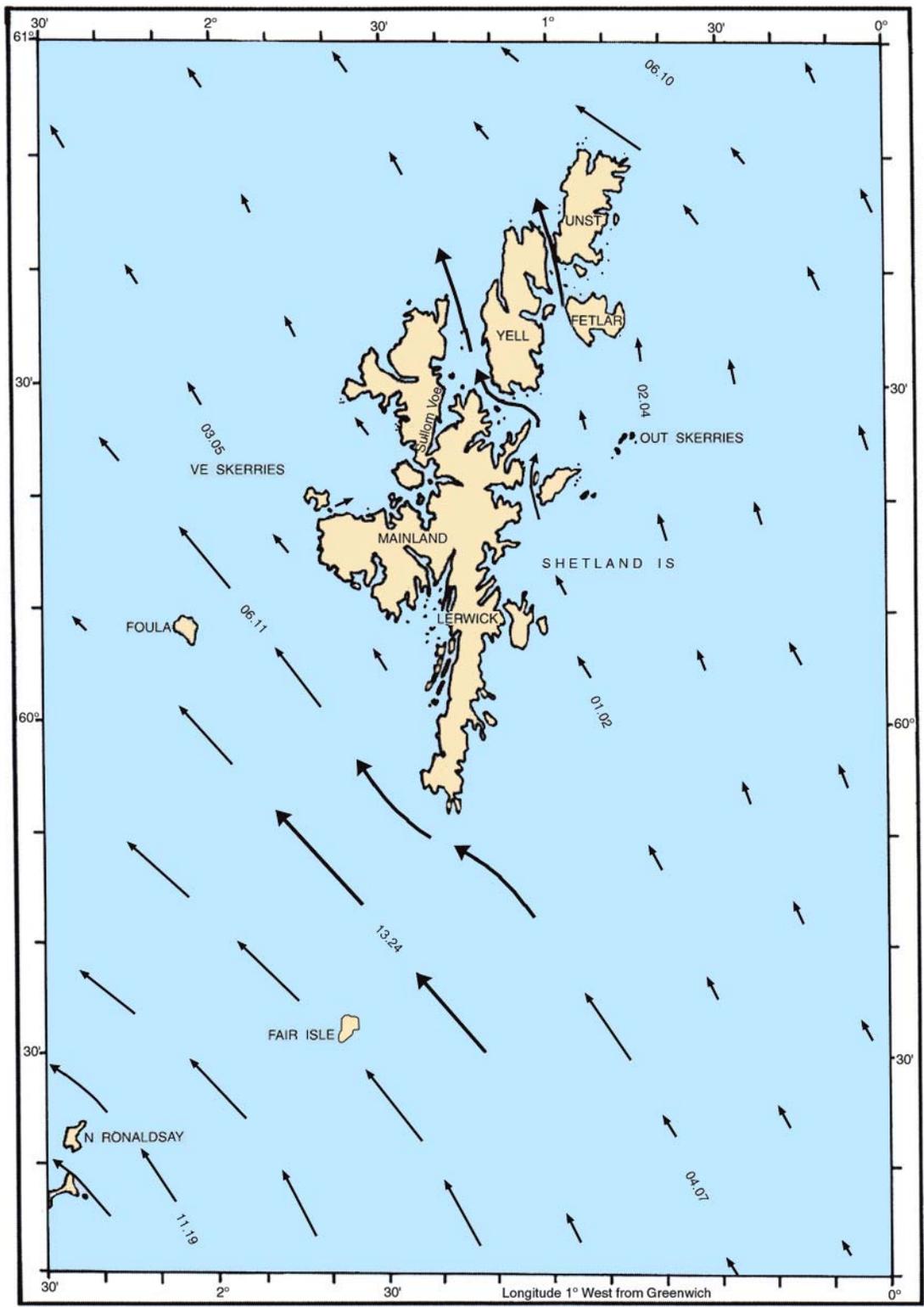


4 HOURS AFTER HIGH WATER AT DOVER
1 HOUR 40 MIN. AFTER HIGH WATER AT ABERDEEN



5 HOURS AFTER HIGH WATER AT DOVER
2 HOURS 40 MIN. AFTER HIGH WATER AT ABERDEEN

Sector 15. The Shetland Islands



6 HOURS AFTER HIGH WATER AT DOVER
3 HOURS 40 MIN. AFTER HIGH WATER AT ABERDEEN

which the observations were obtained.

North and West Coasts—Skaw to Sandness Hill—Foula

15.2 The Skaw (60°50'N., 0°46'W.) is the NE point of Unst, the northernmost island of the Shetland Islands group. The Holm of Skaw, Outer Flaess, and Inner Flaess are off-lying islets and are described with the E coast in paragraph 15.77.

From The Skaw to Herma Ness, the coast is steep-to and mainly formed of high, inaccessible cliffs. Several small bays indent the shoreline between The Skaw and The Noup, 2 miles WNW.

Whida Stack, formed by two rocks, lies 0.1 mile offshore, 1.5 miles W of The Skaw. The outer rock is 24m high and the inner rock is 34m high.

Burra Firth (60°50'N., 0°51'W.) is entered between The Noup and Herma Ness. This firth extends S for 2 miles to a sandy beach at its head. Its sides are high and steep-to. The depths decrease regularly toward the head and the entrance has a depth of 32m. Occasionally, local vessels use the firth as a harbor of refuge.

Saxa Vord (Saxavoord), a pyramid-shaped hill, rises 1 mile S of The Noup and is 284m high. A building, with two conspicuous domes, as well as several conspicuous radio masts, stands on the summit.

Herma Ness (60°51'N., 0°54'W.), the NW point of Unst, is backed by Hermaness Hill, which is 199m high. Baa Skerries, a reef, extends 0.2 mile N from the NW extremity of this headland.

15.3 Muckle Flugga (60°51'N., 0°53'W.) is the most important of a group of rocks and islets, which are known collectively as The Holms of Burra Firth.

Out Stack, the northernmost islet of the group and the extreme N point of the British Isles, lies about 0.5 mile NE of Muckle Flugga. Little Flugga, Cliff Skerry, Tipta Skerry, Rumbings, Vesta Skerry, and Ruskock, all lie SW of Muckle Flugga.

Muckle Flugga Light (North Unst) is shown from a conspicuous tower, 20m high, standing on the summit of that islet.



Copyright Ulrich Latzenhofer
Muckle Flugga Light

Tides—Currents.—At a position about 5 miles NE of Muckle Flugga, the tidal current is more or less rotary clockwise. It flows in a 000° direction and is weakest, with a spring rate of about 0.5 knot, at 2 hours 40 minutes before HW at Stromness. It flows in a 290° direction and is strongest, with a spring rate of 1.3 knots, at 6 hours before HW at Stromness. This current changes direction very quickly when it is weak, but only about 10° per hour, from 2 hours before to 2 hours after the time when it is strongest.

According to the latest reports, the E tidal current begins about 5 hours 30 minutes before HW at Stromness and the W current begins about 45 minutes after HW at Stromness. The W current is said to be stronger than the E current; generally speaking, these currents are stronger off the salient points.

It is also reported that the tidal currents are slack between Herma Ness and Holm of Skaw at about the time of HW by the shore.

A heavy race, called Skaw Rost, forms off Holm of Skaw and Lamba Ness. It is especially dangerous for small craft during the NW current.

15.4 Blue Mull (60°43'N., 0°59'W.), 67m high, has a distinct bluish tinge when seen from a distance. Lunda Wick, a bay, lies close E of this prominent headland. The bay serves as a harbor of refuge for small vessels, which shelter here during S or E gales. However, it is open and exposed to winds from the NW.

The coast between Blue Mull and Herma Ness, 8 miles N, is composed of high, bold cliffs backed by hills. Several rocks, stacks, and skerries lie up to 0.5 mile offshore along this stretch of the coast.

Bluemull Sound and the S and E sides of Unst are described with the E coasts of the Shetland Islands in paragraph 15.71.

Yell

15.5 The N coast of Yell lies between Papil Ness and Bagi Stack, 4 miles W.

From Bagi Stack, the W coast extends S for 4 miles to the entrance of Whale Firth and then SSW for 3 miles to Sweinna Stack, the NE entrance point of Yell Sound. Yell Sound and the S and E coasts of Yell are described with the E coasts of the Shetland Islands beginning in paragraph 15.54.

The tidal currents setting in and out of Bluemull Sound cause a strong current along the N coast of Yell. Off the NW coast, the tidal currents are very weak.

Papil Ness (60°43'N., 1°00'W.), 25m high, marks the W side of the N entrance to Bluemull Sound and lies about 0.5 mile W of Blue Mull.

The N coast of Yell is indented by the Wick of Breckin, which is entered between Outsta Ness and Gloop Ness, and by Gloop Voe, which is entered close W.

Gloop Holm (60°44'N., 1°07'W.), a prominent rock, is 50m high and lies 0.3 mile offshore. The channel leading between this rock and the coast is foul. The Clapper, an above-water rock, is located 0.2 mile NW of Gloop Holm and is the outermost danger lying off the N coast. Another rock lies 1.3 miles ENE of Gloop Holm.

Bagi Stack (60°43'N., 1°08'W.), marked by a light, is the NW point of Yell. From this point, the coast extends S for al-

most 5 miles to the entrance of Whale Firth. It consists of steep-to cliffs and is backed by rounded hills.

Nev of Stuis (Graveland Ness) (60°40'N., 1°09'W.) is the NW entrance point of Whale Firth. Rocks extend up to 0.2 mile NE from this headland.

Whale Firth, a narrow inlet, extends S and SE for about 3 miles. Inside the entrance, it is about 0.3 mile wide. This firth has not been properly examined and is not used by shipping.

From Nev of Stuis to Sweinna Stack, the coast is steep-to and formed by high cliffs.

Mainland

15.6 Mainland is the largest island in the Shetland Islands group. Its N coast lies between Point of Fethaland and Uyea, 4 miles SW.

Caution.—Several rocks, islets, and skerries lie to the N of Point of Fethaland.

Gaut Skerries, the northernmost danger, lies 1.8 miles N of Point of Fethaland. Ramma Stacks, up to 47m high, lie close S of Gaut Skerries.

15.7 Gruney (60°39'N., 1°18'W.), the largest islet, lies 1 mile N of Point of Fethaland. A stack lies about 0.2 mile NW of this islet and several other dangerous rocks lie between the stack and the islet.

A light, equipped with a racon, is shown from the N part of the islet.

Outer Booth (Skate Rocks) and Inner Booth lie in the channel which leads between Point of Fethaland and Gruney. This channel is usually only used by local vessels.

Caution.—Vessels approaching Yell Sound from the W and NW should pass well to the N of Ramna Stacks. With NW gales, a heavy sea always forms in the mouth of Yell Sound during the N current, particularly in the vicinity of Ramna Stacks. If practicable, vessels are advised to lie off the mouth and await the turn of the current before entering.

15.8 Point of Fethaland (60°38'N., 1°18'W.), the N point of Mainland, is located at the N end of the Isle of Fethaland, a peninsula, which is joined to Mainland by a narrow isthmus. Foul ground fronts this point and extends up to 0.2 mile offshore. A light is shown from a structure standing within the point.

Sand Voe lies between Point of Fethaland and Uyea. This exposed bight is wide open to all N winds. Occasionally, small local vessels shelter here during offshore winds.

From Uyea, the coast trends SW for 10 miles to Esha Ness. Ronas Voe indents the shoreline about midway between the two points.

Uyea (60°37'N., 1°26'W.) is connected to the NW extremity of Mainland by a drying, stony bank. The W and SW sides of this island are formed by cliffs which are fronted with high rocks.

Uyea Baas, a dangerous sunken reef, lies at the N end of the shallow shore bank which extends N and NE from Uyea. Between Uyea and the entrance to Ronas Voe, the coast consists of high cliffs formed by red granite.

15.9 Ronas Hill (60°32'N., 1°27'W.), the highest land of

the Shetland Islands, is 449m high and rises on the N shore of Ronas Voe.

Several small bays indent this part of the coast and several rocks, stacks, and skerries lie up to about 0.5 mile offshore. Gruna Stack, the largest islet, lies 3.5 miles SSW of Uyea.

Ronas Voe (60°33'N., 1°30'W.) is entered between Ketligill Head and Galti Stack, about 1 mile NW. Vessels may anchor within this inlet only in an emergency. The inlet is subject to violent squalls due to being enclosed by the high land.

When approaching Ronas Voe, vessels should use caution in order to avoid the dangers extending up to 0.4 mile NNW from Turls Head. Vessels should steer a mid-channel course when entering the inlet and anchor as convenient. Although the depths are suitable for anchoring in the outer part of the inlet, the only recommended berth lies in a depth of 33m about 0.8 mile ENE of Skeo Head.

The coast extending from Galti Stack to Esha Ness is cliffy and rugged.

Muckle Ossa (60°33'N., 1°36'W.), a pyramid-shaped rock, is 55m high and lies 1.8 miles offshore, about 2 miles WSW of Galti Stack. This rock consists of two parts, which are separated by a deep and narrow chasm.

The N part is the tallest. Fladda, a small above-water rock, lies close SW of Muckle Ossa. The channel leading between Muckle Ossa and Mainland is 1 mile wide and clear.

St. Magnus Bay is entered between Esha Ness and a point on Mainland, 11 miles SSW. This bay is open to the W, but its SW side is somewhat protected by Papa Stour.

Ve Skerries, lying about 1 mile NW of the NW point of Papa Stour, is the principal danger in the SW approach to the bay.

Several smaller bays and voes, some of which serve as harbors of refuge, branch off from St. Magnus Bay.

A large bight lies between Esha Ness and the Ness of Hillswick. Brei Wick and Sand Wick, two small and partially surveyed bays, branch off from the head of this bight. This stretch of the coast is foul and is fronted by off-lying rocks.

Esha Ness (60°29'N., 1°38'W.), marked by a light, is the NW entrance point of St. Magnus Bay.

The Isle of Stenness and the Skerry of Eshaness lie 1 mile S of this headland, at the edge of the shallow shorebank.

Dore Holm, 35m high, lies about 0.8 mile E of the Skerry of Eshaness. This islet has dark, perpendicular sides and a grass-covered summit.

The Drongs, a cluster of red granite rocks, lies on a shoal spit, about 1 mile WNW of the S end of the Ness of Hillswick.

15.10 The Ness of Hillswick (60°27'N., 1°30'W.), marked by a light at its S end, is the W entrance point of Ura Firth.

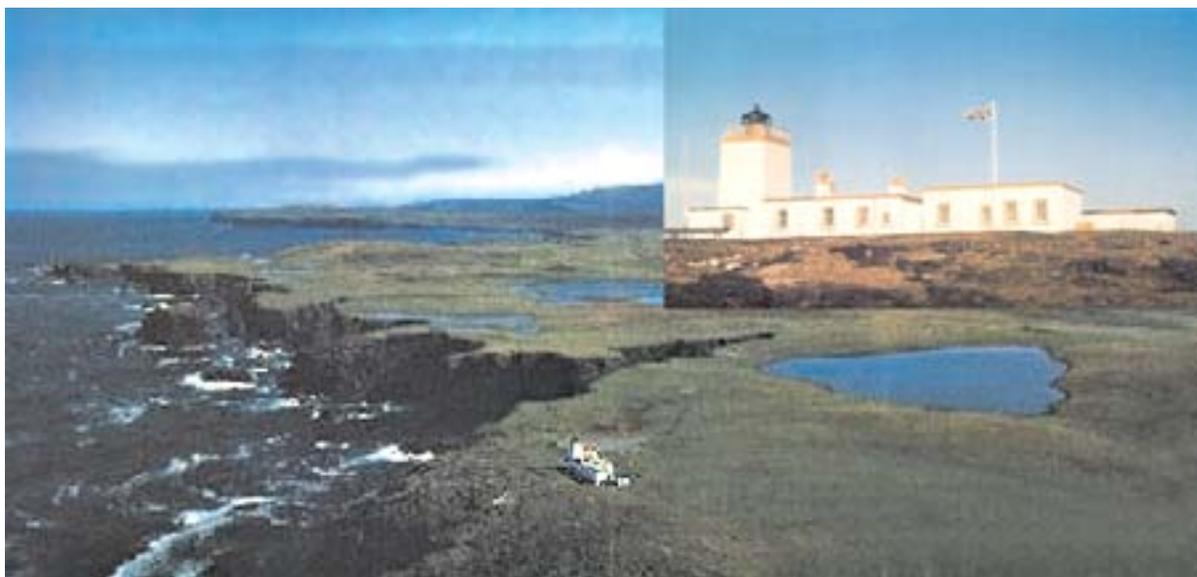
A small pinnacle rock, which dries at LWS, lies about 0.2 mile S of this point.

Ura Firth is entered between this point and Red Head, 1 mile E. Anchorage is available within Hillswick, a small bay, which lies on the W side of the firth, 1.3 miles inside the entrance.

Hamar Voe, a landlocked inlet, branches E from Ura Firth and also affords sheltered anchorage for small vessels.

Vessels seeking refuge from NW gales should steer a mid-channel course into Ura Firth and anchor as convenient.

Between Red Head and Muckle Roe, 4 miles S, the irregular coast is indented by several sounds and voes. Numerous rocks and islets lie close offshore along this stretch of the coast.



Courtesy of Scottish Radiance

Esha Ness Light

North Sound (60°27'N., 1°28'W.) is entered 0.3 mile S of Red Head. With W gales, the seas break across the entrance of the sound which is open to the W. This sound has not been fully examined and is not used by shipping.

Mangaster Voe (60°25'N., 1°26'W.) lies between Lang Head and the peninsula of Isleburgh. Its entrance is obstructed by islets and rocks. Small vessels, with local knowledge, can shelter in this voe, except during W gales.

15.11 Roe Sound (60°23'N., 1°24'W.) is the narrow channel lying between Muckle Roe and Mainland. A bridge spans this sound, close within the S entrance, and prevents passage through Busta Voe.

Lothan, an above-water rock, lies nearly in mid-channel, in the N approach to Roe Sound. It is fronted by shoals and usually marked by breakers.

Local vessels sometimes seek temporary anchorage within Roe Sound, but never during W gales. After clearing the dangers off Brei Ness, the N point of Muckle Roe, vessels should proceed to the anchorage by steering a mid-channel course between Lothan and Muckle Roe. They may then anchor, in a depth of 14m, about 0.2 mile inside Lothan.

Muckle Roe (60°22'N., 1°25'W.) is separated from Mailand by Roe Sound, on the NE, and by Swarbacks Minn, on the S. The W shore, which faces the sea, is steep and consists of rugged cliffs. These cliffs, which are formed of red granite, are fissured with caves and fringed by off-lying stacks. A light is shown from the SW side of the island.

15.12 Swarbacks Minn (60°21'N., 1°28'W.) is entered between Murbie Stacks, located close off the SW coast of Muckle Roe, and Swarbacks Head, the N point of Vementry Island. The entrance channel, which is 0.5 mile wide, has steep-to sides and depths of 55m in the middle of the fairway. This pas-

sage is free of dangers and is divided into two channels by the island of Papa Little, 3 miles within the mouth. The NE channel continues for about 1.5 miles to the island of Linga where it branches N into Busta Voe, E into Olna Firth, and S into Gon Firth. The Rona, the S channel, leads S of Papa Little and into Aith Voe.

Between Swarbacks Head and Point of Sletta, the irregular S shore of the passage is indented by several bays.

The Sound of Houbansetter lies on the E side of Papa Little and Mainland. It connects Swarbacks Minn to Aith Voe.

Busta Voe (60°22'N., 1°22'W.) is free of off-lying dangers. Burgastoo, a rock, is 8m high and lies close offshore near the middle of the W side of this inlet. Vessels should steer mid-channel course into the voe and then anchor as convenient. The usual anchorage lies, in depths of 22 to 24m, near the middle of the voe, about 0.5 mile from the head.

Busta (60°23'N., 1°22'W.), with a large mansion, is situated on the W side of Busta Voe. The village is fronted by a small pier and a landing place.

15.13 Olna Firth (60°22'N., 1°20'W.) is entered between Hevdon Ness and Grobs Ness. The channel leading N of Linga is seldom used as it is obstructed by Groin Baa, a shallow rock, which lies near the middle of the fairway. The channel leading S of Linga continues into Gon Firth and Olna Firth.

Olna Firth is free of dangers except for a drying rock which lies close off the S shore, 0.8 mile E of Grobs Ness.

Voe (60°21'N., 1°16'W.), a small village fronted by a stone pier, is situated at the head of Olna Firth. A sewer outfall, marked by a beacon, lies 0.3 mile NW of the pier.

Gon Firth (60°21'N., 1°20'W.) is clear of dangers, but seldom used by shipping. Anchorage is available, in depths of 16 to 18m, sand, about 0.2 mile from the head of this firth.

The Rona (60°20'N., 1°25'W.) leads S of Papa Little and in-

to Aith Voe. Except for several drying rocks lying close offshore, this passage is clear.

The **Sound of Houbansetter** (60°20'N., 1°20'W.), the passage lying between the E side of Papa Little and Mainland, connects Swarbacks Minn to Aith Voe. The fairway has a depth of 7.3m, but shallow shore banks, lying at the N end of the channel, reduce its navigable width to only 140m. Vessels seeking shelter within the sound usually enter from the S, through The Rona, and anchor as convenient.

Aith Voe (60°19'N., 1°22'W.) is clear of dangers. Vessels should steer a mid-channel course into this inlet and anchor as convenient. Aith, a small village, stands at the head and has a conspicuous church.

15.14 From Swarbacks Head, the coast extends in a general WSW direction for 6 miles to the Ness of Melby. Several voes and firths indent the irregular shoreline.

Vementry Sound (60°19'N., 1°30'W.) is entered between Heill Head and Neeans Neap, a high and bold cliff, 0.8 mile SW. Several sunken rocks obstruct the entrance to this sound and vessels are advised to seek shelter in Swarbacks Minn.

Stoura Baa (60°20'N., 1°30'W.), a rock, has a depth of 3.7m and is the outermost danger lying in the approach. An isolated depth of 11m lies about 0.2 mile N of this rock and Black Stane, a small and steep-to above-water rock, lies about 0.2 mile SSE of it.

Gruna, an island broken into several parts by the sea, lies close within the entrance and Linga, another island, lies 0.3 mile farther S.

Several voes branch out from the head of the sound.

Suthra Voe (60°20'N., 1°29'W.) is entered between Heill Head and Millder Ness, about 0.5 mile SE.

The **North Voe of Clousta** (60°19'N., 1°28'W.) extends E and the Voe of Clousta extends SE from a common entrance lying between Green Point, the S point of Vementry Island, and the Ness of Nounsborough, 0.2 mile S.

Cribba Sound (60°19'N., 1°28'W.) is entered between Green Point and Mainland, 0.2 mile E.

15.15 Brindister Voe (60°19'N., 1°29'W.), entered between the Ness of Nounsborough and the coast, can only be used by very small vessels with local knowledge.

The coast extending between Neeans Neap and Neap of Norby is fronted by several islands and numerous rocks, stacks, and skerries.

West Burra Firth and Voe of Snarraness indent this stretch of irregular shoreline.

West Burrafirth Island (60°19'N., 1°32'W.) is cliffy and surrounded by detached rocks, lying close offshore.

West Burra Firth (60°18'N., 1°34'W.) is entered between West Burrafirth Island and Snarra Ness, 1 mile SW. Rocks extend up to 0.2 mile N of Snarra Ness which is foul on its N and E sides. The entrance of the firth, which is obstructed by numerous rocks, is only about 90m wide in places.

Small local vessels can find shelter within this firth. However, it is open to the N and a heavy ground swell forms with gales from that quarter. The sandy bottom provides indifferent holding ground.

The **Voe of Snarraness** (60°18'N., 1°35'W.) is entered close W of Snarra Ness and is free of dangers. This voe is more shel-

tered than West Burra Firth and affords safer anchorage. Small local vessels can anchor, in a depth of 13m, mud, with good holding ground.

The **Neap of Norby** (60°18'N., 1°38'W.) is faced by a high and conspicuous cliff which is fringed by rocks.

The Holm of Melby, a low islet, lies 0.2 mile NW of the Neap of Norby. A rock, with a least depth of 0.6m, lies about 0.3 mile ENE of this islet.

15.16 Papa Stour (60°20'N., 1°42'W.), one of the most fertile islands in the Shetland Islands, is located on the SW side of St. Magnus Bay. It lies close off and is separated from the NW point of Mainland by Papa Sound. The irregular shores of this island are heavily indented.

Several small boat harbors are situated within the small voes which lie on the N, E, and S sides of the island.

These harbors are difficult to enter and vessels without local knowledge should not attempt to do so. The voes include Culla Voe, West Voe, Housa Voe, and Hamna Voe.

Papa Stour is noted for the number, size, and beauty of its caves. Christie's Hole is located on the SW coast, about 0.5 mile NW of Hamna Voe. This cave is considered to be the finest and most remarkable in the British Isles. It lies at the head of a narrow creek and is walled in by perpendicular rocks, up to 30m high. A fine, columnar stack stands just outside the entrance, which is formed by an archway, 25m long.

From the entrance, a space opens to the sky, but the cave is still walled in. The cave itself extends for 63 to 72m and ends in a beach. The coastline of Papa Stour is generally rugged and precipitous. Several bold cliffs stand along the NW side.

Fogla Skerry lies about 0.4 mile W of the W point of Papa Stour. Lyra Skerry, an islet, is located between Fogla Skerry and Papa Stour.

15.17 The Sound of Papa (60°19'N., 1°40'W.), the narrow channel lying between Papa Stour and Mainland, should only be used by local vessels. Forewick Holm lies on the N side of the sound, 0.2 mile S of the SE point of Papa Stour.

A drying rock lies 0.1 mile S of this islet and narrows the E entrance to a width of 0.3 mile. The passage leading between Forewick Holm and Papa Stour is foul.

Rivera Baas, a group of small drying rocks, extends up to about 0.2 mile S from the S point of Papa Stour.

Midsound Baas, a rock, has a least depth of 2.4m. It lies nearly in mid-channel, about 0.3 mile W of the NW point of the Holm of Melby.

Huxter Baas, a group of sunken rocks, extends up to 0.2 mile offshore at the SW end of the sound. The W entrance, which is about 0.5 mile wide, lies between this group and Rivera Baas.

The tidal currents, which run very strongly through the Sound of Papa, are sometimes influenced by the weather conditions. However, no accurate information is available concerning the times of the turn of the tides.

Ve Skerries (60°22'N., 1°49'W.), a group of low and dangerous rocks, lies 3 miles NW of Papa Stour. The Clubb, 7m high, lies at the SW end of this group. North Skerry, 6m high, and Ormal, 2m high, lie on a drying reef, about 0.4 mile NE of The Clubb.

Ve Skerries Light is shown from a conspicuous tower, 17m high, standing on Ormal. A racon is situated at the tower.

Vatty Ground (60°20'N., 1°50'W.), with depths of 31 to 35m, lies centered 2 miles SSW of Ve Skerries.

Caution.—With gale winds, the seas break heavily over the skerries in this area, making them difficult to see in the broken water.

Submarine cables, which may best be seen on the chart, lie across the Sound of Papa, in the vicinity of Ness of Melby.

The tidal currents run strongly in the vicinity of Ve Skerries and Vatty Ground.

Foula

15.18 Foula, the westernmost island of the Shetland group, lies 13 miles SW of Mu Ness.

The N and S sides of this island are low, but the W coast is high and precipitous with heights of 152 to 375m. The E coast is mostly low and formed by broken cliffs. It has a few indentations which serve as landing places for small boats. There are no harbors and boats have to be hauled up onto the beaches.

The Sneug, 417m high, is the highest peak of the island.

South Ness is the S extremity of the island.

A light is shown from a prominent tower standing on this point. A group of rocks, with a least depth of 1m, extends about 0.2 mile S from the point.

Ham Voe, a small village, is situated on the E coast of the island, 1.5 miles NNE of South Ness. A prominent monument stands on Durga Ness which is located 0.3 mile S of the village.

Tides—Currents.—At a position about 2 miles E of Foula, near Hoevdi Grund, the SE current begins 2 hours 15 minutes before HW at Stromness and the NW current begins 3 hours 45 minutes after HW at Stromness. This current attains a rate, in both directions, of 2 knots at springs.

There are ripples or overfalls in the vicinity of all the shoals lying between Foula and Mainland. Violent turbulence also occurs at springs when a strong wind is blowing against the current.

At a position 4.8 miles ENE of Strem Ness, the tidal current is more or less rotary clockwise. It sets in a direction of about 055° and is weakest, with a spring rate of 0.3 knot, 2 hours before HW at Stromness; it sets in a direction of about 140° and is strongest, with a spring rate of 1.3 knots, 1 hour 30 minutes after HW at Stromness; it sets in a direction of about 220° and is weakest, with a spring rate of 0.5 knot, 4 hours after HW at Stromness; and it sets in a direction of 320° and is strongest, with a spring rate of 1.3 knots, 5 hours 15 minutes before HW at Stromness. This current changes very quickly when it is weak, but only about 10° per hour for about 2 hours before until 2 hours after the times when it is strongest.

At a position about 7 miles WNW of Ve Skerries, the tidal current is rotary clockwise. It attains a spring rate, in all directions, of about 0.5 knot and sets, at any time, in the same general directions as the above-described current flowing between Foula and Mainland.

At a position about 50 miles W of Foula, the E tidal current sets in a mean direction of 075°. It attains a spring rate of 0.8 knot and begins 4 hours before HW at Stromness. The W current sets in a mean direction of 260°. It attains a spring rate of about 1 knot and begins 2 hours before HW at Stromness.

Caution.—Foula lies on the W side of a bank, with a depth

of 50m, which lies between 1 and 3.5 miles E of the island.

It was reported that a group of rocks, over which the depth is unknown, lies about 0.3 mile SSE of the S extremity of Foula and is a danger to small vessels.

Hoevdi Rock (60°07'N., 2°00'W.), with a least depth of 1.4m, lies 2.5 miles E of South Ness, the S point of Foula. Except for an isolated depth of 14.6m lying 1 mile W of Hoevdi Rock, the fairway leading between this rock and Foula has a least depth of 22m and is 1 mile wide.

Foula Shoal (60°07'N., 1°54'W.), a rocky patch, has a least depth of 7.6m and lies 2.8 miles ENE of Hoevdi Rock.

North Shoals (60°15'N., 1°58'W.), an extensive shoal area, lies 6.5 miles NNE of the N extremity of Foula.

Mainland—Sandness Hill to Sumburgh Head—Fair Isle

15.19 From Matta Taing, this section of the W coast extends in a S direction for 3.3 miles to Wats Ness, then SE for 13 miles to Fugla Ness Light, and then S again for 15 miles to Sumburgh Head (59°51'N., 1°16'W.) the S point of Mainland.

Tides—Currents.—The tidal currents run with great strength off Sumburgh Head, and Sumburgh Rost (59°50'N., 1°20'W.) a heavy race, is often formed. The times at which the currents begin, the directions of the currents, and the rates of the currents, are very different at positions lying not far apart. Therefore, it is an area to be avoided if possible, especially in poor visibility.

In The Hole, the channel lying between the Shetland Islands and Fair Isle, and at a position 13.5 miles SSW of Sumburgh Head Light, the ESE current begins 2 hours before HW at Stromness and the WNW current begins 4 hours after HW at Stromness. These currents attain rates, in both directions, of about 2.5 knots at springs.

At a position off Grutness Voe and 1.5 miles NNE of Sumburgh Head Light, the tidal current is somewhat irregular. It changes direction irregularly from about W, through S, to about E, with a spring rate of 0.5 to 0.8 knot, between 30 minutes after HW at Stromness and 5 hours 30 minutes before the next HW at Stromness. It also changes, rather irregularly, from about E, through N, to W, with a spring rate of 0.8 to 1 knot, between 5 hours 30 minutes before HW at Stromness and 30 minutes after HW at Stromness. For comparing with the tidal currents at other positions, the S current at this station may be said to begin about 30 minutes after HW at Stromness and the N current about 5 hours 30 minutes before HW at Stromness.

At a position 4.5 miles WNW of Sumburgh Head Light, the SE current, with a spring rate of 3 knots, begins 4 hours before HW at Stromness. The NW current, with a spring rate of 2 knots, begins 3 hours after HW at Stromness. The SE current varies in direction between about 135° and 160°. The NW current changes direction gradually from about 340° to about 360°. This station lies in an eddy, as the SE current is both stronger and of longer duration than the NW current.

According to an earlier report, Sumburgh Rost, the dangerous race in which the sea breaks with violence, extends off the S extremity of the Shetland Islands and sometimes occurs even in calm weather. When the SE current begins, the race extends off Sumburgh Head and gradually works SE and S until the current ceases at slack water. This period of slack water is

known locally as the "still." When the NW current begins, the race extends off Horse Island and gradually works SW, W, and NW until the current ceases at slack water. At springs and when the wind is against the current, this race sometimes attains a width of 3 miles, but at other times its width may be as little as 0.5 mile. The race is the most dangerous when the NW current is opposed by strong winds from between SW and NW, or when the SE current is opposed by strong winds from between E and S. Winds from a NE direction have little effect on the race.

From this earlier account, the SE current in the race is reported to begin 5 hour 50 minutes before HW at Stromness and the NW current in the race is reported to begin 35 minutes after HW at Stromness.

However, according to a recent but somewhat incomplete report, the E current in the race begins 2 hour 20 minutes before HW at Stromness. It then runs until 2 hour 10 minutes after HW at Stromness when the "still" begins and continues for 30 minutes. The W current then begins, but a "still" at the end of this current is not mentioned in the report.

A local account states that the W current runs for 9 hours and the E for 3 hours. At slack water, a "still" usually lasts for 30 minutes. The W current is reported to be the stronger and extends W of Fitful Head.

As some of the reports conflict, it may be that the current turns at very different times in different parts of the race. However, all accounts agree with regard to the existence of the "still," which appears to affect the whole race area at the same time. No detailed information is given in any account or report regarding the distance offshore to which the race extends.

Locally, the race is considered to be dangerous at any state of the tide. However, from observations, it is considered that this danger is limited to vessels of trawler size and below. These small vessels generally use the channel lying inshore of the race, but local knowledge is necessary.

15.20 Between Matta Taing, located 1.5 miles W of Sandness Hill, and Wats Ness, 3.3 miles S, the coast consists of high cliffs and numerous skerries. The shore is indented by several small bays.

Mu Ness (60°15'N., 1°42'W.), located 2 miles S of Matta Taing, is the W point of Mainland.

Wats Ness (60°14'N., 1°41'W.), a bold cliff, is fronted at its base by two large rocks.

Between Wats Ness and Vaila, the coast consists of rocky and broken cliffs, backed by hills.

Vaila (60°12'N., 1°35'W.), an island, is 90m high and lies in the approach to Vaila Sound and Gruting Voe. Webster Sound separates the NW side of this island from Mainland and leads into Vaila Sound and Vaila Voe. Easter Sound separates the E side of the island from Mainland and connects the entrance of Gruting Voe with Vaila Sound. From a distance, the island appears as part of Mainland. Prominent cairns stand near the SW end of the island and close N of the summit.

Wester Sound (60°12'N., 1°37'W.) is entered from the SW between Reitta Ness, on Vaila, and Outer Head, 0.5 mile NW. Midsound Shoal, with a depth of 2.1m, lies in the middle of the fairway, 0.4 mile N of Reitta Ness.

This passage narrows to a width of 0.2 mile and is obstructed by a rock, with a depth of 1.8m, which lies in the middle of the

channel.

A narrow fairway leads N of this rock, but the area lying S of it is foul. The sound should be used only by small vessels with local knowledge.

15.21 Easter Sound (60°12'N., 1°34'W.), the recommended entrance channel leading into Vaila Sound and Vaila Voe, is approached from the S between the SW point of Vaila and Culswick Ness, 0.8 mile SE. Vessels bound for Gruting Voe may also use this approach which is over 0.3 mile wide and has a depth of 31m at the entrance.

Easter Sound is entered from the SE between Green Head, the SE point of Vaila, and Rams Head, which is marked by a light. The latter point is the S extremity of Whites Ness, a headland, which divides the channel into Easter Sound and Gruting Voe. The passage, which leads NW between the steep SW face of Whites Ness and the E coast of Vaila, has a depth of 11m. The fairway is 0.1 to 0.2 mile wide and is free of dangers.

15.22 Vaila Sound (60°13'N., 1°35'W.) is entered from Easter Sound between the W point of Whites Ness and Vaila, 0.1 mile W. Linga Island divides the sound into two parts, Lera Voe lies on the W and Vaila Voe on the E.

The channel leading into Lera Voe, at the NW end of Vaila Sound, has a depth of 7.3m. Rocky shoals, with depths of less than 2m, narrow the fairway to a width of only about 50m.

Vaila Voe (60°13'N., 1°34'W.) is entered between the S point of Linga Island and Kaili Ness, 0.3 mile NE.

Galta Skerry, marked by a beacon, lies close offshore, about 0.2 mile N of the W point of Whites Ness.

Baa of Linga, a small rock that nearly dries at LW, lies 0.2 mile S of Linga Island. The channel leading into the W part of Vaila Sound passes W of this rock and the channel leading into Vaila Voe passes S and E of it. A pier, from which a light is occasionally shown, is situated on the NW shore of Vaila Voe.

Walls (60°14'N., 1°34'W.), a small village, stands at the head of Vaila Voe.

Anchorage.—Vessels seeking anchorage within Vaila Sound should steer a mid-channel course through the approach and Easter Sound. At night, the white sector of the light on Rams Head indicates the fairway which leads W of the isolated shoal, with a depth of 8.2, lying NW of Muckle Flaes. When clear of the narrows, vessels should steer with the light bearing 144° astern. This course leads S of Galta Skerry and Baa of Linga. Anchorage can then be taken in a depth of 22m when the S extremity of Outer Head bears 257°. After passing W of Galta Skerry, vessels proceeding into Vaila Voe, the preferred anchorage, should pass E of Baa of Linga. Anchorage can then be taken, in a depth of 16m, with the N point of Linga Island bearing 266°. Vessels are not advised to anchor any farther to the N of this roadstead.

Caution.—Submarine cables, linking Whites Ness and Vaila Island, lie across Vaila Sound. They are situated close N of Galta Skerry and may best be seen on the chart.

15.23 Gruting Voe (60°13'N., 1°31'W.) shares a common approach with Easter Sound. It is entered between Green Head, located 0.3 mile NE of Rams Head, and a point on Mainland, 0.2 mile SE. This landlocked inlet extends inland for over 2

miles and several smaller voes branch off from it.

In the narrows, the steep-to shores can be approached to within about 90m. Olas Voe and Seli Voe branch E from the E side of the inlet, 1.5 miles inside the entrance.

Scutta Voe extends E about 0.8 mile farther N and Browland Voe continues N from the head of Gruting Voe.

Gruting Holm, a rocky islet, lies close SW of Gruting Ness, the N entrance point of Seli Voe. Vessels seeking anchorage should steer a mid-channel course through the entrance and up the voe. The recommended anchorage lies, in a depth of 27m, about 0.2 mile W of Gruting Holm. Vessels can anchor as convenient, up to 1 mile farther N, but no advantage is gained by taking an inner berth. A swell usually occurs in the entrance to the voe.

15.24 Between Culswick Ness, the SE entrance point of Easter Sound, and Skelda Ness, 3.5 miles SE, the coast is bold with moderately high cliffs. These cliffs, which are formed of colored rock, are conspicuous and are fronted, up to 0.3 mile offshore, by several stacks.

Between Skelda Ness and Ness of Ireland, 10 miles SSE, the coast is formed by a deep indentation. The W and N part of this indentation is known as The Deeps. It is split up into several long and narrow voes, which are separated from one another by rocky promontories. Numerous islands, islets, and rocks lie in the middle of The Deeps. Several islands lie in the approaches to Scalloway, in the E part of the indentation.

Skelda Voe (60°09'N., 1°28'W.) is entered between Skelda Ness and Roe Ness, 1.5 miles NE. This voe extends inland for about 2 miles, but is seldom used by vessels as it is open to the S, a heavy swell sets in at times, and two dangerous rocks lie in the approach.

Braga Rock, 2m high, stands on a small reef which lies 1 mile E of Skelda Ness. Snap Rock, 3m high, lies 0.3 mile S of Roe Ness.

Sanda Stour (60°09'N., 1°22'W.), an islet, is 18m high and lies in the middle of The Deeps, 1.5 miles SE of Roe Ness. Several rocks and small islets extend up to 1 mile N from the islet.

Seli Voe (60°10'N., 1°24'W.), with a fairway width of only about 90m, is open and exposed to S winds.

Sand Voe (60°12'N., 1°22'W.) lies between Kirka Ness and Fora Ness, about 1 mile SE. It is open and exposed to the S.

Caution.—Vessels are advised not to anchor within Seli Voe or Sand Voe.

15.25 Sandsound Voe (60°12'N., 1°21'W.) is entered between Fora Ness and Russa Ness, a prominent headland, 0.8 mile NE. This voe narrows, 1 mile N of Russa Ness, to a width of 0.1 mile and leaves a navigable channel only about 90m wide. The narrow fairway has a least depth of 12.8m. The Firth, a small and sheltered basin, is entered from the head of Sandsound Voe, between Salt Ness and Lung Ness. The channel leading into this firth has a least depth of 20.1m, but is only 137m wide. The NW part of the firth is known as Bixter Voe and the E part is known as Tresta Voe.

Anchorage is available within The Firth in a depth of 14m, sand and mud, about 0.3 mile N of Salt Ness. Vessels with drafts of less than 4.6m may anchor in Tresta Voe in a depth of 8m, sand and mud, with Lung Ness bearing 216°. The holding

ground is good and there is no appreciable tidal current in the approach or within the voe.

15.26 Tresta (60°14'N., 1°22'W.), a small islet, lies close off the E shore of Tresta Voe.

Weisdale Voe (60°13'N., 1°19'W.) is entered between Russa Ness and Binna Ness, 2.4 miles SSE. This voe extends inland in a NNE direction for 5.5 miles. However, N of Hellister Ness, which is located 3 miles N of Binna Ness, the voe narrows, shoals rapidly, and is navigable only by small craft. The W side of the voe is clear of off-lying dangers, but the E side is encumbered by rocks and islets.

Flotta Baa, a rocky shoal, has a depth of less 2m and is the westernmost danger lying on the E side of the voe. The fairway narrows to a width of 0.3 mile in the vicinity of this shoal.

Vessels should steer a mid-channel course into the voe and anchor as convenient in the middle. The best anchorage lies, in a depth of 23m, sand and mud, in the middle of the voe and off Hagggensta, a small bay indenting the E shore.

Stromness Voe (60°10'N., 1°19'W.) lies between Strom Ness and White Ness, two narrow promontories projecting from Mainland. This narrow voe is entered between Binna Ness, the S point of Strom Ness, and Usta Ness, the S point of White Ness. About 1.5 miles within the entrance, the channel narrows to a width of only 45m. It is encumbered by rocks and has a least depth of only 2.1m.

Caution.—Vessels should not enter Strom Ness without local knowledge.

15.27 Whiteness Voe (60°10'N., 1°18'W.) is entered between Usta Ness and Ness of Burwick, 0.8 mile SE. It extends inland for 2.5 miles in a NNE direction. At times, this voe is used as a temporary anchorage, but several dangers lie in the approach.

Foul Baa, a shallow rock, lies 0.1 mile S of Usta Ness and a shoal, with a depth of 8.2m, lies near the middle of the entrance to the voe. Kirk Skerry, an above-water rock, lies in the middle of the voe, 1.5 miles within the entrance. A shoal, with a depth of 3.7m, lies about 0.1 mile S of this rock. About 0.5 mile N of Kirk Skerry, the voe narrows to a width of 0.2 mile and becomes foul.

After passing Foul Baa, vessels proceeding up the voe should give the W shore a wide berth. They may then pass on either side of Kirk Skerry and anchor to the N of it, in depths of 11 to 13m, sand and shell.

Stebblegrund (60°12'N., 1°18'W.), a small village, stands between the heads of Stromness Voe and Whiteness Voe.

15.28 The coast of Mainland, between the Ness of Ireland and Scalloway, is fronted by numerous islands.

South Havra (60°02'N., 1°21'W.) lies 1 mile offshore, 1.5 miles N of Ness of Ireland, and Little Havra Island lies close SW of it.

West Burra (60°05'N., 1°20'W.) is a narrow island and a light is shown from Fugla Ness, its NW extremity. West Skerrig, the westernmost of several rocks and skerries, lies 0.5 mile offshore, 2.5 miles N of Kettle Ness, the S extremity of the island.

East Burra (60°05'N., 1°19'W.), another narrow island, lies parallel to West Burra and its S part is known as Houss Ness. A bridge spans the narrow and foul passage which separates West

Burra from East Burra. The part of the passage lying S of this bridge is called West Voe and the part lying N of the bridge is called Lang Sound.

Trondra (60°07'N., 1°18'W.), an island, lies N of East Burra and parallel to the Mainland shore. It is separated from East Burra by a shallow boat channel, 0.1 mile wide, and from West Burra by West Burra Firth. The harbor of Scalloway lies on the N side of Trondra. Clift Sound, a deep channel, lies between Trondra and East Burra and the coast of Mainland.

15.29 South Channel, the most frequented approach channel leading to Scalloway, is entered between Fugla Ness and The Steggies.

Oxna (60°07'N., 1°22'W.) lies 0.8 mile NW of Fugla Ness. A cairn, 37m high, stands on the S end of this islet. The W and E sides of the islet are clear of off-lying dangers, but skerries and shoal ledges extend up to about 0.2 mile seaward from its NW side.

The Steggies (60°07'N., 1°22'W.), a group of detached rocks, lies about 0.3 mile S of Oxna. The passage leading between this group and the islet is foul.

Bullia Skerry, a small rock, lies on the W side of South Channel, about 0.4 mile NW of Fugla Ness. **Hellia Baa**, a rock, has a least depth of 8.2m and lies about 0.2 mile SE of Bullia Skerry. The main channel, with a least depth of 12.8m, passes between these two dangers. During SW gales, the sea breaks over Hellia Baa and the whole width of the channel lying between Bullia Skerry and Fugla Ness.

Papa (60°07'N., 1°21'W.), 31m high, lies 0.2 mile NE of the NE side of Oxna. This islet is separated from Oxna by a narrow and deep channel.

Green Holm (60°08'N., 1°19'W.), a small islet, lies 0.3 mile N of Bruna Ness, the N point of West Burra. **Merry Holm**, a large rock, lies 0.1 mile ESE of the islet. It is 4m high and surrounded by shallow and foul ground. The fairway leading through South Channel in the vicinity of these dangers has a least depth of 10.9m, but is only about 30m wide.

Directions.—Scalloway Castle, a conspicuous building bearing 057° between Green Holm and Merry Holm, leads through South Channel.

Caution.—During SW gales, the sea breaks over Hellia Baa and vessels should use North Channel.

15.30 Middle Channel is entered between Hildasay and The Cheynies. This passage is not generally used due to numerous rocks and skerries.

Hildasay (60°09'N., 1°21'W.) lies 0.8 mile N of Papa and 0.5 mile NNE of The Cheynies. Foul ground extends up to 0.5 mile SE and up to 0.2 mile S from the S end of this island. The islets of Linga and Hogg of Linga lie on the foul ground which extends SE from the island.

Hoe Skerry, a rocky reef, is the southernmost danger in this vicinity. It lies near the middle of the passage, about 0.3 mile SE of Hildasay. A rocky shoal, with a depth of 4.9m, lies 0.3 mile E of Hoe Skerry. The passage leading N of this skerry is foul.

15.31 The Cheynies (60°08'N., 1°22'W.) are a group of islets lying on the foul ground extending N from Oxna. A rocky shoal, with a depth of 3.4m, lies 0.3 mile E of the northernmost

islet. The fairway of Middle Channel, which leads between this rocky shoal and the foul ground extending S from Hoe Skerry, is about 0.1 mile wide.

Langa (60°08'N., 1°20'W.), a narrow islet, lies on the N side of Middle Channel, about midway between Linga and Point of the Pund, the N entrance point of Scalloway Harbor. Foul ground extends up to 0.1 mile S from this islet.

Papa Skerry, a rocky ledge, lies about 0.4 mile S of Langa. The channel lying between Langa and this ledge has a least depth of 12.8m, but the fairway is only about 90m wide.

Black Skerry, a small and rocky ledge, lies 0.5 mile E of Papa Skerry and 0.2 mile N of Green Holm. **Skervie Skerry**, a grass-covered islet, lies 0.2 mile N of Black Skerry.

The channel leading between Black Skerry and this islet is about 150m wide.

Whaleback Skerry, a small drying rock, lies 0.1 mile NNW of Skervie Skerry. **North Channel**, which is 0.3 mile wide, passes between Whaleback Skerry and Point of Pund.

Caution.—Middle Channel should be used only by small craft with local knowledge.

During SW gales, vessels are advised to use North Channel. The fairway leads between Sanda Stour and Hildasay, and then between Langa and Burwick Holm. A shoal, with a depth of 9.4m, lies near the middle of the fairway, about 0.6 mile N of Langa. Another shoal, with a depth of 11.2m, lies in the middle of the fairway, 0.4 mile E of Langa. Between Maa Ness and Trondra Ness, a shoal, with a depth of 10.3m, lies in the middle of the entrance.

North Channel is wide and deep, but vessels should round the points at a safe distance. At HW, Whaleback Skerry may be covered and vessels should steer accordingly.

15.32 Scalloway (60°08'N., 1°17'W.) (World Port Index No. 32590) was the former capital of the Shetland Islands. This town is now second in importance to Lerwick.

Tides—Currents.—Tides rise about 1.1m at springs and 0.7m at neaps.

Depths—Limitations.—The approach channel is dredged to a minimum depth of 8.7m and has a least width of 90m. The harbor provides 310m of total quayage, with depths of 4 to 8m alongside, and a small dock basin for fishing vessels. Generally, vessels of up to 3,500 dwt, 90m in length, and 6m draft can be accommodated. Slightly larger vessels can be handled, but prior arrangements are required.

Aspect.—Scalloway Castle stands above the town and is conspicuous. It consists of a square and formal structure, three stories high. However, only the walls remain.

A church, standing 0.2 mile NW of the castle, is prominent, but it has no spire.

A directional light, which is shown from a tower standing close SW of the castle, indicates the channel leading over the bar.

Pilotage.—Pilotage is only compulsory for vessels carrying dangerous substances. An ETA and request for pilotage should be sent 12 hours in advance, with a confirmation 1 hour in advance with Scalloway Harbor Radio.

For South Channel, pilots board off Fugla Ness in position 60°06.3'N, 1°21.7'W. For North Channel, pilots board off Sanda Stour in position 60°09.2'N, 1°22.2'W.

Pilots may be contacted by VHF channel 16 and 12. All ves-

sels must send an ETA via their agent, 24 hours in advance, regardless of pilotage needs.

Contact Information.—Scalloway Harbor Radio and pilots can be contacted, as follows:

1. VHF: VHF channels 9, 12, and 16
2. Telephone: 44-1595-744221
3. Facsimile: 44-1595-880566
4. E-mail: scalloway.harbor@shetland.gov.uk

Anchorage.—Good anchorage is available within the harbor, in depths of 9 to 10.4m, mud. The best berth lies in a depth of 10m, sand and shell, about 0.3 mile SW of the castle.

15.33 West Burra Firth (60°07'N., 1°18'W.) lies between Trondra and the N part of West Burra. It is entered between Bruna Ness, the N point of West Burra, and Trondra Ness, 0.8 mile NE.

Good anchorage is available, in a depth of 24m, sand, in the middle of the firth. A rocky shoal, with a depth of 5.4m, lies in the middle of the fairway, N of the anchorage.

Clift Sound (60°03'N., 1°20'W.) is entered from the S between Point of Stakka and Ness of Ireland, 2.5 miles S. This narrow sound extends N for almost 6 miles. A boat channel leads through the narrow and shallow N end of the sound and into Scalloway Harbor.

West Voe (60°02'N., 1°20'W.) lies between West Burra and East Burra. It is entered between Kettla Ness and Point of Stakka. This narrow inlet is shallow and encumbered with numerous drying rocks.

From Ness of Ireland, the coast extends in a general SSW direction for 6 miles to Fitful Head. Several small bays indent the shore and several islands lie close offshore.

St. Ninian's Isle (59°58'N., 1°21'W.), a peninsula, is 58m high and is joined to Mainland by a low neck of white sand. During NW gales, the seas wash across this neck. Several rocks and islets lie close off the W and S sides of the peninsula. Muckle Holm, 41m high and conspicuous, is the westernmost of these islets.

15.34 Colsay (59°57'N., 1°21'W.), a small and rugged island, lies 1 mile S of St. Ninian's Isle and is separated from Fora Ness, on Mainland, by Muckle Sound. Cloki Stack, a rocky pinnacle, is 29m high and lies close off Fora Ness.

Between Fora Ness and Fitful Head, the bold and rocky coast is fringed with high, detached rocks.

Grey Noup (59°56'N., 1°22'W.), a small peninsula, rises to a sharp conical peak, 81m high.

Fitful Head (59°54'N., 1°23'W.) is 282m high. This prominent promontory is usually the first land to be seen when approaching the Shetland Islands from the SW. A bank, with a least depth of 16.6m, lies 1 mile W of the point.

Between Fitful Head and Sumburgh Head, 4 miles SE, the coast is indented by Quendale Bay and West Voe of Sumburgh.

Quendale Bay (59°53'N., 1°20'W.) is entered between Garths Ness and Lady's Holm, 1 mile SE. Little Holm, a small islet, lies close E of Lady's Holm. The passage between this small islet and the W side of Scatness is foul.

A stranded wreck is reported to lie in the vicinity of Garths Ness.

West Voe of Sumburgh (59°51'N., 1°19'W.) is entered between Horse Island and Sumburgh Head, 1 mile E.

Horse Island (59°51'N., 1°19'W.) is bounded by sheer cliffs, up to 39m high. It lies close S of Hog of Ness, the S extremity of the peninsula which separates the Bay of Quendale from the West Voe of Sumburgh.

Sumburgh Head (59°51'N., 1°16'W.), 79m high, is the SE point of the Shetland Islands. A light is shown from a prominent tower, 17m high, standing on the headland. Caution is necessary to not confuse this light with a smaller disused light tower located about 0.3 mile NNE, especially when obscured by low clouds.

This headland, together with Compass Head, forms the E side of a peninsula which is connected to Mainland by a low, sandy isthmus. The E side of the head consists of high and precipitous cliffs.

Compass Head is located 1 mile N of Sumburgh Head and is 100m high. A conspicuous dome-shaped radar antenna and two radio masts stand close SW of this headland.

Fair Isle

15.35 Fair Isle (59°32'N., 1°38'W.) a bold and rocky island, lies nearly midway between the Orkney and Shetland Islands. Ward Hill, the summit, is 216m high and rises at the NW end. A radio mast, 63m high, is situated on the E slope of this hill, 0.2 mile ESE of the summit. Fair Isle is almost entirely surrounded by high, inaccessible cliffs which are fronted by numerous stacks and skerries. The S side of the island is low. South Harbor, a small bay, indents the S side of the island and provides a landing place. This bay is entered between Head of Tind and Meo Ness. It is heavily encumbered by rocks and only small boats with local knowledge should enter.

The Skerry, a small and rocky islet, lies on foul ground which extends up to 0.3 mile S of the S extremity of the island. The islet is the outermost danger in this vicinity; an isolated depth of 16.8m lies on a ridge, 1.5 miles SSW of it.

Skroo Light (59°33'N., 1°37'W.) is shown from a prominent tower, 14m high, standing close SW of The Nizz, the NE extremity of Fair Isle.

Skadan Light (59°31'N., 1°39'W.) is shown from a prominent tower, 26m high, standing on a low point located close NW of Head of Tind, the SW extremity of the island.



Skadan Light

Tides—Currents.—The directions of the currents are not constant and change gradually. The current begins in an ESE direction about 2 hours 45 minutes before HW at Stromness and changes gradually S and W. At 1 hour 45 minutes after HW at Stromness, its direction is SSW. At 2 hours 45 minutes after HW at Stromness, it runs SSW off the E side of the island and WSW off the W side.

Near Fair Isle, the SE current attains a maximum rate of 4 knots at springs and the NW current a maximum rate of 5 knots. Eddies are formed on the E side of the island during the SE current and on the W side of the island during the NW current. Races occur at both ends of the island at springs, but Rost of Keels, at the S end, is the more dangerous. This latter race extends up to 2 miles offshore. It trends N with the NW current and S with the SE current.

The current begins to run in a WNW direction about 3 hours after HW at Stromness and continues in that direction, with a spring rate of 3 knots, until 4 hours 30 minutes before HW at Stromness. The current then changes its direction through N and E.

In Fair Isle Channel, which lies between the Shetlands and the Orkneys, the tidal currents are rotary clockwise. There are small local variations in the times at which the currents begin, in their directions, and in their rates. On the average for the whole channel, the current is weakest when setting in a NE direction 2 hours before HW at Stromness and strongest when setting in a SE direction 1 hour 15 minutes after HW at Stromness. It is weakest when setting in a SW direction 4 hours 45 minutes before HW at Stromness and strongest when setting in a NW direction 4 hours 45 minutes before HW at Stromness.

The current changes direction at about 60° per hour when it is weakest, but only at about 10° per hour when it is strongest.

The currents are strongest in the W entrance, with a spring rate of 1.5 knots and setting in directions of 120° and 290°; about midway between Sumburgh Head and Fair Isle, with a spring rate of 2.5 knots and setting in directions of 115° and 305°; about midway between Fair Isle and North Ronaldsay, with a spring rate of 2 knots and setting in directions of 160° and 340°; and in the E approach, with a spring rate of 1 knot and setting in directions of 140° and 320°. When the currents are weakest, the spring rate at the different stations varies from 0.3 to 0.5 knot.

The tidal currents begin about 2 hours 15 minutes earlier to the W of the Orkneys and clear of the land off Westray Firth than in the channel lying between the Orkney Islands and the Shetland Islands.

To the W and N of the Shetland Islands, the times at which the currents begin do not differ greatly from those in the channel.

Regulations.—An Area to be Avoided surrounds Fair Isle. In order to avoid the risk of oil pollution and severe damage to the environment of Fair Isle, vessels greater than 5,000 gt carrying oil or other hazardous cargo in bulk should avoid this area.

Recommended traffic flow directions have been established in the vicinity of Fair Isle, as follows:

1. A single recommended route for westbound traffic leads N of Fair Isle.
2. Separate recommended routes lie SW of Fair Isle, with eastbound traffic taking a route leading NE of North

Ronaldsay and westbound traffic taking a route leading SW of Fair Isle.

Laden vessels should contact Shetland Coastguard on VHF channel 16, at least 1 hour prior to ETA and on final departure from the Fair Isle area, using the reporting format given in the accompanying table.

Fair Isle	
Designator	Information Required
ALFA	Vessel name and call sign.
BRAVO	Day of month (2 figures) and time in hours and minutes (UTC/GMT in 4 figures).
CHARLIE *	Latitude (4 figures N or S) and longitude (5 figures E or W).
DELTA *	True bearing (3 figures) and distance in miles (2 figures) from a clearly identified landmark.
ECHO	True course in degrees (3 figures).
FOXTROT	Speed in knots and tenths of knots (3 figures).
GOLF	Last port of call.
INDIA	Destination.
MIKE	VHF channels monitored.
OSCAR	Deepest draft, in meters and centimeters
PAPA	Type and quantity of cargo.
QUEBEC	Brief details on damage/deficiency/other limitations.
* Either designator may be used.	

Sumburgh Head to No Ness

15.36 Grutness Voe (59°53'N., 1°16'W.) is one of the two heads of an inlet which lies close N of Compass Head. Loos Laward, a large rock, is 8m high and is connected to Compass Head by a shingle beach. The rock and the beach form a natural breakwater which protects Grutness Voe from the E. Two detached rocks, each with a depth of 3m, lie about 0.1 mile and 0.2 mile N of the N side of the shingle beach. These dangers make access to the voe somewhat dangerous and vessels without local knowledge are advised not to enter.

Lambhoga Head (59°55'N., 1°16'W.) is 52m high. A small bay, named Voe, is entered between this headland and Haa of Stova, a point, 0.6 mile N. The bay has depths of 5m extending right up to its head. A stone pier and the ruins of a fish curing station are situated along the shores. Small vessels may find temporary refuge in Voe during NW gales.

Troswick Ness (59°56'N., 1°15'W.) is a bold headland, 40m high, which lies 1 mile NNE of Haa of Stova. Close N of this headland, the cliffs attain a height of 49m. From there to **Levenwick Ness** (59°59'N., 1°15'W.), the cliffs are lower and attain a heights of only 15m or less. To the S of Levenwick Ness,

they attain a height of 30m. Clumly Ness (Clumley Ness), 15m high, is located midway between Troswick Ness and Levenwick Ness. It is formed by the most conspicuous cliffs in this vicinity. All of the above cliffs are dominated by a central range of hills. This range culminates in The Ward of Scousburgh, which rises to a height of 262m. The high land in the vicinity of Fitful Head can usually be seen over the coast extending between Compass Head and The Ward of Scousburgh. A conspicuous radio mast, surrounded by numerous small radio masts and a group of large square dish-shaped aeri-als, stands on the summit of The Ward of Scousburgh. A conspicuous radio mast and two round dish-shaped aeri-als stand on the summit of a hill which rises 0.8 mile NNE of The Ward of Scousburgh.

Clumly Bass (59°57'N., 1°15'W.), a rocky ledge, extends about 0.3 mile SE from the shore and its inner part dries at LW. An isolated shoal, with a depth of 16.5m, lies close seaward of this ledge. Vessels are cautioned to give this ledge a wide berth.

With the exception of Clumly Baas, the stretch of coast between Sumburgh Head and Levenwick Ness is steep-to.

15.37 Between Levenwick Ness and **No Ness** (59°58'N., 1°12'W.), a bold and precipitous promontory, the coast is formed by a bight. Four small bays indenting the shore of this bight are named Leven Wick, Channer Wick, Hos Wick, and Sand Wick. A light is shown from the extremity of No Ness.

A shoal patch, with a depth of 4.5m, lies in the entrance to Channer Wick, about 0.5 mile N of the N side of Levenwick Ness. Foul ground lies N of Point of Whilvigarth, in the N part of Hos Wick. With these exceptions, all the other dangers show above-water and lie close to the shore. The heads of all these small bays are shallow.

A pier projects 140m from the shore on the E side of Hos Wick. From its root, a quay extends 90m N and has a depth of 5.7m alongside.

Sand Wick is separated from Hos Wick, on the W side, by Cumlewick Ness, a narrow peninsula, which is 45m high. On the E side, it is bounded by No Ness. The village of Sand Wick, with a conspicuous church, stands at the head of this bay.

Vessels may find good anchorage and shelter from all winds, except those from between E and S, in either Leven Wick or Hos Wick. During strong N winds, vessels may anchor within Hos Wick, in depths of 11 to 13m, with the head of a pier at Brownies Taing bearing 090° and with Point of Whilvigarth bearing 360°. During S or W winds, vessels are advised to anchor, in a depth of 18m, as convenient, within Leven Wick. The bottom in both of these small bays consists of sand over rock. A heavy swell flows into these bays during E gales and renders the anchorages untenable.

Caution.—Abandoned submarine cables, which may best be seen on the chart, lie within Sand Wick.

Abnormal magnetic variation, amounting to as much as 15° from the normal, has been experienced in the area to the W of No Ness.

No Ness to Bressay

15.38 From No Ness, the coast trends N for 2 miles to **Wick of Sandsayre** (60°01'N., 1°13'W.), a small bay, and is composed of high cliffs. The promontory of Hoga, which is sur-

mounted by the ruins of an ancient circular tower, is located about midway along this stretch of the coast. The Ward of Burraland, a hill, is 73m high and overlooks this promontory.

Vessels may find shelter from S gales in the N part of **Mousa Sound** (59°59'N., 1°11'W.). They may anchor, in a depth of 18m, sand over rock, as convenient. However, gales from the SE send a heavy swell through this sound.

Tides—Currents.—In Mousa Sound, the S current begins at HW at Stromness and the N current begins 5 hours 45 minutes before HW at Stromness. The velocity of the N current, which is 1.3 knots at springs, is usually greater than that of the S current, but the duration of the S current is longer. Very little current is felt within the small bays indenting this stretch of the coast.

15.39 Gruna Baas (60°01'N., 1°11'W.), with a least depth of 7.5m, lies about 1 mile ENE of Wick of Sandsayre and vessels may pass on either side of it. The sea breaks heavily over this rocky ledge during gales.

Wick of Sandsayre is a small bay which provides some shelter to small craft. A stone pier projects from the shore of the bay. A long and rocky ridge lies close E of the pier and acts as a breakwater, affording shelter during E winds.

From Wick of Sandsayre, the coast, which is high and cliffy, trends N for 1.5 miles to Mail, a small settlement. The coast then turns sharply E for 1.8 miles and terminates in the rocky promontory of Helli Ness. The NW part of the bay indenting this part of the coast is foul. Aith Voe, an inlet, lies 0.5 mile E of Mail. It is shallow and the mouth is partially obstructed by rocks.

Helli Ness (60°02'N., 1°10'W.), 38m high, is a promontory located at the NE end of the peninsula which extends 1.3 miles E from the mouth of Aith Voe. This peninsula rises to a height of 58m at Ward of Greenmow, a hill, which rises midway between Aith Voe and Helli Ness.

Helliness Holm (60°02'N., 1°10'W.), an islet, lies on a reef close off the SE extremity of Helli Ness. Shoals, with depths of 4.5m, lie close S of it and shoals, with depths of 18m, lie close E of it.

Three radio masts, 126 to 142m high, stand on a hill which rises 2 miles WNW of Helli Ness.

Caution.—A survey vessel reported observing two areas of magnetic disturbances lying E of Helli Ness. In the easternmost area, the normal magnetic variation was increased by 1 to 4.30° and in the westernmost area, it was decreased by 1 to 4°.

15.40 East Voe of Quarff (60°06'N., 1°13'W.), a small inlet, is entered 3.5 miles N of Helli Ness. Quarff Valley, which is conspicuous, cuts directly across Mainland from East Voe of Quarff to West Voe of Quarff, on the E side of Clift Sound. Two churches stand in this valley, which appears as a deep notch when viewed from the E or W.

Gulber Wick (60°07'N., 1°11'W.), entered between the S extremity of Ness of Trebister and Ness of Setter, 0.5 mile W, is a small and partially protected bay.

A shoal patch, with a depth of 5.5m, lies close S of Ness of Trebister. A shoal, with a depth of 4.1m, lies about 0.1 mile offshore, in the inner part of the bay, and 0.8 mile NW of Ness of Trebister. Although this bay is open to the S, the holding ground is good and the sea is somewhat deflected by the S part of Bressay, located 2 miles E.



Mousa (foreground) from E

Off-lying Islands

15.41 Mousa (60°00'N., 1°10'W.), lying 1.5 miles NE of No Ness, is an uninhabited island. It rises to a height of 54m in the middle. Hills stand, up to 40m high, at its N end and, up to 34m high, at its S end. A tower stands on a low point at the W side of the island, 0.5 mile NW of the S extremity. Muckle Bard and Perie Bard, located close N, are two islets which lie close off the SE side of the island. A light is shown from a tower, 6m high, standing on Perie Bard.

Bressay (60°09'N., 1°05'W.), a large island, lies close off the E side of Mainland and is separated from it by Bressay Sound. This passage is 0.2 mile wide at its narrowest part. On the seaward side of the island, the shore consists of high cliffs, but towards Mainland, the shore is low and rocky.

Bard Head (60°06'N., 1°04'W.), the S extremity of the island, is very prominent. The Ord, a cape, is located on the SW side of the island, 1 mile NW of this headland. It is 164m high and conspicuous.

15.42 Kirkabister Ness (60°07'N., 1°07'W.) is located on the W coast of the island, 1.8 miles NW of Bard Head. Whinna Skerry, 2.5m high, lies close offshore, 0.5 mile N of this point. A light is shown from a prominent tower, 16m high, standing on the point. A new lower intensity light, standing near the existing one, has been in operation since late 2012; the old light



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Kirkabister Ness Light

Ward of Bressay, the highest part of the island, appears as a pyramid and stands in the middle of the S part. Two conspicuous radio masts, each 68m high, stand on this summit.

A conspicuous disused water tower stands on Ander Hill which rises to a height 143m on the E side of the island, 2 miles NE of Ward of Bressay.



Rova Head Light bearing about 286°

Score Head (60°12'N., 1°04'W.) is the N extremity of Bressay and the N end of the Aith Ness peninsula. Holm of Beoseter, an islet, is 6m high and lies on foul ground, 1.5 miles W of this headland.

Isle of Noss (60°09'N., 1°01'W.) lies close E of Bressay and is a bird sanctuary. This island is composed of red sandstone and is prominent. During the nesting season, June to August, the cries of the countless number of sea birds on the island can be heard from considerable distances to seaward. Noss Head, located on the E side of the island, is precipitous. From this headland, the island slopes steeply W with great regularity. When seen from the SW or NE, the headland has the appearance of a wedge.

Noss Sound (60°09'N., 1°02'W.), which is about 0.1 mile wide at its narrowest part, has a least depth of 3m. It is tortuous and rocky. The tidal currents run through this passage with great speed. About 0.3 mile S of the narrowest part, the sound widens out into Hope Wick, a partially protected bay, which has depths of 28 to 35m. The bay is steep-to on all sides and clear with the exception of Voe of the Mels, which lies in the NE corner and has a least depth of 10.9m.

Caution.—A ferry runs across Noss Sound.

South Approach to Lerwick

15.43 The coast of Mainland, extending between Ness of Trebister and **The Knab** (60°09'N., 1°08'W.), the S extremity of South Ness, is indented by two bays.

Voe of Sound, entered between Ness of Trebister and Ness of Sound, 0.8 mile NE, is open to the SE. Ness of Sound is fringed by skerries and rocks on the SE side. Skersund Skerry, 27m high, lies near the outer edge of a shallow and narrow bank. This bank extends off the W side of the voe, about 0.4 mile N of its W entrance point.

Brei Wick, which is open to the S, is entered between Ness of Sound and The Knab, about 1 mile NE. The E side of Ness of Sound between its S extremity and Skeo Taing, 0.8 mile N, is fringed with foul ground and skerries. A bank, having a rock with a depth of less than 2m near its outer end, extends about 0.2 mile NE from Skeo Taing.

Sillock Baas, a rocky shoal, has a least depth of 7.8m. It lies near the entrance to Brei Wick and 0.5 mile SW of The Knab. During SE gales, the seas break heavily on this shoal. Brei Wick can be used as an anchorage, but this bay is not recommended as it is fully exposed to S gales. The Knab is fronted by foul rocky ground on its S side. Leake Rock, with a depth of 3m, lies near the outer end of this area of foul ground. The SE side of South Ness, between its S extremity and Twageous Point, 0.3 mile NE, is fringed with shoals.

Caution.—Submarine cables, which may best be seen on the chart, are landed at the head of Voe Sound.

North Approach to Lerwick

15.44 The N entrance to Bressay Sound, which leads to Lerwick, is approached between Kebister Ness and **Score Head** (60°12'N., 1°04'W.), the N extremity of Bressay.

Soldian Rock, which dries 0.7m, lies 1.3 miles NNW of Score Head and is usually marked by breakers. A lighted buoy is moored 0.4 mile SE of this rock.

Nive Baa, a rock, has a least depth of 0.6m and lies about 0.5 mile WNW of Soldian Rock.

Green Holm (60°13'N., 1°06'W.), 9m high, is covered with grass. A channel, with a depth of 36m, lies between this small island and Soldian Rock, but vessels are advised not to use it.

The Brethren, consisting of two rocks, is marked by a lighted buoy, moored close W. The easternmost rock is 2.1 high; the westernmost rock is 1.5m high. These rocks lie on a reef, midway between Green Holm and Kebister Ness, which dries 0.9m at its NE end. A shoal patch, with a depth of 7m, lies 0.3 mile S of the E rock.

Luggies Knowe, a conspicuous pyramid-shaped hill, stands 0.8 mile SW of Kebister Ness and 0.2 mile inland.

Rova Head (60°11'N., 1°08'W.), a low rounded point, is steep-to on its seaward side. Skibby Baas, a rocky reef, lies close offshore, 0.3 mile SSW of this headland. A rock, awash, lies on the reef. A light is shown from a tower, 7m high, standing on the headland.

Tides—Currents.—In the narrow N part of Bressay Sound, the S current begins 3 hours 10 minutes before HW at Stromness and the N current begins 2 hours 50 minutes after HW at Stromness. These currents attain a velocity of 2 knots at springs.

Lerwick (60°09'N., 1°09'W.)

World Port Index No. 32600

15.45 Lerwick is the capital of the Shetland Islands and its natural harbor occupies the middle portion of Bressay Sound. The channel between Mainland and Bressay occupies additional facilities in Dales Voe (60°12'N., 1°10'W.). The port is a fishing center and a supply base for the offshore oil and gas industry. That part of the harbor lying S of North Ness (60°09.6'N., 1°08.5'W.) is known as South Harbour and that part lying N is known as North Harbour.

Lerwick Home Page

<http://www.lerwick-harbour.co.uk>

There are two approach channels leading to Lerwick, one from either end of Bressay Sound. The S approach channel is the deeper and wider of the two.

Tides—Currents.—Tidal range at mean spring is 1.6m and 0.8m at neaps.

There is little or no current within the S part of Bressay Sound and within the harbor.

Depths—Limitations.—Middle Ground, with least depths of 1.3m at its center and 1.9m at its S end, lies in the middle of North Harbour.

Loofa Baa, a rocky shoal, has a least depth of 0.5m. It lies between 0.1 mile and 0.3 mile N of North Ness and is marked by a lighted beacon. Holm of Cruester, 2m high, lies on a rocky bank, about 0.2 mile N of Loofa Baa.

The narrowest and shoalest part of the fairway, which leads from the N approach channel to North Harbour, has a dredged depth of 9m, a least width of 100m and is marked by lighted buoys.

The fairway leading from South Harbour to North Harbour



Lerwick

passes S of Loofa Baa. It is marked by lighted buoys and has a dredged depth of 9m.

The principal wharves in North Harbour include Holmsgarth No. 5 Berth, 163m long, with depths alongside of 9.2m, and Greenhead Base, with depths alongside of 6 to 9m.

An L-shaped jetty, with a total length of over 800m, is under construction in the vicinity of Holmsgarth Quay, with scheduled completion in 2016.

The principal wharves in South Harbour include Victoria Pier, of which the E face is 91m long, with depths alongside of 6.8m, and Spur Jetty, used by ro-ro vessels.

There are facilities for most types of cargo as well as repair facilities and fuel. Vessels of up to 205m in length and a draft of 12.5m have been accommodated. Vessels of slightly greater draft and length may be handled after discussion with the harbor authorities.

Aspect.—A directional light, which indicates the fairway of the N approach channel, is shown from the W side of North Harbour, 1 mile SSW of Rova Head.

A power station, with several conspicuous chimneys, is situated on the NW side of North Harbour.

A sector light, shown from the ferry terminal situated on the W side of Bressay, indicates the fairway of the S approach channel.

The conspicuous clock tower of the town hall stands on the W side of South Harbour, 0.8 mile NNW of The Knab, and Fort Charlotte is situated close N of it.

A radio mast, 294m high, stands on Anne's Brae, 0.3 mile NNW of The Knab. A conspicuous coastguard lookout building is situated adjacent to it.

Pilotage.—Pilotage is compulsory for vessels over 30m in length and carrying passengers, all tankers over 1,600 gt, all vessels carrying more than 10kg of explosive substances, all vessels towing or under tow and over 25m in length, all fishing vessels over 47.5m in length, vessels able to maneuver only with difficulty, and all vessels over 3,000 gt intending to berth, anchor, or

shift within the inner harbor.

Vessels should send an ETA and request for pilotage at least 24 hours in advance, giving the draft and stating the intended entrance channel. Confirmation should be sent 2 hours and 1 hour before arrival.

Pilots usually board about 0.5 mile W of Bressay Light in Kirkabister Ness for the S entrance or about 0.5 mile NE of Holm of Beosetter for the N entrance.

If weather conditions in the S entrance are unsuitable, pilots will board either W of Kirkabaster Light or near Knab Point. If weather conditions in the N entrance are unsuitable, pilots will board in the S entrance.

Pilots may be contacted, as follows:

1. VHF: VHF channel 12 and 16
2. E-mail: pilots@lerwick-harbour.co.uk

Regulations.—The port provides radar coverage of the N and S entrances and the inner harbor. Vessels should report to Lerwick Port Control on VHF channel 12, as follows:

1. South entrance—off Bressay Light in Kirkabister Ness in position 60°07'06"N, 1° 08'09"W.
2. North entrance—off Outer Score in position 60°12'06"N, 1° 04'18"W of approaching Brethren Lighted Buoy in position 60°13'00"N, 1° 08'00"W.

Contact Information.—The Port Authority may be contacted, as follows:

1. Telephone: 44-1595-692991
2. Facsimile: 44-1595-693452
3. E-mail: ptcontrol@lerwick-harbour.co.uk

Port Control may be contacted, as follows:

1. Call sign: Lerwick Harbor Radio
1. VHF: VHF channels 12 and 16
2. Telephone: 44-1595-692991
3. Facsimile: 44-1595-693452
4. E-mail: ptcontrol@lerwick-harbour.co.uk

Anchorage.—Anchorage is available, as follows:

1. Voe of Sound (60°08'N., 1°10'W.) anchorage is restricted by operational and abandoned submarine cables.

2. Brei Wick (60°08.5'N., 1°09.0'W.) provides anchorage but exposed to S winds. Care must be taken on the approach to avoid the surrounding dangers: Leake Rock, Sillock Baas, several isolated dangers, and a bank with 5m depth in the vicinity.

3. South Harbour anchorage lies 0.2 mile SW of the Maryfield Ferry Terminal (60°09.4'N., 1°07.4'W.) in a depth of 18m but can be untenable when the SE winds bring swell.

4. North Harbour anchorage is prohibited S of a line drawn WSW from Loofa Baa Light Beacon, as shown on the chart.

5. Dales Voe (60°12'N., 1°10'W.) is often used as an anchorage, but it is exposed to NE. Marine farms exist in the voe.

The usual anchorage berth in North Harbour lies, in a depth of 14m, about 0.3 mile NW of North Ness (60°09.6'N., 1°08.7'W.). The usual anchorage berth in South Harbour lies in a depth of 18m about 0.4 mile E of Fort Charlotte. The holding grounds are composed of dark sand, stones, and shells with a little mud. They are reported to be not good during periods of strong winds. The SE winds are usually the strongest and sometimes send a sea into the harbor.

Caution.—Submarine cables lie within the harbor and may best be seen on the chart.

A ferry crosses the harbor and its route may best be seen on the chart.

Bressay to Whalsay

15.46 The coast between Kebister Ness and Moul of Eswick, a headland located 4 miles NNE, is deeply indented by several voes and is fronted by several islands and rocks.

Dales Voe (60°12'N., 1°10'W.) is entered between Kebister Ness and Hawks Ness, 1.3 miles NNW. The Unicorn, a detached reef, has a least depth of 1.4m and lies 0.5 mile E of Hawks Ness. A dangerous wreck lies close NE this reef. Hawks Baa, a shoal, has a least depth of 2.7m and lies 0.3 mile SE of Hawks Ness. Several shallow shoals and rocky patches lie in this vicinity and foul ground extends up to 0.3 mile E and 0.3 mile S of Hawk Baa. A dangerous wreck is reported to lie 0.3 mile SSW of Hawk Baa.

A directional light is shown from the W shore of the voe and indicates the approach channel.

A T-shaped jetty, 51m long with a depth of 12.5m alongside, is situated on the E side of the voe, 0.8 mile SW of Kebister Ness. This jetty is used for the inspection and repair of oil rigs; it is being extended (2015) to a length of 130m, with completion scheduled for 2016. Several mooring buoys are situated in its vicinity.

Lax Firth (60°13'N., 1°12'W.) is entered between Hawks Ness and Wadbister Ness, 0.8 mile NW, and several marine farms lie within it. This firth affords better shelter than Dales Voe, but it is not often used for anchorage except by local craft.

Wadbister Voe (60°14'N., 1°13'W.) is entered between the N extremity of Wadbister Ness and the coast extending below Hill of Brunt Hamarsland, 0.7 mile NW. This inlet provides anchorage for small vessels, but should not be entered without local knowledge.

Cat Firth (60°15'N., 1°12'W.) is entered between the coast extending below Hill of Brunt Hamarsland and Ling Ness, 1 mile E. Little Holm, a small peninsula, projects from the N side of this firth and divides it into two parts. This firth provides one of the best anchorage roadsteads for small vessels on the E side of the Shetland Islands and several large fishing vessels are usually moored here, in lay-up, during the winter. A small mussel bank, with a depth of 6.4m, lies in the middle of the channel, 0.5 mile within the entrance. This bank has depths of 12 to 17m surrounding it.

The **Isles of Gletness** (60°14'N., 1°09'W.), a group of islets, lies 0.5 mile E of Ling Ness. The islets are steep-to on their S and SE sides which consist of perpendicular cliffs. The area lying between this group and the coast is foul. A pinnacle rock, with a depth of 3m, lies 0.2 mile NE of the northernmost islet.

Moul of Eswick (60°16'N., 1°06'W.), a bold promontory, is formed of mica slate and is fronted by a detached mass of rock, named Fru Stack. This detached mass of rock lies 0.5 mile S of the N extremity of the promontory.

A light is shown from a prominent tower, 7m high, standing midway between the N and S ends of the promontory. A conspicuous white streak extends from the light tower to the foot of the cliff in this vicinity.

Between Moul of Eswick and the Isles of Gletness, the coast is indented by a bay in which lie several above-water rocks and shoal patches.

15.47 Hoo Stack (60°15'N., 1°09'W.), 33m high, is a bold and pyramid-shaped rock. It lies about 0.3 mile SSE of the light tower standing on Moul of Eswick and is very conspicuous from all directions. Grass covers the summit and the NW slope of this stack. A partly visible reef fronts the SE side of the stack and another reef extends up to 0.5 mile N and NE from its NE extremity. A light is shown from a prominent tower, 8m high, standing on this stack. A directional light is also shown from the tower, but is visible only from the N.

Sneckan, a rock, is 1.8m high and lies on a shoal, about 1 mile ENE of Hoo Stack. South Baa, a pinnacle rock, has a least depth of 8.2m and lies about 0.5 mile WSW of Hoo Stack. Seas, dangerous to small craft, break over this rock in heavy weather.

Hoo Stack is reported to be conspicuous, even in periods of low visibility. Vessels should pass E and S of it, giving South Baa a wide berth.

South Nesting Bay (60°17'N., 1°06'W.) is entered between Moul of Eswick and Hill of Neap, 2 miles NNE. Neap Manse, a very conspicuous dwelling, stands on the summit of a hill, 0.3 mile NW of Hill of Neap. The bay has no good anchorages as the depths are too great and it is obstructed by several below and above-water rocks.

Hog Island and Stany Hog, 13m high, lie close off Hill of Neap. Climnie Reef, parts of which are above water, lies 0.6 mile N of the N end of Moul of Eswick. Fiska Skerry, 0.3m high, lies 0.5 mile WNW of Climnie Reef.

Stepping Stones is formed by a succession of reefs and skerries which extend up to 4.5 miles NE from Moul of Eswick. The bottom lying between these dangers is very irregular and the depths vary greatly. Vessels should navigate with extreme caution in this vicinity.

Muckle Fladdicap (60°18'N., 0°59'W.) is the outermost of

the above dangers. This conspicuous rock, which is flat, covers a fairly large area. A reef, which dries 1.2m, extends up to 0.3 mile NE from the rock. The NW side of Muckle Fladdicap is shallow and the other sides are steep-to. A detached reef, with a depth of 4.2m, lies about 0.3 mile SW of the rock.

Muckle Billan, a rugged and conspicuous rock, is 6m high and lies about 1 mile SW of Muckle Fladdicap. Littla Billan, 2.5m high, lies 1 mile SW of Muckle Billan and another rock, which occasionally dries, lies close SW of it.

Caution.—Vessels entering Dury Voe or passing through either of the sounds lying W of Whalsay Island may use any of the channels leading between the Stepping Stones. However, the recommended channel lies between Littla Billan and Muckle Billan, which are conspicuous and above-water at all times. Great care must be exercised when navigating in this vicinity.

Middle Voder, a rock, has a least depth of 0.9m and lies 1 mile WSW of Littla Billan. Haerie, an above-water rock, is 1m high and lies 0.3 mile NE of Middle Voder. Inner Voder, an above-water rock, is 0.6m high. It lies 0.5 mile NE of the N end of Moul of Eswick and is marked by a beacon.

Stava Ness, the S entrance point of Dury Voe, is located 1 mile N of Hill of Neap.

Off-lying Islands

15.48 Whalsay (60°21'N., 1°00'W.) is the largest of the islands lying off this part of the coast.

Ward of Clett, 118m high, is a sharp hill standing 0.4 mile N of Clett Head, the S extremity of Whalsay. Symbister House, a large mansion, is situated 0.5 mile NW of this hill.

Symbister Ness, the SW extremity of Whalsay, is located 1.5 miles NE of Stava Ness. A light is shown from the NW extremity of this point.

Holm of Sandwick, 9m high, and Flaeshans of Sandwick, 2.4m high, lie 0.4 mile SE and 0.3 mile S, respectively, of the S extremity of Symbister Ness. Sava Skerry, a rock, is 2.1m high and lies 0.3 mile SW of Holm of Sandwick.

Symbister, a small harbor, lies at the SW side of Symbister Bay, on the N side of Symbister Ness. It is protected by a breakwater and has two jetties with depths of 3.4 to 4m alongside the heads. A ro-ro terminal is situated along the S side of the southernmost jetty.

Suther Ness, a short and narrow peninsula, is located 1.8 miles NNE of Symbister and is marked by a light.

The Skate of Marrister, a flat ledge, dries 1.5m and extends up to 0.2 mile seaward from a point located on the W side of the island, 1 mile NNE of Symbister Ness. This ledge is usually marked by tide rips under normal conditions, but it is a serious danger to vessels during periods of low visibility. A light is shown from a structure standing near the extremity of the ledge.

Skaw Taing (60°23'N., 0°54'W.) is the NE extremity of Whalsay. Outer Holm of Skaw, a small and rocky islet, is 4m high and lies 0.5 mile NNW of the point. Inner Holm of Skaw, 10m high, lies close SW of this small islet. The area lying between the outer islet and Skaw Taing is obstructed by many below-water dangers.

Isbister Holm, 20m high, lies 1.3 miles S of Skaw Taing, on the SW end of a reef. Mooa and Nista, 16 and 19m high, respectively, are two islets which lie NE of this holm, on the same reef.

Gard Baas, a rocky shoal area, has depths of less than 2m and lies 0.8 mile ESE of Skaw Taing. Nacka Skerry, a large rock, is 5m high and lies 0.5 mile N of the islet of Nista.

Swarta Skerries (60°20'N., 0°51'W.), consisting of two rocks, is the easternmost danger lying off the E side of Whalsay. The westernmost rock is the larger one. It is 6.4m high and dark colored. The easternmost rock is 4.2m high and lies close off the W rock.

Grif Skerry lies with its N end located 0.3 mile NW of easternmost rock of Swarta Skerries. This rock is conspicuous and foul ground and shoals extend up to about 0.3 mile W and SW of it.

East Linga (60°21'N., 0°53'W.), the largest of this group of islands, lies 0.8 mile W of Grif Skerry and a prominent hill stands near its center.

Rumble Holm, 8m high, lies 1 mile SW of the island. Flaeshans of Rumble, a narrow reef, is partly above-water and extends up to 0.3 mile NNE from this holm.

Ungla Skerry, a small and conical rock, is 1.2m high and lies near the center of a small reef, 1 mile NW of Rumble Holm.

Hogo Baas (60°20'N., 0°58'W.), consisting of three rocky patches, lies E and ESE of Clett Head. The westernmost patch has a least depth of 1.8m and lies 0.8 mile ESE of the point. During gales, the sea breaks heavily over all these patches.

Caution.—The passage leading between the E side of Whalsay and the dangers lying off it should not be entered as it has not been thoroughly examined.

15.49 Out Skerries (60°25'N., 0°45'W.) form the outermost dangers fronting this part of the coast of Mainland. These dangers, which consist of five distinct groups of islets and rocks, lie between 2.5 miles and 5.5 miles NE of Skaw Taing. The principal islands are Grunay, Bruray, and Housay, which lie close together. These islands are hilly and grassy. The land is chiefly used for grazing, except for a small area of cultivation located on the NE side of Housay.

A light is shown from a conspicuous tower, 44m high, standing on Bound Skerry, a large and barren rock, lying close E of the NE end of Grunay.

A bridge connects the islands of Housay and Bruray. Two small harbors lie within the Out Skerries. The northeasternmost harbor is entered between the E end of Bruray and the N end of Grunay. It has a pier, 52m long, and a ro-ro berth, 40m long, with depths of 4 to 7m alongside. These harbors should not be entered without local knowledge.

Mio Ness (60°25'N., 0°48'W.) is the SW extremity of Housay. A rock, with a depth of 1.8m, lies close SW of this point. Benelip Sound, 0.2 mile wide, leads between Mio Ness and the Benelips, a group of islets and rocks.

Filla (60°24'N., 0°48'W.), a grass-covered islet, lies SW of the Benelips and separated from the group by Filla Sound, which is 0.2 mile wide.

Small vessels may safely use Benelip Sound and Filla Sound by keeping in the middle of the channels, but care must be taken to avoid a rocky patch, with a least depth of 3.4m, which lies about 0.3 mile W of the southernmost of the Benelips.

Billia Skerry (60°24'N., 0°49'W.) is the southwesternmost danger of the group and lies 1.3 miles SW of Mio Ness.

Muckle Skerry (60°26'N., 0°52'W.), a flat-topped rock, is 10m high and lies 3.5 miles NNE of Skaw Taing. Foul ground and above-water rocks surround this rock. A light is shown

from a structure standing at the S side of Muckle Skerry.

Vongs and Little Skerry, consisting of groups of above-water rocks, lie on a shoal, 1.5 miles SSE of Muckle Skerry.

Caution.—A submarine cable lies between Whalsay and the Out Skerries and may best be seen on the chart.

Vessels are cautioned not to navigate in the near vicinity of the Out Skerries at night or during poor visibility. During the day and in clear conditions, vessels have little difficulty. In heavy weather, the sea breaks over all rocks with depths of less than 11m.

Mainland—Dury Voe to Lunna Holm

15.50 Dury Voe (60°20'N., 1°09'W.), the largest and safest of all the inlets on the E side of the Shetland Islands, is entered between **Stava Ness** (60°19'N., 1°05'W.) and Hamera Head, a bold and conspicuous headland, 1.5 miles NW. This voe forms an extensive harbor and provides the safest anchorage roadstead on the E side of the Shetland Islands.

Gruna Baas, a large rocky patch, has a least depth of 7.9m and lies about 1.5 miles N of the N extremity of Stava Ness. Numerous rocks, with depths of 9.1 to 12.8m, lie within this patch and the sea breaks heavily over them during S gales.

To the W of Hamera Head, the N side of the voe is composed of cliffs, which vary in height. A ferry terminal is situated within Laxo Voe, which indents the NW side of Dury Voe, 1.5 miles WNW of Hamera Head.

Green Isle, 16m high, lies on the S side of Dury Voe, 1.5 miles NW of Stava Ness. A beacon stands on the S extremity of this islet. Swarta Skerry lies on an area of foul ground, 0.5 mile NW of the islet.

Grunna Voe is entered at the S side of the head of Dury Voe. Anchorage can be taken in a depth of 18m within this voe. The holding ground is good and the inlet is well protected.

Caution.—Submarine cables lie in the approaches to Dury Voe and may best be seen on the chart.

15.51 Linga Sound (60°22'N., 1°01'W.), leading between Whalsay and Mainland, is the channel most commonly used by large vessels when approaching Dury Voe from the N. The tidal currents run strongly through this passage.

Baa of Wether Holm (60°23'N., 1°01'W.), a rock, has a depth of 4.3m and is the outer danger lying in the N approach to the sound.

West Linga, a narrow island, is 51m high and lies between Mainland and Whalsay. Linga Sound separates the island from Whalsay and Lunning Sound separates the island from Mainland. Whether Holm, 9m high, lies close N of the N end of West Linga. Calf of Linga, 2.5m high, lies close S of The Skate, the S extremity of West Linga.

The Skate of Marrister has been previously described in paragraph 15.48.

Bruse Holm, 31m high, lies 0.5 mile NW of The Skate. Several dangerous rocks lie between Bruse Holm and Swarta Skerry, at the E side of Lunning Sound.

15.52 Lunning Sound (60°22'N., 1°04'W.) is not usually used for the approach to Dury Voe from the N. It is obstructed by many dangers and the currents sometimes attain rates of 5 to 6 knots within it.

Swarta Skerg, the northernmost of the dangers on the E side of the sound, lies 0.8 mile WNW of the N extremity of West Linga. Marra Flaeshins, a detached rock, is 0.6m high. It lies about 0.3 mile ESE of Swarta Skerry and is surrounded by shallow shoals. Vessels should navigate with caution when approaching the sound from the N as the S tidal current sets strongly over the rocky flats.

Hunder Holm (60°21'N., 1°04'W.), an islet, lies 0.8 mile W of The Skate and obstructs the S entrance to Lunning Sound.

Tides—Currents.—The tidal currents run strongly through Lunning Sound and attain rates of 5 to 6 knots in the narrows lying between Score Holm and Mainland.

As the fairway channel widens, the rate of the currents decrease. Between Swarta Skerry and Mainland, the currents attain rates of about 3 knots. At the N entrance to the sound and 0.5 mile N of Score Holm, the S current begins 2 hours 40 minutes before HW at Stromness and the N current begins 4 hours 10 minutes after HW at Stromness. The S current runs for a longer period than the N, but its rate, which is 1.6 knots at springs, is usually less than that of the N current which is 2 knots at springs.

The S current sets strongly around the N end of Hunder Holm and, farther N, over the flat on which Score Holm, Little Linga, and Mara Flaeshins are located.

The channel lying between Hunder Holm and the Mainland is the recommended passage. Vessels using the channel lying between the E side of Hunder Holm and Bruse Holm, during the S current, should keep toward the E side of the fairway.

15.53 Dragon Ness, on Mainland, is located 1.5 miles NE of Hamera Head. The coast between this point and Lunning Head, 1.8 miles N, forms the W side of Lunning Sound.

Vidlin Voe (60°23'N., 1°07'W.) is entered between The Taing, located 1 mile WNW of Lunning Head, and the coast 0.5 mile NW. This voe is clear at its entrance and provides good shelter for a number of small vessels. The entrance has depths of 28 to 37m in the channel, which is somewhat constricted by several above-water rocks extending from the W and E sides. A ro-ro ferry terminal is situated on the W side of the head of this voe.

Swarta Skerry, a rock, is 2m high and lies about 0.2 mile off the W shore of the voe, near its entrance. A rock, with a depth of less than 2m, lies close S of this skerry. These two rocks form the easternmost dangers on the W side of Vidlin Voe.

Anchorage can be taken in depths of 18 to 20m close N of the narrow part of the voe. Small craft may proceed farther up the voe and anchor, in a depth of 9m. During NE and E gales, a swell sets into the narrow part of the voe and anchorage should be avoided.

Lunna Ness (60°27'N., 1°03'W.) is located 3.8 miles NE of the entrance to Vidlin Voe. A remarkable isolated rock, known as Mare of Lunna, stands near the shore, 1.5 miles SW of the point, and is very conspicuous.

Lunna Holm (60°27'N., 1°02'W.), 26m high, lies 0.2 mile NE of Lunna Ness. A light is shown from a prominent tower, 19m high, standing on the N side of this island. Longa Skerry, 5m high, lies among several small rocks, 0.2 mile E of the light.

Caution.—A submarine pipeline, which may best be seen on the chart, extends from a point on the coast, located 2.3

miles SW of Lunna Ness, to the North Sea oil fields.

Lunna Holm to Point of Fethaland, including Yell Sound

15.54 The NE side of Mainland, from Lunna Holm to **Point of Fethaland** (60°38'N., 1°18'W.), is indented by many voes and firths. Yell, a large island, lies NE of this stretch of coast and is separated from Mainland by Yell Sound. This latter passage is 1.5 miles wide in its narrowest part. Numerous islands, holms, and rocks lie within Yell Sound. An intricate channel leads through the sound and connects the W side of the Shetland Islands with the E side.

Yell Sound has two entrances. The primary NW entrance, which is suitable for large and deep-draft vessels, lies on the W side of Yell Sound and is entered E of Gruney. The SE entrance is used mostly by small vessels and coasters. Both routes merge at the entrance to Sullom Voe.

Heoga Ness (60°29'N., 1°02'W.), a small peninsula, is located at the SE end of Yell, on the N side of the E entrance to Yell Sound. Yell Sound is entered between Heoga Ness and Lunna Holm, 2 miles S. Windi Clett, an isolated mass of rock, lies close off this peninsula and is very prominent.

Cloa Rock, with a least depth of 1.8m, lies 1 mile S of Heoga Ness, on the N side of the entrance to Yell Sound. A rocky patch, with a least depth of 10.6m, lies about 0.2 mile ESE of this rock. The sea breaks violently over this whole area during gales.

Muckle Skerry of Neapaback, a long and flat rock, is 5m high and lies 0.5 mile E of the S end of Heoga Ness. A small rock, 0.9m high, lies 0.2 mile W of this skerry.

Ness of Copister is located on the S coast of Yell, 2 miles W of Heoga Ness. Orfasay, 21m high, lies 0.3 mile SW of this point. Yell Baa, a drying rock, lies close off the S extremity of this island.

A rocky patch, with a depth of 3.7m, lies about 0.5 mile W of the S extremity of Orfasay and is marked by breakers during gales. Depths of less than 11m extend up to about 0.2 mile N from this patch.

15.55 The Rumble (60°28'N., 1°07'W.) is the larger of two rocks which constitute one of the most serious dangers within Yell Sound. A rapid running current sets in the vicinity of these rocks. The Rumble, which is almost covered at HW, lies about 0.6 mile SW of the S end of Orfasay. The other rock lies 0.1 mile SE of The Rumble and dries 0.3m. A beacon, equipped with a racon, is situated on The Rumble.

Burga Skerry, which dries 2.1m, lies 1 mile NE of Orfasay. It is generally marked by tide rips or breakers, except in very calm weather.

Holm of Copister lies 1 mile W of Ness of Copister. Broch, an islet, lies close S of the latter point. It is 12m high and surmounted by a tower. A ferry terminal is situated within the Bay of Uls-ta, which is entered 0.5 mile NW of Holm of Copister.

Samphrey (60°28'N., 1°09'W.), an island, divides Yell Sound into two channels. The channel leading between Samphrey and the W coast of the sound is 0.5 mile wide and has a least depth of 20.1m in the fairway. It is the safest channel and is recommended for use by all vessels.

A ledge, with depths of 7.3 to 10.1m, extends 0.3 mile NW

from the W extremity of the island.

Firth Ness (60°26'N., 1°10'W.) is located 4 miles WSW of Lunna Holm. The approach to the entrances of Dales Voe, Col-la Firth, and Swining Voe lies between this point and the island.

Fish Holm, 19m high, and Linga, 39m high, lie 1.3 miles NE and 0.3 mile NE, respectively, of Firth Ness. Sinna Skerry, 3m high, and several other rocks, lie on a rocky ledge which obstructs the passage leading between Linga and Fish Holm. A light is shown from the N end of Linga. Stoura Baa, with a least depth of 3.4m, and a shoal, with a depth of 4.9m, lie 1 mile ESE and 1.3 miles E, respectively, of Fish Holm.

Caution.—A submarine oil pipeline, which extends to the North Sea fields, lies in the entrance to Yell Sound and may best be seen on the chart.

15.56 Bigga (60°30'N., 1°12'W.), an island, is 33m high and lies 1 mile NW of Samphrey. It further divides Yell Sound into two channels. The island is separated from the E side of Mio Ness, on its SW side, by a channel, which is 0.5 mile wide and has depths of over 18m. Another channel, leading between the E side of the island and the coast of Yell, has a fairway which is 0.5 mile with depths of over 18m. Both of these channels are clear of dangers, with the exception of a rock, with a depth of less than 2m, lying close off the NW extremity of Bigga. Rocks, with depths of less than 2m, also extend up to 0.2 mile N from the N end of Bigga.

Sligga Skerry, a rock, is 2.1m high. It lies about 0.8 mile NE of the N extremity of Mio Ness and about 0.3 mile NW of the NE extremity of Bigga. Several drying rocks lie close S of this skerry.

A light is shown from a tower, 4m high, standing on the NE extremity of Mio Ness. A prominent mast, 107m high, is situated near the summit of a hill which rises 1.8 miles SSW of the light.

Caution.—Submarine cables, which may best be seen on the chart, lie across Yell Sound, in an area located close S of Bigga.

A ferry crosses Yell Sound close S of Bigga.

15.57 Ness of Sound (60°31'N., 1°12'W.), a rounded peninsula, is connected to Yell by a narrow neck of land. It projects 0.3 mile W from the coast and is marked by a light at the W extremity.

Uynarey Island lies 0.5 mile SW of Ness of Sound and 0.3 mile N of the N end of Bigga. Dangerous rocks lie between the two islands.

Brother Isle (60°31'N., 1°13'W.), lying at the N end of the narrow part of Yell Sound, is located 1 mile N of Mio Ness. A rocky ledge extends 0.3 mile SE from its SE extremity and is marked by strong tide rips. Vessels are cautioned to give this ledge a wide berth.

A directional light is shown from the NW side of Brother Isle, but is visible only from the SSE.

Stoura Baa, a rock, dries 0.9m and lies 0.3 mile N of Brother Isle. The N side of this rock is steep-to, but depths of less than 4m extend up to 0.1 mile from the S side.

15.58 Tinga Skerry (60°31'N., 1°15'W.), a large rock, is 5m high and lies 1 mile NW of the N extremity of Mio Ness. It

is separated from Brother Isle, at the NE side, by a deep channel which is about 0.5 mile wide. A shoal patch, with a depth of 3.4m, lies 0.1 mile N of this rock and a rocky ledge, part of which dries 2.1m, extends up to 0.1 mile ENE from it.

A light is shown from a tower, 5m high, standing on Tinga Skerry.

Little Roe (60°30'N., 1°16'W.), an islet, has red cliffs, 23m high, and lies in the approaches to Sullom Voe and Orka Voe. The islet is separated from Calback Ness, the NW part of the Mio Ness promontory, and from Tinga Skerry by clear channels, each about 0.5 mile wide. A light is shown from the NW side of this islet.

Caution.—Anchoring and fishing are prohibited within an area, which may best be seen on the chart, lying between Little Roe and Calback Ness. An outfall pipeline, marked by lighted buoy, lies in this area.

Lamba Island (60°31'N., 1°17'W.), 34m high, lies 1 mile NW of Little Roe and shallow shoals extends up to 0.2 mile N from its NE end.

A sector light and a directional light are shown from a tower, 8m high, standing on the SW end of the island. A beacon is situated close ESE of the lights.

The Fjord (60°32'N., 1°16'W.), a small rock, has a least depth of 2.4m and lies in the middle of Yell Sound, 1 mile NNE of Lamba Island. This rock is steep-to, but during N gales, the sea breaks heavily over it. At such times, this small rock is extremely dangerous.

15.59 Linna Baa lies 1 mile E of The Fjord. It consists of two small groups of rocks, which lie 0.1 mile apart and are steep-to. The southernmost group has a least depth of 3.7m and the northernmost group has a least depth of 5.3m. The sea breaks heavily over both of these groups during N gales.

Little Holm, a small islet, is 9m high and lies almost in the middle of Yell Sound, 1.3 miles N of The Fjord. Its N end is fronted by a few detached rocks. The islet should not be approached within 0.2 mile. A light is shown from a tower, 7m high, standing on the islet and a white hut is situated close to it.

Beaufort Bank is narrow and has a least depth of 7.1m. It extends 0.5 mile S from a position lying 0.5 mile SE of Little Holm.

South Ladie Bank, with a least depth of 16.5m, lies 1 mile E of Beaufort Bank and 0.8 mile W of the coast of Yell. Muckle Holm, a narrow islet, lies 1.3 miles N of Little Holm and is the northernmost of the dangers lying in the middle of Yell Sound. Several rocks front the S end of this islet. The outermost rock has a depth of 10.7m and lies 0.3 mile offshore. A light is shown from a tower, 7m high, standing on the summit of the islet.

The **Ness of Queyfirth** (60°32'N., 1°19'W.) is the E extremity of a narrow peninsula which is 109m high and located on the W side of Yell Sound. Colla Firth is entered N of this peninsula and Quey Firth is entered S of it. A directional light is shown from a tower, 5m high, standing on the SE extremity of Ness of Queyfirth.

The **Ness of West Sandwick** (60°34'N., 1°12'W.) is a small peninsula extending S from the E shore of Yell Sound, 2.3 miles N of Ness of Sound. It rises to a height of 43m and forms Southladie Voe, a narrow inlet on the E side.

The **Holm of West Sandwick** (60°35'N., 1°12'W.), a long

and narrow islet, is grass-covered and 18m high. It lies 1.5 miles NNW of the S extremity of Ness of West Sandwick and 0.3 mile offshore. A small above-water rock lies close NW of its N end and a rocky ledge extends 0.3 mile S from its S end. A rock, with a depth of 3m, lies near the S edge of this ledge.

15.60 Outer Skerry (60°33'N., 1°18'W.) is located off the W shore of Yell Sound, 1.8 miles NNE of Ness of Queyfirth. It is the outermost of a group of skerries which extends up to 0.2 mile E from Ayre of Skea, a narrow neck of land projecting E from the shore.

Billia Skerry, a small rock, lies 0.3 mile NW of Outer Skerry and about 0.2 mile offshore. Longa Skerry lies about midway between Billia Skerry and Ayre of Skea. In daylight, when the visibility is good, this group of skerries is visible at a considerable distance and may be approached to within 0.2 mile. A light is shown from a tower, 12m high, standing on Outer Skerry.

Burra Voe is entered 2 miles NNW of Outer Skerry and may be identified from a distance by some prominent buildings standing on its shore. There are several rocks, one of which dries 0.6m, lying in the center of the entrance to this bay.

South Holm of Burravoe, with two detached rocks lying on its N side, lies 0.3 mile ENE of the N entrance point of Burra Voe.

North Holm of Burravoe, 9m high, lies 0.2 mile NE of South Holm of Burravoe. Foul ground lies between these rocks and the shore. During clear weather, these rocks are visible at a considerable distance and may be approached to a within 0.2 mile.

Sweinna Stack, 23m high and grass-covered, lies close off the E shore of Yell Sound, 1.3 miles N of Holm of West Sandwick. The coast extending N of the stack consists of high and precipitous cliffs and is fronted with several conspicuous sharp stacks. This part of the shore should be given a wide berth due to the swell which generally sets toward it.

Tides—Currents.—There are numerous eddies in Yell Sound and violent turbulence occurs around The Rumble, where the tidal currents run very strongly. On the N side of the E entrance, between Heoga Ness and Orfasay, the E current begins about 5 hours 30 minutes before HW at Stromness and runs for about 3 hours 30 minutes. The W current begins about 2 hours before HW at Stromness and runs for about 9 hours. The velocities and durations of these tidal currents are considerably affected by meteorological conditions.

In Yell Sound, the currents begin about 3 hours 30 minutes earlier than the corresponding currents, which run across the entrance, E of a line extending between Heoga Ness and Lunna Holm. The change in time probably occurs quickly to the W of that line and there is probably turbulence near the line during the S current, especially off Lunna Holm.

Directions.—Vessels bound through Yell Sound from the N should steer in the white sector of Ness of Sound Light. They should pass E of Muckle Holm, Little Holm, and South Ladie Bank. Vessels should then alter course as necessary to pass about 0.2 mile W of Ness of Sound, about 0.3 mile E of the SE end of Bigga, W and S of Samphrey, and between Cloa Rock and Lunna Holm. Vessels bound through Yell Sound from the E should pass between Cloa Rock and Lunna Holm, steering in the white sector of Firths Voe Light. On passing the S extremity of Samphrey, vessels should alter course as necessary to pass midway between the W extremity of Samphrey and the coast to

the SW. Vessels should then alter course to the N so as to pass about 0.3 mile E of the SE extremity of Bigga. They should then stay in mid-channel, passing E of Uynarey, located 0.2 mile W of Ness of Sound, and E of South Ladie Bank. Although the depths in the fairway passing S and W of Samphrey are less than those in the fairway passing E and N of the island, the former channel is preferred, especially at night, on account of the dangers in the vicinity of The Rumble and the assistance of several sector lights.

Caution.—A heavy sea always forms in the N entrance to the sound during NW gales when the N current is running. Under these circumstances, the sea is particularly heavy near the islands and skerries lying on the W side of the N entrance. In this locality, overfalls and tide rips are also usually formed, even in good weather.

15.61 Hamna Voe (60°30'N., 1°06'W.), although exposed to SE gales, has good holding ground. Vessels can obtain anchorage, in a depth of 12.8m, in mid-channel, before arriving at the narrow portion of the inlet.

Swining Voe (60°25'N., 1°09'W.) is entered between Cul Ness and Noness Head, 1 mile NW. It extends in a S direction for 1.8 miles and is narrow and shallow near the head. The W shore of this voe is fairly steep-to with depths of 14m lying close offshore. About 1 mile within the entrance, the depths decrease rapidly toward the head. Vessels entering Swining Voe should proceed in mid-channel and anchor, in a depth of 18m, with the NW side of Cul Ness bearing 027°. Good anchorage may also be obtained, in a depth of 42m, mud and shingle, about midway between Noness Head and Cul Ness.

Dales Voe (60°25'N., 1°12'W.) has a least depth of 25m in the entrance fairway. The shores on both sides of this voe are steep-to with the exception of Scarvar Ayre, a shingle beach, located on the NW side. Anchorage can be taken anywhere in the voe, but the usual berth lies in a depth of 20m in the middle and just below Scarvar Ayre.

Vessels are cautioned that, during W winds, strong gusts descend with great violence from the high land enclosing this voe.

Orka Voe (60°29'N., 1°16'W.) is free from dangers. The bottom shelves regularly in every direction and anchorage can be taken in any convenient depth. Vessels are advised against proceeding into depths of less than 12m as the width of the voe is very constricted toward its head.

Colla Firth (60°32'N., 1°20'W.) is free from dangers. The best anchorage lies, in a depth of 27m, about 0.4 mile S of a jetty, which is situated at the head of an inner bay lying on the N side of the firth. This anchorage is exposed to E gales, but the holding ground is fairly good.

Sullom Voe

15.62 Sullom Voe, one of the longest inlets in the Shetland Islands, is entered between Skaw Taing, the N extremity of Calback Ness, and Trumba, the N extremity of Gluss Isle, 1.8 miles NW.

About 5.5 miles within the entrance, the voe narrows to a width of 0.3 mile. It then widens again and extends 1.3 miles SW to the head.

A spit, with depths of less than 6m, extends 0.5 mile E from Fugla Ness, which is located on the W side of the voe 3 miles S

of Trumba. Ungam, a conspicuous rock, lies on this spit and is marked by a light.

The village of Sullom, which has a conspicuous church, stands on the W side of the voe, 0.5 mile SW of Fugla Ness.

A jetty, 220m long, extends ESE from the shore, 0.3 mile SSW of the village. The jetty face is 30m long and has depths of 3.7 to 4.5m alongside. It is used by vessels of up to 70m in length for loading aggregates from local quarries.

15.63 Sullom Voe Oil Terminal (60°28'N., 1°18'W.) (World Port Index No. 32630) is a major facility situated on the E side of the voe, 2 miles within the entrance. The terminal processes and exports oil received by pipeline from offshore fields. Liquefied petroleum gas is also handled.

There are two approaches to the port through Yell Sound. The deep-draft route leads through the N entrance of Yell Sound and follows the W part of the sound. Smaller vessels, including coasters, use the SE entrance to Yell Sound. Both of these routes merge at the entrance to Sullom Voe.

Tides—Currents.—The tides rise about 2.3m at springs and 0.6m at neaps.

The main current flows S on the flood and N on the ebb. Although current rates up to 7 knots may be experienced in areas of Yell Sound, records indicate that the maximum current likely to be experienced within Sullom Voe, on the deep-draft route, is unlikely to exceed 1 knot.

Depths—Limitations.—Vessels enter the port through Yell Sound. The NW entrance is the primary one used by large vessels. The SE entrance can be used by gas tankers and coasters, up to 200m in length and 11.6m draft.

The harbor is presently designed to accept tankers of up to 365m in length and 24m draft; and LPG carriers of up to about 260m in length and 16.8m draft.

In addition to liquid bulk and LPG cargo, the port handles general, dry bulk, and ro-ro vessels.

For the purpose of maneuvering in the approaches, a minimum under keel clearance of 2m is required; a minimum under keel clearance of 1m is required when alongside the berths at the terminal.

A small jetty, 100m long, is situated close E of the oil terminal; both the N and S faces of this jetty have depths of 2.9 to 8.0m alongside and are used by coasters and small ro-ro vessels.

A small jetty is situated on the S side of Garth Voe, 0.8 mile SSE of the terminal. It has two berths, 41 and 65m long, with depths of 4m alongside.

At the terminal there are four jetties equipped with mooring dolphins.

Jetty No. 1 can be used by tankers up to 286m in length and 16.8m draft; it can also be used by gas tankers up to 286m in length.

Jetty No. 2 can be used by tankers up to 365m in length and 22.1m draft.

Jetties Nos. 3 and 4 can be used by tankers of up to 365m in length and 24m draft, however Jetty No. 4 is reportedly closed (2012).

Generally, tankers are limited to a size of 350,000 dwt. However, larger vessels may be handled at the discretion of the harbor master. It has been reported that a tanker of 412,600 dwt was accommodated at the port.

Aspect.—The harbor area includes the waters of Yell Sound



Sullom Voe Harbor



Sullom Voe Terminal

and Sullom Voe lying S of a line extending E from Point of Fethaland and W and N of a line joining the SE extremity of Ness of Copister, the SE extremity of Orfasay, The Rumble, the S extremity of Samphrey, and a point located on Mainland close

W of the S extremity of Samphrey.

Pilotage.—Pilotage is compulsory within the harbor limits for all vessels over 300 gt and all vessels carrying dangerous substances. Vessels passing through the area and remaining to

the N of a line extending between the N extremity of Gluss Island and Calback Ness are exempt.

Pilots generally board about 2 miles E of Point of Fethaland or 3 miles ENE of Lunna Holm. When the sea conditions warrant, pilots may board, or disembark from certain vessels by helicopter.

Vessels should send an ETA to Sullom Voe at least 24 hours in advance or upon leaving the previous port, if less than 24 hours away. The full ETA message requirements, which are extensive, can be obtained from Sullom Voe VTS via e-mail, telephone, or facsimile.

The ETA should be confirmed 6 hours in advance and when, within VHF range, on VHF channel 14.

Vessel Traffic Service.—Vessels entering or leaving the harbor area or transiting Yell Sound are requested to contact Sullom Voe VTS on VHF channel 16.

When using the N entrance, vessels should report the time of passing the following call-in points, which are shown on the chart, to Sullom Voe VTS:

1. The pilot boarding position.
2. When passing W of Muckle Holm.
3. When passing E of Ness of Queyfirth.
4. When entering Sullom Voe.

When using the SE entrance, vessels should report the time of passing the following call-in points, which are shown on the chart, to Sullom Voe VTS:

1. When passing W of the N extremity of Samphrey.
2. In the entrance to Sullom Voe.

Fishing vessels must report their intentions to Sullom Voe VTS and update the station every 2 hours when operating in the deep-water channels leading to the voe.

Full radar coverage exists for Yell Sound and Sullom Voe. The radar tower is situated on Vats Houllands (60°28.0'N., 1°17.5'W.). Sullom Voe VTS maintains a continuous radar watch and the transit of each vessel is monitored. Advice is available to vessels on request.

Contact Information.—Sullom Voe VTS can be contacted, as follows:

1. VHF: VHF channels 16 and 14
2. Telephone: 44-1806-242344
3. Facsimile: 44-1806-242118
4. E-mail: sullomvoevts@shetland.gov.uk

Anchorage.—There are no suitable anchorages available within Sullom Voe for vessels over 183m in length. Anchorage within Yell Sound is not recommended due to the depth of water, strong tidal currents, and generally poor holding ground. The port authorities advise vessels, which are faced with extended berthing delays, to anchor within Colgrave Sound. Designated anchorage berths, which may best be seen on the chart, have been established within this latter sound.

Vessels anchoring within Colgrave Sound should note that the berths lie outside of the Sullom Voe harbor limits. However, they are requested to report their anchorage positions to the port control.

Directions.—Vessels entering Yell Sound from the N should steer on the Gluss Island range line, bearing 194.75°, and pass to the W of Muckle Holm, Little Holm, and Lamba. Sector lights then indicate the SE course leading to the entrance of the voe. The fairway limits within the voe are indicated by transit ranges and marked by lighted buoys; vessels should steer accordingly.

Vessels entering Yell Sound from the E, should steer in the white sector of Firths Voe Light and pass between Lunna Holm and Cloa Rock. When S of Samphrey, they should alter course in order to put the white sector of Brother Isle Light ahead and pass W of Samphrey and Bigga. When approaching the NW end of Bigga, vessels should alter course in order to put the white sector of Lamba Light ahead and pass between Tinga Skerry and Little Roe. They should alter course as necessary to round Little Roe and then steer in a SW direction toward the entrance of the voe.

A sector light is shown from the radar mast standing on a hill in the area of Vats Houllands and another sector light is shown from Bardister. These lights, which are situated on the W side of the voe, assist large vessels to negotiate the turns in the fairway channel.

Caution.—The prevailing wind direction is SW. However strong winds are often experienced within the voe and may be accompanied by sudden gusts from any direction.

Vessels proceeding to and from Sullom Voe are advised that significant numbers of fishing vessels operate in the sea routes generally used by tankers and consequently caution should be exercised when proceeding to the terminal.

It should be noted that use of the Deep-Draft Route lying W of The Hebrides does not give deep-draft vessels any privileges in relation to other vessels when navigating this area.

Yell and Fetlar

15.64 Yell is a large island composed of long, parallel ridges which are formed of gneiss rock. These ridges are covered with deep beds of peat moss and slope gradually toward the coast.

Heoga Ness (60°29'N., 1°02'W.), a small peninsula located at the SE end of Yell, was previously described in paragraph 15.54.

Stack of the Horse, a conspicuous and conical mass, is connected to the coast by a neck of lower ground. It is located 0.8 mile N of Windi Clett.

The **Ness of Gossabrough** (60°32'N., 1°01'W.) is located 2.3 miles N of Heoga Ness. The common entrance to Wick of Gossabrough and Otters Wick, two small bays, lies between Ness of Gossabrough and Ness of Queyon, 1 mile N.

Wick of Gossabrough is entered between the N extremity of Ness of Gossabrough and Saddle of Swarister, 0.5 mile NW. This small bay is used as an anchorage in good weather and a small pier, which is used by local vessels, is situated on its S side. Small vessels generally anchor, in a depth of 12.8m, about 0.2 mile N of the pier. However, this berth, which has poor holding ground, should never be used during E winds.

Wick Skerry, a reef that dries 0.9m, lies in the E approach to Wick of Gossabrough. It nearly always breaks, even when covered. Black Skerry, 4m high, lies 0.8 mile NW of Wick Skerry, in the approach to Otters Wick. This latter bay is encumbered by several rocks.

Caution.—A foul ground area, which may best be seen on the chart, lies 1.5 miles ENE of Ness of Gossabrough.

15.65 White Hill of Vatsetter (60°35'N., 1°00'W.) is located 3 miles N of Ness of Gossabrough. A light is shown from a prominent tower, 5m high, standing on this point. A small sker-

ry lies close offshore, 0.8 mile S of the light.

Colgrave Sound (60°35'N., 0°58'W.), which separates Yell from the island of Fetlar, is entered between White Hill of Vatsetter and Rams Ness, the SW extremity of Fetlar, 3.5 miles WSW.

Anchorage.—Anchorage may be obtained by large vessels within this sound. Designated anchorage berths have been established in the following positions from White Hill Light:

1. Berth No. 1, bearing 058°, distant 1.5 miles.
2. Berth No. 2, bearing 073°, distant 1.0 mile.
3. Berth No. 3, bearing 080°, distant 1.68 miles.

Anchoring in Colgrave Sound is not recommended when the wind speed, or the forecast wind speed, is expected to exceed a mean of 30 knots (Force 8 or above).

Vessels anchored in Colgrave Sound should obtain regular weather forecasts and any local updates issued by the coastguard or other sources. In the event of a forecast exceeding 30 knots, masters are recommended to proceed to sea in good time before the wind rises to the predicted level.

During periods of prolonged S winds, adverse swell conditions can build up in Colgrave Sound. There is no measuring device in the area and masters are urged to exercise caution when anchoring in such swell conditions.

Caution.—A foul ground area, which may best be seen on the chart, lies 1.3 miles E of White Hill Light and in the vicinity of the anchorage berths.

Colgrave Sound is used extensively by numerous fishing vessels.

15.66 Hascosay (60°37'N., 1°00'W.) lies on the NW side of Colgrave Sound, between Yell and Fetlar. A rocky ledge, with drying patches, extends up to 0.4 mile SSE of Ba Taing, the S extremity of this island. South Sound is entered S of the island and leads W into Mid Yell Voe N into Hascosay Sound, which can be used by vessels of up to 6.1m draft.

Basta Voe is entered between the N side of Hascosay and Burra Ness, 1 mile N. This voe extends 2.8 miles NW and gradually decreases in width towards its head. Vessels may anchor, in a depth of 22m, mud and sand, in the middle of the channel, about 1.3 miles W of Burra Ness. Small vessels may anchor, in depths up to 12m, about 1.5 miles farther up the voe.

Caution.—Several marine farms are situated in Mid Yell Voe and Basta Voe.

15.67 Fetlar (60°35'N., 0°51'W.) is a large island which is indented on its N and S sides.

Hamars Ness (60°38'N., 0°56'W.) is the NW point of the island. A ferry terminal is situated at Oddsta, close S of the point.

The W and SW sides of the island are clear of off-lying dangers. Brough Lodge, a prominent house, and a tower, stand 0.2 mile inland of Ness of Brough, the W extremity. Corbie Head, a high and red cliff, is located 0.6 mile SSE of Ness of Brough.

Rams Ness, 3.3 miles SSE of Ness of Brough, is the SW extremity of the island. A rocky bank, on which a drying rock lies, extends up to about 0.2 mile S from this point.

Wick of Tresta (60°35'N., 0°52'W.) is entered between Head of Lambhoga, located 1 mile ENE of Rams Ness, and The Snap, 1.3 miles E.

A dangerous rock was reported to lie about 0.2 mile E of

Head of Lambhoga and a detached rock, 2m high, lies close S of The Snap.

The shores of the bay are bold and there are no off-lying dangers. Leagarth House is prominent and stands on the N shore of the bay, 1.5 miles N of Head of Lambhoga. A prominent mansion is situated in the village of Iresta, at the head of the bay. The sand fronting the head of the bay is reported to be highly magnetic.

Good anchorage can be taken, in a depth of 9m, sand, near the head of the bay. However, it must be remembered that the bay is fully open to the SE and gales from the W form a considerable swell around Head of Lambhoga. Anchorage can also be taken, in a depth of 25m, stiff gray sand, about 0.5 mile S of Leagarth House.

15.68 Strandburgh Ness (60°37'N., 0°46'W.), located 3 miles NNE of The Snap, is the NE extremity of the island. A small islet lies close off this point.

Wick of Gruting is entered between Strandburgh Ness and Busta Pund, a headland 71m high, 1.8 miles WNW. This bay is open to the N and serves as an anchorage only in good weather. Both sides of the bay have no off-lying dangers and the holding ground is good.

Tressa Ness, the N extremity of the island, is located 1 mile WNW of Busta Pund. Il Holm, 21m high, lies close offshore, 0.5 mile WNW of Busta Pund. The Clett, an inaccessible and conspicuous rock, is 48m high and lies close NE of Busta Pund.

Urie Ness is located 1.3 miles WSW of Tressa Ness and the shore extending between forms a bay. The Flaeshins, a group of above-water rocks, obstructs the W side of the bay. Daacy, an islet, lies 0.3 mile NE of Urie Ness.

Urie Lingey, an islet, is 20m high and lies 0.5 mile N of Urie Ness. An above-water rock lies close off its NW extremity. The area in the vicinity of these islets is foul and should not be entered.

Tides—Currents.—At a position about 4 miles N of Out Skerries Light, the S tidal current, with a velocity of 0.5 knot at springs, begins 2 hours 15 minutes before HW at Stromness. The N current, with a velocity of 0.5 knot at springs, begins 3 hours 45 minutes after HW at Stromness. The S current runs S across the entrance to the bay, between Fetlar and Out Skerries. This current then sets SW into the bay, where it is joined by the S tidal current flowing through Colgrave Sound. It then runs S across the entrances to Yell Sound, Linga Sound, and Lunning Sound, and SE between Whalsey and Out Skerries. The N current runs in about the opposite directions.

15.69 Bluemull Sound is approached from the E between Strandburgh Ness, the NE extremity of Fetlar, and Ness of Ramnageo, 4 miles NW. The conspicuous ruin of a square castle stands on an eminence, 1 mile N of Ness of Ramnageo.

Haaf Gruney (60°40'N., 0°50'W.), an islet, is 18m high and lies 0.8 mile SSE of Ness of Ramnageo. A bank, with several rocks, fronts the NW and N sides of this islet. A shoal, with a depth of 7.9m at its extremity, extends up to about 0.1 mile SW from the S side of the islet.

A rocky patch, with a depth of 11.1m, lies about 0.5 mile NW of Haaf Gruney. This patch has not been thoroughly examined and the sea breaks heavily over it during gales.

Caution.—A magnetic anomaly was reported to exist between Ness of Ramnageo and Haaf Gruney.

15.70 Uyea (60°40'N., 0°54'W.) lies close off the S coast of Unst (60°45'N., 0°52'W.) 1.5 miles W of Haaf Gruney. Skuda Sound separates this island from Unst on the NE side and Uyea Sound separates it from Unst on the NW side. Skuda Sound narrows to a width of only 0.1 mile between the coastal banks and has a depth of 6.6m. Uyea Sound narrows to a width of 0.1 mile and leads into a bay on the S side of Unst. Several marine farms are situated in this sound.

Hawks Ness, fronted by a shoal on its S side, is the S extremity of Uyea. A group of rocks, which dry, lie close offshore, about 0.2 mile NE of the point.

Wedder Holm, an islet, is 12m high and lies 0.3 mile SSE of Hawks Ness. Shoals front the N and W sides of this islet and The Hog, a detached rock, lies close off the SE side. The Baa, a rocky ledge, has a least depth of 3.4m and extends 0.5 mile SE from Wedder Holm. This islet should be given a berth of at least 0.8 mile on its S side.

Several prominent buildings stand on high ground near the center of Uyea.

Holm of Heogland lies close off the SW extremity of Unst and is connected to it by a drying, rocky ledge. A shoal patch, with a depth of 3.6m, lies about 0.2 mile S of this holm.

South Gruney, an islet, lies 0.8 mile N of Hamars Ness. Several below and above-water rocks lie close off its N and W sides. A wreck, with a depth of 11m, lies 0.3 mile S of this islet.

Linga, a narrow island, lies nearly parallel to the coast of Yell (60°35'N., 1°05'W) 1.3 miles NW of South Gruney. Ling Sound, 0.3 mile wide, separates this island from the coast.

15.71 Bluemull Sound (60°42'N., 0°59'W.) is entered from the S between the S end of Linga and Holm of Heogland, 0.8 mile NE. Due to the strength of the currents passing through this sound, there are no good anchorages.

Wick of Gutcher is a small bay lying on the side of the sound, W of the N extremity of Linga. A ferry terminal is situated in this bay.

Culli Voe lies 1.8 miles N of Wick of Gutcher and is shallow. This inlet is entered between a point located on the coast and the SW end of Ness of Cullivoe, 0.2 mile W. A pier, with a depth of 3.5m alongside its head, extends 42m from the shore, close S of the W entrance point. A breakwater extends 100m E from the shore, close S of the pier.

Wick of Belmont is entered between Head of Mula, located 0.5 mile NW of Holm of Heogland, and Hoga Ness, 0.5 mile NW. This bay has a rocky bottom and a small bank fronts the shore. A ferry terminal is situated at the head and a conspicuous mansion stands 0.2 mile inland of it.

Blue Mull, the NE entrance point, lies 2.3 miles N of Hoga Ness. Snarra Voe, which is shallow and has a boat landing, lies 1.3 miles S of Blue Mull.

Tides—Currents.—In a position about 2 miles NE of Strandburgh Ness, the S tidal current begins 1 hour 15 minutes before HW at Stromness. The N tidal current begins 4 hours 45 minutes after HW at Stromness.

The S current, after passing Haaf Gruney, divides into E and W branches. The E branch runs SE and S around Strandburgh

Ness, and the W branch runs W between Fetlar and Uyea (60°40'N., 0°54'W.), and S through Colgrave Sound. The N current runs in about the opposite directions.

In the S entrance to Bluemull Sound, the S current begins 4 hours 45 minutes before HW at Stromness and the N tidal current begins about 1 hour 15 minutes after HW at Stromness. The velocity of these currents in the narrower parts of the channel, in both directions, is 6 to 7 knots at springs, but less in other parts of the sound.

At the S entrance to Uyea Sound (60°41'N., 0°55'W.), the E current begins 5 hours 30 minutes before HW at Stromness. The W current begins 2 hours 15 minutes before HW at Stromness. An eddy is said to occur during the latter half of the E current, between Uyea and Holm of Heogland.

The currents in the S entrance to Bluemull Sound begin about 2 hours 30 minutes earlier than the corresponding currents in the SE approach. The change probably occurs quickly, on a line joining Burra Ness, the S end of Linga, and Holm of Heogland (60°40'N., 0°57'W.). In all probability, there is turbulence near that line during the S current in Bluemull Sound, which meets the approach currents running across the entrance.

Off the N entrance, the tidal current is probably rotary and weak, as off the N entrance to Yell Sound.

In Bluemull Sound, the S tidal current begins about 2 hours 30 minutes before HW at Stromness. The N current begins about 3 hours 30 minutes after HW at Stromness. The velocity of these currents in the narrower parts of the sound, in each direction, is 6 to 7 knots at springs, but less in the wider parts. However, the velocities and durations of the tidal currents are considerably affected by meteorological conditions.

During the S current, a line of tide rips extends across the entrance to Culli Voe. Within this line there is a N eddy, which turns E along the N shore of the voe.

During N gales, a heavy sea is formed in the N entrance to Bluemull Sound during the N current. The current is said to run strongly off the N coast of Yell in the W approach to the sound.

Caution.—Submarine cables, which may best be seen on the chart, lie across Bluemull Sound.

A ferry crosses Bluemull Sound and the route is indicated on the chart.

Unst

15.72 The island of Unst (60°45'N., 0°52'W) is the northernmost of the Shetland Islands and a valley runs through its whole length. To the W of this valley, a long ridge extends to Byrie of Scord (Vallafied Hill). This latter hill is 215m high and rises 2.5 miles NE of Blue Mull, the NE entrance point of Bluemull Sound.

The E coast of Unst extends 10 miles NNE between Ness of Ramnageo (60°41'N., 0°51'W.) and Holm of Skaw, the NE extremity of the island. The shore is indented and above it the black, yellowish serpentine hills rise with a dreary aspect.

Mu Ness (60°41'N., 0°50'W.) is located 1 mile NE of Ness of Ramnageo. Hungs Holm lies at the seaward end of a reef which extends 0.2 mile S from this point. Colvidale Baas, with a depth of 7.6m, lies 0.5 mile SE of Mu Ness.

Ham Ness, the N end of a small peninsula, is located 0.8 mile N of Mu Ness. Shoal patches, with a least depths of 4.4m, lie 0.5 mile SE and 0.3 mile N of the point. The Vere, a reef of

which the NE part is above-water, lies on a bank, 0.8 mile NE of Ham Ness.

15.73 Huney Island (60°44'N., 0°48'W.) lies 0.3 mile offshore, 2.5 miles NNE of Ham Ness. It is 20m high, grassy, and flat-topped. The SW and NW sides of this island are fronted by foul ground. Foul ground also extends up to 0.1 mile S from the S side. A small islet, 9m high, lies close off the E side of the island and another small islet, 7m high with a shallow rock close N of it, lies close off the NE side. A shoal patch, with a depth of 7.8m, lies close SE of the islet.

Balta (60°45'N., 0°47'W.), a long narrow island, forms the N side of South Channel. This latter passage has a depth of 29m in the fairway and leads to Balta Sound. Salta Skerry, which dries 1.5m, lies close S of the S extremity of Balta and foul ground fronts its S side.

The W coast of Balta, which is low and sandy, has no off-lying dangers. The NW side of the island is fronted by foul ground. North Channel, which leads to the N end of Balta Sound, is entered between the NW side of Balta and the E extremity of Swinna Ness, 0.3 mile W. The fairway of North Channel has a depth of 11m and is only about 90m wide.

The E coast of Balta, which is irregular and steep-to, consists of steep cliffs and is fringed by several detached rocks. Vessels are advised to give the E side of Balta a wide berth.

A light is shown from a prominent white house, 6m high, standing on the S extremity of this island.

15.74 Balta Sound (60°45'N., 0°48'W.) can be entered through South Channel or North Channel. South Channel, being wider and deeper, is the recommended passage. However, a heavy swell forms in this sound during strong SE winds and renders it dangerous for small vessels.

North Channel is narrow and has several dangers lying within it. Black Skerries of Balta, a group of rocks, lies on a reef that extends 0.1 mile NW from the NW side of Balta. The tallest and northeasternmost of these rocks is 2.4m high.

The W shore of Balta Sound is clear of off-lying dangers between a point on Unst, located 0.3 mile W of The Givv and Swarta Skerry, 0.6 mile N.

It is reported that a light, for the use of aircraft, is shown occasionally from a radio mast standing on the coast, about 0.3 mile WNW of The Givv.

Vessels may anchor as convenient within Balta Sound wherever swinging room is available. Small vessels should anchor as near Balta as possible, to obtain better protection from S winds, and to avoid the strength of the current passing through the sound. A good berth, which is sheltered from all winds except those from S and SW, lies in a depth of 12m, sand, abreast the middle of Balta.

Tide—Currents.—In Balta Sound, the S current begins 1 hour 55 minutes before HW at Stromness and the N current begins 4 hours 5 minutes after HW at Stromness. In North Channel the currents attain velocities of 1.5 knots, but in South Channel, the velocities do not exceed 0.8 knot.

Caution.—Vessels entering Balta Sound should proceed in mid-channel through South Channel and anchor as convenient. North Channel should only be used by small vessels with local knowledge.

15.75 Balta Harbor is entered between Skeo Taing and a group of detached rocks, the largest being 3m high, which lie close off the S side of Swinna Ness.

Depths of 11m lie in the entrance and in the center of the E part of the harbor. The space within the harbor is somewhat restricted by shoals extending from both shores. A stony patch lies in the middle of the harbor, about 0.3 mile NW of Skeo Taing. It has a least depth of 4.9m and is marked by a lighted buoy. A shoal bank, with a least depth of 3.7m, lies 0.1 mile SW of this stony patch and about 0.2 mile off the S shore.

Baltasound Pier is situated on the N shore of the harbor, 0.7 mile within the entrance. Three concrete berths lie at the head of this wharf. East Berth, 30m long, has a depth of 3m alongside; South Berth, 26m long, has a depth of 5m alongside; and West Berth, 30m long, has a depth of 4m alongside. Vessels of up to 1,550 dwt and 78m in length can be accommodated.

Vessels may anchor as convenient, in a depth of 11m in the center of the E part of the harbor, but the swinging room is very limited.

Baltasound, a village, stands on the N side of the head of the harbor. Bunes House, with a memorial stone situated close S, stands on the N shore of the harbor, 0.3 mile W of Sandisons Wharf.

Caution.—Local magnetic anomalies have been reported to exist in the vicinity of Balta Sound.

15.76 The Nev (60°47'N., 0°47'W.), located 1.3 miles NNE of the N extremity of Balta, is the SE extremity of Hill of Clibberswick. The summit of this latter hill is 160m high and stands 0.8 mile N of the point. High and inaccessible cliffs extend N along the coast for 1 mile from this point.

Harolds Wick (60°47'N., 0°48'W.) is entered between The Nev and Swinna Ness, 1.3 miles SW. This bay has depths of 18 to 36m in the center, but the bottom is very hard. Shoals front the head of the bay and extend up to 0.3 mile offshore. A prominent radio mast, 148m high, stands on the W side of the bay, 1.5 miles WSW of The Nev.

Baas of Hagsdale, a rock, has a least depth of 3.8m and constitutes the chief danger within the bay. It lies in the W part, 1 mile NNW of Swinna Ness. The bay is fully exposed to E gales and due to the nature of the bottom, it is of little navigational importance. A sandy beach fronts the head and several houses stand in this vicinity.

Nor Wick (60°49'N., 0°47'W.) is a small bay which is entered 1.8 miles N of The Nev. The shores are clear of off-lying dangers; the depths decrease gradually towards a sandy beach at the head. Vessels can obtain anchorage, in a depth of 29m, gray sand, in the center of this bay, with good holding ground. The anchorage is sheltered from N gales, but when the wind veers to the E, a heavy swell often runs into the bay.

The Skaw (60°50'N., 0°46'W.), the NE extremity of Unst, is located 0.8 mile NW of Lamba Ness.

15.77 Lamba Ness (60°49'N., 0°46'W.) is the E extremity of the peninsula which forms the N side of Nor Wick. It is clear of off-lying dangers, but vessels should pass at least 1 mile off in order to avoid the confused cross sea which usually fronts this point. A mast, 126m high, stands 0.7 mile W of the point. Two conspicuous radio masts, each 24m high, stand on the summit of Ward of Norwick which rises 1.5 miles W of Lamba

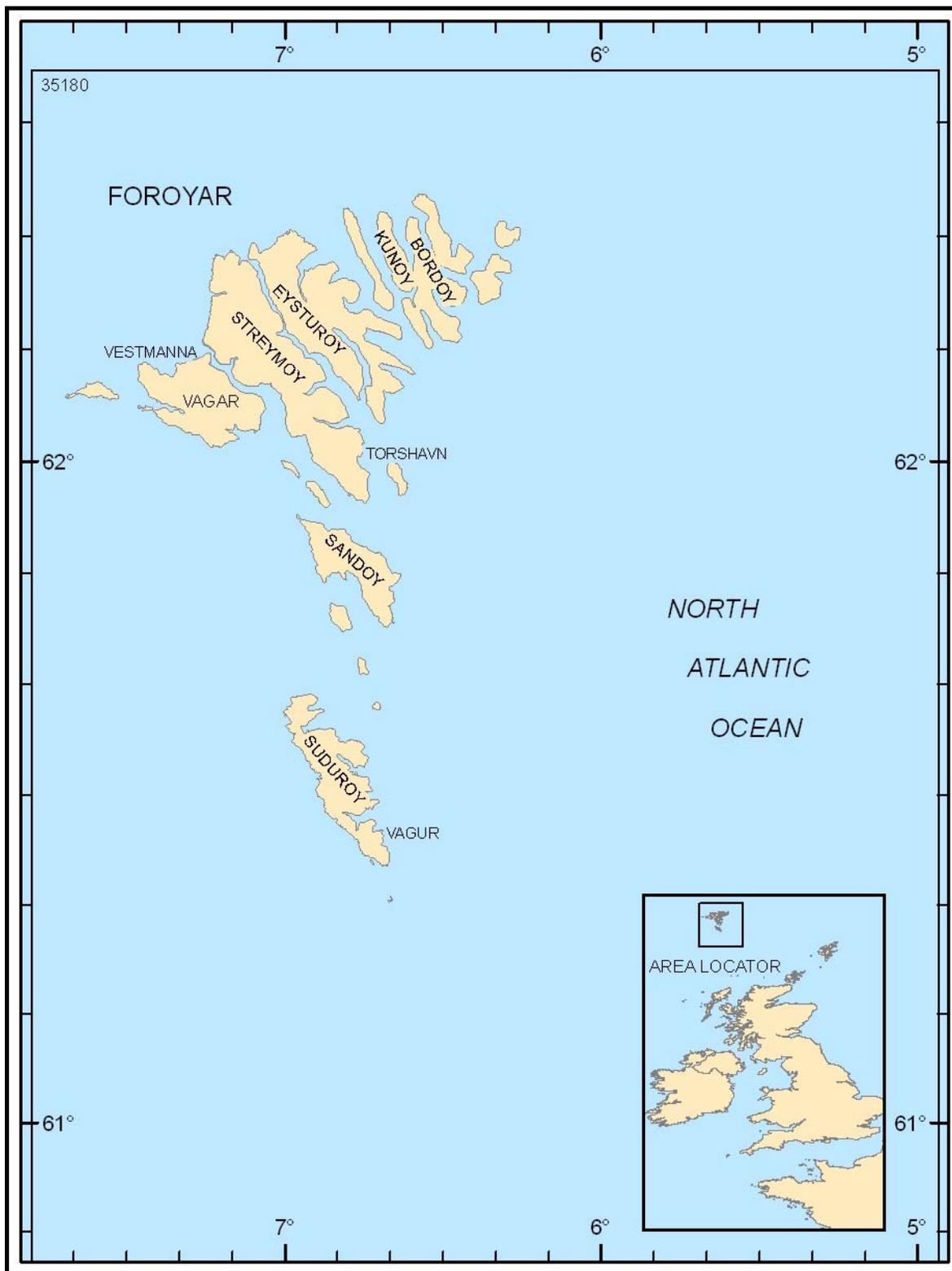
Ness.

Holm of Skaw, 17m high, lies close off the point and is fringed by above and below-water rocks.

Inner Flaess, a rock, is 6m high and lies close N of Holm of Skaw. Outer Flaess, a rocky reef, is 6m high and lies 0.2 mile N of Inner Flaess. From the W part of this reef, which is always above-water, the E part extends up to 0.3 mile seaward. Foul

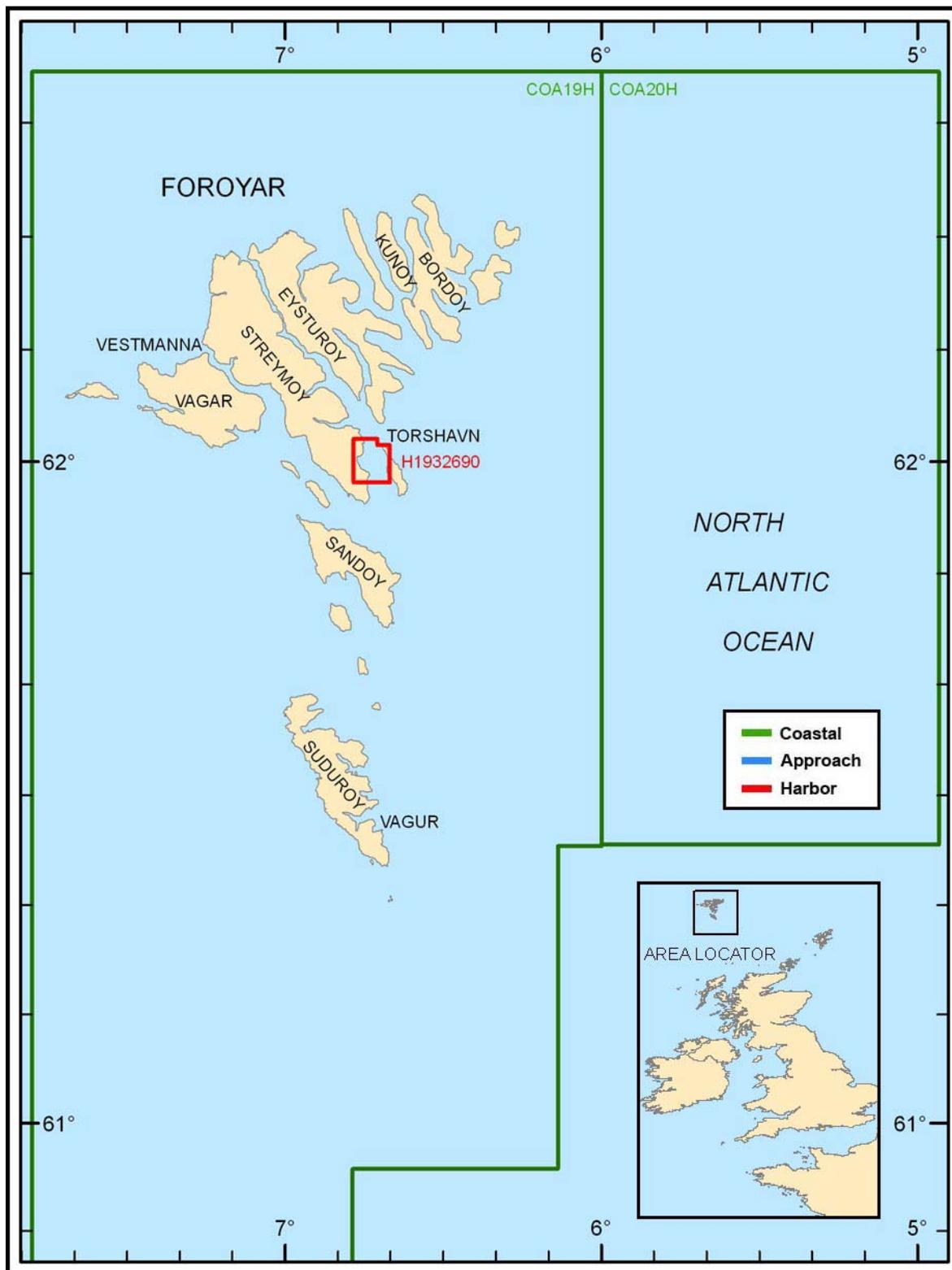
ground lies between Inner Flaess and Outer Flaess.

Skaw Rost, a race, extends out from Lamba Ness and Holm of Skaw. It should be avoided by small vessels. This race, which is not considered as dangerous as the one lying off Sumburgh Head, is reported to be most dangerous during the NW current. No information is available as to the extent of this race or the times of the "still," if any.



Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR 16 — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 19 and DNC 20 (Limited Distribution) discs within the README\GRAPHICS folder.
SECTOR 16 — DNC LIBRARY INFORMATION

SECTOR 16

FOROYAR (FAROE ISLANDS)

Plan.—This sector describes the 18 islands of Foroyar (Faeroe Islands). The descriptive sequence is from S to N.

General Remarks

16.1 Foroyar (The Faroe Islands) are formed by a group of 18 islands, which lie about halfway between Scotland and Iceland. The principal islands are Suduroy, Sandoy, Vagar, Streymoy, Eysturoy, Kalsoy, Kunoy, Bordoy, and Vidoy. Foroyar are a self-governing dependency of the Kingdom of Denmark. The capital, Torshavn, is located on Streymoy, the largest island in the group.

When approached from the W and N, the islands are impressive and largely inaccessible, with numerous steep cliffs, some well in excess of 400m in height. When approached from the E, the shoreline presents numerous fjords and bays, with grass and heather being the main vegetation present. The highest point on the islands, at 882m, is located at the N part of Eysturoy.

Winds—Weather.—Foroyar are subject to a maritime subarctic climate, resulting from the North Atlantic Current. The islands experience cool summers and mild winters. Winds are generally from the SW to W, with occasional fog occurring in the summer months. Windy overcast weather and frequent rainfall is common. Gale force winds may occur all year but are least likely in the summer.

Tides—Currents.—The charts on the following pages show the direction and strength of tidal currents around Foroyar from the reference station at Stromness, United Kingdom.

Pilotage.—Pilotage is compulsory in Foroyar, as follows:

1. Vessels of 500 gt and over.
2. Vessels, regardless of size, carrying oil, gas, or chemicals.
3. Vessels, regardless of size, carrying dangerous cargo in accordance with the IMDG Code.
4. Vessels, regardless of size, sailing with dirty tanks which have not been inerted.
5. Vessels, regardless of size, with more than 1,000 tons of bunkers on board.
6. Vessels, regardless of size, carrying highly radioactive material.

Pilotage exemption is granted to warships, Faroese fishing vessels, certain vessels on government service, inter-island ferries, and vessels with a valid pilotage exemption certificate.

Inbound vessels should send a requests for pilotage no later than 18 hours prior to the ETA. Any changes to the ETA should be forwarded as soon as possible and no later than 4 hours prior to arrival.

Outbound vessels should send a request for pilotage no later than 6 hours prior to the ETD. Any changes to the ETD should be forwarded as soon as possible and no later than 2 hours prior to departure.

Vessels requesting a pilot should include the following information:

1. Vessel name, call sign, and IMO Number.
2. Vessel loa, beam, draft, and gt.
3. Destination.
4. ETA.
5. Name of the port or roadstead the vessel is to depart.
6. Type of cargo on board.
7. Details of the vessel's maneuverability, including engine power, bow thrusters, possible limitations and defects.
8. Contact information on the person ordering the pilotage.
9. Exact information on who is liable to pay for the pilotage.

Caution.—Local magnetic anomalies exist in several areas described in this sector. They are present within the islands and offshore.

Suduroy (Sydero)

16.2 Akraberg (61°24'N., 6°40'W.), the SE extremity of Suduroy, is 79m high. A light is shown from a prominent tower, 14m high, standing on this point. A radiobeacon is situated at the light.

Sumbiarholmur, 19m high, lies 0.3 mile offshore, 1.3 miles W of the point. A reef extends up to 0.4 mile SE from this rock.

Vagsfjordur (Vaag Fjord) is entered between Gronutanger, 3.8 miles NNW of Akraberg, and Porkerisnes (Porkere Naes), 1.5 miles NNE. Porkerisnes, marked by a light, slopes gently to the sea and its flat outer part is moss-covered.

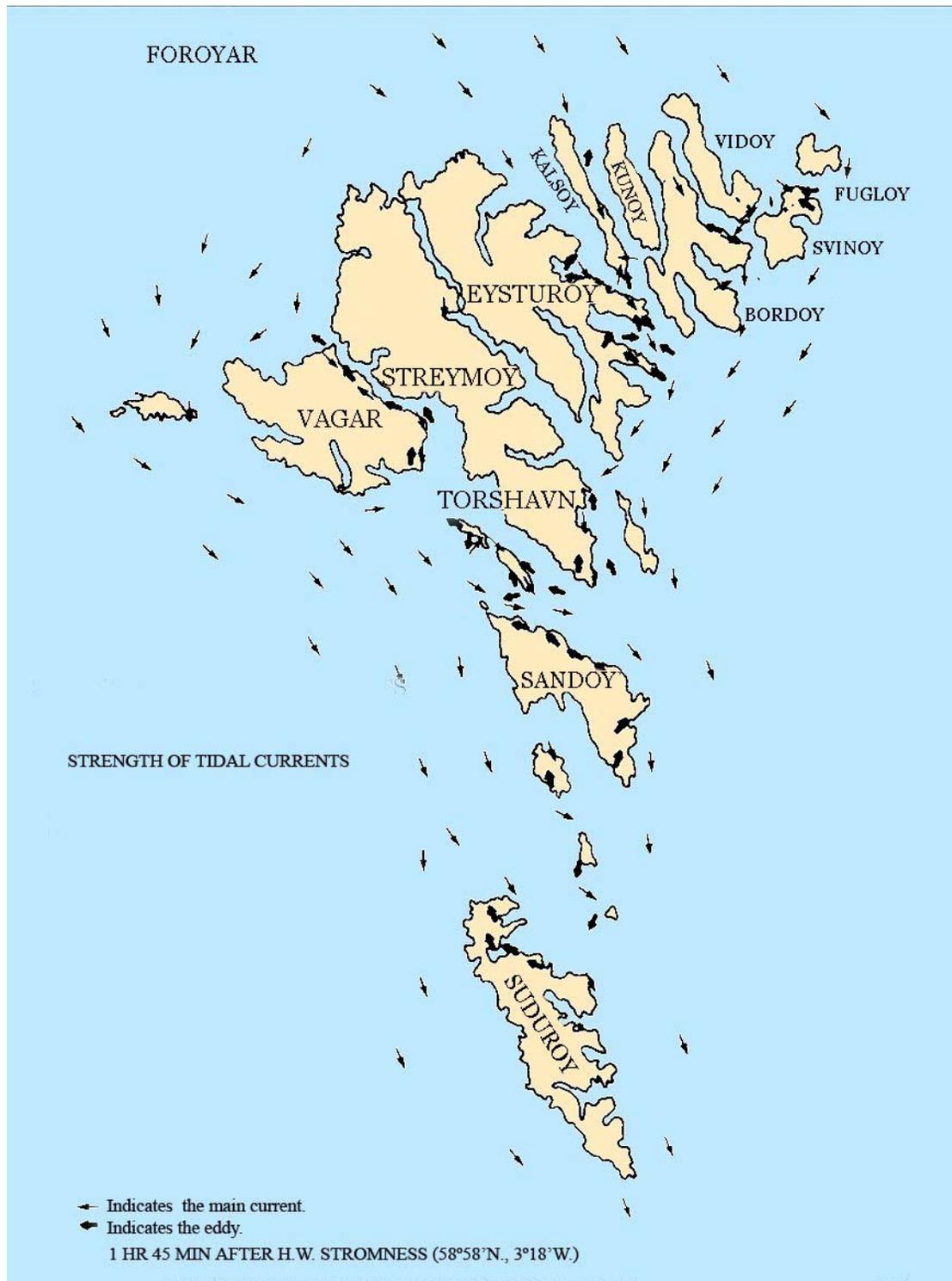
Depths of up to 27m are found in the approach fairway. These depths gradually decrease toward the head of the fjord and the shores are clear of off-lying dangers.

Depths—Limitations.—At Porkeri, two jetties, which are protected by a breakwater, are situated on the NE side of the bay. At Lopra, a pier, 50m long, projects from the shore and has depths of 3.5 to 4.5m alongside. A quay, 40m long, extends W from the root of the pier and has a depth of 3.5m alongside. A breakwater, 175m long, protects the pier and the quay. Another breakwater, which is quayed on its W side, projects 100m from the shore, abreast Krossled, and has depths of 3 to 6.5m alongside. An L-shaped mole projects 65m S and then 60m W from a point on the shore, 0.1 mile W of the breakwater.

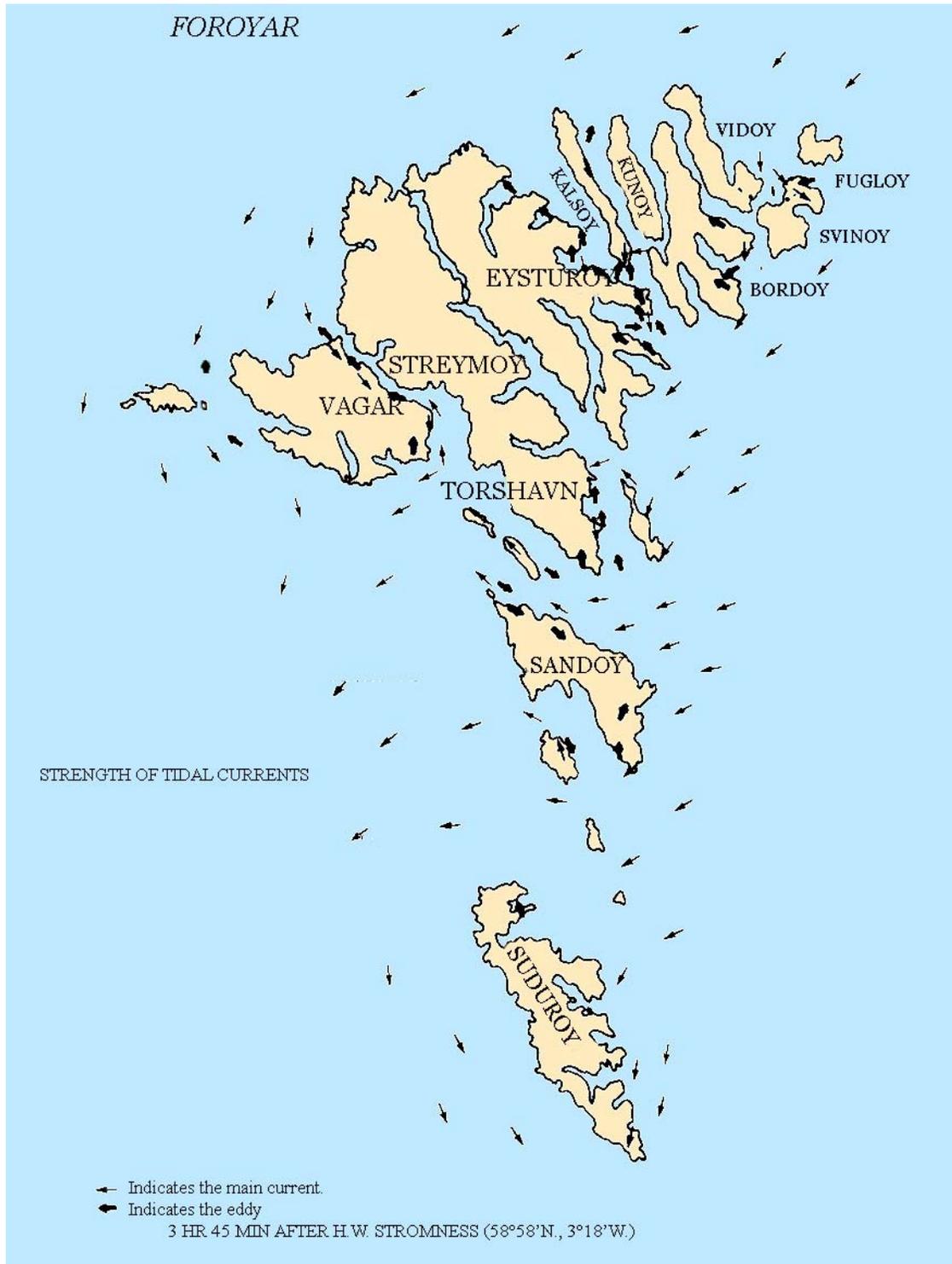
Aspect.—The village of Porkeri (Porkere), with a prominent church, is situated at the head of a bight which is entered W of Ornanaes. Lopra Fjord is entered between Akratange and Nupur, 0.5 mile W. The summit of Ravan, a prominent hill, is 432m high and stands 0.8 mile SW of Nupur.

A beacon stands on the S shore of the fjord, near Nupur. Another beacon stands at Raettergjoy, 0.3 mile W of Stanganaes.

Regulations.—To the W of a line extending between Naversten and the mouth of Tormansaa, vessels may be laid up without exhibiting the regulation lights or making sound signals, except within an area extending for 30m on each side of the range line and within the anchorage area reserved for foreign vessels.



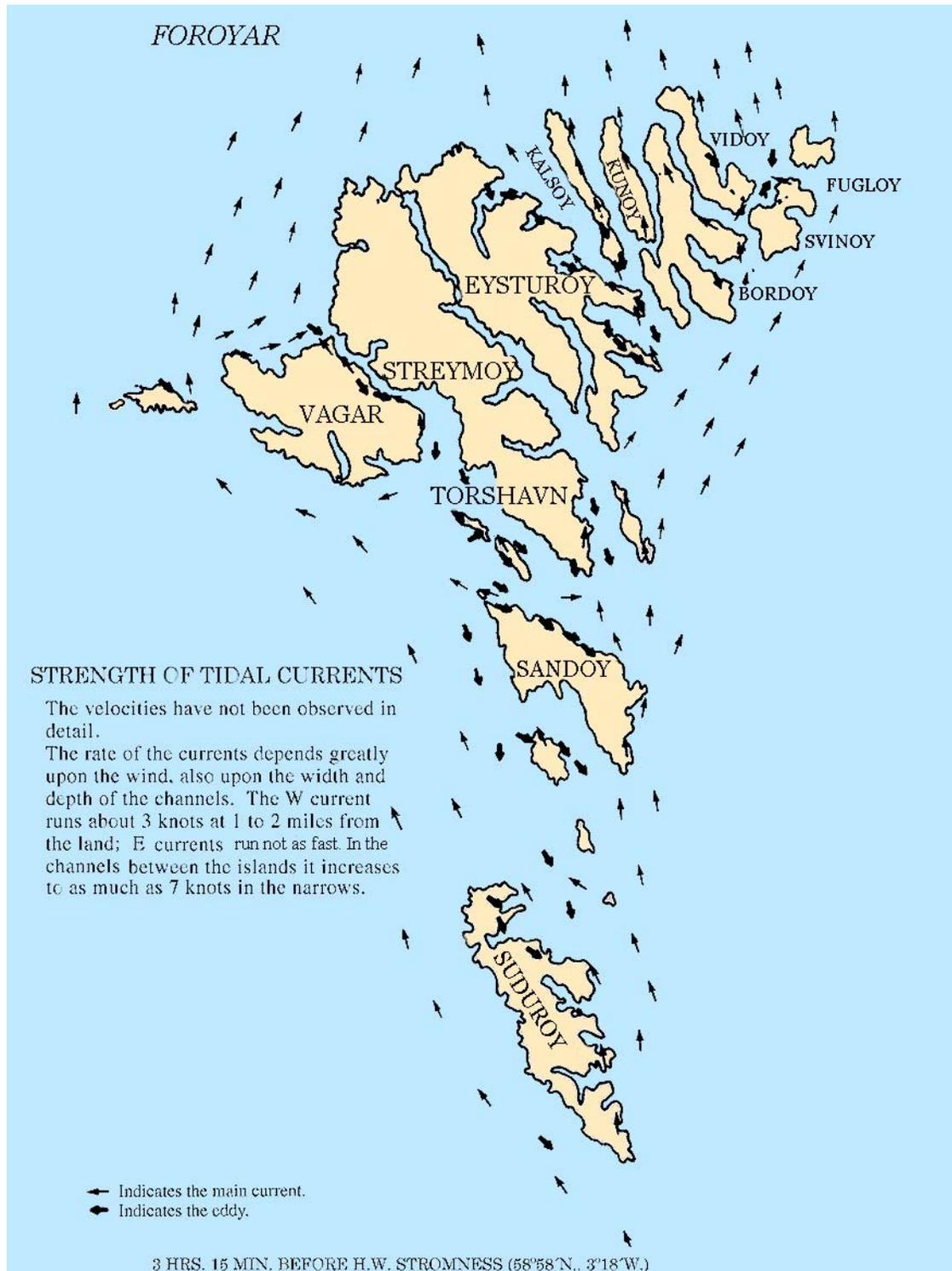












Four white rectangular boards, one pair of which is situated on each side of the harbor near Krossled, mark the anchorage area reserved for foreign vessels.

Anchorage.—Vessels may anchor almost anywhere within Vagafjordhur as the bottom consists mostly of sand. The best anchorage berth, especially during winter, is reported to lie, in depths up to 13m, sand and clay, in the middle of the fjord, about 0.1 mile SE of the pier at Krossled. Small vessels may anchor in a depth of 5m nearer the head of the fjord.

There is good holding ground within Lopra Fjord. The bottom consists of sand in the outer part and mud farther in. A small bay lies at the head of Lopra Fjord and provides anchorage to small vessels, but it is obstructed by rocks and is exposed to heavy squalls from the hills.

Outer range lights indicate the channel leading into the entrance of the fjord.

Caution.—In heavy weather, the seas break over the shoals lying in the entrance to Vagsfjordur. At such times, small vessels without local knowledge should not enter.

With E gales, heavy ground swells are liable to be felt over the entire fjord.

In winter, numerous vessels are laid up to the W of Marknore (61°28'N., 6°48'W.).

Anchorage areas within Lopra Fjord are restricted by several marine farms.

A shoal, with a depth of 9.4m, lies about 1 mile NE of the N extremity of Gronutanger. A shoal, with a depth of 9.4m, lies about 0.1 mile N of the N extremity of Gronutanger and a shoal, with depths of 10.9 to 14m, lies between 0.3 mile and 0.5 mile NNE of the same point.

Porkerebue, a rock, has a depth of 2.4m and lies on a bank that extends up to 0.4 mile SE from Porkerisnes.

Klettabue, with a depth of 11.9m, lies about 0.6 mile SE of Vikartangi. Stanganaes lies about 1.3 miles SW of Vikartangi. A rock, with a depth of less than 2m, lies close S of Stanganaes. Naversten, another rock with a depth of less than 2m, lies close offshore, 0.5 mile W of Stanganaes.

A local magnetic anomaly has been reported to exist about 4 miles E of Akraberg Light. Mariners are advised that the magnetic compass should not be relied upon in the vicinity of Suduroy and Sandoy.

16.3 Hovsfjordur (Hove Bugt) is entered between **Porkerisnes** (61°29'N., 6°42'W.) and Grandatangi (Grandatange), 1 mile NW. This fjord is foul and exposed to E winds which, when strong, cause a heavy sea. Anchorage may be found, in a depth of 20m, sand, but the fjord should not be entered without local knowledge.

Trongisvagsfjordur (Trangisvaag) (61°32'N., 6°45'W.) is entered between Hovdapynt, located 1.3 miles NNW of Grandatangi, and Skarvetangi (Skarvetange), 1 mile farther NNW. It is one of the best harbors in Foroyar.

Skarvetangi, on the N side of the entrance, is low and flat. Tjaldaviksholmur (Tjaldevig Holm) lies 1 mile WNW of Hovdapynt and close off the S shore. Tjaldevig is entered between the holm of the same name and Naestange, 0.3 mile farther W. A beacon stands on Naestange. Hovdatange, on which there is also a beacon, lies on the N side, 0.3 mile W of Skarvetangi. Okra (Ordevig) is entered between Naestange and Heimarigalgi, 0.5 mile NW. Birgishavn is entered between Galgetange,

0.4 mile N of Heimarigalgi, and Hafnarnaestange, 0.3 mile NW. Holmen, an islet, lies 0.2 mile NW of Hafnarnaestange and close off the S shore of the fjord. Another islet lies close W of Holmen.

Caution.—An above-water rock lies at the NE end of a sand spit that extends about 50m E from Hovdapynt. A rock, with a depth of 7m, lies about 0.2 mile SE of the above-mentioned rock and 0.2 mile offshore. The sea breaks over it during E gales.

A reef, part of which dries, extends about 0.2 mile SE from Skarvetangi. The sea always breaks on this reef with onshore winds.

A rocky patch, with a depth of 5.5m, lies 0.3 mile WNW of Skarvetangi and close offshore. A shoal, with a least depth of 11.9m, lies near the middle of the fjord, about 0.4 mile WSW of Skarvetangi.

A rock, which dries, lies 0.1 mile E of the SE extremity of Tjaldevig Holm and about 0.1 mile off the S shore of the fjord.

A shoal, with a depth of 7.3m, extends up to about 0.1 mile N from Tjaldaviksholmur Holm. Tjaldevig is fringed by shoals and a detached shoal, with a depth of 1.4m, lies about 0.1 mile NE of Naestange.

A rocky shoal, with a depth of 11.9m, lies in the fairway, 0.3 mile SW of Hovdatange. Kirkegrund, with a least depth of 6.1m, lies near the middle of the fjord, 0.4 mile SW of Hovdatange.

A shoal, with a depth of 8.8m, lies about 0.2 mile SE of the N extremity of Galgetange. A reef, with a depth of 3m, extends up to about 0.1 mile N from Galgetange and is marked by a buoy.

A rock, with a depth of 1.8m, lies about 0.1 mile NW of Hafnarnaestange and is marked on its NE side by a buoy. A rocky shoal, with a least depth of 1.2m, extends up to about 0.1 mile NE from Holmen and is marked by a buoy.

A rocky shoal, with a depth of 6.7m, lies 0.1 mile offshore, about 0.3 mile NW of Holmen.

16.4 A bight indents the shore between Skarvetangi and Hovdatange. The village of Frodba (Froderbo) is situated on the shore, 0.3 mile N of Hovdatange. A conspicuous waterfall lies about 0.5 mile inland, NNW of this village. Ornefjeld, a conspicuous peak, is 443m high and stands about 0.5 mile inland, 1 mile W of Holmen.

Pilotage.—For complete information, see paragraph 16.1.

Pilotage is compulsory for Tvoroyri.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing Reporting Point 2 (Position 61°30.8'N, 6°37.5'W.).

The pilot boards in Pilot Boarding Position Bravo (61°31.9'N., 6°44.0'W.).

The pilots can be contacted, as follows:

1. VHF: VHF channel 12
2. Telephone: 298-371055
3. E-mail: havn@tvoroyri.fo

Regulations.—Vessels should send their ETA 24 hours prior to arrival, stating the following information:

1. Length overall.
2. Draft.
3. Net tons.

Vessels, which have been given permission, may be laid up

without showing the required lights or making the required sound signals in thick weather, to the W of the line extending between a pier, situated in the vicinity of the churchyard, and Tvoroyri Front Range Light.

Contact Information.—The port can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 298-371055
3. Facsimile: 298-371418
4. E-mail: tvhavn@post.olivant.fo
5. Web site: <http://www.portoftvoroyri.com>

Signals.—A yellow flag is displayed at the house of the Health Officer when a vessel anchors.

Anchorage.—Good anchorage can be found in Tjaldevig. Above Holmen, vessels can anchor anywhere as convenient, the bottom consisting of mud and sand. However, a shoal, with a depth of 6.7m, lies WNW of Holmen and must be avoided. Vessels usually anchor off Tvoroyri (Tveraa) or Hvidenaes, but permission must be obtained to anchor to the W of a line extending SSW from Tvoroyri Front Range Light. Large vessels are advised to anchor about 90m SW of the range line, 0.2 mile SSE of Tvoroyri Pier.

16.5 Hvalbiarfjordhur (Kvalbo Fjord) is entered between **Tjornunes** (Tjornenaes) (61°36'N., 6°51'W.) and **Mjovanes** (Mjovenaes), 1.5 miles N.

Two rocky shoals lie close N of Tjornunes. Tjornunes Bue, the outermost shoal, has a least depth of 0.9m and lies about 0.1 mile offshore.

Flesen lies in the middle of the fjord about 0.8 mile WNW of Tjornunes. This rocky shoal has a least depth of 0.6m and the sea generally breaks over it. Flesegrund, with a least depth of 3m, lies about 0.2 mile NE of Flesen.

The village of Hvalba (Kvalbo) is situated at the head of Hvalbiarfjordhur. Grimsfjeld, a hill, rises on the W side of Suduroy, about 1 mile W of the village. It is 327m high and has a conspicuous formation on the S side.

Vessels can anchor almost anywhere within Hvalbiarfjordhur as the sandy holding ground is good. However, strong E winds often send in a heavy sea and W winds may be accompanied by heavy squalls from the hills. During the summer, the anchorage is reported to be tolerably secure.

The coasts in the outer part of the fjord are high and steep, but further in they slope smoothly, terminating in low cliffs.

Vessels proceeding into the fjord can pass on either side of Flesen. Vessels passing to the S should keep the upper and most conspicuous of a row of clefts located on the S slope of Grimsfjeld in range with the SW corner of a black house. Local knowledge is necessary. Vessels passing to the N of Flesen should keep in the white sector of Hvalbiar Light or keep on a range, bearing 231°, formed by the light and a beacon.

Sandvik (Sandvig) is entered between **Mjovanes** (61°38'N., 6°52'W.) and **Nabbin** (Nabben), 1 mile NNW. This fjord is exposed to E winds, which may send in a heavy sea. The depths decrease gradually from 27m in the fairway at the entrance.

In case of necessity, vessels can anchor, in a depth of 14m, sand, in the middle of the fjord with the N extremity of Stora Dimun in range with Nabbin. Vessels can also anchor, in a depth of 12m, sand, farther in.

Caution.—Vessels should not approach the coast in this vi-

cinity within a distance of 1 mile during stormy weather as the bottom is very irregular and causes a confused sea.

Farmarasund (61°29'N., 6°52'W.) is located on the W coast of Suduroy, 7.5 miles NW of the SE extremity of the island. A conspicuous light-colored building, with a small tower at its S end, stands 0.8 mile N of this point.

Kvannefjeld stands 1 mile inland, about 8 miles NW of the SE extremity of Suduroy. This mountain rises to 574m and is conspicuous.

Gluggarnir, 610m high, stands 4 miles N of Farmarasund and is the highest peak of the island.

Islands lying between Suduroy and Sandoy

16.6 Litla Dimun (Lille Dimon) (61°38'N., 6°42'W.), an island, lies 6 miles ESE of the N extremity of Suduroy. With the exception of a rock, with a depth of less than 2m, lying close off the SE end, this island is steep-to. From seaward, the island, which is 414m high, appears as a haystack from all directions.

Stora Dimun (Store Dimon) (61°42'N., 6°45'W.), an island, lies 3.5 miles NNW of Litla Dimun. It is 396m high and steep-to, except on the W side. A light is shown from the SW extremity of the island.

Skuvoy (61°46'N., 6°50'W.), an island, lies 3 miles NNW of Stora Dimun. It is 393m high and rocks front the W side.

Sandoy (Sando)

16.7 Sandsvagar (Sands Vaag) is entered close SE of **Buetange** (Bodhatangi) (61°49'N., 6°47'W.) and 5.3 miles NW of Kvorntangi, the S extremity of the island. Buetange is fronted by above and below-water rocks on which the sea generally breaks.

Sandsvagar is open to the SE and strong S winds send in a heavy sea. A small craft harbor fronts Sandur, on the W side of the fjord. It has depths of 5.9m in the outer basin and 4.9m in the inner basin. There is also a pier, which has a depth of 5.9m alongside and is protected by a breakwater. Temporary anchorage during adverse winds or tidal currents can be found within Sandsvagar.

Dalsnipa (61°46'N., 6°39'W.), a conspicuous cape, is located 0.5 mile NNE of the S extremity of the island. A rock, 5m high, lies 0.1 mile E of the cape and a deep passage leads between them.

Husavik (Husevig) (61°48'N., 6°40'W.), a village, stands at the head of a bay of the same name which is entered 3 miles N of Dalsnipa. A conspicuous church stands in the village.

Skalhavdi (Skaalhoved), a conspicuous promontory, is located 2 miles NE of Husavik. A hole in the promontory, located near the water level, appears prominent and open when seen from the N or S.

Hvalnes (Kvalnes) is located 2.5 miles NW of Skalhavdi. A reef extends up to about 0.8 mile NE from this point.

Knukur, 369m high, rises 0.5 mile inland, 3.5 miles SE of the N extremity of the island.

Skopun, with a boat harbor, is situated 2.5 miles ESE of the N extremity of the island. The harbor consists of three small basins and has depths up to 5.1m.

Trollhovdi (61°55'N., 6°57'W.), an islet, lies close off the N

extremity of the island.

Temporary anchorage, but exposed to E winds, can be obtained, in depths of 14 to 18m, within Husavik or Skalavik. In Husavik, the bottom consists of sand; in Skalavik, the bottom is rocky in places and the holding ground is bad.

Islands North of Sandoy

16.8 Hestur (Hesto) (61°57'N., 6°53'W.) is separated from the N side of Sandoy by Skopunafjordhur (Skopen Fjord) and from the SW side of Streymoy (Stromo) by Hestfjordhur (Hesto Fjord). Both of these passages are deep and clear. The N part of island is 421m high. A light is shown from Haelur, the S extremity of the island.

Koltur (Kolter) lies 0.5 mile NW of Hestur and is separated from it by Kolturssund (Kolter Sund). The SE part of this island is low and has a mound rising in the middle. The NW part of the island is 478m high and slopes steadily to the sea.

Nolsoy (61°59'N., 6°39'W.) is conspicuous and attains a height of 351m near its center. This island forms the E side of Nolsoyarfjordur. A light is shown from a house, 4m high, standing on Bordan, the SW extremity of the island. A light is shown from a tower, 14m high, standing on the SE extremity of the island. A radiobeacon is situated at this light.

Streymoy is the largest and most important of Foroyar. Torshavn (Thorshavn), the capital, where the Governor resides, is situated on this island.

Kirkjubones (61°57'N., 6°43'W.) is the S extremity of Streymoy. Glyvursnes, a prominent point, is located on the E coast of the island, 2.5 miles N of this point. A very conspicuous waterfall is located midway between these two points. Argir (Arge), a village, stands 1.3 miles NW of Glyvursnes. Anchorage may be obtained, in a depth of 38m, sand, off this waterfall, but the bottom is rocky to the N and S of this roadstead. Anchorage can also be obtained, in a depth of 27m, sand, off the village of Argir.

On the E side of Nolsoyarfjordur, anchorage may be ob-

tained, in a depth of 33m, sand over clay, about 1 mile N of Bordan. Anchorage can also be taken, in depths of 27 to 36m, good holding ground, off a small bay lying on the NW side of Nolsoy.

Caution.—The above anchorages should not be used except during good weather.

A marine farm, marked by lighted buoys, lies within Nolsoyarfjordur.

Torshavn (Thorshavn) (62°00'N., 6°45'W.)

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16.9 Torshavn, which is the capital of Foroyar, is situated at the SE end of Streymoy. The harbor, which is mostly used by fishing and ro-ro vessels, is small and protected by breakwaters. It is entered from Nolsoyarfjordur and may be approached from either the N or S entrance of the fjord.

Tides—Currents.—Tides rise about 0.5m at springs and 0.4m at neaps. Ice is almost unknown in this area and even the heads of the fjords rarely freeze.

Torshavn Home Page

<http://www.portoftorshavn.com>

Depths—Limitations.—The harbor is entered between the E breakwater, which extends 420m SSW, and a point, on which stands several oil tanks, 0.2 mile NW. The W breakwater extends 115m E.

There is a ro-ro berth, with a depth of 5.8m alongside, which can handle vessels of up to 20m beam. Generally, vessels of up to 175m in length and 8.2m draft can be accommodated. However, it was reported that a vessel of 206m in length had been handled in the harbor. For further berthing information see the table titled **Tornhavn—Berth Information**.

Tornhavn—Berth Information			
Berth	Length	Depth	Remarks
West Harbor			
Shipyard Pier B 100	100m	8.1m	Berths on both sides.
Main Quay WB 120	198m	8.1m	Oil jetty.
Fishing Pier B130	87m	8.3m	Ice facility.
Outer Fishing			
Quay B 150	70m	4.8m	—
Oil Jetty B160	60m	9.3m	Oil and general cargo.
East Harbor			
Bursatangi B 050	90m	5.0m	Ferry terminal.
Main Quay East B 040	195m	8.0m	Passenger, ro-ro, and general cargo.
Main Breakwater			
B 010	215m	8.8m	—
B 020	95m	7.8m	—

Torshavn—Berth Information			
Berth	Length	Depth	Remarks
B 030	110m	5.8m	—
Outer Breakwater East			
B 070	60m	10.0m	—

vaktinth@torshavn.fo



Torshavn Harbor

Aspect.—A conspicuous square tower stands 0.1 mile NE of Sandegaerde Parsonage.

A conspicuous obelisk stands on a hill, 0.3 mile NW of Skansetange.

Pilotage.—For complete information, see paragraph 16.1.

Pilotage is compulsory.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 3—Position 61°55.0'N, 6°37.0'W.
2. Reporting Point 4—Position 62°03.0'N, 6°39.0'W.

The pilot boards in Pilot Boarding Position Charlie (62°00.0'N., 6°43.0'W.).

The pilots can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 298-311762
298-211762
3. E-mail: vaktinth@torshavn.fo

Regulations.—Vessels should send their ETA to their agent or the Harbor Office at least 18 hours prior to arrival, stating the following information:

1. Vessel name, call sign, and IMO Number.
2. Vessel loa, draft, and gt.
3. ETA.
4. Last port of call.
5. Destination.
6. Type of cargo on board.
7. Details of propulsion and if all in good working order.

Contact Information.—Torshavn port can be contacted, as follows:

1. VHF: VHF channels 9, 12, and 16
2. Telephone: 298-311762
3. Facsimile: 298-319059
4. E-mail: port@torshavn.fo

Anchorage.—Torshavn roadstead, with depths of 16 to 25m, is considered an undesirable anchorage as the sea runs in with strong NE and SE winds. It only affords good anchorage with W winds. With E winds, some shelter is afforded by Nolsoy, but this does not prevent rolling. When bad weather renders it impossible to remain in the roadstead, vessels should proceed to the anchorage in Skalafjordur.

Caution.—A reef, with a depth of less than 2m, extends close ENE from Skansetange, at the foot of the E breakwater.

A rocky shoal, with a least depth of 4.7m in its S part, extends up to about 0.2 mile SSE from Skansetange. Another rocky shoal, with a depth of 4.7m, lies about 0.1 mile E of Skansetange.

Ostfalds Skaer, an above-water rock, lies about 0.3 mile NE of Skansetange and a rocky shoal, with a depth of 4.7m, lies close NE of it.

Hoyvig Holm, an islet, is 12m high and lies 1 mile N of Ostfalds Skaer and close off Hoyvig. An above-water rock lies close SE of this islet. Hoyvig Grund, a shoal, extends 0.4 mile SE from the islet and has a depth of 6.4m at its outer extremity.

16.10 The S part of Sundini (Sundene), the channel lying between Streymoy and Eysturoy (Ostero), is entered from the S between Hoyvig Holm and Eystnes (Ostnaes), 2.3 miles NE. About 12 miles within the entrance, navigation is restricted for 1.5 miles by the narrows, known as Sundelaget. The fairway at the narrows has a depth of only 3m. Several dangers lie close offshore within the channel.

Hvidenaes is located 1.3 miles NW of Hoyvig. A conspicuous square pillar, 8m high, stands on this point.

Fleserne, a small group of above-water rocks, lies in the middle of the channel, 1.3 miles NE of Hvidenaes. It was reported that this group of rocks was marked by a light.

Kalbak Fjord is entered between Hvidenaes and Kalbak Naes, 1.5 miles NW. This fjord is only recommended as an anchorage in good weather as with strong winds, it is exposed to heavy squalls from the hills. Vessels can anchor, in a depth of 38m, off the village of Sund or, in a depth of 34m, off Kalbak. Vessels can also anchor in greater depths almost anywhere within the fjord. The bottom consists of sand and clay, except at the head where it consists of mud.

Regulations.—To the N of Kongshavn, vessels may be laid up without exhibiting the regulation lights or making the regulation sound signals.

Anchorage.—Vessels can anchor, in a depth of 25m, off the E shore of Kongshavn, S of Glyrvrar, with Salnes bearing about 210°. Good anchorage can also be found, in a depth of 38m, on the W side of Kongshavn. However, anchorage on the E side is preferable as the depths decrease toward the shore more gradually than on the W side. The holding ground is reported to be good on both sides. Above Kongshavn, good anchorage can be

obtained almost anywhere as the depths decrease gradually toward the sides and the head of the fjord.

Kollafjordhur (Kollefjord) is entered, on the W side of Sundini, between Kjalnaes (Kaelnaes), located 3.5 miles NW of Raktange, and a point on the coast of Streymoy, 0.8 mile S. Langesand is situated at the head of the fjord. There are two quays, 27 and 105m long, with depths of 6m alongside.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 3—Position 61°55.0'N, 6°37.0'W.
2. Reporting Point 4—Position 62°03.0'N, 6°39.0'W.

Pilots board in the following positions:

1. Boarding Position Charlie—Position 62°00.0'N, 6°43.0'W.
2. Boarding Position Delta—Position 62°16.3'N, 6°41.0'W.

The pilots can be contacted, as follows:

1. Telephone: 298-311762
298-211762
2. E-mail: vaktinth@torshaven.fo

Skaelingsfjall, a prominent mountain, is 766m high and rises 1.3 miles SW of the head of the fjord.

Vessels can anchor anywhere within the fjord. The depths decrease gradually toward the shore and there is good holding ground. However, the anchorage is exposed to heavy squalls from Skaelingsfjall during gales.

Hosvik (Thorsvig) is situated 2.5 miles NW of Kaelnaes, at the head of a small bay on the W side of Sundini. On the S side of the bay, two piers, each 40m long, extend from the shore and have depths of 2.5 to 5m alongside. Good anchorage may be obtained, in a depth of 18m, off Hosvik with Oyri Village (Ore Village), standing on Eysturoy (Ostero), in range, bearing 327°, with the E extremity of the land on Streymoy.

Hvalvik (Kvalvig), with a prominent church, is situated at the head of a small bay, which lies on the W side of Sundini about 1.5 miles WNW of Skarvetange (62°11'N., 6°58'W.). On the N side of the bay, a small pier projects from the shore and has a depth of 3m alongside. On the S side of the bay, another small pier projects from the shore. It has a head, 23m long, with a depth of 4.9m alongside. Vessels may anchor, in a depth of 12m, in the middle of the bay. The roadstead is reported to be sheltered from mountain squalls with strong winds from between W and NW, but not with winds from other directions.

Sundelaget, the narrow part of Sundini, is not navigable, except by small vessels with local knowledge. The passage, which is entered 1 mile N of Hvalvik, is 1.5 miles long and has a width of 0.2 mile. It is encumbered with rocks and stony banks and the fairway has a depth of only 3m.

Caution.—A bridge, with a vertical clearance of 15.8m under the center arch, spans Sundelaget.

Several submarine cables lie in Sundelaget.

An overhead cable, with a vertical clearance of 23m, spans Sundelaget.

The tidal currents run very strongly through Sundelaget and may attain rates of 12 knots at springs.

An overhead cable, with a vertical clearance of 55m, spans Sundini, about 2 miles below Hvalvik.

An overhead telephone cable, with a minimum clearance of

48.9m, extends between the villages of Kalbak and Sund.

A submarine cable extends across the fjord between the villages of Kalbak and Sund.

16.11 Skalafjordur (Skaale Fjord) (62°09'N., 6°44'W.) is entered between Raktange, a point located 3 miles NW of Ostnaes (62°03'N., 6°41'W.), and the village of Toftir (Tofte), 0.5 mile E side of the entrance to Skalafjordur, N from Toftir Light (62°05'N., 6°44'W.). This fjord affords good shelter throughout its entire length and is used as a harbor of refuge in bad weather.

An angled breakwater, 300m long, extends WNW then NNW from the shore abreast the S end of Toftir. It provides shelter for a small harbor.

Saltnes lies on the E side of the fjord, 1.3 miles N of Toftir; a shallow bay is entered close N of it. **Runavik** (Runevig) (62°07'N., 6°43'W.) stands on the NE side of the bay. There is a pier, 200m long, which extends W and SW from the shore and has a depth of 11m alongside. A quay, with a depth of 5m alongside, extends S from the inner root of the pier. Another quay, with depths of 6 to 12m alongside, extends N from the root.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 3—Position 61°55.0'N, 6°37.0'W.
2. Reporting Point 4—Position 62°03.0'N, 6°39.0'W.

The pilot boards in Pilot Boarding Position Delta (62°03.0'N., 6°43.0'W.).

The pilots can be contacted, as follows:

1. Telephone: 298-447015
2. E-mail: port@runavik.fo

Contact Information.—The port can be contacted, as follows:

1. VHF: VHF channels 9, 12, 13, and 16
2. Telephone: 298-447015
3. E-mail: harnarkristovan@runavik.fo
4. Web site: <http://www.runavik.fo>

Heyggjur lies 0.4 mile W of Saltnes. There is a quay, 80m long, with depths of 3 to 7m alongside and a ferry terminal.

Glyvvar, with a conspicuous white church, is situated 1 mile N of Runavik. There is a quay, 85m long, with a depth of 7m alongside and a small boat harbor.

Kongshavn consists of the S part of the fjord lying S of a line extending between Glyvvar, on the E side, and Jogy (Sjov), on the W side.

Hulkin (Ved Hulken) is situated on the W side of the fjord, 0.5 mile N of Jogy (Sjogv). There are two quays, 60m and 120m long, with depths of 6 to 9m alongside.

16.12 Seldarfjordur lies on the E side of the fjord, 1.8 miles above Hulkin. There is a jetty, 55m long, with several mooring dolphins. The jetty head is 5.5m wide and has a depth of 8m alongside.

A reef, with a depth of 2.7m, extends 0.2 mile S from a point on the coast, 0.8 mile WNW of Kirkjubones, the S extremity of Streymoy. The village of Kirkjubour, with a prominent church, is situated 1.8 miles NW of Kirkjubones. A reef extends 0.5 mile S from a small islet which lies close offshore, SW of the

village.

Brandansvik (Brandarsvig) is a fair weather anchorage which is sometimes used by local vessels. It is entered between the reefs described above. Small vessels with local knowledge can obtain anchorage in a depth of 16m close offshore.

Lambatangi is located 4.3 miles NW of Kirkjubour. The coast extending for 0.5 mile N of this point is fronted by rocks. The prominent village of Sydradalur stands close inland, 1 mile N of the point.

Dalsnipa (62°02'N., 6°59'W.) is located 2.5 miles NW of Lambatangi. The village of Nordradalur stands at the head of the bay that is formed between these two points.

Two white spherical radar domes and two rectangular dish aerials, which appear as square blocks, are situated on a ridge, 2.5 miles NNE of Dalsnipa. They are reported to be very conspicuous from both E and W of the island of Streymoy.

16.13 Vestmannasund separates Streymoy from the NE side of Vagar. The current runs strongly through this sound and eddies form off the salient points. The passage is entered from the S between Dalsnipa and Stakkarnir, 3 miles WNW.

There are no anchorages or harbors lying along the section of the NE coast of Vagar which forms the W side of the passage. Leynar, a village, is situated on the E side of the passage, 5 miles NNW of Dalsnipa. A light is shown from a structure standing close S of this village. Kvivik, another village, is situated 1 mile WNW of Leynar and has a prominent church.

Caution.—A ferry crosses Vestmannasund about 3.3 miles SE of the N entrance.

An overhead cable, with a vertical clearance of 55m, spans Vestmannasund, 3 miles SE of the N entrance.

When the wind and the S tidal current are opposed, overfalls are formed in the S approach to Vestmannasund. They may be dangerous to small vessels.

16.14 Vestmanna (Vestmanhavn) (62°09'N., 7°10'W.) (World Port Index No. 32720.), with a settlement, provides the best natural harbor of Foroyar. It lies on the SW side of Streymoy and on the NE side of Vestmannasund.

Depths—Limitations.—The harbor is entered between Stiggjur and Egilsnaes, 0.5 mile S. The main part extends 0.5 mile N from the former point. Nesid is situated on the E side of the harbor, 0.5 mile NE of Stiggjur, and an arm of the harbor extends 0.5 mile E from it.

Vessels can berth along the four sides of the main quay. The W side is 53m long and has depths of 4.5 to 7.3m alongside; the S side is 95m long and has a depth of 6m alongside; the SE side is 73m long and has depths of 7 to 8m alongside; and the NE side is 35m long and has a depth of 5m alongside.

A basin lies at the W side of the harbor and has an entrance, 150m wide. It provides berths on the N and E sides.

An L-shaped pier is situated at Nesid. Its outer face is 35m long and has a depth of 5m alongside.

A shoal, with a least depth of 4.6m, lies about 0.3 mile E of Stiggjur and extends almost completely across the entrance. Narrow and deep channels lie on either side of this shoal. The recommended entrance channel, which passes to the W of the shoal, is about 90m wide and has a depth of 10.1m. To the N of the shoal, the depths increase to 20m.

Aspect.—Heyganaes Light is shown from a tower standing

on a red warehouse at the head of the harbor. A beacon is situated on the hillside, 0.2 mile NNE of the light. The white sector of the light indicates the channel which leads to the W of a shoal lying in the harbor entrance.

A prominent church stands at the NW side of the harbor, 0.2 mile W of the main quay.

Pilotage.—For complete information, see paragraph 16.1.

Pilotage is compulsory.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 9—Position 62°10.4'N, 7°17.0'W.
2. Reporting Point 12—Position 62°01.2'N, 7°10.5'W.

Pilots board at Pilot Boarding Position Kilo (62°08'25.2"N., 7°10'31.8"W.).

Pilots can be contacted, as follows:

1. Telephone: 298-311762
298-211762
2. E-mail: vaktinth@torshavn.fo

Anchorage.—The best anchorage berth lies, in a depth of 18m, close S of the main quay and W of Nesid. Anchorage is also available, in a depth of 14m, in the middle of the E arm with Egilsnaes, the SE entrance point, bearing 199° and just open W of Nesid.

16.15 Mulin (62°11'N., 7°15'W.), the NE entrance point of Vestmannasund, is located on the W side of Streymoy, 3.5 miles NW of Egilsnaes. The passage is entered from the N between Mulin and Slaettanes, 1 mile SSE. During bad weather, vessels should not approach the land on both sides of the entrance too closely as rock shelves, over which the sea sometimes breaks heavily, extend seaward from both entrance points.

Mylingur (62°18'N., 7°12'W.), the NW extremity of Streymoy, is located 7.8 miles N of Mulin. The coast between consists of high and precipitous cliffs. Mylingur rises almost perpendicular to a height of 563m and is very conspicuous from seaward. A range of mountains stands close inland of the point. It runs parallel with the coast and rises to a height of 790m.

Two detached rocks, 23m high, lie close off the N side of Mylingur.

Sakshovn, a small inlet, is entered 4.5 miles N of Mulin and affords shelter from E winds. Small vessels can anchor, in a depth of 18m, within this inlet. Large vessels can anchor, in a depth of 36m, near the entrance.

Skakkur lies close off the N extremity of Streymoy, 1.3 miles ENE of Mylingur. This rock is 133m high and prominent. A boat passage, used only by local craft, leads between the rock and the point.

Eysturoy (Kollur), a peninsula, forms the NW extremity of Eysturoy and rises to a height of 353m on its NW side. It is joined to the main body of the island by a low isthmus and appears as an islet from a distance. Two conspicuous rocks lie close off the NW extremity of Eysturoy. Risin, the outermost rock, is 75m high.

Sundini is entered from the N between Skakkur and the W coast of Eysturoy, 1.3 miles E.

Tjornuvik (Tjornevig), a small bay, lies on the SW side of the entrance and is entered 1 mile SE of Stakkur. This bay af-

fords anchorage, during offshore winds, in a depth of 20m, with good holding ground.

Torvanes is the SW extremity of Eysturoy. The village of Ejde, with a prominent church, is situated at the head of a small bay, 0.5 mile E of the point. In good weather, vessels may anchor, in a depth of 9m, with excellent holding ground, off the village.

A breakwater, 525m long, extends SSE and SE from a point close W of the village. Another breakwater, 150m long, extends SW and W from a point close E of the village. A quay, 100m long, fronts the village and has depths of 5.1 to 6.1m alongside.

A bar, with depths of 7.8 to 9.1m, lies between Ejde and the coast of Streymoy. With strong winds from between N and W, the sea often breaks across the fjord in the vicinity of the bar. In such a case, vessels should anchor within Haldarsvik (Haldorsvig).

It is reported that a prominent radio mast stands close NE of Ejde.

Haldorsvig lies 1.8 miles S of Ejde and provides anchorage. A village stands at the head of this bay.

Sundelaget, the narrow part of Sundini, is entered near the village of Nordskali and has been previously described in paragraph 16.10.

Caution.—A submarine cable, marked by beacons, lies across Sundini in the vicinity of Haldorsvig.

Vagar (Vaago)

16.16 Slaettanes is the N extremity of Vagar. A light is shown from a tower, 63m high, standing on this point. The E coast of the island extending between this point and Stakkarnir, 8 miles SE, forms the W shore of Vestmannasund.

A conspicuous detached peak rises to a height of 324m at the S extremity of Stakkarnir (62°03'N., 7°04'W.).

Midvaag is entered between Stakkarnir and Presttangi, 2 miles WSW. The village of **Midvagar** (62°03'N., 7°10'W.) is situated on the N side of an inlet, which lies at the NW end of this fjord. Sandavagar, another village, stands at the head of a smaller inlet, which is entered at the N end of the fjord. Several small quays, 50 to 120m long, are situated in the vicinity of these inlets. They have depths of 4.7 to 7m alongside and are protected by breakwaters.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 9—Position 62°10.4'N, 7°17.0'W.
2. Reporting Point 12—Position 62°01.3'N, 7°02.8'W.

The pilot boards in Pilot Boarding Position Mike (62°02.2'N., 7°08.4'W.).

The pilots can be contacted, as follows:

1. Telephone: 298-794470
2. E-mail: hedin@vaga.fo

Contact Information.—The port can be contacted on VHF channels 9, 12, 13, and 16.

The fjord provides good anchorage, but S and W winds raise a sea. The best berth lies, in a depth of 18m, close inside the NW inlet.

Traellenipen (62°01'N., 7°13'W.), the S extremity of the island, is 145m high and precipitous. Bosdalafossur, a low and

broad waterfall, is located close W of the point and is very conspicuous.

Tindholmur (62°05'N., 7°25'W.), an island, is 262m high and lies 0.3 mile off the SW extremity of Vagar, 7 miles NW of Traellenipen. A detached rock, 77m high, lies in the passage leading between this island and the coast. A reef, with depths of less than 2m, extends about 0.5 mile S from the island.

Gasholmur, 65m high, lies 0.2 mile WNW of Tindholmur. A light is shown from the S side of this islet. Gasholmur Sund (Gaasholm Sund), a narrow channel, separates this islet from the island, but should not be used because of strong currents and races.

16.17 Sorvagur (62°04'N., 7°18'W.) (World Port Index No. 32730) lies at the head of a fjord. The fjord extends 4 miles ESE and is entered between Gasholmur and Bordsten, a point 1.3 miles NE.

A sector light shown from the S side of the fjord indicates the entrance channel and a range, best seen on the chart, indicating the fairway leading to the head of the fjord.

The outermost danger lying on the S side of the fjord is a shoal patch with a depth of 3.3m. Skaerholm, a small islet, is 4m high and lies near the middle of the channel, 1 mile SE of Bordsten.

Depths—Limitations.—Depths of 32m lie in the fairway at the entrance and slightly greater depths lie in the middle of the center part of the fjord.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 10—Position 62°08.0'N, 7°31.0'W.
2. Reporting Point 11—Position 62°03.5'N, 7°32.8'W.

The pilot boards in Pilot Boarding Position Lima (62°06.0'N., 7°27.5'W.).

The pilots can be contacted, as follows:

1. Telephone: 298-233205
2. E-mail: ed@sorvag.fo

Regulations.—Vessels should send their ETA 24 hours in advance.

Contact Information.—The port can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 298-233205
3. Facsimile: 298-363201
4. E-mail: sorvag@sorvag.fo
5. Web site: <http://www.sorvag.fo>

Several quays are situated on the S side of the fjord, 0.5 mile from the head. They are up to 230m long and have depths of 5 to 6.5m alongside.

Anchorage.—The best anchorage lies, in a depth of 25m, with good holding ground, near the head of the fjord. However, care should be taken to avoid the sand flat which extends up to 0.4 mile seaward from the head.

Anchorage is available, in a depth of 25m, within a bay lying on the S side of the fjord, 1.5 miles from the head. Anchorage can also be taken, in a depth of 20m, off a village standing on the N side of the fjord, 0.8 mile E of Skaerholm.

Bardid is located 3 miles NNW of Bordsten. The coast between is fronted by foul ground. Tjornunes is located on the N

coast of the island, 1.5 miles SE of Bardid. The shore between is fringed by above-water rocks.

Ritunoo is located 2 miles ENE of Tjornunes. The coast between these points forms a bay, which is foul and should not be entered except by small vessels with local knowledge.

A rock, with a depth of 9m, lies 0.8 mile SW of Ritunoo and another rock, with a depth of 7.3m, lies 0.5 mile E of Tjornunes. The sea breaks over these rocks in heavy weather.

Slaettanes lies 2.8 miles ENE of Ritunoo. The coast between is fronted by rocks.

Mykines (Myggenaes)

16.18 Mykines (62°06'N., 7°35'W.), the westernmost of Foroyar, rises to a height of 560m and is steep sided. The coasts are fronted by above and below-water rocks and vessels are cautioned to give the island a wide berth.

A radiobeacon is situated near the center of the island.

Mykinesholmur, an islet, is 112m high. It lies close off the W extremity of Mykines to which it is joined by a bridge. A light is shown from a prominent tower, 14m high, standing on this islet. A reef extends 0.5 mile W from the islet and the shores are fringed by rocks.

Mykinesfjordur is entered from the S between Gasholmur and the E extremity of Mykines, 2 miles WNW. The depths within this fjord are somewhat less than those to the N and S of it, causing tremendous tide races. During gales, these races form waves of great height. Passage through the fjord is not recommended for small and low-powered vessels at such times. Vessels using the passage are advised to keep to the E side in order to avoid a shoal patch, with a depth of 14.6m, which lies close S of Gasholmur.

Caution.—Strong tide races occur off the W end of Mykines and extend up to 5 miles seaward.

Eysturoy (Ostero)

16.19 Eystnes (Ostnaes) (62°04'N., 6°42'W.) is the S extremity of Eysturoy. The W side of this latter island forms the E side of Sundini.

Nev (62°06'N., 6°37'W.) is located 3.5 miles NE of Eystnes. Rituvik, a village, stands at the head of the bay which is formed between the two points. Rituvigs Grund lies 1.5 miles SW of Nev. This shoal has a least depth of 17m and the sea breaks over it during heavy weather.

Mjovanes, the extremity of a narrow peninsula, is located 1.5 miles NE of Nev and marked by a light. Lambavik, an open bay, is entered between Nev and Mjovanes. It affords temporary anchorage, in depths of 29 to 36m.

Gotuvik, an open bay, is entered between Mjovanes and Gotunes (Gotenaes), 3.3 miles NNW.

Seggjatangs Bue, a shoal, has a least depth of 5.5m and lies about 0.5 mile offshore, 0.8 miles N of Mjovanes. An L-shaped jetty is situated at Nordragota, near the head of the bay. Its outer leg is 65m long and has depths of 5.5 to 7m alongside.

Gotuvik is open to SE winds and affords temporary anchorage. Vessels should anchor over a bottom of sand and pebbles at the head of the bay, on the N side.

16.20 Leirviksfjordur is entered from the SE between Gal-

vur, the S extremity of Kalsoy, and the coast of Eysturoy.

Leirvik, a village, stands on the S side of this fjord, 1.3 miles SW of Galvur. An above-water rock lies close offshore, at the N end of the village. A sector light is shown from a structure standing in the vicinity of the village. A small harbor, protected by breakwaters, fronts the village and consists of an outer and an inner basin. The outer basin has depths of 4.6 to 5.1m, but is shoal in its S part. A quay, which is situated on the inner side of the N breakwater, has a depth of 5.1m alongside. The inner basin is quayed on three sides and has a depth of 5.1m, but there is a depth of only 4.1m in the entrance.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 5—Position 62°08.0'N, 6°32.0'W.
2. Reporting Point 7—Position 62°22.0'N, 6°54.0'W.

The pilot boards in Pilot Boarding Position Foxtrot (62°12.7'N., 6°41.2'W.).

The pilots can be contacted, as follows:

1. Telephone: 298-730090
2. E-mail: janus@eystur.fo

Regulations.—Vessels should send their ETA, either via the agent or directly to the port, 24 hours, 12 hours, and 2 hours prior to arrival, stating the following information:

1. Vessel name.
2. Draft.
3. Crew list.
4. Vessel particulars
5. ISPS certification.

Contact Information.—The port can be contacted on VHF channels 9, 12, 13, and 16.

A reef fronts a point on the coast of Eysturoy, 1 mile NW of Lervig. A group of below-water rocks lies close off a point located on the SW coast of Kalsoy, 1.8 miles NW of Galvur. Except for these dangers, Leirviksfjordur is deep and clear.

Caution.—Off the village of Lervig, the currents may attain rates of up to 11 knots at springs.

16.21 Fuglafjordur (62°15'N., 6°48'W.) (World Port Index No. 32740), a port, lies at the head of Fuglefjord, on the W side of Leirviksfjordur. It consists of a village and a very small natural harbor.

Fuglafjordur Home Page

<http://www.portoffuglafjordur.com>

Depths—Limitations.—A quay, 150m long, is situated on the NE side of the fjord and has a depth of 6.1m alongside. A short pier projects from the NW end of this quay. Another quay, 250m long, is situated close NW of the pier and has depths of 5 to 6.1m alongside. There is also a small oil pier, 25m long, with a depth of 5.1m alongside.

A jetty, 40m long, is situated on the W side of the fjord and has a depth of 3.6m alongside its head.

A quay, close SE of the oil pier, is 52m long, with a depth alongside of 12.0m. New Oil Pier, located SE of the inner light structure, has a length of 65m, with an alongside depth of 13.0m.

Aspect.—Several prominent tanks stand on the quay at the NE side of the fjord. A prominent church and a school stand in the village, at the head of the fjord.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 5—Position 62°08.0'N, 6°32.0'W.
2. Reporting Point 7—Position 62°22.0'N, 6°54.0'W.

The pilot boards in Pilot Boarding Position Golf (62°14.0'N., 6°45.0'W.).

The pilots can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 298-238054
3. E-mail: port@fuglafjordur.fo

Regulations.—Vessels should send their ETA, either via the agent or directly to the port, 24 hours, 12 hours, and 2 hours prior to arrival, stating the following information:

1. Vessel name.
2. Draft.
3. Crew list.
4. Vessel particulars
5. ISPS certification.

Contact Information.—The Harbor Director can be contacted, as follows:

1. Telephone: 298-238050
298-668008
2. E-mail: pof@fuglafjordur.fo

The port duty officer can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 298-238054
3. Facsimile: 298-445154
4. E-mail: port@fuglafjordur.fo

Anchorage.—Fuglefjord provides good anchorage with excellent holding ground. The best anchorage berth lies, in a depth of 23m, clay, in the middle of the inner part of the fjord, with the church in range with the school. Small vessels can anchor farther up the fjord.

Caution.—Vessels, with their associated moorings, are often laid up in the inner part of Fuglefjord. A marine farm exists on the SW side of the Fjord.

16.22 Oyndarfjordhur (Andefjord), a small cove, is entered on the SW side of Djupene. The entrance lies between a point, located 1.8 miles N of the church at Fuglafjordhur, and another point, 1 mile N. The village of Oyndarfjordhur, which has a prominent church, stands on the NW side of the fjord, 0.8 mile SW of the N entrance point. A pier, 40m long, fronts the village and has a depth of 4.5m alongside its head.

A rock, with a depth of 1.9m, lies about 0.2 mile offshore, close E of the church. A reef, with a depth of less than 1m, lies close offshore, about 0.2 mile S of this rock. A sector light is shown from a structure standing on the N shore of the fjord.

Vessels may obtain temporary anchorage, in a depth of 33m, off the village. However, the holding ground is not good and a swell often runs into the fjord during gales.

Funningsifjordhur (Funding Fjord) lies on the W side of Djupene. It is entered between a point, located 1 mile N of the church at Oyndarfjordhur, and Mulin, another point 1.8 miles NW. The village of Funningsfordhur, which has a prominent

church and a school, stands on the W side of the head of the fjord.

The village of Funningur stands on the W side of the fjord, 2.5 miles SW of Mulin. It is fronted by a small pier with a depth of 3.1m alongside.

The village of Elduvik stands on the SE side of the fjord, 1.5 miles S of Mulin. Litanaes, a point, and Naes, a low point, are located 0.3 mile W and 0.5 mile WSW, respectively, of Elduvik. A shoal, with a depth of 9.4m, lies in the middle of the channel, about 1.5 miles S of Naes.

There is no secure anchorage in the wider, outer part of Funningsfjordhur. The holding ground is good, but heavy swells roll in during E gales. There is shelter from the swell to the S of Naes and in the narrow part of the fjord, but the bottom is rocky in this vicinity. Farther in, the holding ground is good, but heavy squalls come down from the hills.

Vessels without local knowledge are advised not to proceed into the inner part of the fjord.

Rivtangi (62°21'N., 7°00'W.), the N extremity of Eysturoy, is located 2.8 miles NW of Mulin. This point can be distinguished by streams, which run down on both its E and W sides from the hills above. A rock, with a least depth of 3.7m, lies close NW of the point.

Slaetaratindur, the tallest peak in Foroyar, is 882m high and rises 2 miles SW of Rivtangi.

The coast between Rivtangi and Risin, 3.5 miles SW, forms a large indentation in which the village of Molin is situated. The N entrance of Sundini lies W of Risin.

Kalsoy (Kalso)

16.23 Galvur (62°14'N., 6°39'W.) is the S extremity of Kalsoy. Kalsoy Light is shown from a tower, 12m high, standing on the SE side of the island, 1 mile N of this point.

Kallur (62°22'N., 6°48'W.), the N extremity of Kalsoy, is marked by a light. A rock, 4m high, and two below-water rocks lie close off this point.

A mountainous spine runs the whole length of the island and is unbroken, except for a low gap lying about 3 miles NNW of Galvur. It attains a height of 787m, 1.5 miles S of Kallur.

The E side of Kalsoy is separated from Kunoy, to the E, and from Bordoy, to the SE, by Kalso Fjord.

The S part of this fjord is entered from the S between Götunes and Bordoyarnes, the S extremity of Bordoy, which is located 2.8 miles ESE. The entrance is clear of dangers.

The N part of the fjord is entered from the N between Kallur and Kunoyarnakkur, the N extremity of Kunoy, which is located 3.5 miles E. There are no secure anchorages in this part of the fjord.

Caution.—Multiple overhead cables span Kalso Fjord. The lowest of these is located 1.8 miles SSE of Galvur and has a least vertical clearance of 45m in the center, increasing to more than 60m on the edges of the channel. About 2.5 miles N of Galvur, another overhead cable has a least vertical clearance of 55m.

16.24 Podlen (Pollur), which connects Kalso Fjord to Haraldssund, is entered between a point on Bordoy, located 1.5 miles NE of Galvur, and a point located on the S coast of Kunoy, 3.5 miles NNW. This fjord gives access to the small har-

bor of Klakksvik (Klaksvig). About 1 mile N of the S extremity of Kunoy, a causeway, which carries a road, joins Kunoy to Bordoy and closes the passage to navigation. Podlen is mostly landlocked and affords anchorage with excellent holding ground. The tidal currents are fairly weak, but violent, variable squalls occur during gales.

The best anchorage lies, in a depth of 24m, clay and sand, in the SE part of the fjord with the pier fronting the W side of Klakksvik just open E of the E extremity of the land to the N of it and the light shown from the SE part of Kalsoy bearing 272°.

16.25 Klakksvik (Klaksvig) (62°14'N., 6°35'W.) (World Port Index No. 32750) is a small harbor lying in a small cove on the SE side of Podlen. There are several villages in this vicinity.

Tides—Currents.—Tides rise about 1.6m at springs and 1m at neaps.

Depths—Limitations.—Both sides of the cove are fringed with shoals and foul ground extends up to 0.4 mile NNW from the head.

There are also several private piers and small quays within the harbor. Generally, vessels of up to 120m in length and 8m draft can be accommodated. For further berthing information see the table titled **Klakksvik—Berth Information**.

Klakksvik—Berth Information				
Berth	Length	Depth	Maximum Vessel	
			LOA	Draft
West Harbor				
West Quay	300m	8.7m	160m	—
Kosin Quay	220m	8.9m	180m	—
Fuel Quay	55m	8.0m	—	—
Shell/Statoil Terminal	55m	8.5m	150m	8.0m

Aspect.—A lighted range indicates the channel leading from Podlen to the anchorage lying off the harbor.

Pilotage.—For complete information, see paragraph 16.1.

Vessels shall contact the pilots to receive exact instructions to the pilot boarding position when passing the following Reporting Points:

1. Reporting Point 5—Position 62°08.0'N, 6°32.0'W.
2. Reporting Point 6—Position 62°23.0'N, 6°46.0'W.
3. Reporting Point 7—Position 62°22.0'N, 6°54.0'W.

Pilots board in the following positions:

1. Boarding Position Echo—Position 62°13.0'N, 6°38.0'W.
2. Boarding Position Hotel—Position 62°16.3'N, 6°41.0'W.

The pilots can be contacted, as follows:

1. Telephone: 298-455081
298-215081
2. E-mail: port@klakksvik.fo

Regulations.—Vessels, which are laid up to the S of a line extending between two lights shown from the W side of the harbor, are not required to show the regulation lights or make

the required sound signals in thick weather.

Vessels should send their ETA, draft, and loa 24 hours in advance.

Contact Information.—The port can be contacted, as follows:

1. VHF: VHF channels 12 and 16
2. Telephone: 298-455101
298-455081
3. Facsimile: 298-457340
4. E-mail: kl@klhavn.fo
5. Web site: <http://www.klhavn.fo>

Anchorage.—The cove affords good anchorage, but it is narrow and the swinging room is limited. Vessels should anchor, in a depth of 13m, mud, in the middle of the cove.

Caution.—Anchorage is prohibited in the vicinity of a water pipeline, which extends NE across the harbor.

Strong and variable mountain squalls often move down from the hills during W gales.

Kunoy

16.26 Kunoy is separated from Kalsoy by the N portion of Kalso Fjord. The S side of this island is separated from Klak, located on Bordhoy, by Podlen and its E side is separated from Bordhoy by Haraldssund. This latter sound is closed to through navigation by a causeway.

Kunoyarnakkur, the N extremity of the island, is backed by a hill, 818m high, which slopes steeply seaward and forms the most precipitous mountain wall in Foroyar.

Bordoy

16.27 Klak, a hill 409m in height, rises near the N end of the peninsula, which forms the SW end of Bordoy. The name of this peak is given locally to the S shore of Podlen, which lies close N of it.

Bordhoyarvik lies on the S side of Bordoy and is entered between Bordoyarnes, the S extremity of the island, and Skalanes, 1.3 miles NE. This inlet should not be used as an anchorage, except in case of necessity, as it is fully exposed to S winds, which cause a heavy swell to roll in.

Vessels may obtain temporary anchorage, in a depth of 20m, in the middle of the inlet, abreast a stone fence standing on the W side.

Arnafjordhur is entered at the SE side of Bordoy and extends 2.8 miles NW. Good anchorage may be obtained, in a depth of 40m, clay, at the head of this fjord, but E winds cause a swell to roll in.

Svinoyarfjordhur is entered from the S between the N entrance point of Arnafjordhur and Heltnin, the S extremity of Svinoy, which is located 2 miles E. Havsbolli, a group of rocks, lies about 0.3 mile WSW of Havnantangi, on the E side of the fjord. In heavy weather, the sea breaks heavily over this group of rocks. Tide rips are generally found in their vicinity during good weather.

Mulin, which forms the N extremity of Bordoy, rises to a height of 536m and is precipitous and steep-to.

Hvannsund, a narrow strait, separates the NE side of Bordhoy from the W side of Vidoy. A causeway has been built

across the N end of the narrow part of this strait, closing it to through navigation.

Svinoy

16.28 Havnartangi, fronted by a reef, forms the W extremity of Svinoy and rises to a height of 586m, 0.5 mile E of the point.

Svinoyarvik, a small bay, lies on the E side of the island, but is open to E and SE winds. It affords only poor, temporary anchorage, in a depth of 23m, sand, in the middle part.

The N coast of the island, which forms the S side of Fugloyarfjordhur, should not be closely approached.

Fugloyarfjordhur, which separates Svinoy from Fugloy, is 1 mile wide. This fjord has an uneven bottom and the tidal currents run strongly through it, causing a heavy sea at times. Vessels are advised not to use this passage in rough weather.

Caution.—An overhead cable, with a minimum vertical clearance of 55m, spans Svinoyarfjordhur, close N of the narrows lying between Svinoy and Vidoy.

Fugloy (Fuglo)

16.29 Fugloy is the northeasternmost of Foroyar and rises to a height of 621m near its W side.

Nordberg, which forms the N extremity of the island, rises to a height of 420m and is fringed by rocks.

A light is shown from a tower standing near the NE extremity of the island. A lighted beacon stands on a detached rock, 45m high, which lies close offshore, SE of the light.

Hattarvik, a small and open bay, lies on the SE side of the island. A village and a prominent church stand at the head of this bay. During N or NW winds, vessels may obtain temporary anchorage, in a depth of 42m, in the middle of this bay, about 0.3 mile from the head.

Vidoy (Videro)

16.30 Seydtorva (62°24'N., 6°33'W.) is the N extremity of Vidoy; the summit of the island, which is 841m high, rises 0.8 mile S of it. The N side of this mountain terminates close E of the point and forms Enniberg, a precipitous and prominent cliff. Several detached rocks lie up to 0.2 mile seaward in the vicinity of this cliff and two rocky pinnacles, 13m and 128m high, lie close offshore, 0.5 mile SE of it.

Vidvik, a small bay, lies on the SE side of the island. This bay, which can only be used as a temporary anchorage, is open to N and NE winds. Vessels may anchor, in a depth of 16m, on the E side, about 0.5 mile from the head.

Orkney, Shetland, and Foroyar Islands

Words used in the Orkney Islands,
Shetland Islands, and
Foroyar Islands.

English

A

aa river
ayre open beach of sand or shingle

B

baa sunken rock, on which the sea breaks
..... in bad weather only
banki bank
barmur bay, cove
bodhi rocks
botnur bay
bow buoy
brough, burgh circular tower or islet
bue sunken rock
bugt bay or bight
bydg village

D

drangur rocks, point
dyke wall

E

eejde isthmus
eidhi isthmus

F

felli mountain
fjall mountain
fjordhur fjord, bay
fles, flesjar rocks

G

geo, geodha a hollow, rocky creek, or opening
gjov split rock
gloup cave with open roof
grund, grynna shoal or bank
gruns fishing banks

H

haaf the deep sea
hamari steep wall of mountain
heugh crag or steep hill
heyggjur hill
holm islet
holmur island
hovdi point, hill
hovn bay

Words used in the Orkney Islands,
Shetland Islands, and
Foroyar Islands.

English

K

kirk church
klettur hill
kyle narrow sound or strait

M

meikle, muckle great
mule, mull promontory, cape

N

naes cape, headland
neap, noup lofty headland
nes point
nipa point

O

ord steep hill, mountain
oy island
oyar islands

R

rost tidal race or whirlpool

S

sandur point
skaer rock or skerry
skar mountain pass
skerry rocky reef or isolated rock
stack precipitous isolated rock
stakkur point, rock
steinar rocks
steinur rock, point
sund strait, channel

T

taing rocky point
tangi point
tindur mountain

V

vag bay
vig creek, cove, or inlet
vik bay
voe long narrow bay or firth

W

ward, wart, vord cairn of earth or stones
wick open bay

Gaelic

GAELIC	English	GAELIC	English
A		G	
a, an, am	the	garbh	rough
abhainn, aibhne	river	geo, geodha	creek
acair	anchor	glas	green or grey
aird, ard	high point	gleann	glen
allt	stream or brook	gob	bill or beak of bird
B		H	
baa	rock	heugh	steep hill
bad	grove	holm	islet
bagh	bay	I	
baile	farm, town	iar	west
ban, bhan	white	innis or inch	choice pasture island
barr	summit	K	
bass	rock	klakh	stone
bealach	pass or gap	klet	rugged eminence
beg	little	knowe	hill
ben	mountain	krag	cliff
bhreas, breac	speckled	kyle, kyles	narrow passage or strait
bhuidhe, buidhe	yellow	L	
biod	summit	lag	a hollow
bo, bogha	sunken rock	leac, lekh	slate or slab
bu	rock under water	lia, liath	grey or blue
bun	foot, mouth of river	linne, linnhe	gulf or lake
C		loch	lake
camas, camus	bay or creek	lon	a stream
caol, caolas	firth or strait	M	
ceann	head	maol	headland
clach	stone	meall	lump
clei	a rugged eminence	mointeach, monadh	moss or moor land
cnoc	hill or knoll	mol, moll	a cliff
coire	whirlpool	more	great
corran	hook	mull	promontory
creag	cliff	mullach	summit
D		N	
dearg	red	na, nah, nam, nan	the, these
deas	south	O	
druim	ridge	ob, obe	creek or haven
du, dubh	black	oiti	shoal
dun	mound, fort	P	
E		pal, poll, poul, or puill	pool or bay, also bog
each	horse		
ear	east		
eileach, eilean	island or islet		
eileanan	islands or islets		

GAELIC	English	GAELIC	English
R			
rhu, ruadh	red	stac	a steep rock or conical hill
S		strath	a river valley
salann, salean	salt water bay	T	
sgei	a rock in the sea	tob	a well or spring
sgeirean	rocks in the sea	torr	a conical hill
sgon, sgonn	a lump	traigh	strand or sand beach
sgor, sgurr	a peak	tuath	north
sithean	mainland	U	
sron.....	nose, promontory	uaine	green
		uamg or uamha	cave
		uig	bay

How to use the Index—Gazetteer

Geographic names of navigational features are generally those used by the nation having sovereignty and are listed alphabetically. Diacritical marks, such as accents, cedillas, and circumflexes, which are related to specific letters in certain foreign languages, are not used in the interest of typographical simplicity.

Geographic names or their spellings do not necessarily reflect recognition of the political status of an area by the United States Government. Positions are approximate and are intended merely as locators to facilitate reference to the charts.

To use as a Gazetteer note the position and Sector number of the feature and refer to the Chart Information diagram for the Sector. Plot the approximate position of the feature on this diagram and note the approximate chart number.

To use as an Index of features described in the text note the paragraph number at the right. To locate this feature on the best scale chart use the Gazetteer procedure above.

Index—Gazetteer

	Position			Sec. Para		Position			Sec. Para		
	°	'	''			°	'	''			
A											
A' CHLEIT	58	08 N	5	21 W	5.20	ARDENCAPLE BAY	56	19 N	5	36 W	2.25
ABERDOUR BAY	57	40 N	2	11 W	11.10	ARDGARTAN POINT	56	11 N	4	47 W	1.38
ACAIRSEID MHOR	57	32 N	5	59 W	3.49	ARDINTOUL POINT	57	16 N	5	36 W	3.30
ACHINTRAID	57	23 N	5	36 W	3.39	ARDIVACHAR POINT	57	23 N	7	25 W	6.16
ACHNACROISH	56	31 N	5	29 W	2.28	ARDKINGLAS HOUSE	56	15 N	4	57 W	1.61
ACHRIESGILL BAY	58	26 N	5	00 W	5.31	ARDLAMONT POINT	55	50 N	5	12 W	1.51
AILSA CRAIG	55	15 N	5	07 W	1.8	ARDLUSSA BAY	56	02 N	5	46 W	2.11
AIRD A' BHAIGH	57	55 N	6	37 W	5.42	ARDMALEISH POINT	55	53 N	5	05 W	1.52
AIRD BRENISH	58	08 N	7	08 W	6.29	ARDMINISH BAY	55	40 N	5	44 W	2.2
AIRD DA LOCH	58	15 N	5	00 W	5.24	ARDMORE BAY	56	23 N	5	34 W	2.25
AIRD DIRACLETT	57	53 N	6	47 W	5.40	ARDMORE BAY	56	39 N	6	11 W	3.8
AIRD FENISH	58	09 N	7	07 W	6.29	ARDMORE CHANNEL	55	59 N	4	47 W	1.40
AIRD GHLAS	58	09 N	5	15 W	5.21	ARDMORE HEAD	55	58 N	4	42 W	1.29
AIRD IMERSAY	55	39 N	6	05 W	2.4	ARDMORE ISLANDS	55	40 N	6	02 W	2.4
AIRD MHANAIS	57	47 N	6	51 W	5.36	ARDMORE PENINSULA	57	33 N	6	39 W	5.4
AIRD MHOR	57	48 N	6	51 W	5.36	ARDMORE POINT	55	41 N	6	01 W	2.4
AIRD MORE BRAGOR	58	21 N	6	40 W	6.37	ARDMORE POINT	56	39 N	6	08 W	3.8
AIRD OF KINLOCH	56	23 N	6	01 W	3.4	ARDMORE POINT	56	40 N	6	08 W	3.8
AIRD RAERINISH	58	08 N	6	22 W	5.51	ARDMORE POINT	57	33 N	6	39 W	5.4
AIRDS BAY	56	33 N	5	25 W	2.29	ARDMORE POINT	58	25 N	5	07 W	5.29
AIRDS POINT	56	32 N	5	25 W	2.29	ARDMUCKNISH BAY	56	29 N	5	26 W	2.27
AIROR ISLAND	57	05 N	5	46 W	3.25	ARDNAVE POINT	55	53 N	6	20 W	2.20
AIS SGEIR	57	16 N	5	33 W	3.31	ARDNISH	56	52 N	5	45 W	3.20
AITH HOPE	58	46 N	3	14 W	8.7	ARDNOE POINT	56	06 N	5	35 W	2.11
AITH VOE	60	19 N	1	22 W	15.13	ARDPATRICK POINT	55	46 N	5	37 W	2.8
AKRABERG	61	24 N	6	40 W	16.2	ARDRISHAIG	56	01 N	5	27 W	1.58
ALINE LODGE	58	00 N	6	45 W	5.43	ARDROSS ROCK	57	55 N	5	25 W	5.14
ALTURLIE POINT	57	31 N	4	09 W	10.15	ARDROSSAN HARBOR	55	39 N	4	49 W	1.15
AM BALG	58	33 N	5	07 W	5.32	ARDTORNISH BAY	56	31 N	5	45 W	3.10
AM FIACLACHAN	57	47 N	5	37 W	5.12	ARDTORNISH POINT	56	31 N	5	45 W	3.10
AM FRAOCH EILEAN	55	48 N	6	02 W	2.7	ARDTRECK POINT	57	20 N	6	26 W	4.11
AM MEALL	58	29 N	5	07 W	5.32	ARDYNE POINT	55	52 N	5	03 W	1.55
AN CAMAS AISEIG	56	44 N	5	16 W	2.34	ARINAGOUR	56	37 N	6	31 W	4.6
AN CEANNAICH	57	27 N	6	47 W	5.2	ARMADALE BAY	57	04 N	5	53 W	3.23
AN DUBH AIRD	57	20 N	5	41 W	3.37	ARMADDY BAY	56	17 N	5	35 W	2.17
AN DUBH SGEIR	57	13 N	6	24 W	4.9	ARNISH POINT	58	11 N	6	22 W	5.54
AN DUBH SGEIR	57	20 N	6	40 W	4.7	AROS BAY	57	33 N	6	33 W	5.6
AN FHAOCHAG	57	04 N	5	48 W	3.24	ARRAN ISLAND	55	30 N	5	13 W	1.16
AN GARBHEILEAN	58	37 N	4	52 W	7.4	ARTOPLÉ	56	07 N	7	17 W	4.28
ANNAT BAY	57	55 N	5	19 W	5.16	ASCOG POINT	55	50 N	5	01 W	1.20
ANNAT NARROWS	56	51 N	5	07 W	2.35, 2.37	ASCRIB ISLANDS	57	35 N	6	31 W	5.8
ANT-AIGEACH	58	33 N	4	39 W	7.5	ASKNISH BAY	56	14 N	5	34 W	2.15
APPLECROSS BAY	57	26 N	5	50 W	3.42	AUSKERRY	59	02 N	2	34 W	14.28
ARBROATH	56	33 N	2	35 W	13.3	AUSKERRY SOUND	59	03 N	2	35 W	14.42
ARD A MHORAIN	57	42 N	7	19 W	6.20	AVON ROCK	56	31 N	5	47 W	3.10
ARD AN TORRAIN	57	02 N	6	02 W	3.49	AYR BAY	55	30 N	4	40 W	1.10
ARD BHATAN	56	30 N	5	25 W	2.27	AYR HARBOR	55	28 N	4	38 W	1.11
ARD CAOL	57	55 N	6	41 W	5.42	B					
ARD LAIMISHADER	58	17 N	6	49 W	6.36	BAA OF WETHER HOLM	60	23 N	1	01 W	15.51
ARD MORE MANGERSTA	58	11 N	7	06 W	6.29	BAAS OF LINTON	59	03 N	2	46 W	14.43
ARD NA CLAISE MOIRE	57	30 N	5	52 W	3.43	BABBET NESS	56	18 N	2	35 W	13.10
ARD THURINISH	57	02 N	5	58 W	3.23	BAC MOR	56	27 N	6	29 W	3.7
ARD TUN	56	21 N	6	14 W	3.4	BACKASKAILL	59	20 N	2	54 W	14.7
ARDALANISH BAY	56	17 N	6	14 W	2.23	BACKASKAILL BAY	59	14 N	2	37 W	14.26
ARDANTRIVE BAY	56	25 N	5	30 W	2.26	BADCALL	58	20 N	5	09 W	5.27
ARDELVE POINT	57	17 N	5	31 W	3.30	BADCALL BAY	58	19 N	5	09 W	5.26

	Position			Sec. Para		Position			Sec. Para		
	o	'				o	'				
BADCALL ISLANDS	58	18 N	5	10 W	5.26	60	43 N	0	59 W	15.4	
BADENTARBAT BAY	58	01 N	5	23 W	5.16	60	42 N	0	59 W	15.71	
BAGH AN TIGH STOIR	56	12 N	5	33 W	2.15	58	09 N	5	18 W	5.21	
BAGH BAN	56	10 N	5	35 W	2.15	56	48 N	6	06 W	3.19	
BAGH CHALBHA	58	17 N	5	08 W	5.25	57	25 N	7	11 W	4.36	
BAGH NA FIONNDALACH MOIRE	58	24 N	5	05 W	5.29	57	16 N	5	41 W	3.32	
BAGH NAM FAOILEANN	57	23 N	7	14 W	4.35	57	03 N	7	20 W	4.28	
BAGI STACK	60	43 N	1	08 W	15.5	56	56 N	7	24 W	4.24	
BALLACHULISH BAY	56	41 N	5	14 W	2.32	57	03 N	6	01 W	4.16	
BALMACARA BAY	57	17 N	5	39 W	3.32	58	27 N	5	04 W	5.30	
BALMEANACH BAY	57	20 N	6	06 W	3.48	58	25 N	5	08 W	5.29	
BALTA	60	45 N	0	47 W	15.73	61	49 N	6	47 W	16.7	
BALTA SOUND	60	45 N	0	48 W	15.74	55	51 N	5	01 W	1.20	
BALVICAR BAY	56	18 N	5	36 W	2.17	57	50 N	6	43 W	5.39	
BANFF BAY	57	40 N	2	31 W	11.9	57	09 N	6	08 W	4.8	
BARD HEAD	60	06 N	1	04 W	15.41	56	31 N	6	17 W	3.6	
BARMORE ISLAND	55	53 N	5	24 W	1.57	56	36 N	6	31 W	4.6	
BARONS POINT	55	54 N	4	51 W	1.28	56	22 N	5	38 W	2.25	
BARRA HEAD	56	47 N	7	39 W	6.9	56	22 N	7	02 W	4.2	
BARRA ISLAND	57	00 N	7	28 W	6.11	57	11 N	7	17 W	4.29	
BARREL OF BUTTER	58	53 N	3	08 W	14.80	56	32 N	5	46 W	3.11	
BARWHIN POINT	55	21 N	4	48 W	1.10	58	07 N	6	24 W	5.50	
BAY OF BROUGH	59	19 N	2	57 W	14.10	59	04 N	2	57 W	14.52	
BAY OF CLEAT	59	18 N	2	56 W	14.10	57	50 N	7	03 W	6.25	
BAY OF FIRTH	59	00 N	3	05 W	14.55	59	22 N	2	57 W	14.5	
BAY OF IRELAND	58	58 N	3	15 W	14.61	55	56 N	4	29 W	1.31	
BAY OF ISBISTER	59	03 N	3	02 W	14.55	58	56 N	3	21 W	14.58	
BAY OF KEISGAIG	58	35 N	5	01 W	5.33	58	56 N	3	21 W	14.58	
BAY OF KIRKWALL	59	00 N	2	58 W	14.55	57	51 N	6	43 W	5.39	
BAY OF LAIG	56	55 N	6	10 W	4.13	58	12 N	6	18 W	5.52	
BAY OF NAVERSHAW	58	58 N	3	16 W	14.61	56	32 N	5	27 W	2.28	
BAY OF NEWARK	59	15 N	2	30 W	14.24	58	13 N	6	45 W	6.36	
BAY OF SANDQUOY	59	18 N	2	28 W	14.22	58	58 N	3	21 W	14.3	
BAY OF SKAILL	59	21 N	2	57 W	14.6	60	09 N	1	05 W	15.41	
BAY OF SWARTMILL	59	18 N	2	55 W	14.10	59	21 N	2	24 W	14.19	
BAYBLE BAY	58	12 N	6	12 W	5.55	58	37 N	3	40 W	7.10	
BEATRICE OIL FIELD	58	08 N	3	03 W	9.8	58	46 N	3	14 W	8.7	
BEAUFORTS DYKE	54	40 N	5	10 W	1.2	60	19 N	1	29 W	15.15	
BEINN BHEIGEIR	55	44 N	6	05 W	2.7	58	54 N	3	14 W	14.62	
BEINN EAVAL	57	32 N	7	11 W	4.38	58	17 N	6	11 W	5.55	
BEINN GHOBHLACH	57	54 N	5	17 W	5.16	57	15 N	5	53 W	3.41	
BEINN MHOLACH	58	15 N	6	30 W	5.34	55	35 N	5	08 W	1.18	
BEINN MHOR	57	16 N	7	18 W	4.32	58	01 N	3	51 W	9.9	
BEINN MOR	56	26 N	6	01 W	2.23	60	31 N	1	13 W	15.57	
BELL ROCK	56	26 N	2	23 W	13.2	59	08 N	3	20 W	14.3	
BELNAHUA	56	15 N	5	41 W	2.13	56	59 N	7	23 W	4.26	
BEN ARKLE	58	22 N	4	54 W	5.29	58	56 N	3	19 W	14.58	
BEN HOGH	56	38 N	6	34 W	4.5	57	41 N	2	58 W	11.5	
BEN HUTICH	58	33 N	4	31 W	7.8	57	35 N	4	06 W	10.10	
BEN HUTIG	58	33 N	4	31 W	7.8	56	28 N	2	44 W	13.4	
BEN MOR COIGACH	57	59 N	5	13 W	5.15	61	49 N	6	47 W	16.7	
BEN SCRIBEN	57	05 N	7	17 W	4.28	56	20 N	6	11 W	3.4	
BEN SCRIBEN	57	05 N	7	18 W	4.27	56	19 N	6	14 W	3.4	
BEN STACK	57	04 N	7	17 W	4.28	55	53 N	6	07 W	2.7	
BEN STACK	58	20 N	4	57 W	5.29	59	18 N	2	33 W	14.17	
BEN TARBERT	57	20 N	7	18 W	4.34	58	44 N	2	58 W	14.64	
BEN TIANAVAIG	57	23 N	6	09 W	3.48	57	42 N	3	30 W	10.13	
BENBECULA	57	26 N	7	18 W	6.15	57	42 N	3	30 W	10.13	
BENBECULA SOUND	57	22 N	7	13 W	4.35	55	56 N	5	10 W	1.52	
BENLIN ROCK	59	07 N	2	52 W	14.39	60	50 N	0	51 W	15.2	
BENMORE	57	20 N	7	18 W	4.29	57	33 N	7	10 W	4.39	
BENNANE HEAD	55	08 N	5	00 W	1.9	60	23 N	1	22 W	15.12	
BERIE	58	30 N	6	13 W	5.56	60	22 N	1	22 W	15.12	
BERNERA BAY	56	29 N	5	35 W	2.30	55	45 N	5	10 W	1.50	
BERNERA BAY	57	13 N	5	39 W	3.29	55	56 N	5	11 W	1.52	
BERNERA ISLAND	56	30 N	5	35 W	2.30						
BERNERAY	56	47 N	7	38 W	6.9						
BERNERAY	57	44 N	7	10 W	6.20						
BERNISDALE	57	28 N	6	20 W	5.7						
BERRIEDALE NESS	58	10 N	3	31 W	9.7						
BERST NESS	59	16 N	2	59 W	14.36						
BIG ROCK	55	58 N	5	26 W	1.58						
BIGGA	60	30 N	1	12 W	15.56						
BILLIA SKERRY	60	24 N	0	49 W	15.49						
BINCH ROCK	57	02 N	7	17 W	4.28, 6.14						
BLACK EYE ROCK	57	17 N	5	45 W	3.36						
BLACK FARLAND BAY	55	54 N	5	13 W	1.51						
BLACK ISLANDS	56	14 N	5	43 W	2.13						
BLACK MILL BAY	56	13 N	5	40 W	2.14						
BLACK ROCK	56	11 N	5	32 W	2.12						
BLOODY BAY	56	39 N	6	06 W	3.14						
BLUE MULL	60	43 N	0	59 W	15.4						
BLUEMULL SOUND	60	42 N	0	59 W	15.71						
BO CAOLAS	58	09 N	5	18 W	5.21						
BO FASKADALE	56	48 N	6	06 W	3.19						
BO GREANAMUL	57	25 N	7	11 W	4.36						
BO SRON AN TAIRBH	57	16 N	5	41 W	3.32						
BO TANNA	57	03 N	7	20 W	4.28						
BO VICH CHUAN	56	56 N	7	24 W	4.24						
BOAT HARBOUR	57	03 N	6	01 W	4.16						
BODHA CEANN NA SAILE	58	27 N	5	04 W	5.30						
BODHA DRUIM	58	25 N	5	08 W	5.29						
BODHATANGI	61	49 N	6	47 W	16.7						
BOGANY POINT	55	51 N	5	01 W	1.20						
BOGHA BHOCAIG	57	50 N	6	43 W	5.39						
BOGHA CARRACH	57	09 N	6	08 W	4.8						
BOGHA MOR	56	31 N	6	17 W	3.6						
BOGHA MOR	56	36 N	6	31 W	4.6						
BOGHA NUADH	56	22 N	5	38 W	2.25						
BOINSHLY ROCK	56	22 N	7	02 W	4.2						
BOISDALE HILLS	57	11 N	7	17 W	4.29						
BOLORKLE POINT	56	32 N	5	46 W	3.11						
BONES ROCK	58	07 N	6	24 W	5.50						
BORAY HOLM	59	04 N	2	57 W	14.52						
BORVE BAY	57	50 N	7	03 W	6.25						
BOW HEAD	59	22 N	2	57 W	14.5						
BOWLING	55	56 N	4	29 W	1.31						
BRAEBURTER POINT	58	56 N	3	21 W	14.58						
BRAEBUSTER POINT	58	56 N	3	21 W	14.58						
BRAIGH MOR	57	51 N	6	43 W	5.39						
BRANAHUIE BAY	58	12 N	6	18 W	5.52						
BRANRA ROCK	56	32 N	5	27 W	2.28						
BREASCLETE BAY	58	13 N	6	45 W	6.36						
BRECK NESS	58	58 N	3	21 W	14.3						
BRESSAY	60	09 N	1	05 W	15.41						
BRIDES NESS	59	21 N	2	24 W	14.19						
BRIMS NESS	58	37 N	3	40 W	7.10						
BRIMS NESS	58	46 N	3	14 W	8.7						
BRINDISTER VOE	60	19 N	1	29 W	15.15						
BRING DEEPS	58	54 N	3	14 W	14.62						
BROAD BAY	58	17 N	6	11 W	5.55						
BROADFORD BAY	57	15 N	5	53 W	3.41						
BRODICK BAY	55	35 N	5	08 W	1.18						
BRORA POINT	58	01 N	3	51 W	9.9						
BROTHER ISLE	60	31 N	1	13 W	15.57						
BROUGH HEAD	59	08 N	3	20 W	14.3						
BRUERNISH POINT	56	59 N	7	23 W	4.26						
BU POINT	58	56 N	3	19 W	14.58						
BUCKIE	57	41 N	2	58 W	11.5						
BUCKLE ROCK	57	35 N	4	06 W	10.10						
BUDDON NESS	56	28 N	2	44 W	13.4						
BUETANGE	61	49 N	6	47 W	16.7						
BUN AN LEOIB	56	20 N	6	11 W	3.4						
BUNESSAN	56	19 N	6	14 W	3.4						
BUNNAHABHAIN BAY	55	53 N	6	07 W	2.7						
BUR NESS	59	18 N	2	33 W	14.17						
BUR WICK	58	44 N	2	58 W	14.64						
BURGHEAD	57	42 N	3	30 W	10.13						
BURGHEAD HARBOUR	57	42 N	3	30 W	10.13						
BURNT ISLES	55	56 N	5	10 W	1.52						
BURRA FIRTH	60	50 N	0	51 W	15.2						
BURRIVAL	57	33 N	7	10 W	4.39						
BUSTA	60	23 N	1	22 W	15.12						
BUSTA VOE	60	22 N	1	22 W	15.12						
BUTE SOUND	55	45 N	5	10 W	1.50						
BUTTOCK POINT	55	56 N	5	11 W	1.52						
						C					
						CADAIL BANK	57	56 N	5	15 W	5.17
						CAILLEACH HEAD	57	56 N	5	24 W	5.14
						CAIRN POINT	54	58 N	4	02 W	1.5
						CAIRN RYAN	54	58 N	5	01 W	1.6
						CAIRNDHU POINT	56	00 N	4	4	

	Position			Sec. Para		Position			Sec. Para
	o	'				o	'		
CALGARY BAY	56	34 N	6 20 W	3.8	COLLA FIRTH	60	32 N	1 20 W	15.61
CALIACH POINT	56	36 N	6 19 W	3.8	COLONSAY	56	04 N	6 13 W	2.21
CALVAY	57	09 N	7 15 W	4.30	COLSAY	59	57 N	1 21 W	15.34
CALVE ISLAND	56	37 N	6 02 W	3.13	COMET ROCK	57	45 N	6 21 W	5.10
CAMAS BAN	57	08 N	5 34 W	3.27	COMPASS HILL	57	04 N	6 29 W	4.16
CAMAS CROISE	57	08 N	5 48 W	3.25	COPINSAY	58	54 N	2 40 W	14.29
CAMAS DARAICH	57	01 N	6 00 W	3.23	COPPAY	57	50 N	7 10 W	6.23
CAMAS MOR	57	39 N	6 25 W	5.8	CORPACH	56	51 N	5 07 W	2.37
CAMAS NAN GALL	56	50 N	5 07 W	2.36	CORR EILEAN	55	55 N	5 44 W	2.9
CAMAS NAN GALL	57	09 N	6 13 W	4.8	CORR EILEANAN	57	06 N	5 32 W	3.27
CAMAS SHALLACHAIN	56	42 N	5 18 W	2.31	CORRAN NARROWS	56	43 N	5 14 W	2.33
CAMAS TUATH	56	20 N	6 17 W	3.3	CORRAN POINT	56	43 N	5 15 W	2.33
CAMPAY	58	17 N	6 52 W	6.34	CORRIEGILLS POINT	55	34 N	5 07 W	1.29
CAMPBELL ROCK	56	15 N	5 34 W	2.16	CORRY POINT	57	53 N	5 07 W	5.18
CAMPBELTOWN HARBOUR	55	26 N	5 36 W	1.48	CORSEWALL POINT	55	00 N	5 10 W	1.4
CAMPBELTOWN LOCH	55	25 N	5 36 W	1.47	COSTA HEAD	59	09 N	3 12 W	14.3
CAMUS NAM BORGH	57	50 N	7 03 W	6.25	COUL POINT	55	48 N	6 29 W	2.20
CANNA	57	04 N	6 32 W	4.16	COULPORT JETTY	56	03 N	4 53 W	1.36
CANNA HARBOUR	57	03 N	6 29 W	4.17	COVESEA SKERRIES	57	44 N	3 21 W	11.2
CANTICK HEAD	58	47 N	3 08 W	8.8	CRACHAN ROCK	57	29 N	6 26 W	5.8
CAOL MOR	57	20 N	6 01 W	3.42	CRAIG HEAD	57	42 N	2 55 W	11.6
CAOL RONA	57	31 N	5 59 W	3.43	CRAIG LAGGAN	54	58 N	5 11 W	1.2
CAOLAS A IBATH	58	00 N	6 25 W	5.48	CRAIGNURE BAY	56	28 N	5 42 W	3.9
CAOLAS CREAGAN	56	33 N	5 18 W	2.29	CRAIGTON POINT	57	30 N	4 14 W	10.16
CAOLAS CUMHANN	58	15 N	5 02 W	5.24	CRAMMAG HEAD	54	40 N	4 58 W	1.3
CAOLAS MOR	55	59 N	6 15 W	2.21	CRAOBH HAVEN	56	13 N	5 33 W	2.15
CAOLAS SCALPAY	57	16 N	5 51 W	3.41	CRAOBHAG	57	54 N	6 48 W	5.41
CAPE WRATH	57	16 N	5 56 W	3.45	CREAG A' MHAIL	58	22 N	5 10 W	5.27
CARBOST	58	37 N	5 00 W	7.3	CREAG FHRAOCH	58	18 N	6 15 W	5.55
CARN DEARG	57	18 N	6 21 W	4.11	CREAG MHAOL	57	21 N	5 34 W	3.38
CARN MOR	57	56 N	5 22 W	5.16	CREAG MOR	57	14 N	7 16 W	4.32
CARN SKERRIES	56	34 N	6 14 W	3.8	CREAG MOR	58	02 N	6 22 W	5.48
CARNA	57	58 N	5 22 W	5.15	CRIBBA SOUND	60	19 N	1 28 W	15.14
CARNOUSTIE	56	40 N	5 53 W	3.17	CRINAN	56	05 N	5 34 W	2.12
CARRADALE HARBOUR	56	30 N	2 43 W	13.4	CRINAN CANAL	56	01 N	5 27 W	1.59
CARRADALE POINT	55	36 N	5 28 W	1.49	CROCK NESS	58	49 N	3 10 W	14.77
CARRAGH AN T-SRUITH	55	35 N	5 27 W	1.49	CROGARY NA HOE	57	39 N	7 04 W	4.41
CARRAIG AN DAIMH	55	52 N	6 06 W	2.7	CROMARTY FIRTH	57	41 N	4 00 W	10.4
CARRAIG FHADA	55	57 N	5 45 W	2.10	CROOKNESS	59	02 N	3 01 W	14.52
CARRAIG MOR	55	37 N	6 12 W	2.4	CROSSAPOL BAY	56	34 N	6 40 W	4.5
CARRICK	55	50 N	6 06 W	2.7	CROSSBOST CHURCH	58	08 N	6 25 W	5.51
CARSAIG BAY	56	06 N	4 54 W	1.39	CROWLIN ISLANDS	57	21 N	5 50 W	3.42
CARSAIG BAY	56	02 N	5 39 W	2.11	CUAN SOUND	56	16 N	5 38 W	2.17
CASTLE BAY	56	19 N	5 59 W	2.23	CUIL BAY	56	39 N	5 18 W	2.31
CASTLE POINT	56	57 N	7 29 W	4.25	CULAG HOTEL	58	09 N	5 15 W	5.21
CAT FIRTH	56	00 N	4 46 W	1.41	CULBHAIE ROCK	56	11 N	5 35 W	2.15
CATHACOL BAY	60	15 N	1 12 W	15.46	CULLEN	57	42 N	2 49 W	11.7
CATH SGEIR	55	42 N	5 20 W	1.45	CULLEN BAY	57	42 N	2 49 W	11.7
CAUSAMUL	55	40 N	5 37 W	2.2	CUMBRAE ELBOW	55	43 N	4 58 W	1.19
CAVA	57	36 N	7 36 W	6.18	CUMBRAE PASS	55	44 N	4 56 W	1.19
CAVE ROCK	58	53 N	3 10 W	14.80	CUNNDAL BAY	58	29 N	6 18 W	6.37
CEANN EAR	56	54 N	5 54 W	3.20	CURACHAN	56	58 N	7 21 W	4.26
CEANN IAR	57	31 N	7 37 W	6.17	CUTHE BANK	59	16 N	2 41 W	14.16
CEANNAMHOR	57	31 N	7 40 W	6.17					
CELLAR HEAD	58	18 N	5 10 W	5.27					
CHANONRY POINT	58	26 N	6 10 W	5.56					
CHARLOTTE ROCKS	57	34 N	4 05 W	10.10					
CHICKEN HEAD	57	35 N	7 37 W	6.18					
CHORRIE ISLAND	58	11 N	6 15 W	5.52	DALES VOE	60	12 N	1 10 W	15.46
CHURCHTON BAY	58	29 N	4 42 W	7.6	DALES VOE	60	25 N	1 12 W	15.61
CLACHAN SOUND	57	21 N	6 04 W	3.47	DALSNIPA	61	46 N	6 39 W	16.7
CLANSMAN SHOAL	56	19 N	5 35 W	2.17	DALSNIPA	62	02 N	6 59 W	16.12
CLAUS DEAS	58	18 N	5 10 W	5.27	DAVAAR ISLAND	55	25 N	5 33 W	1.47
CLEITEADH MOR	58	14 N	5 24 W	5.23	DEER SOUND	58	58 N	2 45 W	14.43
CLESTRAN SOUND	55	26 N	5 15 W	1.43	DEERNES	58	57 N	2 45 W	14.28
CLIFT SOUND	58	56 N	3 15 W	14.61	DONALD MURCHISON'S MONUMENT	57	17 N	5 40 W	3.32
CLINIGIN ROCKS	60	03 N	1 20 W	15.33	DORNEY SOUND	58	02 N	5 27 W	5.16
CLISHAM	57	31 N	6 26 W	5.8	DORNOCH POINT	57	51 N	4 00 W	9.10
CLOCH POINT	57	58 N	6 49 W	6.24	DORUS MOR	56	08 N	5 37 W	2.12
CLOCH POINT	55	56 N	4 52 W	1.29	DOUGLAS PIER	56	09 N	4 54 W	1.39
CLOICHE LOMAIHDH	55	57 N	4 53 W	1.25	DOWIE SAND	59	04 N	2 38 W	14.42
CLOVULLIN BAY	58	27 N	5 01 W	5.31	DROVER CHANNEL	57	04 N	7 22 W	4.26
CLUMLY BASS	56	43 N	5 16 W	2.33	DROVER ROCKS	57	04 N	7 23 W	6.1
CLYTH NESS	59	57 N	1 15 W	15.36	DROVER ROCKS	57	04 N	7 24 W	4.28
CNOC AN FHREICEADAIN	58	19 N	3 13 W	9.6	DRUIM AN ACHANARNICH	56	10 N	5 36 W	2.15
CNOC GLASS	58	30 N	4 23 W	7.8	DRUMADOON POINT	55	30 N	5 21 W	1.45
COCK OF ARRAN	58	33 N	4 26 W	7.7	DUART BAY	56	27 N	5 40 W	3.9
COLENISH	55	43 N	5 15 W	1.46	DUART POINT	56	27 N	5 39 W	3.9
COLGRAVE SOUND	57	13 N	7 16 W	4.32	DUARTMORE POINT	58	17 N	5 06 W	5.24
COLINTRAIVE POINT	60	35 N	0 58 W	15.65	DUBH ARTACH	56	08 N	6 38 W	2.18
COLL	55	55 N	5 09 W	1.52	DUBH CHAMAS	56	06 N	5 42 W	2.11
	56	38 N	6 33 W	4.5	DUBH SGEIR	56	15 N	5 40 W	2.14
					DUBH SGEIR	56	22 N	5 37 W	2.25

	Position			Sec. Para		Position			Sec. Para		
	o	'				o	'				
FIRTH OF CLYDE	55	19 N	5	00 W	1.8	GOB RUBH' UISENI	57	56 N	6	28 W	5.45
FIRTH OF LORN	56	18 N	5	47 W	2.18	GOMETRA	56	29 N	6	18 W	3.5
FISHING BANK	58	32 N	5	22 W	5.33	GON FIRTH	60	21 N	1	20 W	15.13
FISHNISH BAY	56	31 N	5	50 W	3.12	GOTT BAY	56	31 N	6	48 W	4.5
FITFUL HEAD	59	54 N	1	23 W	15.34	GOUROCK	55	58 N	4	48 W	1.28
FIUNARY ROCKS	56	33 N	5	53 W	3.11	GOVAN	55	52 N	4	18 W	1.33
FLADDA	56	15 N	5	41 W	2.14	GRAEMSAY	58	56 N	3	17 W	14.59
FLADDA-CHUAIN	57	45 N	6	26 W	5.9	GRAVELAND NESS	60	40 N	1	09 W	15.5
FLANNAN ISLES	58	17 N	7	35 W	6.7	GRAVIR	58	03 N	6	26 W	5.49
FLODDAY	56	54 N	7	35 W	4.22	GREANAMUL	57	02 N	7	23 W	4.27
FLODDAY	57	00 N	7	21 W	4.26	GREAT CUMBRAE ISLAND	55	46 N	4	55 W	1.19
FLODDAY	57	37 N	7	07 W	4.39	GREEN HEAD	58	53 N	3	13 W	14.79
FLODDAY BEAG	57	31 N	7	09 W	4.38	GREEN HOLM	60	08 N	1	19 W	15.29
FLODDAY SOUND	57	30 N	7	10 W	4.38	GREEN HOLM	60	13 N	1	06 W	15.44
FLOTTA MARINE TERMINAL	58	51 N	3	07 W	14.76	GREENOCK	55	57 N	4	46 W	1.29
FLOWERDALE BAY	57	42 N	5	41 W	3.54	GREENOCK BANK	55	57 N	4	44 W	1.29
FOROYAR (FAROE ISLANDS)	62	00 N	7	00 W	16.1	GREENSTONE POINT	57	55 N	5	37 W	5.14
FORSA RIVER	56	31 N	5	54 W	3.12	GRESHORNISH POINT	57	31 N	6	26 W	5.8
FORT GEORGE	57	35 N	4	04 W	10.11	GREY ISLAND ROCKS	57	22 N	7	14 W	4.35
FORT WILLIAM	56	49 N	5	07 W	2.35	GREY NOUP	59	56 N	1	22 W	15.34
FORTROSE	57	35 N	4	08 W	10.16	GRIM NESS	58	49 N	2	52 W	14.32
FOULA SHOAL	60	07 N	1	54 W	15.18	GRIMSAY	57	28 N	7	12 W	4.37
FRANK LOCKWOOD'S ISLAND	56	19 N	5	50 W	2.24	GROBAN NA SGEIRE	57	30 N	6	38 W	5.3
FRESWICK BAY	58	35 N	3	04 W	9.2	GRUINARD BAY	57	54 N	5	30 W	5.14
FUDAY	57	03 N	7	23 W	4.27	GRUINARD ISLAND	57	53 N	5	28 W	5.14
FUGLAFJORDUR	62	15 N	6	48 W	16.21	GRUNA BAAS	60	01 N	1	11 W	15.39
FUIAY ISLAND	57	00 N	7	22 W	4.26	GRUNNEY	60	39 N	1	18 W	15.7
						GRUTING VOE	60	13 N	1	31 W	15.23
G						GRUTNESS VOE	59	53 N	1	16 W	15.36
GAIRLETTER POINT	56	01 N	4	54 W	1.36	GUALANN MHOR	57	49 N	5	36 W	5.12
GAIRLOCH	57	43 N	5	41 W	3.54	GUILLAM BANK	57	42 N	3	48 W	10.3
GAIRSAY	59	05 N	2	58 W	14.47	GUIRASDEAL	56	12 N	5	43 W	2.13
GALLAN HEAD	58	14 N	7	02 W	6.24	GULBER WICK	60	07 N	1	11 W	15.40
GALLAN HEAD	58	15 N	7	02 W	6.1	GULF OF CORRYVRECKAN	56	09 N	5	43 W	2.13
GALT NESS	59	05 N	2	54 W	14.43	GULNARE ROCK	56	00 N	5	26 W	1.58
GALVUR	62	14 N	6	39 W	16.23	GULNARE ROCK	57	19 N	5	56 W	3.42
GAMHNACH MHOR	56	19 N	5	58 W	2.23	GUNNA SOUND	56	33 N	6	42 W	4.5
GAMRIE BAY	57	41 N	2	20 W	11.9	GUTTER SOUND	58	51 N	3	11 W	14.79
GARADH NA SROINE	56	22 N	6	11 W	3.4						
GARBH EILEAN	57	31 N	5	58 W	3.43	H					
GARBH EILEAN	57	54 N	6	21 W	5.46	HAAF GRUNNEY	60	40 N	0	50 W	15.69
GARBH EILEAN	58	15 N	5	02 W	5.24	HACKNESS	58	48 N	3	09 W	14.65
GARBH REISA	56	07 N	5	37 W	2.12	HACO'S NESS	59	01 N	2	49 W	14.43
GARRA ISLANDS	57	23 N	5	39 W	3.39	HALCRO HEAD	58	45 N	2	54 W	14.33
GARRAEASAR	56	07 N	5	37 W	2.12	HAMARS NESS	60	38 N	0	56 W	15.67
GARRISDALE POINT	57	03 N	6	37 W	4.17	HAMARSAY	57	51 N	6	42 W	5.39
GARROCH HEAD	55	43 N	5	02 W	1.19	HAMNA VOE	60	30 N	1	06 W	15.61
GARVELLACHS	56	14 N	5	47 W	2.13	HANDA ISLAND	58	23 N	5	11 W	5.28
GASAY	57	09 N	7	17 W	4.30	HARLOSH ISLAND	57	22 N	6	32 W	4.12
GASAY	57	22 N	7	15 W	4.35	HAROLDS WICK	60	47 N	0	48 W	15.76
GASHERNISH	57	22 N	7	16 W	4.35	HARSGEIR	58	16 N	6	54 W	6.31
GASKER	57	59 N	7	17 W	6.1	HARTAMUL	57	05 N	7	14 W	4.28
GASKER	57	59 N	7	18 W	6.24	HASCOSAY	60	37 N	1	00 W	15.66
GEARRAN ISLET	57	44 N	6	25 W	5.9	HASKEIR AAG	57	41 N	7	43 W	6.19
GEASGILL	56	27 N	6	10 W	3.5	HASKEIR ISLAND	57	42 N	7	41 W	6.19
GEIRUM MOR	56	48 N	7	39 W	4.20	HAWES BANK	56	47 N	6	41 W	4.2
GIGALUM	55	38 N	5	45 W	2.2	HEAD OF HOLLAND	59	00 N	2	54 W	14.49
GIGHA ISLAND	55	39 N	5	46 W	2.2	HEAD OF MOCLETT	59	19 N	2	53 W	14.9
GIGHAY	57	01 N	7	20 W	4.27	HEAD OF WORK	59	01 N	2	54 W	14.49
GILLS BAY	58	39 N	3	09 W	8.4	HEADS OF AYR	55	26 N	4	42 W	1.10
GIRVAN HARBOUR	55	15 N	4	52 W	1.9	HEALABHAL MHORE	57	24 N	6	38 W	5.3
GLAS DRUIM	56	34 N	5	28 W	2.30	HEATHER ISLAND	56	24 N	5	30 W	2.26
GLAS EILEAN	56	01 N	5	21 W	1.60	HEISKER ISLANDS	57	31 N	7	38 W	6.17
GLAS EILEAN	56	32 N	5	26 W	2.28	HELLI NESS	60	02 N	1	10 W	15.39
GLAS EILEAN	57	16 N	5	35 W	3.31	HELLLIAR HOLM	59	01 N	2	54 W	14.50
GLAS EILEAN	57	43 N	5	42 W	3.53	HELLINESS HOLM	60	02 N	1	10 W	15.39
GLAS EILEAN MOR	57	36 N	7	07 W	4.40	HELLISAY	57	00 N	7	21 W	6.1
GLAS EILEANAN	56	30 N	5	43 W	3.10	HELLISAY	57	01 N	7	21 W	4.26
GLAS LEAC	58	09 N	5	16 W	5.21	HELMSDALE	58	07 N	3	39 W	9.8
GLAS-LEAC BEAG	57	59 N	5	30 W	5.15	HEOGA NESS	60	29 N	1	02 W	15.54
GLEN BAY	57	49 N	8	36 W	6.6	HEOGLAND	60	40 N	0	57 W	15.71
GLENACARDOCH POINT	55	35 N	5	42 W	2.2	HERMA NESS	60	51 N	0	54 W	15.2
GLENELG BAY	57	13 N	5	38 W	3.28	HERMETRAY GROUP	57	40 N	7	04 W	6.1
GLENMALLAN JETTY	56	08 N	4	49 W	1.38	HERSTON HEAD	58	49 N	3	01 W	14.64
GLENMORE BAY	56	41 N	5	56 W	3.17	HESTO	61	57 N	6	53 W	16.8
GLENSANDA HARBOUR	56	34 N	5	32 W	2.30	HESTUR	61	57 N	6	53 W	16.8
GLOUP HOLM	60	44 N	1	07 W	15.5	HILDASAY	60	09 N	1	21 W	15.30
GLUMAIG HARBOUR	58	11 N	6	23 W	5.54	HOAN ISLAND	58	34 N	4	41 W	7.5
GOB NA LICE	57	51 N	5	38 W	5.12	HOE POINT	57	23 N	6	43 W	4.12
GOB NA MILAID	58	01 N	6	22 W	5.48	HOE RAPE	57	23 N	6	44 W	4.12

	Position			Sec. Para		Position			Sec. Para		
	o	'				o	'				
HOEVDI ROCK	60	07 N	2	00 W	15.18	KAME OF HOY	58	55 N	3	24 W	14.2
HOGO BAAS	60	20 N	0	58 W	15.48	KAMES	55	53 N	5	15 W	1.51
HOLBORN HEAD	58	37 N	3	32 W	7.10	KAMES BAY	55	52 N	5	05 W	1.54
HOLM ISLAND	58	11 N	6	20 W	5.52	KAMES BAY	56	03 N	5	20 W	1.60
HOLM OF AIKERNES	59	21 N	2	56 W	14.6	KEARSTAY	58	03 N	7	09 W	6.27
HOLM OF HUIP	59	10 N	2	39 W	14.26	KEAVA	58	13 N	6	46 W	6.35
HOLM OF PAPA	59	21 N	2	52 W	14.9	KEBOCK HEAD	58	02 N	6	22 W	5.48
HOLM OF SCOCKNESS	59	10 N	2	56 W	14.40	KENMORE	57	58 N	6	42 W	5.43
HOLM OF SPURNESS	59	10 N	2	41 W	14.15	KENNACRAIG	55	48 N	5	29 W	2.3
HOLM OF WEST SANDWICK	60	35 N	1	12 W	15.59	KENTALLEN BAY	56	40 N	5	15 W	2.32
HOLM POINT	58	11 N	6	21 W	5.52	KERRERA	56	24 N	5	32 W	2.25
HOLY LOCH	55	59 N	4	54 W	1.34	KERRERA SOUND	56	23 N	5	31 W	2.26
HOO STACK	60	15 N	1	09 W	15.47	KESOCK ROAD	57	30 N	4	15 W	10.19
HOPEMAN	57	43 N	3	26 W	11.2	KESOCK ROAD BRIDGE	57	30 N	4	13 W	10.15
HORSE ISLAND	59	51 N	1	19 W	15.34	KETTLETOFT	59	14 N	2	36 W	14.25
HOUGH SKERRIES	56	31 N	7	01 W	4.5	KILBEG POINT	57	05 N	5	52 W	3.25
HOUTON BAY	58	55 N	3	11 W	14.81	KILBRANNAN SOUND	55	30 N	5	26 W	1.44
HOUTON HEAD	58	55 N	3	12 W	14.62	KILCHATTAN BAY	55	45 N	5	01 W	1.20
HOWEQUOY HEAD	58	53 N	2	56 W	14.83	KILCHATTAN BAY	56	13 N	5	38 W	2.16
HOXA HEAD	58	49 N	3	02 W	14.64	KILCHOAN BAY	56	16 N	5	34 W	2.16
HOY	58	50 N	3	15 W	14.1	KILCHOAN BAY	56	41 N	6	07 W	3.15
HUMLA	57	01 N	6	37 W	4.17	KILDALLOIG BAY	55	25 N	5	33 W	1.47
HUNDA SOUND	58	51 N	2	57 W	14.73	KILDONAN POINT	55	26 N	5	06 W	1.16
HUNDER HOLM	60	21 N	1	04 W	15.52	KILFINICHEN BAY	56	23 N	6	04 W	3.4
HUNEY ISLAND	60	44 N	0	48 W	15.73	KILMALUAG BAY	57	41 N	6	18 W	3.52
HUNTER'S QUAY	55	58 N	4	55 W	1.21	KINGSCROSS POINT	55	31 N	5	05 W	1.17
HUNTERSTON ORE/ COAL TERM.	55	45 N	4	53 W	1.23	KINLOCH HOUSE	57	01 N	6	17 W	4.15
HUSAVIK	61	48 N	6	40 W	16.7	KINLOCHBERVIE	58	27 N	5	03 W	5.31
HUSEVIG	61	48 N	6	40 W	16.7	KINLOCHLEVEN	56	43 N	4	59 W	2.33
HUSHINISH BAY	57	59 N	7	05 W	6.27	KINTYRE	55	30 N	5	35 W	1.43
HUSKEIRAN	57	33 N	7	34 W	6.18	KINUACHDRACH HARBOUR	56	07 N	5	41 W	2.11
HYNISH BAY	56	28 N	6	51 W	4.4	KIRK NESS	58	48 N	2	54 W	14.32
						KIRK ROCKS	58	57 N	3	20 W	14.58
						KIRK SOUND	58	54 N	2	54 W	14.74
I						KIRKABISTER NESS	60	07 N	1	07 W	15.42
IDRIGILL POINT	57	20 N	6	34 W	4.10	KIRKAIG POINT	58	08 N	5	18 W	5.20
IMACHAR POINT	55	37 N	5	24 W	1.45	KIRKCOLM POINT	54	58 N	5	03 W	1.5
INACLETE POINT	58	12 N	6	22 W	5.53	KIRKJUBONES	61	57 N	6	43 W	16.8
INCH KENNETH	56	26 N	6	10 W	3.5	KIRKWALL	58	59 N	2	58 W	14.56
INCHMARNOCK ISLAND	55	47 N	5	09 W	1.50	KLAKKSVIK	62	14 N	6	35 W	16.25
INCHMARNOCK WATER	55	48 N	5	15 W	1.50	KLAKSVIG	62	14 N	6	35 W	16.25
INELLAN BEACON	55	53 N	4	58 W	1.20	KNAP POINT	56	35 N	5	23 W	2.31
INGA NESS	59	17 N	3	01 W	14.5	KNOCK BAY	57	06 N	5	51 W	3.25
INGANESS BAY	58	58 N	2	54 W	14.49	KNOCK HEAD	57	41 N	2	35 W	11.8
INN ISLAND	56	34 N	5	25 W	2.29	KYLE AKIN	57	17 N	5	43 W	3.33
INNER HEISKER	56	51 N	7	36 W	4.21	KYLE OF DURNES	58	36 N	4	49 W	7.4
INNER OITIR MHOR	57	01 N	7	24 W	4.27	KYLE OF LOCHALSH	57	17 N	5	43 W	3.35
INNINMORE BAY	56	31 N	5	43 W	3.10	KYLE OF TONGUE	58	32 N	4	23 W	7.8
INSH ISLAND	56	19 N	5	40 W	2.25	KYLE RHEA	57	14 N	5	40 W	3.29
INVER BAY	57	49 N	3	54 W	9.11	KYLEAKIN	57	16 N	5	44 W	3.36
INVERARAY	56	14 N	5	04 W	1.61	KYLERHEA RIVER	57	13 N	5	40 W	3.28
INVERGORDON	57	41 N	4	10 W	10.8						
INVERIE BAY	57	02 N	5	42 W	3.24	L					
INVERNESS	57	29 N	4	14 W	10.20	LACHEN SHOAL	58	16 N	5	10 W	5.25
INVERSCADDLE BAY	56	45 N	5	16 W	2.34	LADY BAY	55	00 N	5	05 W	1.7
IONA	56	20 N	6	24 W	3.3	LADY ISLE	55	32 N	4	44 W	1.10
IRON ROCK LEDGES	55	27 N	5	20 W	1.45	LADY'S ROCK	56	27 N	5	37 W	2.25
IRVINE BAY	55	36 N	4	45 W	1.12	LAGG BAY	55	56 N	5	51 W	2.10
IRVINE HARBOUR	55	36 N	4	42 W	1.14	LAGGAN BAY	55	40 N	6	18 W	2.19
ISAY	57	31 N	6	39 W	5.3	LAGGAN POINT	55	43 N	6	20 W	2.19
ISAY	57	55 N	6	54 W	6.26	LAMB HEAD	59	05 N	2	32 W	14.28
ISLAY	55	45 N	6	10 W	2.18	LAMB HEAD2	59	05 N	2	32 W	14.42
ISLE MARTIN	57	57 N	5	13 W	5.17	LAMBA ISLAND	60	31 N	1	17 W	15.58
ISLE OF EWE	57	50 N	5	37 W	5.11	LAMBA NESS	60	49 N	0	46 W	15.77
ISLE OF LEWIS	58	00 N	6	50 W	6.24	LAMBHOGA HEAD	59	55 N	1	16 W	15.36
ISLE OF NOSS	60	09 N	1	01 W	15.42	LAMLASH HARBOUR	55	32 N	5	07 W	1.17
ISLEORNSAY HARBOUR	57	09 N	5	48 W	3.26	LANGA	60	08 N	1	20 W	15.31
ISLES OF GLETNESS	60	14 N	1	09 W	15.46	LARGS	55	48 N	4	52 W	1.25
						LARGS CHANNEL	55	46 N	4	53 W	1.22
J						LARGS YACHT HAVEN	55	46 N	4	51 W	1.24
JACKAL ROCK	57	20 N	6	05 W	3.47	LAUDALE NARROWS	56	41 N	5	40 W	3.16
JANE'S TOWER	57	46 N	7	02 W	6.22	LAX FIRTH	60	13 N	1	12 W	15.46
JURA	55	55 N	6	00 W	2.18	LEAC BHAN	57	42 N	7	12 W	6.20
						LEAC NA HOE	57	38 N	7	04 W	4.41
						LEAC NAM MADADH	57	35 N	7	06 W	4.39
						LEAC NAN LEUM	56	17 N	6	03 W	2.23
K						LEDAIG POINT	56	27 N	5	24 W	2.27
KALLIN	57	29 N	7	12 W	4.37	LEOPACH CHANNEL	58	19 N	5	10 W	5.26
KALLUR	62	22 N	6	48 W	16.23	LERWICK	60	09 N	1	09 W	15.45
						LETH SGEIR	56	00 N	5	40 W	2.11

	Position			Sec. Para		Position			Sec. Para
	o	'				o	'		
LEVENWICK NESS	59	59 N	1 15 W	15.36	LOCH GROSEBAY	57	49 N	6 46 W	5.37
LEVERBURGH PIER	57	46 N	7 02 W	6.22	LOCH HARPORT	57	20 N	6 24 W	4.11
LIATH EILEAN	56	00 N	5 23 W	1.60	LOCH HOURN	57	08 N	5 39 W	3.26
LIATH EILEIN	55	54 N	6 40 W	2.9	LOCH INCHARD	58	27 N	5 05 W	5.29
LIATH SGEIR	56	12 N	5 34 W	2.15	LOCH INDAAL	55	43 N	6 23 W	2.19
LIDISTROM	57	26 N	7 16 W	4.36	LOCH INVER	58	09 N	5 16 W	5.21
LILLE DIMON	61	38 N	6 42 W	16.6	LOCH KANAIRD	57	57 N	5 12 W	5.17
LINGA SOUND	60	22 N	1 01 W	15.51	LOCH KISHORN	57	23 N	5 39 W	3.39
LINGAY	56	52 N	7 35 W	4.22	LOCH LAXFORD	58	24 N	5 06 W	5.29
LINGAY	57	05 N	7 22 W	6.13	LOCH LEURBOST	58	08 N	6 25 W	5.51
LINKS NESS	59	09 N	2 40 W	14.15	LOCH LEVEN	56	41 N	5 09 W	2.33
LINNE MHUIRICH	55	59 N	5 39 W	2.10	LOCH LINNHE	56	36 N	5 26 W	2.28
LISMORE ISLAND	56	30 N	5 32 W	2.28	LOCH LONG	55	59 N	4 52 W	1.35
LITLA DIMUN	61	38 N	6 42 W	16.6	LOCH LONG	57	17 N	5 31 W	3.31
LITTLE BRIGURD POINT	55	43 N	4 54 W	1.22	LOCH MAARUIG	57	57 N	6 44 W	5.43
LITTLE COLONSAY	56	27 N	6 15 W	3.7	LOCH MADDY	57	36 N	7 07 W	4.39
LITTLE CUMBRAE ISLAND	55	44 N	4 57 W	1.19	LOCH MELFORT	56	15 N	5 34 W	2.16
LITTLE HORSESHOE BAY	56	23 N	5 32 W	2.26	LOCH MIAVAIG	58	12 N	6 57 W	6.32
LITTLE LOCH BROOM	57	54 N	5 22 W	5.14	LOCH MOIDART	56	47 N	5 53 W	3.19
LITTLE MINCH	57	40 N	6 40 W	5.1	LOCH NA BEISTE	57	16 N	5 43 W	3.32
LITTLE ROE	60	30 N	1 16 W	15.58	LOCH NA CAIRIDH	57	18 N	6 02 W	3.45
LITTLE SEAL SKERRY	59	04 N	2 59 W	14.47	LOCH NA CILLE	55	57 N	5 43 W	2.10
LOCH A BHRAIGE	57	35 N	5 58 W	3.50	LOCH NA DAL	57	00 N	5 48 W	3.26
LOCH A CHRACAICH	57	33 N	5 45 W	3.52	LOCH NA DROMA BUIDHE	56	39 N	5 56 W	3.16
LOCH A' CHADH-FI	58	25 N	5 04 W	5.29	LOCH NA H-UAMHA	57	49 N	6 45 W	5.37
LOCH A' CHAIRN BHAIN	58	15 N	5 04 W	5.24	LOCH NA KEAL	56	27 N	6 08 W	3.5
LOCH A' CHOIRE	56	37 N	5 29 W	2.31	LOCH NA LATHAICH	56	20 N	6 16 W	3.3
LOCH A' CHUMHAINN	56	37 N	6 14 W	3.8	LOCH NA MILE	55	51 N	5 56 W	2.8
LOCH AILORT	56	52 N	5 42 W	3.20	LOCH NAN CEALL	56	54 N	5 54 W	3.20
LOCH AINORT	57	17 N	6 03 W	3.46	LOCH NAN UAMH	56	53 N	5 46 W	3.20
LOCH ALINE	56	33 N	5 46 W	3.11	LOCH NEDD	58	15 N	5 10 W	5.24
LOCH ALSH	57	16 N	5 38 W	3.30	LOCH NEVIS	57	00 N	5 42 W	3.24
LOCH AN ALLTAIN DUIBH	58	03 N	5 26 W	5.20	LOCH ODHAIRN	58	03 N	6 23 W	5.49
LOCH ARNISH	57	28 N	6 02 W	3.49	LOCH POOLTIEL	57	28 N	6 45 W	5.3
LOCH BAY	57	30 N	6 35 W	5.3	LOCH RANZA	55	43 N	5 18 W	1.46
LOCH BEG	56	23 N	6 00 W	3.4	LOCH RESORT	58	03 N	7 00 W	6.28
LOCH BERVIE	58	27 N	5 03 W	5.31	LOCH RIDDON	55	57 N	5 12 W	1.52
LOCH BHROLLUM	57	56 N	6 32 W	5.45	LOCH ROAG	58	13 N	6 50 W	6.1
LOCH BOISDALE	57	09 N	7 16 W	4.30	LOCH ROAG	58	15 N	6 52 W	6.30
LOCH BRACADALE	57	20 N	6 32 W	4.10	LOCH RODEL	57	44 N	6 58 W	5.35
LOCH BRITTLE	57	11 N	6 19 W	4.9	LOCH ROE	58	10 N	5 18 W	5.23
LOCH BROOM	57	54 N	5 12 W	5.15	LOCH RYAN	54	58 N	5 02 W	1.5
LOCH BROOM. GLAS-LEAC MOR	58	02 N	5 28 W	5.19	LOCH SCAVAIG	57	10 N	6 09 W	4.8
LOCH BUIE	56	20 N	5 53 W	2.24	LOCH SCRESORT	57	01 N	6 15 W	4.15
LOCH CAOLISPORT	55	52 N	5 40 W	2.9	LOCH SCRIDAIN	56	21 N	6 10 W	3.4
LOCH CARNAN	57	22 N	7 16 W	4.35	LOCH SEAFORTH	57	54 N	6 40 W	5.42
LOCH CAROY	57	22 N	6 31 W	4.12	LOCH SHEILAVAIG	57	21 N	7 14 W	4.34
LOCH CARRON	57	20 N	5 45 W	3.37	LOCH SHELL	58	00 N	6 27 W	5.47
LOCH CEANN DIBIG	57	53 N	6 48 W	5.40	LOCH SHIELDAIG	57	32 N	5 41 W	3.52
LOCH CEANN TRAIGH	56	46 N	5 54 W	3.19	LOCH SHUNA	56	13 N	5 35 W	2.15
LOCH CLAIDH	57	55 N	6 36 W	5.44	LOCH SKIPORT	57	20 N	7 14 W	4.34
LOCH CRAIGNISH	56	08 N	5 35 W	2.12	LOCH SLAPIN	57	11 N	6 01 W	4.7
LOCH CRERAN	56	32 N	5 20 W	2.29	LOCH SLIGACHAN	57	19 N	6 06 W	3.46
LOCH CRINAN	56	06 N	5 34 W	2.11	LOCH SNIZORT	57	34 N	6 28 W	5.6
LOCH CRINAN	56	06 N	5 34 W	1.59	LOCH SNIZORT BEAG	57	31 N	6 22 W	5.7
LOCH DHROMBAIG	58	15 N	5 12 W	5.23	LOCH SPELVE	56	23 N	5 43 W	2.24
LOCH DON	56	26 N	5 40 W	2.25	LOCH STAOSNAIG	56	04 N	6 12 W	2.21
LOCH DUGHAILL	58	25 N	5 06 W	5.29	LOCH STOCKINISH	57	49 N	6 50 W	5.36
LOCH DUICH	57	16 N	5 31 W	3.31	LOCH STORNOWAY	55	47 N	5 37 W	2.9
LOCH DUNVEGAN	57	30 N	6 40 W	5.3	LOCH STRIVEN	55	55 N	5 04 W	1.55
LOCH EATHARNA	56	37 N	6 31 W	4.6	LOCH SUNART	56	42 N	5 56 W	3.15
LOCH EIL	56	51 N	5 08 W	2.37	LOCH SWEEN	55	56 N	5 42 W	2.9
LOCH EISHORT	57	09 N	5 59 W	4.7	LOCH TAMANAVAY	58	04 N	7 03 W	6.28
LOCH EPORT	57	33 N	7 08 W	4.38	LOCH TARBERT	55	58 N	6 00 W	2.22
LOCH ERIBOLL	58	33 N	4 38 W	7.5	LOCH TEACUIS	56	39 N	5 53 W	3.17
LOCH ERISORT	58	07 N	6 24 W	5.50	LOCH TEALASAVAY	58	03 N	7 02 W	6.28
LOCH ETIVE	56	27 N	5 25 W	2.27	LOCH TEALASAVAY	58	03 N	7 03 W	6.1
LOCH EWE	57	48 N	5 37 W	5.11	LOCH THURNAIG	57	47 N	5 35 W	5.13
LOCH EYNORT	57	13 N	7 17 W	4.31	LOCH TORRIDON	57	36 N	5 46 W	3.52
LOCH EYNORT	57	14 N	6 23 W	4.9	LOCH TOSCAIG	57	22 N	5 49 W	3.42
LOCH FINSBAY	57	46 N	6 54 W	5.36	LOCH TROLLAMARIG	57	55 N	6 42 W	5.42
LOCH FLEET	57	57 N	4 03 W	9.10	LOCH TUATH	56	31 N	6 14 W	3.6
LOCH FLODABAY	57	47 N	6 52 W	5.36	LOCH USKAVAGH	57	27 N	7 12 W	4.36
LOCH FYNE	55	50 N	5 19 W	1.56	LOCH VATTEN	57	23 N	6 33 W	4.12
LOCH GAIR	56	04 N	5 20 W	1.60	LOCHBOISDALE	57	09 N	7 18 W	4.31
LOCH GAIRLOCH	57	43 N	5 45 W	3.53	LOCHINVER	58	09 N	5 14 W	5.22
LOCH GILP	56	00 N	5 26 W	1.58	LOCHMADDY HARBOUR	57	36 N	7 10 W	4.41
LOCH GLENCOUL	58	14 N	4 58 W	5.24	LOCHY FLATS	56	50 N	5 07 W	2.36
LOCH GLENDHU	58	15 N	4 58 W	5.24	LOGIE HEAD	57	42 N	2 47 W	11.7
LOCH GOIL	56	08 N	4 54 W	1.39	LONG HOPE	58	49 N	3 10 W	14.65
LOCH GRESHORNISH	57	31 N	6 25 W	5.8	LONGA ISLAND	57	44 N	5 48 W	3.53
LOCH GRIMSHADER	58	09 N	6 22 W	5.51	LONGAY	57	19 N	5 53 W	3.41

	Position			Sec. Para		Position			Sec. Para		
	o	'				o	'				
ROSINISH	56	51 N	7	33 W	6.9	RUBHA FIOLA	56	14 N	5	42 W	2.14
ROSNEATH PATCH	55	59 N	4	47 W	1.27	RUBHA FION-AIRD	56	29 N	5	28 W	2.28
ROSNEATH POINT	55	59 N	4	46 W	1.28	RUBHA GARBH	56	27 N	5	26 W	2.27
ROSS OF MULL	56	19 N	6	22 W	2.23	RUBHA GARBH-AIRD	56	28 N	5	27 W	2.27
ROTHESAY BAY	55	51 N	5	03 W	1.54	RUBHA GHEAD A' LEIGHE	56	50 N	5	51 W	3.19
ROTHESAY DOCK	55	54 N	4	24 W	1.32	RUBHA GHEODHA BUIDHE	57	11 N	6	10 W	4.8
ROTHESAY HARBOUR	55	50 N	5	03 W	1.54	RUBHA GISGIL	58	19 N	5	09 W	5.26
ROTHESAY SOUND	55	51 N	5	02 W	1.53	RUBHA GLAS	56	57 N	7	30 W	4.24
ROTHIESHOLM HEAD	59	04 N	2	41 W	14.42	RUBHA HUNISH	57	42 N	6	21 W	5.9
ROUSAY SOUND	59	09 N	2	57 W	14.39	RUBHA HURNAVAY	58	09 N	6	22 W	5.51
ROVA HEAD	60	11 N	1	08 W	15.44	RUBHA LAILUM	57	13 N	7	18 W	4.32
ROW HEAD	59	03 N	3	21 W	14.3	RUBHA LETH THORCAILL	56	31 N	5	48 W	3.10
RU AIRD A MHILL	57	17 N	5	37 W	3.30	RUBHA LOISGTE	55	52 N	5	23 W	1.57
RU BORNESKETAIG	57	40 N	6	25 W	5.8	RUBHA MAOL	57	30 N	6	36 W	5.3
RU CHORACHAN	57	34 N	6	23 W	5.6	RUBHA MEALL NA HOE	57	08 N	7	15 W	4.29
RU IDRIGILL	57	35 N	6	24 W	5.6	RUBHA MOR	56	31 N	5	56 W	3.12
RU MEANISH	57	41 N	6	21 W	5.8	RUBHA MOR	56	57 N	7	26 W	4.24
RU MELVICK	57	06 N	7	14 W	4.28	RUBHA MOR	57	21 N	5	39 W	3.37
RU NA LACHAN	57	28 N	5	52 W	3.43	RUBHA MORE	57	34 N	7	29 W	6.16
RU NAN CLACH THOLL	56	33 N	5	25 W	2.28	RUBHA NA CAILLICH	57	15 N	5	39 W	3.29
RU SGARABHAIG	57	16 N	5	35 W	3.30	RUBHA NA CILLE	55	57 N	5	43 W	2.10
RU STAFNISH	55	22 N	5	31 W	1.43	RUBHA NA CLOICHE	57	20 N	6	03 W	3.47
RUADH SGEIR	56	04 N	5	40 W	2.11	RUBHA NA CLOICHE	58	34 N	3	57 W	7.9
RUBH A' CHOIN	57	51 N	5	38 W	5.12	RUBHA NA CRANNAIG	56	53 N	6	07 W	4.13
RUBH ARD SLISNEACH	57	07 N	5	43 W	3.25	RUBHA NA CREIGE MOIRE	57	10 N	7	15 W	4.30
RUBH ARISAIG	56	53 N	5	55 W	3.20	RUBHA NA CRUIBE	57	09 N	7	15 W	4.31
RUBH' A BHEARNAIG	56	26 N	5	30 W	2.25	RUBHA NA FAING	55	41 N	6	32 W	2.19
RUBH' A BHUACHAILLE	58	32 N	5	05 W	5.32	RUBHA NA FAOILINN	56	19 N	5	53 W	2.24
RUBH' A' BHAIRD	57	55 N	6	32 W	5.45	RUBHA NA FEARN	57	35 N	5	49 W	3.52
RUBH' A' CHAOIL	56	32 N	6	20 W	3.6	RUBHA NA FEARN	57	35 N	5	50 W	3.43
RUBH' A' GHEARRAIN	56	27 N	6	08 W	3.5	RUBHA NA GUALNE	57	27 N	5	51 W	3.43
RUBH' A' GHUIRMEIN	56	28 N	5	41 W	3.9	RUBHA NA H-ACAIRSEID	57	00 N	5	50 W	3.20
RUBH' AN AOIL	56	14 N	5	37 W	2.15	RUBHA NA H-AIRDE GLAISE	57	26 N	6	09 W	3.49
RUBH' AN DUNAIN	57	10 N	6	19 W	4.8	RUBHA NA H-AISEIG	57	42 N	6	18 W	3.51
RUBH' AN EIREANNAICH	57	15 N	5	54 W	3.41	RUBHA NA H-EARBA	56	39 N	5	25 W	2.31
RUBH' AN LIONAIDH	56	08 N	5	37 W	2.12	RUBHA NA H-EASGAINNE	57	08 N	6	05 W	4.7
RUBH' AN T SEILEIR	58	25 N	6	10 W	5.56	RUBHA NA H-ORDAIG	57	07 N	7	13 W	4.29
RUBH' AN T-SAILEAN	55	58 N	6	00 W	2.22	RUBHA NA H-UAMBA	57	21 N	5	47 W	3.42
RUBH' AN T-SEAN-CHAISTEIL	56	34 N	5	59 W	3.13	RUBHA NA H-UAMHA	57	21 N	5	47 W	3.37
RUBH' DHUBHARD	58	15 N	5	11 W	5.24	RUBHA NA LEACAIG	58	27 N	5	04 W	5.30
RUBH'ARD LUING	56	11 N	5	38 W	2.14	RUBHA NA LEIP	56	38 N	6	04 W	3.13
RUBHA A' CHUINNLEIN	55	38 N	6	11 W	2.5	RUBHA NA LIC	56	13 N	5	40 W	2.14
RUBHA A' MHAIL	55	56 N	6	07 W	2.7	RUBHA NA MAOILE	58	16 N	5	10 W	5.24
RUBHA AILLTENISH	57	59 N	6	27 W	5.47	RUBHA NA RODAGRICH	57	28 N	7	11 W	4.37
RUBHA AIRD DRUIMNICH	56	47 N	5	58 W	3.19	RUBHA NA STRIANAICH	58	11 N	6	13 W	5.55
RUBHA AIRD EALASAI	56	32 N	5	58 W	3.13	RUBHA NA BRAITHAIREAN	57	35 N	6	08 W	3.50
RUBHA AIRD SHLIGNICH	56	40 N	5	58 W	3.16	RUBHA NAM FIAS	58	16 N	5	06 W	5.24
RUBHA ALASDAIR RUAIDH	57	22 N	5	36 W	3.37	RUBHA NAM FIAS	58	16 N	5	07 W	5.23
RUBHA AN ARD	56	37 N	6	16 W	3.8	RUBHA NAM MAOL MORA	56	16 N	6	19 W	2.23
RUBHA AN DARAICH	57	08 N	5	39 W	3.26	RUBHA NAN CLACH	57	19 N	6	29 W	4.10
RUBHA AN RIDIRE	56	30 N	5	41 W	2.30	RUBHA NAN EUN	58	27 N	5	03 W	5.31
RUBHA AN TUIR	58	34 N	3	54 W	7.9	RUBHA NAN GALL	56	38 N	6	04 W	3.13
RUBHA ARD NAN LEUM	56	27 N	5	25 W	2.27	RUBHA NAN LEACAN	55	35 N	6	16 W	2.3
RUBHA ARD TREISNIS	57	16 N	5	43 W	3.33	RUBHA NAN OIREAN	56	35 N	6	19 W	3.8
RUBHA ARDNISH	57	15 N	5	51 W	3.40	RUBHA NAN SASAN	57	52 N	5	41 W	5.11
RUBHA ARDVULE	57	14 N	7	27 W	6.16	RUBHA QUIDNISH	57	47 N	6	52 W	5.36
RUBHA BAN	57	01 N	5	48 W	3.24	RUBHA RAONUILL	57	02 N	5	44 W	3.24
RUBHA BAN	57	45 N	5	48 W	3.53	RUBHA REIDH	57	52 N	5	49 W	5.11
RUBHA BEAG	57	55 N	5	34 W	5.14	RUBHA RODHA	58	09 N	5	18 W	5.21
RUBHA BHALAMUIS BHIG	57	55 N	6	34 W	5.44	RUBHA RUADH	56	42 N	5	19 W	2.31
RUBHA BHILIDH	57	17 N	7	13 W	4.33	RUBHA RUADH	57	22 N	6	40 W	4.12
RUBHA BHOCAIG	57	50 N	6	44 W	5.39	RUBHA RUADH	58	25 N	5	09 W	5.28
RUBHA BHROLLUM	57	56 N	6	31 W	5.45	RUBHA SEANACH	56	22 N	5	33 W	2.25
RUBHA BODACH	55	55 N	5	10 W	1.52	RUBHA SHIOS	58	21 N	5	11 W	5.27
RUBHA BREAC	56	16 N	5	37 W	2.17	RUBHA STANNGRAIDH	58	07 N	6	24 W	5.49
RUBHA BRIDOG	57	55 N	6	39 W	5.42	RUBHA SUISNISH	57	10 N	6	00 W	4.7
RUBHA BUIDHE	57	16 N	5	40 W	3.31	RUBHA THURNAIG	57	48 N	5	36 W	5.13
RUBHA BUIDHE	58	00 N	6	27 W	5.48	RUBHA VOREVEN	57	42 N	6	21 W	5.9
RUBHA CADAIL	57	55 N	5	13 W	5.18	RUEVAL	57	28 N	7	18 W	4.36
RUBHA CAMAS A MHAORAICH	57	55 N	5	14 W	5.18	RUM	57	00 N	6	20 W	4.15
RUBHA CHLUAR	57	48 N	6	48 W	5.37	RUNABRAKE	59	22 N	2	38 W	14.16
RUBHA CHRAIGINIS	56	30 N	6	59 W	4.5	RUNAVIK	62	07 N	6	43 W	16.11
RUBHA COIGEACH	58	06 N	5	26 W	5.20	RUSK HOLM	59	12 N	2	51 W	14.37
RUBHA CRAGO	57	53 N	6	40 W	5.38	RYSA LITTLE	58	52 N	3	12 W	14.79
RUBHA CRUINN	57	17 N	6	29 W	4.9						
RUBHA CUIL-CHEANNA	56	42 N	5	15 W	2.32						
RUBHA DA CHUAIN	56	57 N	5	51 W	3.20						
RUBHA DEARG	56	32 N	5	48 W	3.11						
RUBHA DUBH	57	04 N	5	54 W	3.23	SACQUOY HEAD	59	12 N	3	05 W	14.39
RUBHA DUBH ARD	57	59 N	5	19 W	5.17	SAINT ANDREWS	56	20 N	2	48 W	13.9
RUBHA DUNAN	58	00 N	5	21 W	5.16	SAINT ANDREWS BAY	56	23 N	2	41 W	13.9
RUBHA FIART	56	28 N	5	36 W	2.28	SAINT KILDA	57	49 N	8	35 W	6.4

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	Position			Sec. Para		Position			Sec. Para
	o	'				o	'		
SAINT KILDA GROUP	57	49 N	8 35 W	6.3	SGEIR NAM BIAST	57	31 N	6 37 W	5.3
SALEN BAY	56	31 N	5 57 W	3.13	SGEIR NAM MAOL	57	45 N	6 23 W	5.10
SALEN BAY	56	43 N	5 46 W	3.18	SGEIR THRAID	57	20 N	5 57 W	3.42
SALLACHAN POINT	56	42 N	5 17 W	2.31	SGEIR ULIBHE	57	08 N	5 41 W	3.26
SALT PANS BAY	54	55 N	5 11 W	1.2	SGEIR VICHALEA	56	55 N	7 31 W	4.23
SAMPHREY	60	28 N	1 09 W	15.55	SGEIREAN CRUAIDHE	58	26 N	5 07 W	5.29
SAND EEL	58	56 N	3 16 W	14.62	SGEIREAN DUBHA	56	23 N	5 32 W	2.26
SAND VOE	60	12 N	1 22 W	15.24	SGEIREAN GLASA	57	02 N	5 43 W	3.24
SANDA ISLAND	55	17 N	5 35 W	1.43	SGOR DHEARG	56	39 N	5 10 W	2.30
SANDA SOUND	55	18 N	5 35 W	1.43	SGORR A' BHRID-EOIN MHOIR	57	23 N	5 36 W	3.39
SANDA STOUR	60	09 N	1 22 W	15.24	SGRIBH BHAN	56	38 N	7 41 W	4.19
SANDAIG BAY	57	03 N	5 46 W	3.24	SGURR MHAIRI	57	18 N	6 08 W	3.46
SANDAIG BAY	57	10 N	5 41 W	3.28	SGURR NA STRI	57	12 N	6 08 W	4.8
SANDAIG ISLANDS	57	10 N	5 42 W	3.28	SHACKLETON ROCK	56	10 N	6 23 W	2.18
SANDAY	57	03 N	6 30 W	4.16	SHANDWICK BAY	57	45 N	3 55 W	10.2
SANDAY SOUND	59	10 N	2 35 W	14.25	SHAPINSAY SOUND	59	00 N	2 52 W	14.45
SANDEND BAY	57	41 N	2 44 W	11.8	SHETLAND ISLANDS	60	48 N	0 46 W	15.1
SANDRAY	56	53 N	7 30 W	4.22	SHIANT EAST BANK	57	54 N	6 07 W	5.46
SANDRAY	56	54 N	7 30 W	6.10	SHIANT ISLANDS	57	54 N	6 22 W	5.45
SANDSIDE HEAD	58	34 N	3 48 W	7.10	SHIANT ISLANDS	57	54 N	6 23 W	5.39
SANDSOUND VOE	60	12 N	1 21 W	15.25	SHIANT SOUTH ROCK	57	51 N	6 25 W	5.46
SANDWOOD BAY	58	33 N	5 05 W	5.33	SHIELDAIG ISLAND	57	31 N	5 39 W	3.52
SANGO BAY	58	34 N	4 44 W	7.5	SHILLAY	57	31 N	7 41 W	6.1
SANNA POINT	56	45 N	6 11 W	3.19	SHILLAY	57	31 N	7 42 W	6.17
SANNOX RIVER	55	40 N	5 09 W	1.18	SHILLAY	57	48 N	7 16 W	6.21
SARCLET HAVEN	58	22 N	3 06 W	9.5	SHILLAY MOR	57	20 N	7 15 W	4.34
SAVSKAILL BAY	59	11 N	3 01 W	14.39	SHUNA	56	13 N	5 36 W	2.15
SCALASAIG HARBOR	56	04 N	6 11 W	2.21	SHUNA ISLAND	56	35 N	5 23 W	2.31
SCALLASTLE BAY	56	29 N	5 45 W	3.10	SHUNA POINT	56	12 N	5 37 W	2.15
SCALLASTLE POINT	56	29 N	5 43 W	3.10	SHUNA SOUND	56	13 N	5 38 W	2.16
SCALLOWAY	60	08 N	1 17 W	15.32	SINCLAIRS BAY	58	30 N	3 05 W	9.2
SCALPAY	57	18 N	5 58 W	3.41	SKADAN LIGHT	59	31 N	1 39 W	15.35
SCALPAY	57	52 N	6 40 W	5.39	SKALAFJORDUR	62	09 N	6 44 W	16.11
SCALPAY HOUSE	57	52 N	6 42 W	5.40	SKARVETANGE	62	11 N	6 58 W	16.10
SCAPA BAY	58	57 N	2 59 W	14.84	SKATE BANK	57	34 N	4 07 W	10.17
SCAPA FLOW TERMINAL	58	51 N	3 07 W	14.76	SKAW TAING	60	23 N	0 54 W	15.48
SCAR NOSE	57	42 N	2 51 W	11.6	SKEABOST	57	27 N	6 19 W	5.7
SCARBA	56	11 N	5 43 W	2.13	SKELDA VOE	60	09 N	1 28 W	15.24
SCARINISH	56	30 N	6 48 W	4.4	SKELMORLIE BANK	55	52 N	4 55 W	1.25
SCARP	58	02 N	7 08 W	6.27	SKERRIES OF CLESTRAN	58	57 N	3 14 W	14.62
SCART ROCK	57	31 N	6 25 W	5.8	SKERRY OF NESS	58	57 N	3 18 W	14.58
SCORE HEAD	60	12 N	1 04 W	15.42	SKERRY OF SKELWICK	59	18 N	2 53 W	14.10
SCOTASAY	57	53 N	6 45 W	5.40	SKERRY SOUND	58	53 N	2 54 W	14.74
SCOTSTOUN	55	53 N	4 22 W	1.33	SKERRYVORE	56	19 N	7 07 W	4.2
SCOTT ROCK	56	20 N	6 16 W	3.3	SKERTOURS	59	04 N	2 57 W	14.54
SCOUL EILEAN	56	15 N	5 36 W	2.16	SKERVUILE	55	53 N	5 50 W	2.8
SCOURIE BAY	58	21 N	5 10 W	5.27	SKIPNESS POINT	55	46 N	5 20 W	1.49
SCRABSTER HARBOR	58	37 N	3 33 W	7.12	SKIRZA HEAD	58	36 N	3 02 W	9.2
SCRABSTER ROAD	58	36 N	3 33 W	7.12	SKROO LIGHT	59	33 N	1 37 W	15.35
SEAFORTH ISLAND	58	00 N	6 44 W	5.42	SKUVOY	61	46 N	6 50 W	16.6
SEAL SKERRY	59	10 N	2 49 W	14.37	SKYE	57	20 N	6 15 W	4.7
SEGIER A CHINN	57	22 N	5 39 W	3.39	SMALL ISLES	57	00 N	6 20 W	4.13
SEIL	56	18 N	5 37 W	2.17	SMYTH ROCK	57	01 N	5 44 W	3.24
SEIL SOUND	56	16 N	5 36 W	2.17	SOA	56	17 N	6 27 W	3.2
SELI VOE	60	10 N	1 24 W	15.24	SOAY	57	09 N	6 14 W	4.8
SEYDORVA	62	24 N	6 33 W	16.30	SOAY HARBOUR	57	09 N	6 01 W	4.8
SGAT MOR	55	51 N	5 18 W	1.56	SOAY SOUND	57	10 N	6 15 W	4.8
SGEIR A SCAPE	56	56 N	7 27 W	4.24	SOLAN BANK	59	04 N	4 53 W	7.2
SGEIR A' CHAIS	57	50 N	6 47 W	5.37	SORIBY BAY	56	29 N	6 11 W	3.6
SGEIR ALLTACHD	56	22 N	6 04 W	3.4	SORISDALE	56	41 N	6 27 W	4.3
SGEIR AN ARAIG	57	51 N	5 39 W	5.12	SORNE POINT	56	39 N	6 11 W	3.8
SGEIR AN EIRIONAICH	56	06 N	5 14 W	1.61	SORVAGUR	62	04 N	7 18 W	16.17
SGEIR AN TAIRBH	58	19 N	5 09 W	5.27	SOUND OF ARISAIG	56	51 N	5 52 W	3.19
SGEIR BRAIGH MOR	57	51 N	6 44 W	5.40	SOUND OF BARRA	57	04 N	7 22 W	4.26
SGEIR BUN AN LOCHA	55	56 N	5 41 W	2.9	SOUND OF BERNERAY	56	48 N	7 38 W	4.21
SGEIR CAILLICH	56	32 N	5 24 W	2.29	SOUND OF CAUSAMUL	57	36 N	7 33 W	6.1
SGEIR CHNAPACH	57	22 N	6 05 W	3.47	SOUND OF ERISKAY	57	05 N	7 16 W	6.1
SGEIR DHEARG	57	19 N	5 55 W	3.42	SOUND OF ERISKAY	57	06 N	7 17 W	4.28
SGEIR DHUBH	57	21 N	6 07 W	3.48	SOUND OF GIGHA	55	40 N	5 42 W	2.2
SGEIR DUBH	57	16 N	5 50 W	3.40	SOUND OF HANDA	58	22 N	5 10 W	5.28
SGEIR DUBH MHIC LARTAI ROCK	56	11 N	5 32 W	2.12	SOUND OF HARRIS	57	43 N	7 06 W	6.1
SGEIR DUBHAIL	56	30 N	6 11 W	3.6	SOUND OF HARRIS	57	44 N	7 05 W	6.22
SGEIR FHRAOICH	58	00 N	6 26 W	5.48	SOUND OF HELLISAY	57	00 N	7 21 W	4.26
SGEIR GHLAS	57	52 N	6 45 W	5.40	SOUND OF HOUBANSETTER	60	20 N	1 20 W	15.13
SGEIR GOLACH	57	21 N	5 39 W	3.37	SOUND OF IONA	56	18 N	6 23 W	3.2
SGEIR GRAIDACH	57	47 N	6 28 W	5.10	SOUND OF ISLAY	55	46 N	6 01 W	2.6
SGEIR INOE	57	50 N	6 33 W	5.39	SOUND OF JURA	55	50 N	5 48 W	2.8
SGEIR LIATH	56	57 N	7 31 W	4.24	SOUND OF LUNG	56	12 N	5 40 W	2.14
SGEIR MAOL MHORAI DH SHUAS	57	52 N	5 41 W	5.12	SOUND OF MINGULAY	56	50 N	7 36 W	4.21
SGEIR MHOR	56	38 N	6 15 W	3.8	SOUND OF MINGULAY	56	50 N	7 37 W	6.1
SGEIR NA IASGAICH	57	16 N	5 47 W	3.36	SOUND OF MONACH	57	33 N	7 33 W	6.1
SGEIR NA TRIAN	57	37 N	5 48 W	3.52	SOUND OF MULL	56	36 N	6 00 W	3.9

	Position			Sec. Para		Position			Sec. Para
	o	'				o	'		
SOUND OF PABBAY	56	52 N	7 33 W	4.22	SUMMER ISLES	58	03 N	5 28 W	5.19
SOUND OF PAPA	60	19 N	1 40 W	15.17	SUTHRA VOE	60	20 N	1 29 W	15.14
SOUND OF SANDRAY	56	54 N	7 31 W	4.23	SWANBISTER BAY	58	56 N	3 07 W	14.82
SOUND OF SCALPAY	57	52 N	6 41 W	5.38	SWARBACKS MINN	60	21 N	1 28 W	15.12
SOUND OF SHIANT	57	55 N	6 27 W	5.45	SWARTA SKERRIES	60	20 N	0 51 W	15.48
SOUND OF SLEAT	57	03 N	5 51 W	3.22	SWEYN HOLM	59	06 N	2 57 W	14.43
SOUND OF TARANSAY	57	53 N	6 56 W	6.1	SWILKIE POINT	58	42 N	3 07 W	8.5
SOUND OF ULVA	56	29 N	6 08 W	3.7	SWINING VOE	60	25 N	1 09 W	15.61
SOUTH BASIN	57	36 N	7 09 W	4.40	SWITHA	58	48 N	3 06 W	14.65
SOUTH CHANNEL	57	37 N	4 00 W	10.14	SWONA	58	45 N	3 03 W	8.5
SOUTH CHANNEL	58	19 N	5 09 W	5.26					
SOUTH FORD	57	24 N	7 19 W	4.35					
SOUTH HARBOUR	57	52 N	6 42 W	5.39					
SOUTH HAVRA	60	02 N	1 21 W	15.28					
SOUTH LEE	57	34 N	7 10 W	4.39					
SOUTH NESS	58	48 N	3 12 W	14.66					
SOUTH NESTING BAY	60	17 N	1 06 W	15.47					
SOUTH RONALDSAY	58	46 N	2 58 W	14.30					
SOUTH SKERRY	59	07 N	2 43 W	14.44					
SOUTH STROME	57	21 N	5 32 W	3.38					
SOUTH SUTOR	57	41 N	4 00 W	10.7					
SOUTH UIST	57	14 N	7 19 W	6.15					
SOUTH UIST	57	17 N	7 20 W	4.29					
SOYEA ISLAND	58	09 N	5 19 W	5.20					
SPEY BAY	57	42 N	3 02 W	11.4					
SPONISH HARBOUR	57	37 N	7 08 W	4.40					
SPONISH HOUSE	57	37 N	7 09 W	4.40					
SPUR NESS	59	11 N	2 41 W	14.26					
SRIANACH	58	00 N	6 23 W	5.47					
SRON AN DUBH-AIRDE	57	32 N	5 34 W	3.52					
SRON BHEAG	56	41 N	6 09 W	3.15					
SRON NA CARRA	57	42 N	5 47 W	3.53					
SRON NAN OBAN	57	51 N	5 41 W	5.11					
SRON UAMHA	55	17 N	5 46 W	1.43					
ST. JOHN'S POINT	58	40 N	3 11 W	8.3					
ST. JOHN'S ROCK	56	08 N	6 38 W	2.18					
ST. MARGARETS HOPE	58	50 N	2 57 W	14.73					
ST. MARYS	58	54 N	2 55 W	14.75					
ST. NINIAN'S ISLE	59	58 N	1 21 W	15.33					
STAC MHIC MHURCHAIDH	56	21 N	6 28 W	3.3					
STAC RUADH	57	32 N	5 43 W	5.11					
STACK ISLANDS	57	03 N	7 18 W	4.28					
STAFFA	56	26 N	6 20 W	3.7					
STAFFIN BAY	57	39 N	6 13 W	3.51					
STAKKARNIR	62	03 N	7 04 W	16.16					
STANGER HEAD	58	49 N	3 05 W	14.67					
STANGER HEAD	59	16 N	2 52 W	14.11					
STANTON BANKS	56	12 N	7 53 W	4.2					
START POINT	59	17 N	2 22 W	14.22					
STATTIC POINT	57	54 N	5 25 W	5.14					
STAVA NESS	60	19 N	1 05 W	15.50					
STAXIGOE	58	27 N	3 03 W	9.3					
STEBBLEGRUND	60	12 N	1 18 W	15.27					
STEIN	57	31 N	6 34 W	5.4					
STEISAY	57	23 N	7 14 W	4.35					
STIUGHAY	57	52 N	6 43 W	5.40					
STORA DIMUN	61	42 N	6 45 W	16.6					
STORE DIMON	61	42 N	6 45 W	16.6					
STORNOWAY HARBOUR	58	11 N	6 22 W	5.53					
STOURA BAA	60	20 N	1 30 W	15.14					
STRANDBURGH NESS	60	37 N	0 46 W	15.68					
STRANRAER	54	54 N	5 02 W	1.7					
STRATHAIRD	57	08 N	6 06 W	4.7					
STRATHY POINT	58	36 N	4 01 W	7.9					
STROM NESS	59	21 N	2 25 W	14.21					
STROMA	58	41 N	3 07 W	8.5					
STROMNESS	58	58 N	3 18 W	14.60					
STROMNESS VOE	60	10 N	1 19 W	15.26					
STRONSAY FIRTH	59	06 N	2 35 W	14.29					
STRONTIAN RIVER	56	42 N	5 34 W	3.18					
STULAVAL	57	12 N	7 18 W	4.29					
STULEY	57	11 N	7 15 W	4.32					
STUNG	58	13 N	6 55 W	6.32					
SUILVEN	58	07 N	5 08 W	5.21					
SUISNISH COTTAGE	57	20 N	6 04 W	3.48					
SUISNISH POINT	57	20 N	6 04 W	3.43					
SULA SGEIR	59	06 N	6 09 W	6.8					
SULE SKERRY	59	05 N	4 24 W	7.2					
SULE STACK	59	01 N	4 30 W	7.2					
SULLOM VOE OIL TERMINAL	60	28 N	1 18 W	15.63					
SUMBURGH HEAD	59	51 N	1 16 W	15.34					
SUMBURGH ROST	59	50 N	1 20 W	15.19					
					TABHAIDH MHOR	58	07 N	6 23 W	5.50
					TAFTS NESS	59	19 N	2 25 W	14.22
					TALISKER BAY	57	17 N	6 28 W	4.9
					TANERA MOR	58	01 N	5 24 W	5.15
					TANERA MOR	58	01 N	5 25 W	5.19
					TANNARAIDH	58	07 N	6 25 W	5.51
					TARANSAY	57	54 N	7 01 W	6.25
					TARBAT NESS	57	52 N	3 46 W	9.11
					TARBERT	57	54 N	6 49 W	6.26
					TARBERT BANK	56	00 N	6 05 W	2.22
					TARBERT BAY	55	58 N	5 50 W	2.10
					TARBERT BAY	57	03 N	6 33 W	4.16
					TARBET BAY	56	58 N	5 38 W	3.24
					TARNER ISLAND	57	22 N	6 30 W	4.11
					TARSKAVAIG BAY	57	06 N	6 00 W	4.7
					TEXA	55	37 N	6 09 W	2.4
					THE BUTT OF LEWIS	58	31 N	6 16 W	6.38
					THE CHEYNIES	60	08 N	1 22 W	15.31
					THE FJORD	60	32 N	1 16 W	15.58
					THE FREE CHURCH	57	54 N	6 48 W	5.41
					THE GLORAIGS	57	51 N	6 44 W	5.39
					THE GRAAND	59	08 N	2 55 W	14.39
					THE GRINDS	58	51 N	3 02 W	14.70
					THE HOLE	55	58 N	4 46 W	1.27
					THE KNAB	60	09 N	1 08 W	15.43
					THE NESS	57	41 N	4 02 W	10.7
					THE NEV	60	47 N	0 47 W	15.76
					THE NEVI	58	55 N	3 16 W	14.61
					THE OA	55	37 N	6 17 W	2.18
					THE RHINS	54	50 N	5 00 W	1.2
					THE RONA	60	20 N	1 25 W	15.13
					THE RUMBLE	60	28 N	1 07 W	15.55
					THE SKAW	60	50 N	0 46 W	15.76
					THE SMALL ISLES	55	50 N	5 56 W	2.8
					THE SOUND	57	51 N	5 37 W	5.12
					THE SOUND OF BARRA	57	02 N	7 20 W	6.12
					THE SPIT	54	57 N	5 02 W	1.5
					THE STEGGIES	60	07 N	1 22 W	15.29
					THE STORR	57	30 N	6 11 W	3.50
					THORSHAVN	62	00 N	6 45 W	16.9
					THURSO BAY	58	37 N	3 30 W	7.11
					TIANAVAIG BAY	57	22 N	6 08 W	3.48
					TIGNABRUACH	55	54 N	5 14 W	1.51
					TINDHOLMUR	62	05 N	7 25 W	16.16
					TINGA SKERRY	60	31 N	1 15 W	15.58
					TIREE	56	30 N	6 54 W	4.4
					TIUMPAN HEAD	58	16 N	6 08 W	5.55
					TJORNENAES	61	36 N	6 51 W	16.5
					TJORNUNES	61	36 N	6 51 W	16.5
					TOB CROMORE	58	06 N	6 25 W	5.51
					TOB EISHKEN	58	01 N	6 31 W	5.47
					TOB LEMREWAY	58	01 N	6 26 W	5.47
					TOB SMUAISIBHIG	57	57 N	6 37 W	5.44
					TOBERMORY	56	37 N	6 04 W	3.14
					TODDUN	57	56 N	6 44 W	5.42
					TOE HEAD	57	50 N	7 08 W	6.23
					TOLSTA HEAD	58	21 N	6 10 W	5.55
					TOR MOR	57	19 N	6 06 W	3.47
					TOR NESS	58	46 N	3 17 W	8.7
					TOR NESS	59	04 N	2 36 W	14.42
					TOR NESS	59	23 N	2 26 W	14.18
					TORR NAN CON	56	39 N	5 57 W	3.16
					TORRAN ROCKS	56	15 N	6 25 W	2.23
					TORSA ISLAND	56	15 N	5 37 W	2.17
					TORSAY ISLAND	56	15 N	5 37 W	2.17
					TORSHAVN	62	00 N	6 45 W	16.9
					TOTAIG	57	16 N	5 31 W	3.30
					TOWARD POINT	55	52 N	4 59 W	1.20

