PUB. 155

SAILING DIRECTIONS (ENROUTE)

★

EAST COAST OF RUSSIA

★

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2014

THIRTEENTH EDITION

Preface

Pub. 155, Sailing Directions (Enroute) East Coast of Russia, Thirteenth Edition, 2014 is issued for use in conjunction with Pub. 120, Sailing Directions (Planning Guide) Pacific Ocean and Southeast Asia. The companion volumes are Pubs. 153, 154, 157, 158, and 159.

Digital Charts 24 and 27 provide electronic chart coverage for the area covered by this publication.

This publication has been corrected to 26 July 2014, including Notice to Mariners No. 30 of 2014. Subsequent updates have corrected this publication to 3 December 2016, including Notice to Mariners No. 49 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.

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1. Toll free: 1-800-362-6289
2. Commercial: 571-557-5455
3. DSN: 547-5455
4. DNC web site: http://msi.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
   7500 Geoint Drive
   Springfield VA 22150-7500

New editions of Sailing Directions are corrected through the date of the publication shown above. Important information to amend material in the publication is updated as needed and available as a downloadable corrected publication 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 meridianal 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.

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International Maritime Organization Home Page
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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.

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Maritime Administration (MARAD) Home Page
http://www.marad.dot.gov/newsroom

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, however, 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.

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Time.—Time is normally expressed as local time unless specifically designated as Universal Coordinated Time (UTC).

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.

Canadian Hydrographic Service 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.

Date of Change:	**3 December 2016**
Notice to Mariners:	**49/2016**
Sector	**Page and Paragraphs**
Sector 1	Sector Graphics image
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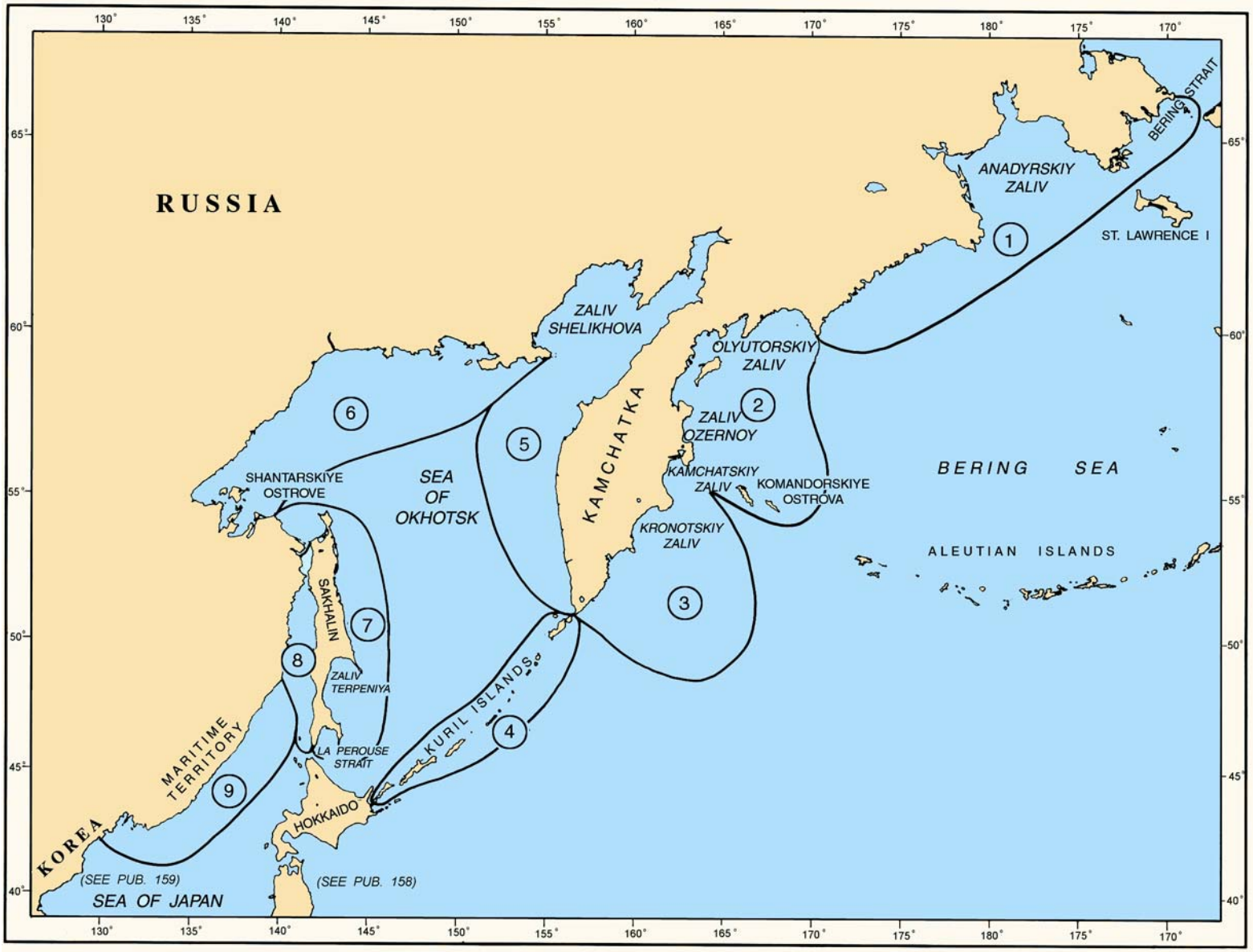
Sector 6	Sector Graphics image
Sector 7	Sector Graphics image, 7.11
Sector 8	Sector Graphics image, 8.8, 8.42, 8.52, and 8.53
Sector 9	Sector Graphics image



SECTOR LIMITS—**PUB. 155**

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)
gt	gross tons	nrt	net registered tons
kHz	kilohertz	TEU	twenty-foot equivalent units

Directions

N	north	S	south
NNE	northnortheast	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
NGL	Natural Gas Liquids	FSU	Floating Storage Unit
FSRU	Floating Storage and Regasification Unit	FPSO	Floating Production Storage and Offloading

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	TFW	Tropical Fresh Water
HWS	high water springs	HAT	highest astronomical tide
LWN	low water neaps	LAT	lowest astronomical tide

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
CALM	Catenary Anchor Leg Mooring		

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
		PD	Position doubtful
IHO	International Hydrographic Organization	Pub.	Publication
IMO	International Maritime Organization	SOLAS	International Convention for Safety of Life at Sea
IMDG	Intermational Maritime Dangerous Goods Code		
LOA	length overall	St./Ste.	Saint/Sainte
UKC	Under keel clearance	ISPS	International Ship and Port facility Security
ITC	International Convention on the Tonnage Measurement of Ships (1969)	ECDIS	Electronic Chart Display and Information System

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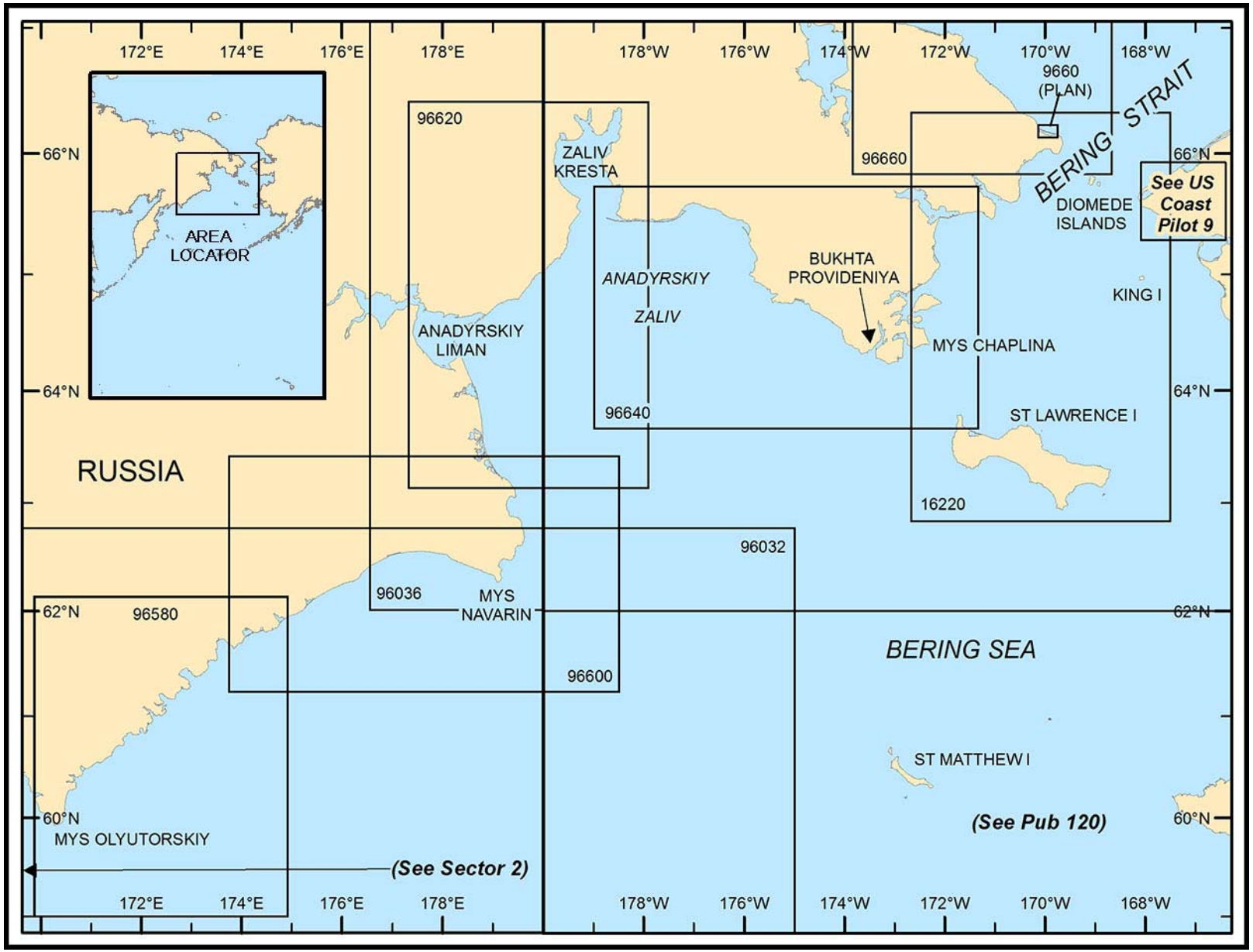
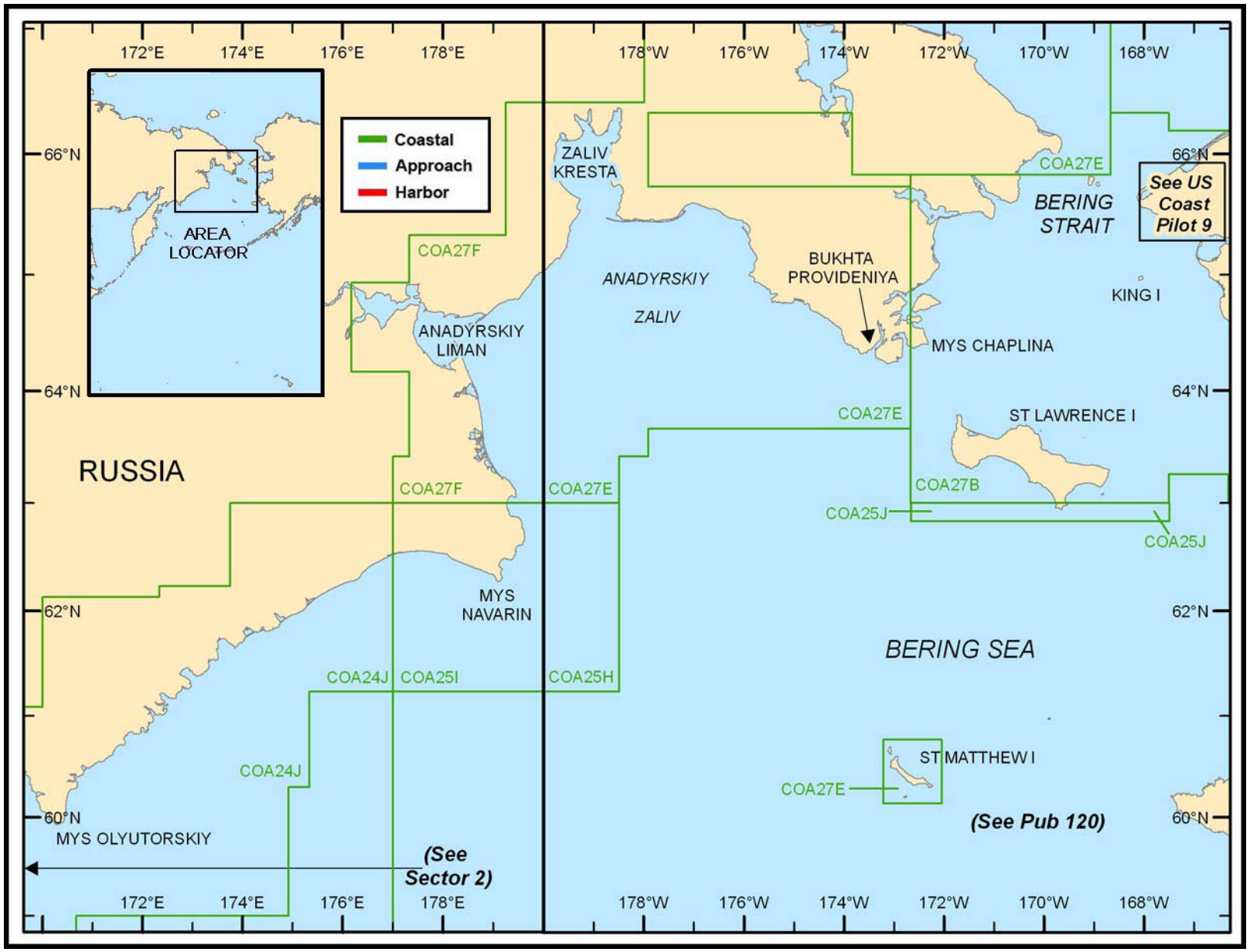


Additional chart coverage may be found in NGA/DLIS Catalog of Maps, Charts, and Related Products (Unlimited Distribution).

SECTOR **1** — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNCs 24, 25, and 27 (Limited Distribution) disc within the README\GRAPHICS folder.

SECTOR 1 — DNC LIBRARY INFORMATION

SECTOR 1

EAST COAST OF RUSSIA—MYS DEZHNEVA TO MYS OLYUTORSKIY

Plan.—The coast described in this sector comprises the W side of the Bering Strait, Anadyrskiy Zaliv (Gulf of Anadyr), and the N shore of the Bering Sea to **Mys Olyutorskiy** (59°55'N., 170°21'E.). The arrangement of the sector is from E to W.

General Remarks

1.1 Russian regulations for the protection and hunting of marine mammals must be observed by vessels navigating in the waters described by this sector.

Ice.—Anadyrskiy Zaliv is normally covered by solid ice by the latter half of November and begins to clear in May. This ice is occasionally penetrable by powerful icebreakers.

Ice first appears in Anadyrskiy Liman in September or the beginning of October, and the bay is said to be frozen solid later in October. The ice frequently remains until the middle of July. Vessels are said to normally call from July until the middle of October.

According to a Russian source, sludge ice appears in Zaliv Kresta at the end of September and the bay is solidly frozen by mid-November. Occasionally, the ice is broken up and carried out of the bay. The period of breakup is generally June, but drifting ice sometimes remains until mid-July.

The Bering Strait is generally free of ice by the first week of July, sometimes earlier, and the strait and the area immediately N usually remain free of ice until October.

Zaliv Lavrentiya usually begins to freeze over during the first week in October. Toward the middle of the month, by which time N winds generally prevail, the ice is thick along the shores, but does not block the entrance channel. By the end of October, the inlet is usually covered with solid ice. The ice usually begins to break up in June.

A vessel intending to stay for a long period in Zaliv Lavrentiya may be held up by drift ice, which sets through the Bering Strait and is driven into the entrance of the inlet where it packs, and may close it for a considerable period.

Mys Dezhneva to Zaliv Lavrentiya

1.2 **Mys Dezhneva** (66°05'N., 169°38'W.) is the E extremity of the mountainous peninsula at the NE end of Russia. This peninsula, which appears as an island when seen from the offing, is in general steep-to, with depths of 20m close offshore, but with rocks close to the cliffs. The coasts of the peninsula consist mainly of dark-colored cliffs rising in jagged terraces steeply from the sea. On the W side of the peninsula the mountains slope gently toward the mainland and merge into a low hummocky tundra-covered isthmus. The summits of the mountains are generally covered by dense fog and clouds.

Mys Uelen (Mys Uellen) is situated about 5 miles NNW of Mys Dezhneva. Some above-water rocks are located near Mys Uelen. A sunken rock is located about 2 miles ESE of the cape.

Mys Peek (Mys Peyek), about 5 miles SSW of Mys Dezhneva, is lofty, bold, and rugged. Mys Peek is visible from the S in clear weather at 30 to 35 miles. Pamyatnik Dezhneva Light is shown from a square tower about 0.7 miles N of Mys Peek. A short distance N of Mys Peek is a small stretch of coast where landing is possible, and in this vicinity is the settlement of Naukan, situated at a considerable elevation on a mountain slope.

Bering Strait, about 45 miles in width between Mys Dezhneva and Cape Prince of Wales, has general depths of 38 to 55m. In winter, N winds prevail; in summer, S winds prevail, but changes in direction and strength are more frequent. Summer fog is frequent. Unless there is an unusually late spring, the strait is free of ice by July.

1.3 The **Diomede Islands** (65°46'N., 169°00'W.), consisting of two steep-to islands in the middle of the Bering Strait, rise abruptly from the sea with nearly vertical sides. Their summits appear as broken tableland. **Ostrov Ratmanova** (Big Diomede Island) (65°48'N., 169°05'W.), the W and larger of the two, is fringed on its W side by above-water rocks. Little Diomede Island, about 2.5 miles SE of Ostrov Ratmanova, has a sandspit extending from about the middle of the W side of the island, and from the outer end of this spit a reef extends an unknown distance toward the S extremity of Ostrov Ratmanova.

The boundary between Russia and the United States passes between the two islands. The passage between the islands, W of the above-mentioned reef, is reported to have a depth of about 35m and to be clear of dangers, but it should not be attempted by a large vessel.

At the SW end of Ostrov Ratmanova is the settlement of Nunarbuk, close off which are depths of 20 to 26m, sandy bottom. Farther offshore the bottom is stone, poor holding ground. The settlement of Ignaluk is situated close to the sand spit on the W side of Little Diomede Island.

Fairway Rock (65°37'N., 168°45'W.), about 7.5 miles SE of Little Diomede Island, is a high and steep rock with a flat top. It is steep-to and there are no off-lying dangers.

Anchorage.—Anchorage can be obtained close S of the sand spit on the W side of Little Diomede Island, but the holding ground is poor, consisting of rocks. A vessel proceeding to this anchorage from the S or E can follow the S and W coasts of the island, keeping in depths greater than 26m until the settlement of Ignaluk is sighted.

Anchorage can also be obtained off the N side of Ostrov Ratmanova.

Caution.—Three dangerous wrecks, depths unknown, lie close off the W and SW coasts of Ostrov Ratmanova (Big Diomede Island). Two dangerous wrecks, depths unknown, lie between Ostrov Ratmanova (Big Diomede Island) and Little Diomede Island. All can be best seen on the chart.

Three submerged buoys lie between Mys Dezhneva and Ostrov Ratmanova (Big Diomede Island) at depths of 29m, 16m, and 29m, from W to E; all are best seen on the chart. Addition-

Bering Strait from SSW

al submerged buoys, also best seen on the chart, with depths of 16m, are found across the strait between Little Diomede island and Cape Prince of Wales.

1.4 The coast slopes down from Mys Peek to a low sandy beach near Dezhneva, a deserted trading post about 6 miles WNW. The coast between Mys Peek and Mys Litke, about 22 miles SW, is generally steep-to, with depths of 10m about 1 mile offshore.

Mys Litke may be easily identified by a sharp-peaked mountain rising above it.

Mys Nunyamo (65°36'N., 170°40'W.) lies about 13.5 miles SSW of Mys Litke. The coast for about 9 miles S of Mys Litke becomes lower with several bold points. Black cliffs which rise steeply from the sea extend 4 to 5 miles NE of Mys Nunyamo.

Anchorage.—Anchorage can be taken, during N winds, abreast the deserted Dezhneva trading post, in 9 to 10m, good holding ground, 1 mile offshore, or, in 5m, 0.25 mile offshore.

Zaliv Lavrentiya

1.5 Zaliv Lavrentiya is entered between Mys Nunyamo and Mys Kriguygun, 12.5 miles SW. The NE side has the appearance of a desert waste and is similar to the SW side, except that the cliffs are higher and the hills, though not high, are nearer to the shore. The soil is damp and has high concentrations of clay, and in places is covered with moss and grass. Peat is found in the depressions and on the hillsides. The low ground consists of large tracts tundra.

High steep sharp-peaked mountains, apparently of a range that extends across the Asiatic mainland, approach the head of the bay and extend around the inner part of the bay, but then merge into a series of low rounded hills. **Gora Vkhodnaya** (Tyrtova) (Tuirtof) (65°42'N., 171°04'W.), 500m high and the most conspicuous mountain, is located on the NE side, about 10.5 miles NW of Mys Nunyamo.

The entrance has depths of 12.8 to 14.6m in the fairway. The bay has general depths of 24 to 62m. The inner third of the bay should not be used without local knowledge. There are several shoals with depths less then 2m reported west of 171°11`W.

Mys Nunyamo, the NE entrance point, is easily identified by a conspicuous round-topped mountain, 360m high, near it. A light is shown from the point. The W side of the mountain slopes gradually to a wide ravine, down which flows a very small and very rapid mountain stream. A steep mountain, 430m high, is located near the coast, 2.2 miles NE of the cape.

1.6 **Mys Kriguygun** (Cape Novosilski) (Cape Krigugon) (65°28'N., 171°02'W.), the SW entrance point, is a lofty and very steep headland formed by a mountain with several remarkable peaks, the highest of which attains an elevation of 443m. A light is shown at the point. Because of its height, the cape appears as an island when seen from the S. Yandagai, a large village, is situated on the cape.

From Mys Nunyamo to Mys Pinakul, about 5 miles WNW, the shore is level and consists of low cliffs, inland of which the ground is tundra and gradually rises to low, rounded hills from 0.5 mile to 2 miles inland.

Ostrov Litke, with its E extremity about 1 mile W of Mys Pinakul, is a sand and shingle islet about 0.7 mile in length in an E-W direction. The islet is difficult to make out in the offing because it has an almost level surface and is only about 1.8m high. Its highest part is covered with moss and there is a freshwater pond on the islet. A bank, with depths of less than 5m, joins the islet to Mys Pinakul. A reef, with depths of 5.5m, extends W from the W extremity of the islet. The extremity of this reef is steep-to, with a depth of 35m close off it. A light is shown from Ostrov Litke.

1.7 **Inner part of Zaliv Lavrentiya.—**Mys Pavlova projects from the NE shore about 8.5 miles WNW of Mys Pinakuf, while Mys Indreniusa projects from the SW shore 2.25 miles WNW of Mys Pavlova. Only vessels with local knowledge should navigate in that part of the inlet above Mys Pavlova and Mys Indreniusa.

In the inner part are two islets, Ostrov Benneta and Ostrov Balka. Ostrov Benneta, the S islet, is surrounded by reefs, with depths of less than 7.3m, which extend as far as 0.5 mile from it, and there is reported to be a submerged spit extending S from this islet. A 4.9m shoal is reported to lie about 1.3 miles SE of this islet, and a depth of 9.1m has been obtained close N of this danger.

Tides—Currents.—The tidal rise in Zaliv Lavrentiya does not exceed 0.3m, but heavy gales may raise or lower the water level by as much as 1.1m.

The tidal currents are reported to be strong. The Russian vessel Yakut dragged both anchors in Gavan' Litke because of the pressure of ice on her cables during the ebb current. Eddies are formed in Gavan' Litke.

Anchorage.—Gavan' Litke, formed by Ostrov Litke and the bight on the N side of Mys Pinakul, affords good anchorage, in depths of 20 to 29m, mud. However, this harbor is said to only be safe at the end of August and during the month of September. At other times vessels should keep steam up in readiness to sail in case masses of drifting ice from the Bering Strait threaten to jam the entrance of Zaliv Lavrentiya. Vessels should avoid anchoring with the W extremity of Ostrov Litke bearing less than 180°, as the depths there increase rapidly to 50 to 55m.

Bukhta Strelok, entered N of Mys Pavlova, affords good an-

chorage over a bottom of sand, good holding ground. It has depths of 3.7 to 7.3m close to the shore.

Good anchorage can be obtained, in depths of 22 to 29m, in that part of Zaliv Lavrentiya above Mys Pavlova.

Directions.—The W extremity of Ostrov Litke, in line bearing 327° with Gora Vkhodnaya, leads into Zaliv Lavrentiya in a least depth of 12.8m, but caution should be exercised, as this range line passes close SW of a 7.1m shoal in the middle of the entrance.

Zaliv Lavrentiya to Proliv Senyavina

1.8 The coast from Mys Kriguygun to **Mys Lyugren** (65°30'N., 171°40'W.), a high steep point 15.5 miles W of Mys Kriguygun, is low and rises gently to flat-topped mountains. This stretch is steep-to and clear of dangers.

Mechigmenskiy Guba has an entrance less than 0.2 mile in width between the extremities of two very low spits. The E spit, which is almost awash, extends about 10 miles W from Mys Lyugren. The W spit extends about 5 miles NE from the W shore. The entrance can only be identified when bearing about 340°. On other bearings the entrance can be made out only from aloft in clear weather. The village of Mechigmen, consisting of a few huts and situated on the W spit about 1.5 miles SSW of the entrance, is a convenient mark for identifying the entrance. The village of Raupelyan is situated on the E spit, about 2.5 miles E of the entrance.

The least depth in the approach is 5.8m near the E spit. The entrance has depths of 18.3 to 24m, but inside the depths decrease. Both spits are steep-to. Within the inlet E of Raupelyan, a channel 0.75 mile wide, with a depth of 9.1m, runs in the direction of the E spit. Northward the depths suddenly decrease to 5.5m. Mechigmenskaya Guba, other than a small part inside its entrance, has not been surveyed.

Winds—Weather.—West winds accompany dangerous squalls at times.

Tides—Currents.—The outgoing tidal current, which attains a velocity of 4 to 6 knots in the entrance, sets on to the W spit and then follows the coast S for several miles. Vessels should exercise caution in entering.

Anchorage.—Good anchorage can be obtained anywhere outside the entrance. Inside the inlet, anchorage can be obtained, in 5 to 9m, mud and sand, but the holding ground was reported to be poor and there are many shoals. Anchorage inside the inlet is only recommended in an emergency and then only for vessels with a draft of less than 3m.

The coast from Mechigmenskaya Guba to **Mys Ngeegchan** (64°55'N., 172°25'W.) is in general low and backed by mountains which approach the coast only at **Mys Khalyuskina** (65°16'N., 172°11'W.), which rises to a conspicuous round hill. The coast N of Mys Khalyuskina consists of sloping tundra, with cliffs in some places and low ground in others.

1.9 Mys Nygligan (Mys Nygchigen) (65°04'N., 172°06'W.), when seen from about 15 miles N or NE, appears as an island. It is bluff and rugged. A light is shown on the island.

Between Mys Nygligan and Mys Ngeegchan, about 12 miles SW, as well as off these two points, the depths decrease gradually offshore. About 10 miles off Mys Nygligan the depths decrease suddenly to about 9.1. As foul ground may extend off this cape, it should not be approached too closely.

The bay between Mys Nygligan and Mys Kriguygum 36 miles NE is known as Mechigmenski Zaliv.

Proliv Senyavina and Proliv Chechekuyum

1.10 Between Mys Ngeegchan and **Mys Mertensa** (64°32'N., 172°25'W.), about 23 miles S, the coast recedes to form a bight, a large part of which is occupied by two islands. The passage around Ostrov Arakamchechen, the N and larger island, is known as Proliv Senyavina, while the passage between Ostrov Yttygran, the smaller island and the S shore of the bight is known as Proliv Chechekuyum. Proliv Senyavina is not difficult to navigate because of its great depth and the absence of dangers. The bottom in this passage is mud, while E of the bight it is fine sand. A bottom of rocks and shells distinguishes the shallower depths. Proliv Chechekuyum should not be used without local knowledge. The chart indicates that the fairway is deep.

Along the shores of the bight are high granite mountains, which, except for their peaks and steep cliffs, are covered by tundra. The valleys are covered with grass, flowers, and mushrooms. Aspen and birch are found on the shores.

Ice.—The final disappearance of ice in Proliv Senyavina and in the sea nearby is prolonged almost until the new ice forms, because of the heavy accumulation of ice during the eight cold months and the prevailing E and SE winds in the summer.

1.11 Northwest side of Proliv Senyavina.—Mys Ngeegchan, the N entrance point of the N entrance to Proliv Senyavina, rises steeply to Gora Chernaya (Black Summit), 283m high. A conspicuous hill is located about 5 miles NW of the cape.

From Mys Ngeegchan to about 8 miles SW, the coast consists of low tundra extending from 1 to 2 miles inland. In the vicinity of Ozero Kheyguyn the tundra stretches a considerable distance inland and the mountains become higher as they recede W. Mys Kaskonok, about 10.5 miles SW of Mys Ngeegchan, is the S extremity of a low sandy spit. From about 2 miles NE of Mys Kaskonok to a position close to that cape the coast is cliffy and rises steeply to high mountains, among which is a conspicuous summit about 579m high, about 1.5 miles N of the cape. Another conspicuous peak is located about 6 miles NE of the cape.

A river flows into Ozero Kheyguyn, a shallow lake, and then into Proliv Senyavina between two sand spits about 2.5 miles W of Mys Ngeegchan. Yakrakinot, a native village, lies on this spit near the river mouth. The mouth of the river is about 90m wide, has a depth 3.7m, mud bottom, and forms a good harbor for small craft. Anchorage may be taken by small craft close inshore. The current is strong in the river mouth, but is not felt along the coast. The W spit is separated from the mainland by a narrow, shallow passage. A bay, entered between the SW end of the W spit and the mainland N, offers shelter to small craft, in depths of 3.7 to 4.6m, in the entrance SW of the spit.

Bukhta Penkigney (Bukhta Penkigngen) is entered between Mys Kaskonok and Mys Irankhi, about 3.5 miles S. The fairway to the inner part of the inlet is deep. The main entrance is S of Ostrov Achinkinkan, a low flat islet about 0.5 mile S of Mys

Kaskonok. A reef extends 0.2 mile SW from the islet. Ostrov Merokinkan, about 1.2 miles NW of Ostrov Achinkinkan and of similar aspect, is a low, flat, and rocky islet.

Bukhta Penkigney is bordered by high mountains, which in most places lie close to the shores. On the SW side inside the entrance the mountains rise precipitously from the sea. One of these has a remarkable red slope. In some places tundra extends a short distance inland. At the head of Bukhta Penkigney the mountains recede inland and a shallow stream flows through extensive wet tundra into the inlet. The shores are for the most part bluff, but several spits extend from them.

A high round peninsula, about 6 miles NW of Mys Irankhi, extends N from the S side of the inlet. Bukhta Alera, entered SE of this peninsula, is open to the E. This small inlet has depths of 11 to 26m, but the bottom is rocky and the bay is of little importance.

On the NW side of Bukhta Penkigney, 7 miles W of Mys Kaskonok, there is a bay entered between a low sandy headland and a steep headland about 2 miles further SSW. A reef, with a depth of 2.7m, extends about 0.6 mile NE from the S entrance point.

Tides—Currents.—In Bukhta Alera, the spring range is 0.2m and the mean range is 0.2m.

Anchorage.—The small bay just mentioned has depths of 12 to 28m, mud, sand, and shells, and affords fairly sheltered anchorage. A vessel has anchored in 28m here.

Anchorage with good shelter can be obtained, in depths of 11 to 22m, mud, sand, and in places, stones, from 1 to 1.5 miles off the head of Bukhta Penkigney.

1.12 Mys Kygynin (64°45'N., 172°05'W.), the E point of Ostrov Arakamchechen, is a low cape, very similar to Mys Nygchigen, about 19 miles N.

From a great distance, a small hill in the vicinity of this cape appears as an islet. From a distance of about 14 miles, this hill merges with the mountains and only a continuous line of coast, about 25m, is then seen. Mys Kygynin should be given a wide berth, as the 10m curve lies as far as 1.8 miles off it and the coast on either side.

The W two-thirds of Ostrov Arakamchechen consists of mountains with flat summits, the highest of which, Gora Athos, 576m high, is located about 9.5 miles W of Mys Kygynin. These mountains slope down rather steeply on their E sides to the remainder of the island, which consists of smooth tundra and numerous lakes. The coasts of the island are slightly indented in places, the only harbors being Gavan' Glazenapa, at the SW end of the island, and Gavan' Ratmanova, at the N end of the island.

1.13 North and W sides of Ostrov Arakamchechen.— The greater part of the N coast of the island is low and sloping, with only two or three cliffs. Mys Kuguvan, the N extremity of the island, lies 9 miles NW of Mys Kygynin and rises perpendicularly to Gora Kruglaya, a conspicuous rounded mountain, 320m high.

Kosa Akhmatingu is a spit of land extending about 1 mile WSW from a position on the coast about 1 mile SW of Mys Kuguan.

Gavan Ratmanova (64°49'N., 172°28'W.) is entered between the SW extremity of Kosa Akhmatingu and Mys Nayakuk, about 1 mile WSW. A shoal, with a depth of 2.4m, lies 0.3 mile WSW of the SW extremity of Kosa Akhmatingu. Another spit extends from the S side of Gavan Ratmanova, about 0.7 mile SW of the NE entrance point. The coast within the two spits is bordered by a shallow sandbank extending 0.1 to 0.2 mile offshore.

Anchorage.—Anchorage can be obtained, in depths of 7 to 11m, close SW of the NE entrance point in an area about 0.2 mile wide. Vessels can enter the harbor by passing about 0.1 mile off the NE entrance point and can secure alongside Kosa Akhmatingu, close off which are depths of 4m, increasing rapidly offshore.

From Mys Nayakuk to Mys Taylek, about 8.5 miles SSW, the coast is rocky and rises gently to the mountains in the middle of the island. For the first 3 miles, the coast forms a slight indentation, where sheltered anchorage can be obtained, in depths of 12.8 to 14.6m, mud and sand, about 0.2 to 0.3 mile offshore. Winds from the SW through W to NW raise a considerable sea here, but the swell is not dangerous.

Ostrov Kynkay, about 2 miles WSW of Mys Taylek, is a small, rocky, steep, and almost barren islet, with a fairly flat summit.

1.14 South side of Ostrov Arakamchechen.—Mys Myergyn (64°41'N., 172°36'W.), about 1.5 miles ESE of Mys Taylek, is the SW extremity of a low spit. This spit extends in a SW direction from the low ground on the E side of Gora Menyngay, a conspicuous mountain, 340m high, located about 1.2 miles NNW of the point.

Gavan Glazenapa (64°41'N., 172°37'W.) is a harbor formed by a bight in the coast between Mys Yarga and Mys Taylek, the SW extremity of a steep-to spit extending about 0.3 mile WSW from the SW side of Ostrov Arakamchechen. A shoal, with a least depth of 11m, is located about 1 mile SSW of this point. At the head of the harbor the land rises steeply to the summit of Gora Menyngay. Westward of this mountain are two 91m hills, which, with the mountain, form excellent landmarks for the harbor.

This harbor is protected from the NW through N to NE winds, but considerable swell sets in during winds from other directions. Mys Yarga is so low that it affords little protection from E winds. The harbor, however, affords good shelter from ice and is easy to enter. The shores are steep-to, and the spit on the E side has sufficient depths close off it for vessels to make fast alongside. The best anchorage is reported to be in 33m, blue clay, good holding ground, with Mys Yarga bearing about 170°.

Banka Bruks (Brooke Bank) (64°37'N., 171°58'W.), an offlying danger on which are several rocks that uncover at LW, extends about 1.5 miles W from a position about 9 miles SSE of Mys Kygynin. Depths of 11m have been obtained about 1.5 miles N and 3 miles S of the E end of this bank.

1.15 Ostrov Nuneangan (64°38'N., 172°20'W.), about 3 miles E of Ostrov Yttygran, is a good landmark in the S approach to Proliv Senyavina. The islet is small, bluff on all sides, and has a summit covered with verdure. The NE and SW sides of the islet should not be approached, as reefs extend offshore from those sides. A bank, with depths of less than 9.1m, and on which are said to be many reefs, extends from Ostrov

Nuneangan to the E side of Ostrov Yttygran.

Anchorage near this coast should be avoided when ice is being driven S by the wind as it sets directly onto it.

The E coast of Ostrov Yttygran, from **Mys Amago Mel'got** (64°36'N., 172°27'W.) to Mys Novok, 1.5 miles N, and then to Mys Konovak, 2 miles NW, consists of low cliffs rising in places to high bluffs. Two conspicuous hills, about 151m and 230m high, are located about 1 mile and 2 miles W, respectively, of Mys Novok. A conspicuous mountain, 346m high, is located about 1 mile SW of the same cape.

Bukhta Stygrak, with its E entrance point about 3 miles W of Mys Konovak, is bordered W by a steep black cliff about 1.5 miles farther WNW. The bight is reported to have depths of 18 to 22m, but it is exposed and the holding ground is poor. Wet tundra extends from the lake at the head to the S side of the island.

The coast from the W entrance point of Bukhta Stygrak to Mys Am'yak, 2.5 miles SSW, is steep and high, without bluffs, and rises to a hill composed entirely of gray and white marble.

Mys Engelyukak (64°35'N., 172°31'W.), the SE extremity of Ostrov Yttygran, can be identified by a low hill with a rounded summit. Between the above point and Mys Yuvakhtakhat, about 0.7 mile W, there is reported to be anchorage in the bight, in 14.6m, stones over mud. Bukhta Tugak, an open bay immediately W of the bight, has a high hill with a steep slope near its head. Two mountains, one 587m high and the other 529m high, lie near the center of the island, about 2 miles NNW and 2.7 miles NW, respectively, of Mys Yuvakhtakhat.

Mys Am'yak, the SW extremity of Ostrov Yttygran, is the termination of a low spit extending about 0.2 mile S. A shallow bank extends a short distance W from the spit. Bukhta Tyvlikak is entered between Mys Am'yak and a point about 1.5 miles SE.

1.16 South side of Proliv Chehekuyum.—Mys Mertensa (64°32'N., 172°25'W.), lying about 4.8 miles SSW of Ostrov Nuneangan, is a high and bluff point rising to a conspicuous mountain with three peaks, about 305m high. The S shore of Proliv Chechekuyum consists of high reddish cliffs for the first 2 miles W of Mys Mertensa, then it slopes evenly to Mys Pivattsigo, the extremity of a spit, about 2.1m high, extending NE from the coast. A fairly sheltered bay lies on the E side of this spit. The bay has depths of 18.3 to 42m, the bottom being shells and stones over mud. Within Mys Pivattsigo the land rises to a mountain, about 762m high, from which a range extends SE toward Mys Chaplina.

1.17 West side of Proliv Senyavina.—Mys Kuvylokuok (64°39'N., 172°50'W.), lying almost 4 miles NW of Mys Pivattsigo, is a fairly high and bluff point. A reef extends 0.2 mile NE of the point.

Bukhta Kalelen is entered between Mys Kuvylokuok and Mys Kunuk, about 2 miles NNW. A fairly high and bluff point similar to Mys Kuvylokuok is located about 2 miles WNW of this point. On the W side of this inner point is a bay, W of which the mountains recede inland and the coast is formed by low tundra. The N shore of the inlet rises to mountains, 397 to 503m high. At the head of the inlet is a lake, fed by numerous mountain streams, and from which a shallow stream flows through a sandy neck of land into the inlet.

Anchorage.—Fairly sheltered anchorage can be obtained in the small bight entered W of Mys Kuvylokuok. The depths are considerable close offshore.

Anchorage can be obtained anywhere in Bukhta Kalelen within the point located about 2 miles WNW of Mys Kuvylokuok. The bottom is mud throughout. There is also anchorage, excellent shelter, in depths of about 33m, W of the third point on the S side of the inlet. Anchorage can also be obtained, in depths of 7 to 9m, near some cliffs on the S side of the head of the inlet.

Bukhta Rumilet, a deep inlet, is entered S of Mys Kuvylokuok. The inlet is landlocked by mountains about 610m high, which prevent the sun's rays from entering. Ice usually extends some distance offshore.

The coast from Mys Kunuk to **Mys Irankhi** (64°47'N., 172°45'W.), about 6 miles NNE, is partly steep and partly sloping, but mountainous throughout. Settlements are situated near the streams flowing down the slopes along this coast. Shoal water, with depths of 2.7 to 6.4m, extend as far as 0.7 mile E from the coast in places. Some rocks that uncover at LW are located close offshore about 0.5 mile NE of Mys Kunuk.

Proliv Senyavina and Proliv Chechekuyum to Anadyrskiy Zaliv (Gulf of Anadyr)

1.18 Mys Chaplina (64°24'N., 172°14'W.) is the extremity of a low sand and gravel spit extending about 5 miles E from the general line of the coast. On this spit is a freshwater lake; near its extremity is the village of Oumwaidjik. The mountains along this coast are some distance inland of Mys Chaplina, but approach the coast near Mys Mertensa, about 9 miles NNW.

Tides—Currents.—A current setting E at a velocity of 2 knots may be experienced on the S side of the spit.

Aspect.—A conspicuous mountain, 415m high, is located about 6 miles WNW of Mys Chaplina.

A light is shown on Mys Chaplina. A radiobeacon transmits from the lighthouse.

Approaching Mys Chaplina from the SW, the sloping cliff some distance W of the cape is first sighted, then the inshore part of the spit, which is about 9.1 to 12.2m high and slopes down gradually to seaward, and finally the buildings of the village which appear as a fleet of fishing boats until the whole spit is visible.

A shoal patch, with a depth of 11m surrounded by depths of 28 to 29m, is located about 8.5 miles SSW of the cape. The depths decrease rapidly from about 28m to depths of 18.3m at a distance of 1.2 miles, and to 16.5m less than 1 mile from the spit. A depth of 14.6m lies about 3.5 miles E of the spit.

Anchorage.—Anchorage can be obtained, in 12 to 18m, hard sand and shells, about 0.5 to 1 mile off the N or S side of the spit, depending on the wind. Closer to the spit the bottom is fine sand. Anchorage has been obtained, in a depth of 14.6m, 0.2 mile offshore. During a swell from any direction the shore is marked by breakers.

1.19 Bukhta Tkachen (Zaliv Tkachen) is entered between **Mys Sivol'kut** (Mys Pravyy Vkhodnoi) (64°22'N., 172°36'W.) and Mys Ploskiy, about 8 miles SW. The SW side of the inlet rises to sharply-peaked mountains and the shores of the inlet are formed by dark precipitous bare rocks. Numerous settlements are situated around the inlet.

Mys Skobeleva, about 4.5 miles WNW of Mys Sivol'kut, rises to a sharp conical peak, Gora Kakitaruk. Mys Cherkasskogo, about 5 miles N of Mys Ploskiy, is low. A bank, with a depth of 5.2m at its outer end, extends 0.8 mile E of Mys Cherkasskogo. A bank, with depths of 6.4 to 7.3m, extends about 1.5 miles W from Mys Skobeleva.

A vessel entering the inlet should pass 1.5 miles E of Mys Cherkasskogo, then alter course to pass 0.5 mile off the W side of the inlet abreast Mys Skobeleva.

Several spits extend from the shore near the head of the bay alongside which whalers secure. Because of its great depths the inlet is unsuitable as an anchorage. The N half of the inlet is sheltered from all winds, and is an excellent refuge. It also has the advantage of easy entrance, and the suitability for vessels to secure close inshore. A 4.1m patch lies about 0.8 mile SE of Mys Vyazemskogo, the SE extremity of a spit extending from the N shore of the inner part of the inlet.

Although Bukhta Tkachen is easily accessible, Bukhta Slavyanka is a more convenient harbor, especially during the autumn.

Zaliv Kuguan is formed between Mys Ploskiy and Mys Nizmenny, about 3 miles SW. Zaliv Kuguan has not been surveyed. Local reports state that a narrow channel, with depths of about 1.5m at the head of the bay, leads to a broad deep lagoon, on the shores of which there are many settlements. A light is shown from each of the capes at the entrance to Zaliv Kuguan.

Mys Chukotskiy (64°14'N., 173°05'W.), lying 4.5 miles WSW of Mys Nizmenny, is a black cape rising to a pointed ridge. At its extremity is a hill with a rounded summit, on the S end of which are several high pointed rocks. The cape is easily distinguished from the E or W, but from the S it merges with the coast. Several drying rocks lie off the SE side of the cape. Kivak Light is shown on the coast 3.2 miles ENE of Mys Chukotskiy.

Anadyrskiy Zaliv (Gulf Of Anadyr)

1.20 Anadyrskiy Zaliv is entered between Mys Chukotskiy and Mys Voyennykh Topografov (Mys Faddeya) (Cape Thaddeus), about 215 miles WSW, and extends as far as 200 miles N. The principal bays in this gulf are Bukhta Provideniya, on the E side close within the entrance, Zaliv Kresta, at the head of the gulf, and Anadyrskiy Liman, at the NW end of the gulf.

The shores of the gulf are fairly high, except for most of the W shore below Anadyrskiy Liman. This stretch is free from snow in the summer and is covered with grass and in places with scrub. Many of the hills along the shores of the gulf appear to be formed of coal from a distance, but are composed of dark gray stone.

Tenedos Shoal (64°16'N., 178°00'W.), with a depth of 2.4m, the existence of which is doubtful, is charted in the middle of the gulf, about 125 miles W of the E entrance point.

Bukhta Provideniya (Providence Bay)

1.21 From Mys Chukotski to Mys Lysaya Golova, about 7 miles WNW, the coast is low. The low land extends inland to Ozero Avan forming a cleft in the mountains which is noticeable from the S.

Bukhta Provideniya, entered between **Mys Lysaya Golova** (64°17'N., 173°22'W.) and Mys Lesovskogo, about 5.5 miles WNW, is hemmed in on all sides by rugged mountains over 610m high. The shores of the inlet consist of precipitous cliffs, and are marked by landslides, which usually terminate in spits projecting into the water. Many swift mountain torrents flow into the inlet. The only vegetation is lichen and moss. Bukhta Komsomol'skaya (Bukhta Emma), about midway along the E side of the inlet, is the only important harbor in the inlet.

An approach channel (027°-207°) extends up to about 12 miles seaward of the entrance to Bukhta Provideniya and may best be seen on the chart. Vessels should keep outside Russian territorial waters until reaching the channel.

Mys Lesovskogo Light, on the W side of the entrance, operates throughout the year, but other lights in the inlet operate only from late July to early December.

Ice.—The following are the general conditions at Bukhta Provideniya:

1. October and November—Period of ice formation.
2. November and December—Formation of solid ice (the type ordinarily unnavigable, but occasionally penetrable by powerful icebreakers).
3. April and May—Period of break up.
4. June—Clearing.

Caution.—A local magnetic anomaly, believed to be caused by the magnetic character of the mountains, has been reported in the vicinity of Bukhta Provideniya. However, a U.S. government research vessel observed no magnetic anomalies in September, 1987.

1.22 Mys Lysaya Golova, the E entrance point of Bukhta Provideniya, is bluff, high, and can be easily identified from its peculiar shape which somewhat resembles a man's head. The E slope of the point is fairly gentle, but the S and W slopes are precipitous. The slopes are covered with reddish-brown tundra, and the cliffs, especially those on the W side, are of a bright-yellowish color. Avan', a fairly large settlement, is situated on the E side of Mys Lysaya. Four small buildings stand at this location. The N building has a green roof and the S building is white. This location appears as a coastal station. A light is shown from a framework tower on the E slope of Mys Lysaya Golova.

Caution.—Vessels entering Bukhta Provideniya must be careful not to mistake the low land E of Mys Lysaya Golova for the entrance.

1.23 **Mys Lesovskogo** (64°20'N., 173°33'W.), the W entrance point of Port Provideniya, appears from seaward as a black detached islet standing out prominently against the distant high land of the coast. Rocks fringe the cape. A detached above-water rock lies off its S side.

Lesovskogo Light is situated 0.8 mile WNW of the S extremity of Mys Lesovskogo. A radiobeacon transmits 135m ESE of the light.

Severnyy Light is shown 0.9 mile NE of Mys Lesovskogo. Kamen Severnyy, a rock, lies 0.1 mile S of the light.

Zapadnyy Light is shown 4.2 miles NE of Mys Lesovskogo.

1.24 **Bukhta Slavyanka** (Reyd Plover) (64°22'N., 173°21'W.) is a roadstead on the E side of Bukhta Provideniya; it is entered N of Mys Gaydamak, the N extremity of a spit

which forms the W and S sides of the roadstead. Several settlements and small lakes are situated on the spit. However, these settlements have been burned or abandoned and only ruins are visible. A light is situated on the spit of Mys Gaydamak.

During the summer, large masses of snow remain in the ravines and on the shores. Shoaling extends into Bukhta Provideniya from the N to the W from the spit of Mys Gaydamak. Discolored water has been observed upon departure from the port. The roadstead has general depths of 29 to 40m and is protected. The holding ground is a composite of slate, and a vessel may drag anchor during heavy N gales.

Mys Gaydamak Light looking E from Bukhta Provideniya

Tides—Currents.—The mean tidal range at Bukhta Slavyanka is 0.7m and the spring tidal range is 0.9m.

Bukhta Komsomol'skaya (Bukhta Emma), about 4.5 miles NE of Bukhta Slavyanka, is entered between **Mys Puzino** (64°25'N., 173°14'W.) and Mys Likhacheva, about 0.7 mile N, but the entrance fairway is narrowed to a width of 0.5 mile by the sand banks extending from both entrance points. Atop Mys Puzino, the S point of the entrance to Bukhta Komsomol'skaya, are two white, one story buildings with a marine radar unit mounted on a cupola on the larger building. The shores of the harbor are low, but lofty mountains extend around Bukhta Komsomol'skaya, except on the S side of the harbor. A small river discharges on the S side of the harbor.

The depth in the center of the entrance is 30m and there are depths of 20 to 30m in the fairway up to 1.5 miles within the entrance. The bottom in depths greater than 20m is mud.

Urelyk is a village on the S shore of Bukhta Komsomol'skaya. There are several small jetties for the use of local craft.

Mys Snaryadnyy protrudes from the SE shore of Bukhta Komsomol'skaya, 2 miles E of Mys Puzino. A rocky bank, with a depth of 5m, lies near the extremity of a rock and shingle shelf extending 0.5 mile N of Mys Snaryadnyy, where it is marked by a lighted buoy.

1.25 Provideniya (64°25'N., 173°14'W.) (World Port Index No. 62640), on the NW shore of Bukhta Komsomol'skaya, is a refueling and provisioning port for vessels traveling the Northern Sea Route. It is the only deep water port in the NE part of Siberia. Customs control facilities are available and the port is open to foreign vessels. The port is only open during part of the year from approximately mid-May through early January.

Ice.—Navigation into Bukhta Komsomol'skaya is normally possible without the assistance of an icebreaker from mid-June to the end of November. In the period up to 20 July and after 20 November, ice information should be obtained from the harbor authorities before proceeding into the bay. Winter navigation is normally possible with the assistance of an icebreaker.

Icebreaker assistance should be requested no later than 48 hours before arrival.

Tides—Currents.—The tidal range in the port is 2.5m.

Depths—Limitations.—The approach fairway through Bukhta Provideniya to Bukhta Komsomol'skaya is straight and very deep. The limitation on the size of vessels berthed is imposed by the dimensions of the berths rather than by the fairways leading to them. All berths are quayside berthing except for Berth No. 5, which is an oil pier with stern-to berthing at the pier head. Details of the berths are provided in the table titled **Provideniya—Berth Information**.

Provideniya—Berth Information

Berth	Length	Depth	Remarks
No. 1	120m	9.0m	Coal.
No. 2	100m	9.0m	Containers.
No. 3	140m	7.0m	General cargo.
No. 4A	23m	2.0m	Barges and small craft.
No. 4B	23m	2.0m	Barges and small craft.
No. 5	207m	7.5m	Oil and ballast reception. See Note 1.

Note.—Arrival and departure only allowed during daylight hours. Mooring buoys have been placed in positions 100m NW and NE of the end of the pier, with berthing taking place alongside the wide end of the berth, which is 10m in length.

Aspect.—Range lights lead through Bukhta Provideniya to the entrance to Bukhta Komsomol'skaya. These lights are situated 230m E of Mys Likhacheva. A second set of range lights is situated on the E shore of Bukhta Komsomol'skaya, 1.75 miles ENE of Mys Likacheva, and lead into the bay. A third set of range lights leads through the N part of the bay.

Pilotage.—Pilotage is compulsory for vessels over 500 gt for all vessels except Russian naval vessels, hydrographic vessels, and FESCOE icebreakers. Pilots are available 24 hours.

The pilot boards abeam Slavyanka Light (64°22'08'N, 173°21'32"W) or at a position within Bukhta Slavyanka to be advised if the weather conditions are bad.

Request for pilot must be made no later than 72 and 48 hours prior to arrival at the pilot boarding position. This request should be sent to the Rosmorport Anadyr Branch via facsimile or by telephone to the Provideniya Department Head or by facsimile or email to the Port Captain. Vessels departing the port should request pilots no later than 2 hours before departure to

Range markers, at entrance to Bukhta Komsomol'skaya, looking N

the Port Captain or from the Provideniya Department Head.

Regulations.—The use of tugs is compulsory for all vessels greater than 500 gt.

An area in which anchoring, fishing, trawling, navigating with a trailing anchor, and underwater operations are prohibited extends across the entrance to Bukhta Komsomol'skaya.

Signals.—Storm signals and signals relating to ship movements are shown from a mast at the office of the Port Director near Provideniya Quay and are broadcast on VHF channel 16.

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

1. Call sign: Prichal 21
2. VHF: VHF channel 16
3. Telephone: 78-42735-22525
4. Facsimile: 78-42735-22525
5. E-mail: prvmorport@mail.ru

The Provideniya Department Head can be contacted, as follows:

1. Call sign: Radio 6
2. VHF: VHF channel 6
3. Telephone: 78-42735-22044
   78-924-669-2483 (mobile)

The Rosmorport Anadyr Branch can be contacted by facsimile (78-42722-24116).

Anchorage.—Bukhta Komsomol'skaya affords the best shelter in Bukhta Provideniya. On the SE side of the bay, between positions about 0.6 mile SSE and 1.6 miles ENE, respectively, from Mys Likhacheva, there is a line of 12 numbered anchor berths, in depths of 12 to 26m, mud. See the table titled **Provideniya—Anchorage Berths** for further details.

A large turning area off Provideniya lies NW of the numbered anchorage berths, An anchorage area designated for tankers lies in the NE part of the bay.

Quarantine anchorage and anchorage for loading and discharging dangerous cargo are located in Bukhta Slavyanka.

The anchorages in Bukhta Komsomol'skaya and Bukhta Slavyanka are not sheltered from the N winds. During strong gales the wind direction changes frequently, causing vessels to yaw and drag anchor.

Provideniya—Anchorage Berths

Berths	Draft	Remarks
1-3	Greater than 8m	Icebreakers and any other vessels
4-8	6 to 8m	—
9-12	Less than 6m	—

Caution.—There are dangerous wrecks, marked by lighted buoys, close E of the Offshore Wharf, close S of the Petroleum Wharf, and 0.2 mile ENE of the No. 5 Pier.

The shore between Cape Yakum (64°25'N., 174°00'W.) and Cape Chukotskij (64°15'N., 173°07'W.) is indented with deep and narrow valleys, curving NNE-SSW parallel with Provideniya Bay, and in poor visibility any of these valleys could be mistaken for the entrance into Provideniya Bay.

Bukhta Provideniya to Zaliv Kresta

1.26 Mys Stoletiya (64°19'N., 173°39'W.), 3 miles WSW of Mys Lesovskogo, is blackish, with a crest of pointed rocks, and rises steeply from its base to a flat summit. A detached rock close off the cape appears as an elongated cone when seen from the E or W, but from the S it merges with the land. A beacon consisting of a truncated pyramidal structure is situated on Mys Stoletiya.

Mys Yakun, about 11 miles farther NW, is a rugged cape rising to a height of 315m and may be identified by a pyramidal rock on its summit. Mys Zelenyy, about 11.5 miles NW of Mys

Yakun, rises almost vertically to a great height and has a very conspicuous red stripe extending from its base to its summit.

The coast from Mys Zelenyy to Mys Shpanberga, about 13 miles NW, is rugged in its greater part. Mys Shpanberga is high and appears as a high cliff with a rounded summit when seen from the S and as a rounded hill with gently sloping sides when seen from the W.

Guba Bezymennaya (64°45'N., 174°50'W.) is entered between Mys Shpanberga and Mys Gal'gan, about 11 miles WNW. The latter cape rises precipitously to an elevation of 475m. From the S, a sloping headland is seen extending from the E side of the cape, but from the W the cape appears as a sharp jagged ridge. Close off its E side is a detached pillar rock.

1.27 Mys Achchen (64°46'N., 175°26'W.), about 9 miles W of Mys Gal'gan, is a cliffy cape rising to a flat summit, 220m high. Bukhta (Guba) Preobrazheniya, entered about 2 miles N of Mys Achchen, is bordered by low shores, and has depths of 18.3m, with a bottom of fine sand.

From the N entrance point of Bukhta Preobrazheniya to Mys Enmelen, about 11 miles NW, the coast is high, precipitous, and wall-like. Mys Enmelen rises close inland to Gora Enmelen, 670m high.

Mys Beringa (65°00'N., 175°54'W.), a rugged cape lying about 4 miles NNW of Mys Enmelen and rising to an elevation of 420m, is conspicuous, as it is the W termination of the coastal cliffs, which are almost continuous from Mys Chukhotskiy. The coast N of Mys Beringa becomes lower.

Between Mys Beringa and Mys Chirikova, about 16 miles N, a bay is formed, the S part of which is sometimes known as Whaler Bay. The S part of this coast rises to low hills covered with tundra, and the N part is shelving and consists of low bluffs.

Mys Chirikova rises to a sharp conspicuous peak. About 4 miles farther N is a cliffy headland, 145m high. From this headland a narrow spit, on which is a walrus rookery, extends NW forming Bukhta Ruddera.

For about 25 miles WNW of Bukhta Ruddera the coast is mountainous, the mountains being higher than those on the NE side of Anadyrskiy Zaliv. Some are pointed, others are flat-topped, and all are irregularly scattered. Many brooks and streams flow through the deep ravines.

1.28 Ostrov Kosa Meechkyn (Kosa Meechkin) (65°28'N., 178°00'W.) is a narrow sandy spit, extending WSW and W for about 40 miles. The W end extends into the entrance of Zaliv Kresta. The spit is covered with grass only in places where the dwellings exist. The remainder is composed of heaps of stones. The mainland shore N of the spit consists of low, reddish cliffs, N of which barren tundra extends to the foot of the mountains, about 7 to 10 miles inland. A narrow, shallow passage separates the spit from the mainland.

The whole of the N side of Ostrov Kosa Meechkyn is convenient for landing, except during winds from the NW to NE. Water has been obtained from the spit.

Caution.—Several 8.2 to 8.7m patches are located as far as 12 miles SE of the E end of the spit.

Zaliv Kresta

1.29 Zaliv Kresta (Holy Cross Bay) is entered between the W extremity of Ostrov Kosa Meechkyn (65°28'N., 178°00'W.) and a point about 12.5 miles WNW. The cliffs forming the shores of Zaliv Kresta consist of broken rocks. Dry tundra exists at various distances from the shore.

Gora Serdtse Kamen (65°37'N., 178°17'W.), which is locally called Gora Linlingai, lies about 14 miles NE of the W extremity of Kosa Meechkyn and is an offshoot of the range extending NE.

Gora Matatchingai, 2,798m high, located near the head of Zaliv Kresta, about 60 miles N of the E entrance point, rises above the surrounding heights, and is conspicuous because of its somber, rugged slopes. It is a good landmark for entering the gulf.

Ice.—At the end of September, sludge ice appears in Zaliv Kresta and by late November the gulf is frozen solid. Occasionally the ice is broken up and carried out of the gulf. In June, final break-up usually occurs, but drifting ice floes sometimes remain until mid-July.

Tides—Currents.—The MHW interval at Bukhta Engaugyn is 8 hours 36 minutes. The mean range of the tide is 2m and the spring range is 2.6m.

The tidal currents follow the shore of Zaliv Kresta, with the flood current setting N and the ebb current S. The latter current is stronger and flows for a longer period than the former. In the middle of the gulf the tidal currents are weak, but in all the narrow channels they are strong. Off the E entrance point the flood current sets NW at a maximum velocity of 1.5 knots.

Caution.—A shoal, with a depth of 5.8m, lies about 2.5 miles W of the W extremity of Ostrov Kosa Meechkyn. A shoal has also been reported about 1 mile to 1.5 miles SW of the same point. This shoal is not marked by breakers, but tide rips may be seen. Another shoal, position doubtful, was also reported about 2.5 miles SW of the point.Vessels entering the gulf should avoid the shoals by giving the W end of Ostrov Kosa Meechkyn a berth of at least 4 miles.

1.30 East side of Zaliv Kresta.—The E part of Zaliv Kresta consists of cliffs 4 to 20m high, but in places there are low beaches. There are no high hills near this coast, except Gora Serdtse Kamen, but smooth tundra rises gently in some places to low hills. In many places there are pools and small lakes of rain or snow water.

Anchorage.—Kamangaut Anchorage, NE of the W extremity of Ostrov Kosa Meechkyn, offers good anchorage exposed to the N and NW, in depths of 9 to 18m, mud. The best berth is in 18m, sand and mud, with the W extremity bearing 236°, distant 1 mile. Vessels entering the anchorage should give the W extremity of Ostrov Kosa Meechkyn a berth of at least 4 miles, and not alter course to the anchorage until the W extremity bears more than 135°.

Mys Kangynin (Mys Konergino) (65°54'N., 178°53'W.) is the NW extremity of a moderately broad and elevated spit covered with dry tundra. The best anchorage in the bay N of Mys Kangynin is in depths of 9 to 14.6m, mud, 0.3 to 0.5 mile NNE of the point.

Bukhta Kangynin (Guba Kangynin) is entered N of Mys Erulya, the N extremity of a low sandy spit, about 8 miles N of

Mys Kangynin. The E shore of the bay is similar to the shore S, but its W side is mountainous. Because of its shallowness and rocky bottom the bay is not recommended.

1.31 West side of Zaliv Kresta.—The S part of the coast on the W side of Zaliv Kresta to within about 10 miles of Bukhta Engaugyn is similar to the E side, being low for its greater part. Level tundra extends a great distance W and low flat-topped hills stand out in two or three places. In the N part of this coast, the mountains approach fairly close to the shore, forming high cliffs in places.

Anchorage.—Good anchorage was reported obtainable close to and N of the W entrance point of Zaliv Kresta, on which is the village of Uel'Kal (Velkal).

Bukhta Engaungyn (66°08'N., 179°45'W.), in the NW corner of Zaliv Kresta, is protected S by a spit extending about 2 miles W from a 152m cliff, which rises to a moderately pointed hill on the E side of the bay. A small islet lies about 0.5 mile NW of the W extremity of the spit. The entrance to the bay, in which there is a shoal with a depth of about 0.3m, lies between the spit and the islet. A shoal, with a depth of 1.2m, is located in the middle of the bay, about 1.5 miles NE of the islet. The bay provides an excellent harbor, the only one in Zaliv Kresta. The bottom is mud.

Temporary anchorage can be obtained off the entrance of Bukhta Engaungyn, exposed to S and SE winds, in 12.8 to 18m, mud. There is reported to be good anchorage sheltered from all winds in the bay.

1.32 North side of Zaliv Kresta.—The N shore of Zaliv Kresta, with high mountains projecting in three forbidding promontories, contrasts with the E and W shores. A channel is entered between **Mys Razdelny** (66°10'N., 178°52'W.), the S extremity of the E promontory, and Mys Kamennyy, about 9 miles W, the SE extremity of the W promontory. This channel is then divided into Guba Egvekinot (Guba Egvskinot) and Guba Etel'kuyum by the central promontory which terminates S in a rocky headland. The channel does not provide secure anchorage due to tide rips; strong winds cause a considerable sea.

Guba Egvekinot, the E of the two bays, has a large depression, covered with tundra at its head. Anchorage can be obtained, in depths of 18 to 27m, about 0.5 mile off the W shore, but strong winds from the N or S raise some sea and swell. Shallow water extends as far as 0.2 mile off the E shore. The bottom is mud, and in places it is shell and rock.

Guba Etelkuyum, the W of the two bays, offers anchorage, sheltered from all winds near its head, in a depth of about 24m. Bukhta Kruzhenshtern is formed by a spit extending about 0.6 mile WNW from about the middle of the N shore of Guba Etel' kuyum. This small bay affords anchorage, in 14.6 to 26m, mud. Vessels can also secure to the N side of the spit, which has considerable depths close inshore. The village of Utvuren-Vuk is situated on the N side of the bay.

Zaliv Kresta to Anadyrskiy Liman

1.33 From the mountains near the head of Zaliv Kresta, three ridges spread out over a broad plain stretching to Reka Anadyr'. These ridges are almost parallel to each other, the first being about 14 miles from the coast and the other two being from 5 to 8 miles farther inland. The land between the first ridge and the coast consists of tundra. The first of these ridges is high in its W part, but becomes lower and changes to a line of low hills near Zaliv Kresta. The other two ridges are low in the W and central parts, but become higher near Zaliv Kresta.

Mys Povorotnyy (65°08'N., 179°40'W.) is a dark bluff point. The coast from Mys Povorotnyy to the root of Kosa Russkaya Koshka, about 50 miles SW, has a reddish color, is steep-to, and rises steeply from the sea, but is not marked by any definite landmarks. Many settlements are situated along this stretch.

Anadyrskiy Liman (Anadyr Bay)

1.34 Anadyrskiy Liman, the estuary of Reka Anadyr', is entered between the SW extremity of **Kosa Russkaya Koshka** (64°34'N., 178°32'E.) and Mys Geka, about 11 miles SW. Kosa Russkaya Koshka, extending about 11 miles SW from the mainland, is a sandy spit about 1.2m high. Mys Geka is the N extremity of a low sandspit, known locally as Strelka Spit.

Anadyrskiy Liman is reported to be a summer naval base, and one of the chief stops on the Northern Sea Route. The shores are devoid of trees and contain several villages. The water in the bay and the approach is muddy and only slightly salty.

Ice.—Ice first appears in Anadyrskiy Liman in September or at the beginning of October. Later in October the estuary is said to freeze solid. Ice frequently remains until mid-July. The normal navigation season is reported to extend from July to mid-October.

Tides—Currents.—The HW interval at the mouth of Reka Anadry' is 10 hours 57 minutes. The spring range is about 1.5m and the neap range is about 1.2m.

The directions and velocities of the tidal currents and other currents in Anadyrskiy Liman vary greatly from place to place. In the entrance the flood current sets W and the ebb E. In Bukhta Klinkovstrema the tidal currents attain a velocity of 3.3 knots. In the narrows between Mys Aleksandra and Mys Observatsii the currents attain a velocity of 4.5 knots. The ebb current commences at least 1 hour before HW. The flood current lasts for about 5 hours and the ebb for 7 hours 30 minutes. Close W of Mys Aleksandra the velocity of the ebb current is 4.5 knots, but during strong NW winds the velocity may increase to as much as 6 knots. East of Mys Geka, a current sets NNE at times.

Depths—Limitations.—A shoal, position doubtful, sometimes marked by breakers, was reported about 14 miles ESE of the NE entrance point of the bay.

Sparse soundings seem to indicate that the 10m curve is about 6.5 miles SE of the SW half of Kosa Russkaya Koshka, and about 6 miles E of Mys Geka.

The channel through the bay N of Banka Rayd (Mel Raid) has a least charted depth of 9.6m in the fairway for about 14 miles, then a least charted depth of 5.9m to the mouth of Reka Anadyr'.

Aspect.—Gora Sokolova Vtoraya, two mountains 2 miles apart and with rounded summits, lie about 18 miles NE of Mys Vasiliya, the W extremity of Kosa Russkaya Koshka. Being at the E end of the N shore of Anadyrskiy Liman, these mountains form a good landmark to a vessel approaching this bay.

Gora Primetnaya, 259m high, about 14 miles NW of Mys Vasiliya, is a conspicuous black conical hill. **Gora Ioanna**, 966m high, about 4 miles N of Gora Primetnaya, is the highest summit of the mountain range extending W from Gora Sokolova Vtoraya. This range terminates in **Gora Marii**, 381m high, located close to the shore, about 8 miles WSW of Gora Primetnaya.

Gora Dionisiya (64°35'N., 177°16'E.) and a hill, 384m high, close NE, on the W side of the bay, are the only ones of similar elevation in the vicinity. They form an excellent landmark for the inner part of the bay.

Pilotage.—Pilotage is compulsory. The pilot station is situated about 8 miles WNW of the S extremity of Kosa Russkaya Koshka off the W entrance point of Bukhta Klinkovstrema.

1.35 North side of the fairway.—A light is shown from the extremity of Kosa Russkaya Koshka. A beacon consisting of a framework pyramid, 12m high, stands on the SE side of Kosa Russkaya Koshka, about 2 miles NE of its extremity.

A white beacon, surmounted by two cones, points together, 11m high, stands about 5 miles NW of Mys Vasiliya, at the root of Kosa Nikolaya, a low sandy spit. A lighted buoy is moored about 2.3 miles SW of the W extremity of the sandspit.

Kosa Salomatova is located about 5 miles W of Kosa Nikolaya. A light is shown from the extremity of Kosa Salomatova; a lighted buoy is moored about 2.5 miles SW of the light.

Ostrov Alyumka (64°41'N., 177°37'E.), a small and low islet, resembles a sarcophagus. The islet is a good mark for making the entrance to Reka Anadyr'. The water in the river above the islet is fresh. A reef, on which the sea breaks, extends 0.3 mile SSE from the islet.

Mys Observatsii, about 5 miles NNW of Ostrov Alyumka, terminates S in a steep, reddish bluff, which is conspicuous from the S.

1.36 South side of the fairway.—Mys Geka (64°26'N., 178°14'E.), locally called Strelka Spit, the SE entrance point of Anadyrskiy Liman, has shoal water extending off it on all sides. The 5m curve lies 0.7 mile N and 1.5 miles E of the point. A village is situated on the point.

The S part of Anadyrskiy Liman, between Mys Geka and Mys Dionisiya, about 22 miles NW, is shallow, and local boats cannot approach the shore closer than 0.1 mile. Banka Rayd (Mel Raid), an extension of this shallow area, approaches the N shore of the bay as close as 2 miles. It has depths of less than 5.5m. Kamen' Rayd, a reef with a least depth of 1.2m in the W part of Banka Rayd, is marked by breakers, except at HW.

Seams of coal are exposed by the landslides in the vicinity of Mys Dionisiya.

Mys Aleksandra (64°44'N., 177°32'E.), the S entrance point of Reka Anadyr', is the N extremity of a spit consisting of alluvial rubble, which lies on the E side of the mouth of Reka Kazachka. A spit that covers at HW extends off Mys Aleksandra, and shoal water with depths of less than 3.7m extends as far as 0.4 mile E from the point.

Caution.—Caution should be exercised in navigating the area off Mys Aleksandra, as depths of 1 to 2m less than charted may exist.

Due to insufficient information concerning relocation and maintenance, many navigational aids within Anadyrskiy Liman and its approaches are not shown on the chart.

1.37 Anadyr (64°44'N., 177°30'E.)**,** situated in the vicinity of Mys Aleksandra is a trans-shipment base for cargo bound for inland ports, with coal mining and fishing being the primary functions of port residents. The port is only open during the summer season (July through September). Vessels will need icebreaker assistance at the beginning and end of the open season.

Tides—Currents.—There are strong tidal currents in the harbor. Maximum speed during LW can reach 7.5 knots and even as high as 8 knots during periods of onshore winds. More detailed information can be obtained from the Port Control Inspection (call sign: Radio-5) on VHF channel 19.

Depths—Limitations.—Ten berths with a total length of 1,000m are available in the estuary, with all but Berth No. 10 located on the right side. Explosive or inflammable cargo is worked from vessels in the lighterage for delivery upriver. The port can handle large and heavy lift cargo, with cargo lengths of up to 12m. For detailed information regarding most of the berths see the table titled **Anadyr—Berth Details**.

Anadyr—Berth Details.

Berth	Length	Depth	Max. Draft	Remarks
No. 1	85m	2.5m	—	Local traffic
No. 4	60m	2.0m	—	Coastal cargo
No. 5	65m	1.7m	—	Port facilities
No. 7	56m	5.0m	—	Passengers
No. 10	—	—	7.5m	Naval vessels, general cargo, small containers, and heavy lift cargo
No. 11	130m	5.0m	—	Port facilities
No. 12	249m	7.5m	7.0m	Containers and heavy lift cargo
No. 13	67m	—	7.0m	Containers and heavy lift cargo

Pilotage.—Pilotage is compulsory; pilots will board less than 1 mile from Mys Nikolay (64°38'08"N., 178°14'33"E). The following procedures should also be followed:

1. Requests for pilots should be made through the ship's agents or by e-mail or facsimile 72 hours and 48 hours prior to ETA at the pilot station.
2. Final confirmation of the pilotage request should be made via VHF no later than 2 hours in advance of arrival.
3. Vessels departing port should request a pilot by telephone 12 hours in advance.

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

1. Telephone: 78-42722-20562
   78-42722-24116
2. Facsimile: 78-42722-24116
3. E-mail: anadyr@rosmorport.chukotnet.ru

The Port Captain can be contacted, as follows:

1. Call sign: Anadyr Radio 5 (VHF)
   Anadyr Radio (RT- 2525 kHz)
2. VHF: VHF channel 16
3. E-mail: seaadm@chuktotnet.ru

The Sea Trade Port of Anadyr can be contacted, as follows:

1. Call sign: Anadyr Radio 2
2. VHF: VHF channel 9

Requests for tugs can be made, as follows:

1. Call sign: Lotsman
2. VHF: VHF channel 6

Anadyr—Anchorages

Area	Center Position	Remarks
N1	64°40'26"N, 177°34'18"E	See Note 1
N2	64°41'38"N, 177°34'15"E	—
N3	64°42'09"N, 177°34'24'E	—
N4	64°42'52"N, 177°35'33"E	—
N5	64°44'29"N, 177°34'35"E	See Note 2
N6	64°44'54"N, 177°33'30"E	—
N7	64°44'54"N, 177°29'24"E	—
N8	64°45'33"N, 177°30'00"E	—

Notes:

1. Vessels loaded with explosive cargo will anchor in Area N1.
2. Vessels with sanitary problems must anchor in Area N5 and call the representative of the district sanitary epidemic station.

Anchorage.—Vessels waiting for pilots should anchor in the area between Cape Nikolay and Solomastov to the N of the Nikolay range, in safe depths. Distance between anchored vessels should be at least 0.5 mile. Anchorage areas are assigned by request to the Port State Control Inspection via VHF.

There are eight designated anchorages as detailed in the table titled **Anadyr—Anchorages**. Caution should be exercised when anchoring. Due to the bay being open to NW winds and having poor holding ground, vessels are liable to drag anchor.

Caution.—A submarine cable lies between Mys Aleksandra and Mys Observatsii.

1.38 Reka Anadyr' (64°45'N., 177°32'E.), flowing through Zaliv Onemen (Onemen Bay), the basin W of Anadarskiy Liman, is estimated to be 620 to 740 miles in length and is the largest river flowing into the Bering Sea on the Russian side. The banks of the river are low, steep, and covered with scrub. On the N side is continuous tundra, and on the S side, a short distance from the river, are low willow and poplar trees.

In general, the river is broad, shallow, and fairly sluggish. It overflows its banks in autumn and spring, rising 4.6 to 6.1m above its normal level in spring, completely submerging the buildings at Anadyr'. There are no dangerous rapids in the lower third of the river.

During the time the river is free from ice (July-October), river boats drawing up to 1.4m are said to go upriver as far as Markovo, a distance of about 230 miles; the river is navigable by rafts for about 350 miles farther. The effect of the tide is felt as far as Markovo.

Anadyrskiy Liman to Mys Olyutorskiy

1.39 The coast from Anadyrskiy Liman to **Mys Gintera** (63°13'N., 179°14'E.), about 78 miles SSE, is low and sandy throughout, the mountains receding inland N of Mys Gintera. In some places the coast rises to a height of about 6.1m, but in others it is only a narrow strip of land separating a lagoon from the sea. There are said to be native settlements every 10 or 15 miles along this stretch, the inhabitants being engaged in fishing and hunting walrus. coast should not be approached in depths of less than 20.1m.Mys Gintera is high, rises abruptly, and is steep-to. The 20m curve lies close offshore.

Mys Barykova, about 12 miles SE, is steep-to and rises precipitously to a hill. The coast between the above two points is very hilly.

Bukhta Ugol'naya is entered between Mys Barykova and Mys Korobitsyna, a precipitous point about 11 miles S. The W shore of this bight consists of a sandy beach except for Mys Leonida, a steep-to projecting point which rises steeply to a coal ridge known as Ugol'ny Kryazh. This ridge extends NW. The mouth of Reka Lakhtina, in the N part of the bight, is narrow and very difficult to recognize from seaward during a heavy surf.

1.40 Port Beringovskiy (63°04'N., 179°22'E.), situated in the NW part of Bukhta Ugol'naya, is a commercial port for the export of coal.

Winds—Weather.—Fog is most frequent in the bay from May to August, but occasionally may occur during the winter months. Refraction may occur in the bay throughout the year, distorting the coastline and making it difficult to identify.

The prevailing winds are from the NW, except from June to August, when the prevailing winds are from the SE.

Ice.—Ice appears in the head of the bay at the end of October. Ice appears in the bay itself and the approaches to the bay in November and normally clears during June.

Tides—Currents.—The maximum tidal range is about 0.7m.

Depths—Limitations.—The port is approached through a channel, 2 miles in length, with depths of at least 20.5m.

The port consists of an outer roadstead and a basin. The basin is formed by a coal pier, 100m in length and 15m wide, and a breakwater, 290m in length and 15m wide, extending SSW from the shore on the E side. The basin has 300m of berthing space spread over six quays, with alongside depths of 1.1 to 3.8m. The entrance to the basin is 60m wide between the coal pier and the breakwater. Launches, cargo barges, and local port vessels are the only vessels that use the basin.

Most cargo operations take place at the 12 anchorage berths, centered on position 63°02'26"N, 179°23'17"E. Anchorage Berth No. 3 is reserved for vessels with dangerous cargo or oil products. Anchorage berth assignments are given out by the port captain. Depths around the anchorage berths are 8 to 11m.

The bay is open to winds from the NE through E to the S; during these periods, a heavy swell can build in the bay. If the winds are above force 5, it is recommended that vessels leave the roadstead. If the swell is from the SE or S and is greater than 2m, cargo operations will be carried out in a more sheltered area bounded by the following positions:

a. 62°53'06"N,179°22'46"E.
b. 62°53'48"N,179°22'23"E.
c. 62°54'06"N,179°24'45"E.
d. 62°54'24"N,179°24'11"E.

Aspect.—When approaching the port, Mys Otvesny and Mys Barykova are conspicuous. By day, the white buildings of the settlement and the storehouses, painted in blue and white squares, can be seen at a distance of 15 miles. On radar a clear image of the basin can be seen.

Range lights are shown at the mouth of Reka Ugol'naya, in the NW part of the bay, and lead into the outer roadstead.

Pilotage.—Pilotage is not compulsory. During the navigation season, from May 15 until November 15, a port pilot may carry out pilotage and anchorage duties. The request for a pilot should be made to the port captain 4 hours before arrival.

The pilot boards 1.6 miles SE of Mys Barykova.

Port Beringovskiy Radio Station (call sign: UTST-2), maintains a 24-hour watch on 500 kHz, 451.5 kHz, and 2182 MHz, and VHF channels 9 and 16. The 24-hour watch on VHF channels 9 and 16 is kept only during the navigational season of May 15 to November 15. From November 15 to May 15, the station operates from 2300 to 0700, except for rest days and holidays. Vessels anchored in the roadstead are required to maintain a 24-hour watch on VHF channel 9.

Anchorage.—Anchorage is available, in 10m, sand, with the mouth of Reka Lakhtina bearing about 225°, distant 1.7 miles. Anchorage can also be obtained, in a depth of 18m, in the S part of the bight.

Caution.—A wreck, with a depth of 2m, lies 1.4 miles WNW of Mys Barykova. Another wreck, with a depth of 7.5m, lies 1 mile WSW of Mys Barykova. An isolated depth of 2.8m lies 1.8 miles WNW of Mys Barykova.

1.41 The coast from Mys Korobitsyna to Mys Voyennykh Topografov, about 14 miles S, consists of a stretch, 21m high at first, which then becomes high and steep.

Mys Voyennykh Topografov (62°38'N., 179°38'E.), the W entrance point of Anadyrskiy Zaliv, is bluff and steep-to, rising to a 660m rounded summit about 1.8 miles inland. On the SE side of the cape is a large cylindrical projection about 579m high. On the cliffs at the cape the strata have a slight inclination to N, while on Mys Kinga, about 13 miles SW, the strata have a slight inclination S.

Bukhta Ushakova, with its N entrance point about 4 miles S of Mys Voyennykh Topografov, appears from the offing to indent the coast much farther than it does, as the head of the bay is low and a long narrow valley extends inland from it. Mys Sinop, the S entrance point of the bay, is a high, steep bluff. Mys Gangut, about 1 mile SW, is also a high bluff, rising steeply to a height of 370m. About 2 miles offshore in the middle of Bukhta Ushakova are depths of 14.6 to 16.5m, over black sand, flint, and shell.

1.42 Guba Gavriila (Archangel Gabriel Bay) is entered between **Mys Basova** (Mys Kinga) (62°27'N., 179°22'E.), a steep rocky point fringed by drying rocks, and Mys Bezymyanny, about 7.5 miles SW. A heavy swell rolls into the bay even in calm weather. With a light wind from the E, the swell rapidly increases, causing a heavy surf along the whole shore, making the bay unsafe for small vessels. From seaward, the bay appears to extend farther into the land because of Laguna Orianda, a spacious lagoon separated from the head of the bay by a narrow strip of land. Although the lagoon does not seem to have any direct communication with the bay, it is salty and rises and falls with the tide.

The depths in the bay decrease from about 26m in the entrance to depths of 8.7m, fine sand, near the head.

Mys Bezymyanny is a steep rocky point rising to a height of 439m. A light, from which a radiobeacon transmits, is situated about 1.2 miles SW of the point.

Mys Chesma, about 3.5 miles S, rises to a height of 329m. Close off the latter point are several pillar rocks. Two low, flat rocks and some drying rocks lie 0.5 mile and 0.8 mile E, respectively, of the point.

Bukhta Greiga, a bight between the above-mentioned points, is reported to provide anchorage during SW winds, in depths of 5.5 to 12.8m, with Mys Chesma bearing 166°, distant 1 mile.

The coast from Mys Chesma to Mys Navarin rises steeply to a range of hills, 355 to 430m high.

Mys Navarin (62°15'N., 179°07'E.), the S extremity of a peninsula, is fringed by drying rocks. Two columnar rocks, 42m high, are located close offshore, about 0.3 and 0.6 mile NE, respectively, of the cape.

The coast in the vicinity of the cape is high, precipitous, barren, and rocky. It is frequented by large flocks of various species of birds.

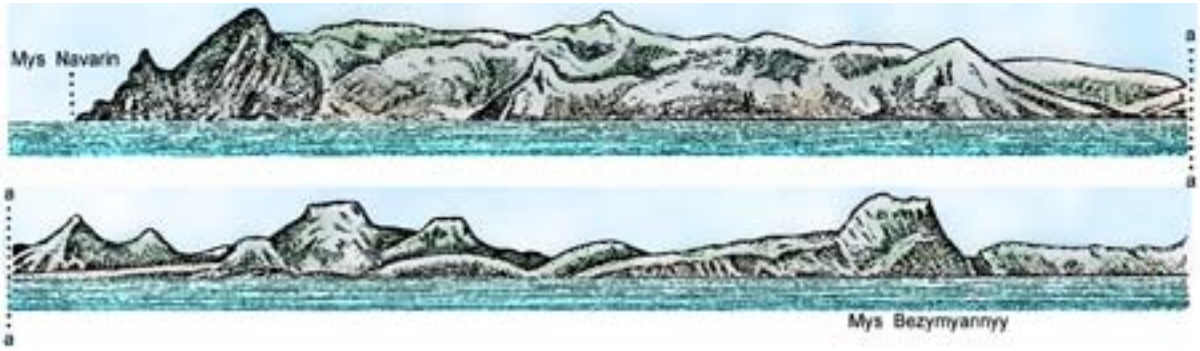
Gora Geidena, about 11 miles NW of Mys Navarin, is the summit of a range extending from the cape. It is conspicuous because of its conical shape, and becomes covered with snow in September.

Caution.—Shoals, positions doubtful, of 11.9m and 17.8m, lie about 47 miles and 60 miles SW, respectively, of Mys Navarin.

A wreck is reported approximately 70 miles SW of Mys Navarin, in depths of 20m, in position 61°49'N, 176°55'E.

Due to insufficient information concerning relocation and maintenance, many navigational aids between Mys Gintera and Mys Navarin are not shown on the chart.

1.43 The coast from Mys Navarin to **Mys Nizkig** (61°37'N., 173°50'E.) for the first 25 miles is high and rises



Mys Navarin to Mys Bezymyannyy—View in two parts

steeply from the sea, and between the mountains are small valleys.

The 20m curve is about 1 mile offshore along this stretch. The remainder of this coast is much lower and less steep-to, and about every 10 or 15 miles is a lagoon into which usually flows a stream. At Maina Pylgin, about 60 miles WNW of Mys Navarin, there is reported to be a small gravel beach that contrasts with the usual rocky outcrops that generally mark the coast. A fish cannery is situated about 5 miles W of Maina Pylgin.

Caution.—Banks, with depths of 18.3m and 31m, were reported (1951) to lie about 68 miles and 60 miles E, respectively, of Mys Nizki.

Bukhta Dezhneva is entered W of Mys Nizki, which is fringed by drying rocks that extend as far as 0.5 mile S of the point. Several rivers flow into the head of the bay and there is reported to be a considerable current off its entrance with partly fresh water on the surface. There are high cliffs near Mys Orangutang, the W entrance point of the bay.

1.44 Bukhta Anastasii (61°24'N., 172°54'E.), entered about 30 miles SW of Mys Nizki, rises steeply to about 610m on its NE and SW sides, but the shore at the head of the bay is low and sandy. Mys Lindgolma, extending SW from the NE side of the bay, has a reef extending 0.5 mile from it, and should be given a wide berth. Some huts are on Mys Lindgolma, and the village of Il'pi is situated about 2 miles NW of the point.

Anchorage.—Anchorage can be obtained in Bukhta Ressina, a small cove N of Mys Lindgolma, in a depth of 7m, fine sand, with Mys Lindgolma bearing 148°, distant 0.8 mile. During strong SE winds, the whole of Bukhta Anastasii is too exposed to SE winds to afford safe anchorage.

North of Bukhta Anastasii, the summits of the mountains are rounded and their slopes are covered with grass. South of the bay to Mys Olyutorskiy the coast is high, mountainous, and rugged, and the peaks are pointed. Approaching the bay from the E, the different aspects provide a good landmark. Ostrov Vasiliya, a bluff barren islet in an indentation close SW of Bukhta Anastasii, and Mys Vitgenshteyna, about 32 miles farther SW, are prominent in the S approach to the bay.

Bukhta Natalii (Natali Bay) is entered between **Mys Vysokiy** (61°10'N., 172°42'E.) and Ostrov Bogoslova, a 424m high islet about 6 miles SW. The shores of the bay rise to irregular mountains, 457 to 610m high, and at its head is a low sandy slope and the entrance to a fairly large river.

Bukhta Pavla, an unsurveyed inlet W of Ostrov Bogoslova, has shores which are high and steep-to, and several streams flow into its head. The N entrance point rises to a mountain, 787m high. The depths off the entrance are 26m, increasing to 46m at the entrance, and then decreasing to 33m where the inlet turns NW. The depths then decrease somewhat rapidly toward the head of the inlet.

Anchorage.—Local knowledge is essential in anchoring in the inlet, which affords complete protection. There are no known dangers in it. Anchorage can be obtained, in a depth of about 26m, off the entrance to the inlet, but it is exposed to the frequent and violent SE winds.

1.45 Bukhta Petra, an unsurveyed inlet SW of Ostrov Bogoslova, has depths of 27m in the entrance, decreasing to depths of 9.1 to 11m in what seems to be a bar in the middle. Farther in the depths increase to 14.6 to 18.3m, but then decrease to 11m near the head, where a shoal extends about 0.1 mile offshore.

Bukhta Glubokaya (60°59'N., 172°15'E.), entered about 11 miles SW of Ostrov Bogoslava, has rugged and precipitous shores, fringed with rocks that dry. The NE entrance point is fringed by sunken rocks and rocks that dry. A black conical rock, 37m high, is located close off the SW entrance point. Ostrova Kamni Chasovyye (Skaly Chasovye), midway across the inlet, consists of two rocks that dry.

Bukhta Imatra, indenting the SW shore of Bukhta Glubokaya, has a width of about 0.3 to 0.4 mile. The shores of the inlet are high. The depths decrease from 46m in the entrance of the inlet to 16.5m about 0.4 mile from the head. Excellent and protected anchorage can be obtained in Bukhta Imatra. A shoal extends across the inlet from the N shore, about 0.3 mile from the head of the inlet.

Tides—Currents.—At Bukhta Glubokaya the mean diurnal range is 1.3m.

1.46 Mys Vitgenshteyna (60°51'N., 172°04'E.) is the S extremity of a promontory which rises close inland to a peak that has the appearance of a pyramid. Two pillar rocks lie close off the E side of the promontory and close to the point.

The coast for about 15 miles SW of Mys Vitgenshteyna is mountainous and rises to sharp peaks. For 6 miles farther SW it is low and covered with boulders to abreast Ostrovok Shlyupochnyy. From a point about 2 miles farther S to **Mys Nizkiy** (60°24'N., 170°45'E.), about 26 miles SW, the coast is high, with bold projecting promontories.

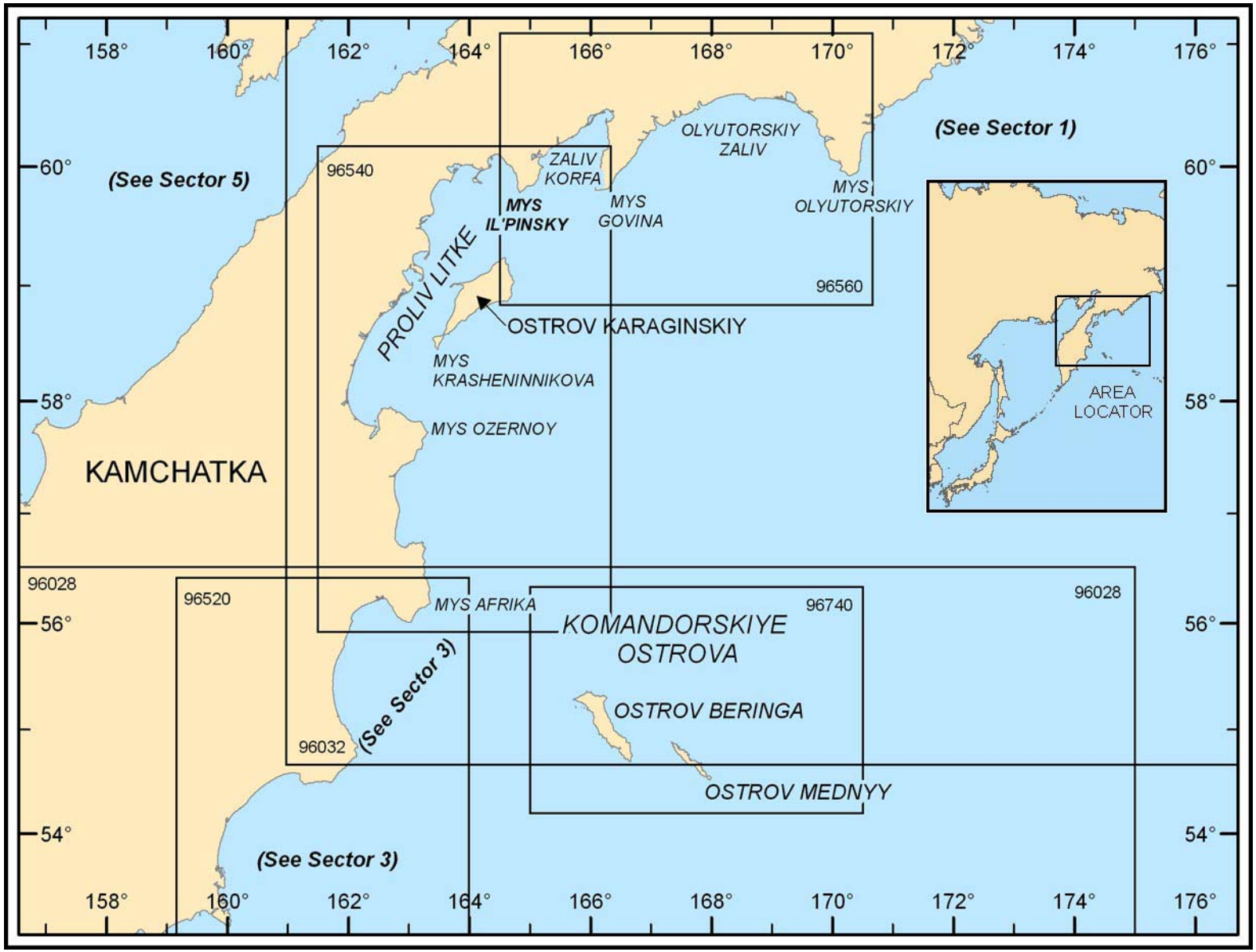
An indentation in the coast S of Mys Nizkiy is divided into two bays by a promontory extending from its head. Bukhta Tyulen'ye Ozero, the S bay, about 1.2 miles in length and width, has depths of 7.6 to 14.6m to within 0.2 mile of the shore, except for a 4.9m patch about 0.3 mile off the S shore close inside the entrance.

Mys Olyutorskiy (59°55'N., 170°21'E.) is a cape forming the S extremity of Poluostrov Olyutorskiy. The coasts of Poluostrov Olyutorskiy are wild and forbidding, and on the peninsula are barren mountains of volcanic formation, in places covered with snow. The extremity of the cape consists of dark gray cliffs rising steeply to a peak, 783m high, with jagged crags. On the E face of the cape is a dark-gray landslide; on the W face are two light gray landslides. Submerged and drying rocks extend 0.2 mile S from the cape; a detached group of drying rocks lies about 0.7 to 1.3 miles SE of the cape.

A radiobeacon is situated about 7.5 miles NE of Mys Olyutorskiy.

Caution.—A detached 16.5m patch, position doubtful, was reported (1943) about 36 miles S of Mys Olyutorskiy.

A shoal, the existence of which is doubtful, was reported to lie about 120 miles SE of the cape.



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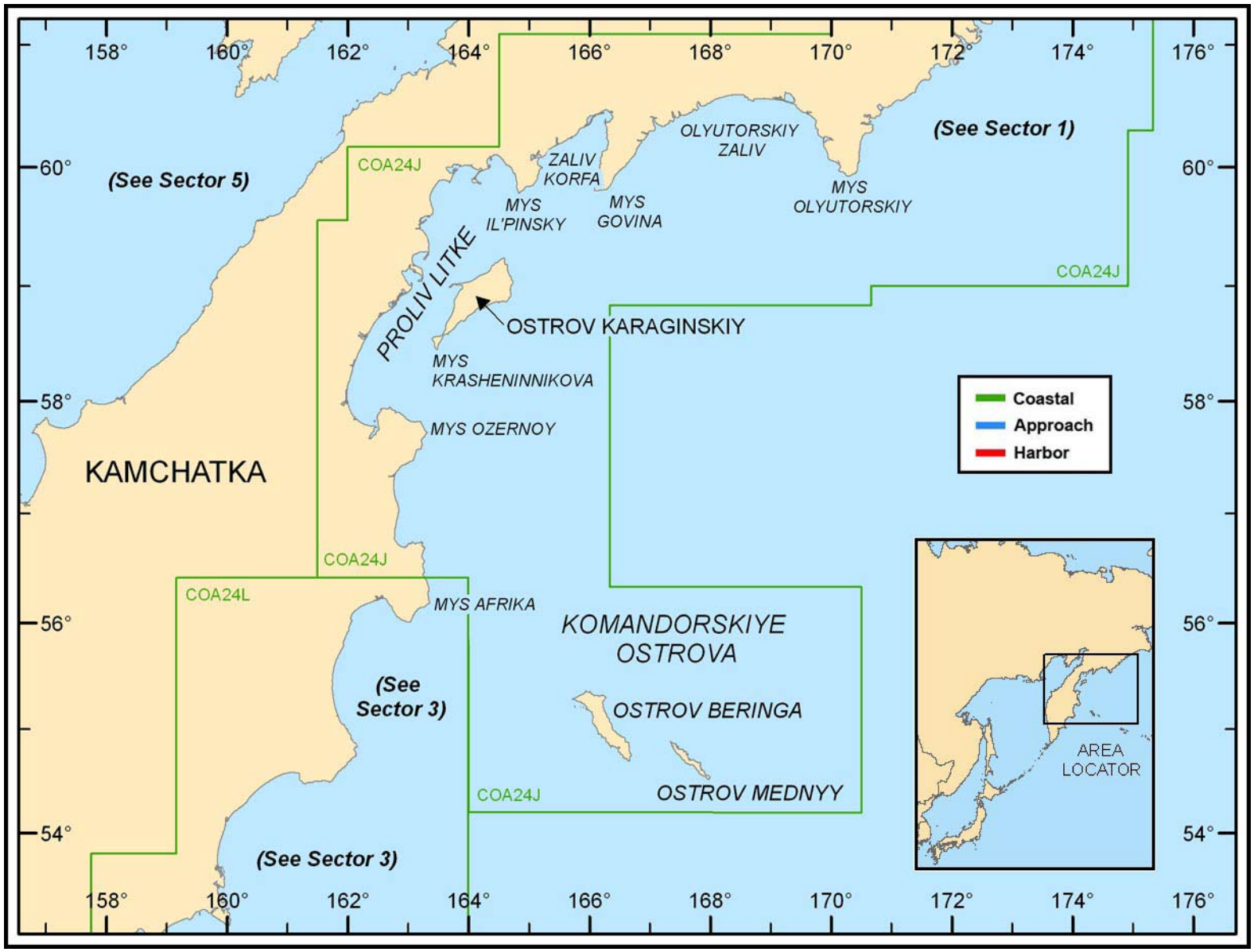
SECTOR **2** — CHART INFORMATION



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SECTOR 2 — DNC LIBRARY INFORMATION

SECTOR 2

OLYUTORSKIY ZALIV AND THE EAST COAST OF KAMCHATKA—MYS OLYUTORSKIY TO POLUOSTROV KAMCHATSKIY

Plan.—The coast described in this sector comprises the W shore of the Bering Sea, Komandorskiye Ostrova, and the E coast of Kamchatka from Mys Olyutorskiy to Poluostrov Kamchatskiy. The arrangement of the sector is from NE to SW.

General Remarks

2.1 Winds—Weather.—In the summer, the predominant winds are from a S direction and in winter, from a N direction. Wind speeds are greatest in winter, when gales are frequent. Fog occurs during the summer and is said to be most frequent in June.

The prevailing winds in Komandorskiye Ostrova from May to September are from the SE, S, and SW, and are usually accompanied by fog and rain. During this season, winds from the W through N to NNE bring clear weather, but winds from the NE and E bring cloudy weather and haze. In the remaining months, W and NW winds prevail. Typhoons may be encountered during the fall, as their path crosses these islands. Calms are rare and of short duration, and are most likely to occur in the early summer than in fall when any wind is stronger and of longer duration.

The climate of these islands is not severe, the temperature averaging 5°C during the summer, and -2°C during the winter. In the winter, during winds from the NE, heavy snow storms occur frequently. The snow remains on the islands, especially in the narrow mountain clefts, until about the end of July or the beginning of August. The late disappearance of the snow is due to its great mass and to the fogs, which are numerous and thick during the summer.

Ice.—No significant amount of ice is formed in Zaliv Ozernoy. Drift ice from the N usually appears in February and March and finally disappears with the effects of offshore winds and the sea.

Slush ice appears in Ukinskaya Guba during the latter part of November. During December and January, one solid mass of fast ice extends as far as 20 to 25 miles offshore. The earliest recorded first appearance of ice was November 14, the latest January 8. The earliest final disappearance was March 15, and the latest was June 22.

Slush ice in Proliv Litke ordinarily appears in early November. From December to mid-June the passage is solidly packed with heavy hummocky floating ice. In an extremely severe winter fast ice covers the entire passage through February and March. The passage is clear of ice by early July or sooner.

Ice begins to form in Zaliv Korfa in mid-December, but can form as early as late November during severe weather. There is drift ice in the bay until April, though it is sometimes carried out of the bay by the wind. The bay is clear of ice at the beginning of May, but in severe weather the bay may not be clear of ice until early June.

The rivers and lagoons of Olyutorskiy Zaliv begin to freeze in the latter half of October. Early in November slush ice appears in the bays and fast ice fringes the shore. Beginning late in December the bay gradually begins to fill with drift ice coming from the N along the W shore of the Bering Sea. The ice first appears as small floes, mainly in the W part of the bay. From March, when N winds are not so strong and often change to S breezes, the ice becomes much more tightly packed, although between Mys Olyutorskiy and Mys Kreshchenyy Ognem it generally leaves a shore lead from 1 to 3 miles in width. Strong S winds will drive the ice onshore, but as soon as these winds cease, the ice again recedes from the shore. In the NW part of the bay, from Mys Kreshchenyy Ognem to Bukhta Yuzhnaya Glubokaya, the ice is much more tightly packed, and onshore winds usually force it into hummocks. The E part of the bay becomes clear of ice much earlier than the W part, where it usually remains until the middle of June.

The sea around Komandorskiye Ostrova is free from ice during the entire year, but drift ice is brought to the islands from the E shore of Kamchatka during the prevailing W and NW winds.

Tides—Currents.—Between Mys Afrika, Mys Kamchatskiy, and Mys Kronotskiy the flow of the constant Kamchatka Current is 40 to 50 miles wide, and in a general SSW direction, with a velocity of 0.6 knot. East of the Kamchatka Current, approximately between 56°N and 57°N, and E from 165°E to 169°E, there is a constant current that flows in a general S direction and has a velocity of about 0.4 knot.

The currents in the S part of Proliv Litke set WNW and ESE on the flood and ebb tides, respectively, attaining a velocity not exceeding 1.5 knots. They are stronger near Mys Krasheninnikova.

In Guba Lozhnykh Vestey, the tidal currents are hardly perceptible, but outside the bay they set N and S, attaining their greatest velocity in the vicinity of Mys Semenova.

Off Mys Ploskiy, the flood current sets SW at a velocity of 1 to 1.5 knots and the ebb current sets NE at the same velocity.

The currents in the vicinity of Komandorskiye Ostrova have not been fully investigated. According to reports, a constant current sets NE between Ostrov Beringa and Ostrov Mednyy. A weak current was observed setting N along the W side of Ostrov Beringa.

The tidal currents in the vicinity of Komandorskiye Ostrova are very weak, the flood current setting W and the ebb current setting E.

Olyutorskiy Zaliv

2.2 Olyutorskiy Zaliv, entered W of **Mys Olyutorskiy** (59°55'N., 170°21'E.), has not been thoroughly surveyed. The S half of the E side of the bay is high and steep, but the N half is low. The N side of the bay is generally low, except near Mys Krasnyy and Mys Kreshchenyy Ognem, where mountains approach the shore. The W side of the bay is steep and mountainous.

2.3 East and N sides of Olyutorskiy Zaliv.—From Mys Olyutorskiy to a low beach at the mouth of a small stream, about 3 miles NW, the coast consists of gray cliffs gradually decreasing in height. From this stream to the S entrance point of Zaliv Anana, about 3 miles W, the coast consists of yellowish-gray cliffs, increasing in height. A light, from which a radiobeacon transmits, stands 4 miles NW of Mys Olyutorskiy.

Zaliv Anana has not been thoroughly surveyed. The SE entrance point slopes gently to the sea, the cliffs being steeper on its N side. The upper part of it is covered with vegetation, and a grayish hill rises on it. Mys Anana, the NW entrance point, is bluff and rises to a mountain, 768m high, with the sheer cliffs up to its summit being dark gray and veined with red, brown, black, and yellow stripes. A drying reef extends 0.3 mile WSW from Mys Anana. About 1 mile N of the S entrance point is a small projection faced by gray-green cliffs, off which is a cluster of drying rocks. Northward of this projection the coast becomes higher, and the slopes of a mountain, 629m high, located about 2 miles NE of this projection, form high dark-gray cliffs. For a distance of about 4 miles ESE from Mys Anana the shore is cliffy, except for a narrow valley located midway along it.

From Mys Anana the coast trends 3.5 miles NNW to the mouth of a river, the mountains approaching the coast for the first 2.5 miles. A ledge of rocks, about 1.5 miles NNW of Mys Anana, is marked by breakers. From the mouth of the river to Mys Seryy, about 3.5 miles NNW, the coast consists of gray and yellow cliffs gradually increasing in height, and the mountains gradually approaching the coast. Near the shore is a line of low hills.

2.4 Mys Seryy (60°09'N., 169°55'E.) rises to a mountain and is a high bare-topped bluff faced by cliffs that are light gray and have a yellow tinge. A mountain, with gray cliffs and a conical summit, 747m high, is located S of the point and is separated from the point by a deep gorge in which there is a waterfall.

Zaliv Lagunnyy, a bight N of Mys Seryy, has not been examined, but depths of 12 to 16m, sand, are reported to be 1 to 2 miles offshore. Local fishermen report that the depths abreast the cannery increase regularly from 8.2m, about 0.2 mile offshore, to 10.1m, about 0.5 mile offshore, and to 14.2m, about 1 mile offshore.

From Mys Seryy to the mouth of Reka Kavacha, a river about 3 miles N, the shore is cliffy for the first 1.5 miles, then the hills recede inland and the shore becomes low. Reka Kavacha flows into Zaliv Lagunnyy through a lagoon, which is separated from the bight by the two narrow spits of land parallel to the coast. The tide is prevalent in the lagoon, and the ebb tidal current attains a velocity of 6 to 6.5 knots.

Mys Lagunnyy, the NW entrance point of Zaliv Lagunnyy, is a flat-topped rounded cape with steep gray cliffs, 61m high, and is covered with grass and moss. Vessels should give the cape a berth of at least 1 mile. The shore consists of cliffs for a distance of 1 mile E of the cape, but then the hills recede inland and the shore is rocky.

From Mys Lagunnyy to Reka Anichklanvayam, the coast rises in dark cliffs, with lighter patches, from 80 to 100m high. Close N of this river is a flat-topped bluff point. For about 3 miles N from this point the coast consists of gray cliffs, 20 to 30m high, but then for about 6.5 miles N to the mouth of Reka Apuka, the coast is low and sandy. In this vicinity the mountains are about 4 to 4.5 miles inland, are rounded, and slope gently.

2.5 Reka Apuka (60°27'N., 169°35'E.) flows into the sea through a lagoon which is separated from the sea by a sand and shingle spit. The valley through which Reka Apuka flows trends NE and is open, forming a good mark for this locality. Apuka is a village situated on the high ground on the W side of the entrance, and in this vicinity are a radio station, weather station, and an electric power plant.

Anchorage.—Anchorage can be taken, in depths of 9 to 10m, sand, from 1 to 1.2 miles off the entrance to Reka Apuka. The holding ground is good.

Shoal water extends offshore, and the depths shoal rapidly inside the 10m curve, between the fishing station and the fish cannery, situated 1.5 and 2.5 miles SE, respectively, of the entrance. Anchorage can be obtained here, in depths of 9 to 10m, sand, from 1.5 to 2 miles offshore.

2.6 Mys Krasnyy, about 2 miles W of the entrance to Reka Apuka, is a point formed by the slopes of a flat-topped hill. It is faced with low cliffs, those on the S side being yellow and light gray, with some dark patches about 0.1 mile E of the point, and those on the W side being gray with yellow patches, one of which appears as a wide horizontal band.

The coast for about 4 miles NW from Mys Krasnyy is cliffy and forms two bights. A valley with a stream is at the head of each bight. The point separating the bights is formed of black cliffs.

Reka Pakhacha forms two lagoons connected by a narrow channel and separated from the sea by low sand and shingle spits. The river empties into the sea from the E lagoon. The whole delta is fronted by a bar with a least depth of 2.1m. The village of Pakhacha is situated on the W spit and there are fishing stations on the cay and E spit.

Anchorage.—Vessels can anchor SW of the W river mouth, in a depth of 10m, exercising caution, as the depths shoal very rapidly. Vessels can also anchor, in a depth of 9.1m, sand, about 0.8 mile offshore abreast the fishing station (60°34'N., 169°04'E.).

The coast, from the mouth of Reka Pakhacha to about 3 miles ENE of Mys Kreshchenyy Ognem, is sandy and steep-to, and has depths of 11m, sand, about 1 mile offshore. The coast to Mys Kreshchenyy Ognem is high, bold, and rises close inland to mountains, the cliffs of which are marked by red, yellow, and dark colored patches.

2.7 Mys Kreshchenyy Ognem (60°33'N., 168°42'E.) is faced with red cliffs, about 20m high. The S end of the peninsula is high and is marked by irregular red and yellow crags. From the E or W, the peninsula appears as an island, because it is joined to the mainland by low swampy land, on which are some ponds. Reefs marked by breakers during the slightest swell lie close off the point, and a rock was reported in 1933 to lie about 1 mile S of the point. A beacon, 4.9m high, stands on the S cliff of Mys Kreshchenyy Ognem.

The coast from Mys Kreshchenyy Ognem to Mys Zheltyy, about 2.5 miles WNW, is high and bold, consisting of black

and red cliffs. The steep cliffs on the S side of Mys Zheltyy are a subdued yellow with large red patches. The W side of Mys Zheltyy, as far as its extremity is of a bright yellow color, making the point very conspicuous from the W.

A sloping dark green mountain, about 366m high, rises at the head of the bight between Mys Zheltyy and Mys Groznyy, about 2.3 miles NW. On either side of the mountain is a valley with a stream. A fishing station is situated on the low beach near the mouth of the W stream. Off this fishing station the depths are irregular, there being depths of 10m about 1.2 miles offshore, and depths of 11m about 0.4 mile offshore.

Mys Groznyy, rising to a mountain 463m high, is a dark rugged cape faced by sheer cliffs, the extremity of the cliff being light gray. A black pyramidal rock, conspicuous from the W or E, lies close to the cape. From the S the cape appears as a steep dark-gray wall, but from the SW the cliffs are black, and the formation of the strata is clearly seen.

The coast from close N of Mys Groznyy to about 4 miles W is low.

Anchorage.—Anchorage can be obtained, in a depth of 9.1m, sand, about 1 mile off a fishing station situated midway along this coast.

From Reka Impuka Yuzhnaya to a fishing station about 9 miles W, the coast consists of low grass-covered terraces with yellow-gray cliffs about 20m high, broken by deep gullies and streams. Anchorage can be taken, in a depth of 9m, sand, about 1 mile off this fishing station, which is situated on a low sandy beach extending to the mouth of Reka Yemet.

The coast from Reka Yemet to Bukhta Somneniya, about 7 miles SW, is formed by 30 to 40m cliffs rising to some hills covered with grass and bush. About 2.5 miles SW of Reka Yemet is a conspicuous valley, through which runs a stream. The shore is steep in this vicinity and the cliffs are gray with yellow stripes.

Caution.—A dangerous wreck lies 7 miles ESE of Mys Kreshchenyy Ognem.

2.8 Northwest and W sides of Olyutorskiy Zaliv.—Bukhta Somneniya (60°31'N., 167°47'E.), an inlet surrounded by mountains, has high and steep E and W shores, but the head of the inlet is low and sandy. A rocky ledge extends about 0.4 mile E from the SW entrance point, and a patch of drying rocks extends a short distance off the NE entrance point. A detached reef, which partly dries and on which are two above-water rocks, extends about 0.4 mile ENE from a position 1.2 miles E of the SW entrance point. The sea constantly breaks on this danger. The vicinity of this danger and the passage between it and the NE entrance point have not been examined.

About 1 mile off the entrance to Bukhta Somneniya are depths of 12.8m, which decrease gradually in the fairway to the head of the inlet. Depths in the outer portion range from 5.8 to 9.1m. Both shores of the inlet are fringed with rocks, and a 3.3m patch lies about 0.4 mile off the E shore 1.3 miles NNE of the SW entrance point. The bottom of the inlet consists of sand and pebbles.

Anchorage.—In summer small vessels can anchor in the inlet sheltered from all but SE winds. The strong N squalls that occur in the autumn render the anchorage difficult.

A vessel entering the inlet should steer midway between the SW entrance point and the detached reef in the entrance.

The coast between Bukhta Somneniya and Bukhta Lavrova, about 20 miles WSW, is high and steep, and indented in four places. There are depths of at least 20m about 2 miles off this steep-to coast, the bottom being rock, sand, and shells.

The next indentation, about 10 miles WSW of Bukhta Somneniya, has a NE entrance point consisting of a steep cliff with a large waterfall, N of which is a sharp peaked mountain with an yellow-red cliff reaching almost to its summit. Abreast the fishing station there are depths of 11.9m and 15.9m, about 0.5 and 0.8 mile, respectively, offshore.

The third indentation, close WNW of the second, has not been surveyed. The entrance points, as well as the E and W shores, are bold and high. At the head of the bight is a low, sandy spit separating the bight from a lagoon. This lagoon is reported to extend about 7 miles in a NW direction, and to have depths of 2.4 to 3.4m in its entrance, 20.1 to 29m in its middle part, and 5.9 to 8.2m near its shores.

2.9 Bukhta Lavrova (60°19'N., 167°08'E.) is surrounded by mountains about 1,000m high, and narrows to about 0.4 mile at its head, where it divides into two arms. Bukhta Vestovaya, the W arm, extends about 1.5 miles W, and Bukhta Ostovaya, the E arm, extends about the same distance E.

The SW entrance point is a low sand and shingle point extending SE from a small terrace about 30m high. On this terrace is a white pyramidal slatted beacon, about 4.3m high. A radiobeacon transmits from this entrance point. A dark colored mountain, about 610m high rises near the point. A reef, on which are some rocks above-water, fringes the point and extends as far as 0.2 mile S and SE from it. On the W side of the inlet are three mountains, separated by narrow valleys through each of which flows a stream. Except at the mouths of these streams, the shore consists of high cliffs fringed by sunken and drying rocks.

The NE entrance point is formed by the high bluff slope of the mountain forming the SE end of the range running along the E side of the inlet. A rocky shoal, partly above water and marked by breakers, is located about 1.4 miles W of the NE entrance point. Off the shoal are depths of 11 to 15m. The passage between this danger and the point has not been examined. About halfway along the E side of the inlet is a mountain with a conical peak, about 1,006m high. Several waterfalls run over the cliffs on the E side, and it is fringed by sunken and above-water rocks.

Between the entrance points of Bukhta Lavrova there are depths of 11.9 to 14.9m, gradually decreasing to depths of 4m on a bar, about 1 mile from the head. The depths increase again N of this bar to as much as 31m in a pool between the spits at its head. The bottom is rock and shingle near the shore and sand toward the middle of the inlet.

Bukhta Vestovaya, the W arm, is entered N of a low, sandy spit extending about 0.3 mile in a N direction. The arm is about 0.1 mile wide in the entrance, and widens inside to about 0.2 to 0.3 mile. On each side of this arm are high mountains. Streams and waterfalls flow down the cliffs. During the autumn, when strong NW winds occur, strong squalls sometimes come down this arm. Bukhta Vestovaya is usually free of ice by the end of June.

In the middle of the entrance to Bukhta Vestovaya are depths of 12.8m, but near the S entrance point are depths of 8.5m. For about 0.5 mile inside the entrance the depths increase to 16.5 to

Coast between Bukhta Lavrova and Bukhta Yuzhnaya Glubokaya

20m, and then decrease to 16 to 10m to a drying shoal extending 0.1 mile from the shore at the head of the arm. The bottom is soft mud.

Bukhta Ostovaya, the E arm, is also entered N of a low sand and shingle spit extending about 0.5 mile NW. For the first 0.5 mile this arm is 0.15 mile in width, but then it widens to about 0.3 mile. Both sides of the arm are mountainous.

The narrow part of the entrance to the arm has depths of 23m in its W part, gradually decreasing to 10m near the E end of the arm. In the middle of the arm there are depths of 12 to 14m. A drying shoal extends about 90m from both sides of the arm, and 0.15 mile from the head.

Tides—Currents.—The tides at Bukhta Lavrova are mixed, principally diurnal. When the moon is near the equator they are semidiurnal, and when the moon is at its greatest declination they are diurnal. The diurnal range is about 1.1m.

Anchorage.—Good anchorage, sheltered from all winds, can be obtained by small vessels at the head of Bukhta Lavrova. Swells from the S or SE are negligible at the anchorage.

Directions.—A vessel entering the inlet should steer for the SW entrance point and pass it at a distance of not less than 0.4 mile.

2.10 A small cove indents the coast about 4.5 miles SW of Bukhta Lavrova. Reka Nauynem flows into the SW corner of this cove. The buildings of a fishing station near the mouth of the river are visible from a considerable distance. The S entrance point of the river is formed by high cliffs with a small projecting point from which a ledge, on which are sunken and above-water rocks, extends about 0.4 mile NE. The N entrance point of the river is low and sandy.

Vessels with local knowledge can anchor near the coast N of the end of the rocky ledge.

Bukhta Yuzhnaya Glubokaya (60°12'N., 166°54'E.), lying about 10 miles SW of the entrance to Bukhta Lavrova, extends about 2.7 miles in a general W direction and is about 0.5 mile wide in its outer part. About 0.7 mile inside the entrance the inlet is narrowed to about 0.3 mile by a spit extending from either shore. About 0.4 mile W of the S spit is a small promontory, and on the W side of this promontory is a low sand spit. At this promontory is a fishing station with a small wharf reported to have depths of 3.7 to 4.6m alongside. The inlet turns in a WNW direction abreast this promontory and narrows to its head. The mountains surrounding the inlet are steep and terminate at the shore in high cliffs. A few streams empty into the inlet, and at the head a wide valley trends W.

There are depths of more than 20.1m about 1.5 miles off the entrance, decreasing to a bar with depths of 7.3 to 10.4m at the entrance. A narrow bank, with a depth of 4.6m, extends 0.4 mile SW from the N entrance point, and a wedge-shaped bank, with a least depth of 4.6m, extends 0.4 mile NW from the S entrance point. The depths increase rapidly to 29 to 40m W of the bar, then to 50m between the spits extending from either shore, and then to 66m abreast the fishing station. Beyond the fishing station the depths gradually decrease to 29m about 0.4 mile from the head of the inlet, and then suddenly to 7.6m and less. When entering, it is advisable to keep to the S shore, as some submerged rocks lie about 0.3 mile offshore, about 1 mile inside the entrance.

The entrance to the inlet is hard to distinguish. The fishery administration maintains a small white pyramidal beacon on each entrance point, but these are only visible from a short distance. A radiobeacon transmits from the S point. In the vicinity of the inlet the valleys extend down to the shore and the mountains appear as small ranges trending in an E-W direction. This feature serves as a guide to a vessel going to this inlet.

Tides—Currents.—The tides are of mixed type, principally diurnal. When the moon is near the equator they are semi-diurnal, with a maximum range of 0.6 to 0.9m, and when the moon is at its greatest declination, they are diurnal, with a maximum range of 1.4m.

Anchorage.—Bukhta Yuzhnaya Glubokaya affords shelter from all but E winds, which send in a sea even to its head, causing a heavy surf and making it dangerous for a vessel to remain at the wharf. There is reported to be good anchorage at the head of the inlet over a bottom of mud and sand. Due to the deep water elsewhere, several anchors have been lost by vessels attempting to anchor.

Small vessels can anchor about 0.1 mile off either shore, E of the two spits located 0.7 mile inside the entrance.

2.11 The coast from Bukhta Yuzhnaya Glubokaya to the W entrance point of **Olyutorskiy Zaliv** (59°49'N., 166°15'E.), about 30 miles to the SW, is steep-to, but pillar rocks and drying rocks lie close to the shore. A 1.6m patch, position doubtful, is located 19 miles NE of the W entrance point, about 2.5 miles offshore.

The W entrance point of Olyutorskiy Zaliv consists of the projecting cliffs of a hill, 296m high. A natural arch in the vicinity of the point is very conspicuous when seen from the S at a distance of 2 miles. North of the hill a waterfall runs over the cliffs.

The coast from the W entrance point to Mys Govena, 6 miles W, consists of a line of detached hills with conical jagged peaks, 275 to 365m high, rising from the coast in dark cliffs showing light gray patches. The slopes and valleys are covered with vegetation. Several detached pillar rocks and reefs lie close offshore, but the coast is steep-to, with depths of 14 to

16m about 1 mile offshore.

Zaliv Korfa

2.12 Zaliv Korfa (Korfa Gulf), entered W of Mys Govena, has depths of 79m in the middle of the entrance, decreasing gradually to 29m about 10 miles from the head. A detached 11m patch is located in the middle of the gulf, about 18 miles from its head. At the head of Zaliv Korfa are three harbors formed by spits extending from the mainland. Gavan' Skobeleva, the harbor on the E side of the head, affords shelter to vessels drawing up to 9.1m.

2.13 East side of Zaliv Korfa.—Mys Govena (59°48'N., 166°05'E.), the E entrance point, is a moderately high, steep, gray cliffy headland. A row of pillar rocks lies SW of the cape, the largest and farthest offshore being shaped like a shoe. Gora Yuzhnaya, 402m high, rises close to the cape and on its summit are sharp pointed crags. A light is shown on Mys Govena from a white pyramidal stone tower with black bands.

Mys Govena Light

From Mys Govena to Mys Primetnyy, about 5 miles N, the cliffs become higher and the coastal mountains gradually approach the coast in easy slopes. Mys Primetnyy is a small rugged headland projecting about 0.5 mile from the general line of the coast, and is formed by a shoulder of Gora Primetnaya.

Gora Primetnaya, a conspicuous conical mountain rising about 1 mile NE of Mys Primetnyy, has a pointed summit, 418m high, inclined W. The cliffs on its seaward side are brown, with dark and light gray stripes. When seen from the S or N, the mountains appear black and detached, and when seen from the W, the summit appears rounded and has two hummocks. The cliffs N of Mys Primetnyy decrease in height, and small rounded hills are located close to the coast.

2.14 Mys Peschanyy (60°08'N., 166°11'E.), about 16 miles NNE of Mys Primetnyy, is low, sandy, rounded, and steep-to. A small hill, about 2 miles S of Mys Peschanyy, forms a gray bluff about 67m high. South of this hill is the mouth of a small river.

A fishery is situated at the mouth of a small stream, about 3 miles NE of Mys Peschanyy. The coast here is low and flat. Anchorage can be obtained, in 10m, about 1 mile off the fishery.

Two bights indent the coast between 5 and 10 miles N of the above-mentioned fishery. In this vicinity the mountains recede inland, and between them and the coast are tundra and small rounded hills. A fishery is situated at the mouth of Reka Yaon Vayam, at the head of the N bight. A group of dangerous rocks is located 1.5 miles WNW of the river mouth. They are reported to be marked in the summer by privately maintained buoys.

Kamni Drakhenfel'sa (60°22'N., 166°12'E.), consisting of two rocks about 6.1m high and several other drying rocks, are marked by breakers during any swell. Breakers have been seen between Kamni Drakhenfel'sa and the spit to the E.

2.15 Head of Zaliv Korfa.—The head of Zaliv Korfa consists of three harbors, each formed by a spit extending from the shore. From the E to W these harbors are Gavan' Skobeleva, suitable for vessels drawing up to 9.1m, Gavan' Sibir', suitable for vessels drawing up to 5.5m, and Gavan' Skrytaya, which is shallow.

Aspect.—The head of Zaliv Korfa is surrounded by mountains, of which the following are the most prominent.

Gora Kekurnaya (60°22'N., 166°42'E.), 1,277m high, dominates the surrounding mountains, and has a black conical summit, from which rises a great finger-shaped crag. Gora Severnaya, 1,242m high, about 5 miles farther N, is pyramidal in shape and has a pointed gray summit.

Gora Mnogoglavaya (60°32'N., 166°18'E.), 603m high, has numerous peaks surrounding a sharp conical peak. Its slopes are covered with scrub, but its summit is bare and light gray. Gora Usechennaya, about 6.5 miles WSW, has three bare summits lying in a NE-SW direction, the highest of which is 516m high.

Gora Prodolgovataya, 458m high, about 1.5 miles SW of Gora Usechennaya and from which it is separated by a deep ravine, has a flat summit sloping gradually from the N to S. It is covered with vegetation, but near its summit are some light gray patches.

Gavan' Skobeleva is bordered W by a low sandy spit extending about 2.2 miles N from the mainland. A few huts are situated on the N end of the spit.

Olyutorka, a village, lies on the S shore of Gavan Skobeleva, W of the mouth of Reka Alutovayam. Banka Zhukovskogo, a shoal with a least depth of 0.8m near its extremity, extends a little over 1 mile NW from the N end of the spit. This shoal is steep-to on its W, N, and E sides, the depths shoaling abruptly from 10m.

An area with a least depth of 9m extends about 2.5 miles W, 2 miles N, and 1 mile E from the N end of Banka Zhukovskogo. The depths SE of this area gradually decrease to 5.2m about 0.5 mile offshore.

Ice.—The harbor freezes over toward the end of October, and is finally clear by about the middle of June. Because of fresh water coming into Gavan' Skobeleva from Reka Kultushnaya, ice forms earlier in this harbor than in Gavan' Sibir'. The prevailing N winds in autumn tend to pack the ice into the harbor.

Anchorage.—Vessels drawing up to 9.1m can find shelter in the harbor, the bottom consisting of mud and sand, good holding ground. No swell enters the harbor, but strong N and NE winds raise a considerable sea.

2.16 Gavan' Sibir' (60°28'N., 166°15'E.) is formed between the mainland and Kosa Konokhval, a grassy spit extending about 2.8 miles ENE from the coast. This spit is narrow except in its middle part, where it widens to about 0.3 mile. The

mainland shore of the harbor is steep and precipitous. A mud bank, about 0.2 mile wide and covered with grass, extends 1.5 miles NE from the middle of the spit and divides the harbor into two parts. The part N of the mud bank is shallow, and the part S of the mud bank is the harbor proper. South winds are felt most in Gavan' Sibir', but these rarely attain any force.

The extremity of Kosa Konokhval is steep-to, with depths of 6.4m about 45m off it. An area 0.6 mile long and 0.1 mile wide, with depths of 6.4 to 7m, lies NW of the extremity. Farther W, as far as the first buildings of the fishing station, there are depths of 3 to 4.9m near the spit. A light is shown about 2 miles W of the fishing station.

Ice.—The harbor freezes at the end of October and is finally clear of ice by about the middle of June.

Tides—Currents.—The tides are principally diurnal, but they are semi-diurnal with the moon near the equator. During the diurnal tides the flood current runs longer than the ebb, and the period of SW is longer at HW than at LW.

Anchorage.—Vessels drawing up to 5.5m can anchor, in a depth of 6.4m, about 0.1 mile N of the extremity of the spit. The bottom is sand and mud, good holding ground. Anchorage can also be obtained about 0.4 mile off the S side of the spit, abreast the fishing station, where there are depths of about 7.3m.

2.17 Gavan' Skrytaya, on the W side of the head of Zaliv Korfa, is nothing more than a shallow lagoon, separated from the sea by a narrow sand spit covered with grass. A shoal, which uncovers at LW and on which the sea breaks at HW, extends 0.8 mile E from the extremity of the spit.

Zeleny Kholm, a conspicuous hill with a rounded summit, 58m high, is located on the mainland, about 0.5 mile ENE of the entrance, and forms a good landmark. In the spring this hill is bright yellow; in the summer it is dark green. From mid-May to mid-December, Skrytyy Light is exhibited from a stone tower, painted in black and white bands, situated on the summit of Zeleny Kholm.

Skrytyy Light

The village of Korf is situated near the root of the sand and shingle spit separating Gavan' Skrytaya from the sea.

Portovyy Punkt Korf (60°24'N., 166°02'E.) comprises the waters within a radius of 5 miles of the village. The port is open to foreign vessels.

Pilotage.—Pilots are not available; however, if extreme necessity requires pilotage, the Captain of the Korfskiy Fishing Cooperative will provide it.

All vessel arrivals and departures, as well as all movements within the port area, are regulated by the Port Dispatcher's office. All vessels within the port area should maintain a continuous listening watch on a frequency agreed upon between the Port Dispatcher and the vessel.

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

1.	Call sign:	Kort 58 (VHF)
		Kort 9 (RT)
2.	VHF:	VHF channels 11 and 16
3.	RT Frequency:	2182 kHz and 2300 kHz.

Anchorage.—Anchorage can be taken, in a depth of 6m, sand, about 0.5 mile offshore abreast the village, or by deep-draft vessels in the outer roadstead as directed by the port authority.

Directions.—To approach Portovyy Punkt Korf steer for a position bearing 110°, distant 12.8 miles from Mys Oria Light, keeping outside Russian territorial waters until reaching this point, then steer 027°45' for 23.5 miles to the outer roadstead. Steer 000° to the anchorage. The width of the channel as far as the outer roadstead is 2 miles.

2.18 West side of Zaliv Korfa.—Ako Anchorage (60°17'N., 165°52'E.) is situated off Reka Ugol'naya, a river flowing SE through a valley. The buildings of Ako Coal Mine are situated in this valley and stand out against a yellow patch in the background. About 0.8 mile SW of the river is a conspicuous cliff, known as Gora Krasnaya, which is marked by a bright red patch. This cliff is conspicuous from the S. North of this red patch is another smaller patch. The coast for a distance of 4 miles NE from the coal mine consists of a low plateau that falls in terraces to the sea and is faced by gray sandy cliffs. The plateau is intersected by gullies, through each of which flows a stream.

Anchorage.—Anchorage can be obtained, in a depth of 9m, good holding ground, about 2 miles abreast the coal mine.

2.19 Gora Ugol'naya (60°16'N., 165°36'E.), an isolated mountain range, is prominent, and from the S appears as a cone. From the E its summit appears to be undulating and slightly lower towards its S end. Its slopes are precipitous.

The coast NE of **Reka Vyvenka** (60°11'N., 165°29'E.) is high and consists of cliffs and landslides. A large flat-topped pillar rock, about 61m high, lies close offshore, about 1.5 miles NE of the mouth of the river. About 2.5 miles farther NE, another high pillar rock lies close offshore and appears as a small point. A fishing station is situated behind the latter rock.

Winds—Weather.—During N winds that prevail in early spring and late autumn, heavy squalls, lasting about 5 minutes, are frequent.

Anchorage.—Anchorage can be obtained, in a depth of 11m, sand, with the rock which fronts the fishing station bearing 315°. It is not advisable to anchor S of the rock, as local fishermen report a reef extending from it. At this anchorage the prevailing N winds in the winter drive the ice away from the shore, leaving an open lane, and at this time there is seldom any surf in this vicinity.

The S side of the mouth of Reka Vyvenka is formed by a narrow sand spit extending NE. The N side is formed by a sim-

ilar spit, which extends from the high barren slopes of Gora Ugol'naya.

Anchorage can be obtained, in depths of 9 to 10m, about 1 mile offshore abreast the mouth of the river.

2.20 The coast from Reka Vyvenka to Mys Priyatel', about 8 miles SW, consists of cliffs and landslides and is fringed by a sandy beach. Hills covered with grass extend about 10 miles inland to the mountains. **Gora Ploskaya** (60°22'N., 165°14'E.) is in the form of a truncated cone.

Mys Priyatel'is an inconspicuous point formed by a slight bend in the coast, the cliffs at the point being about 20m high. Between Mys Priyatel' and the entrance to Laguna Legunmun, about 3.5 miles SW, the breakers begin at a distance of 1 to 1.5 miles offshore. Laguna Legunmun is a shallow lagoon, the shores of which are mainly low.

Mys Ara (60°01'N., 165°12'E.), a narrow bold promontory, about 20m high, is flat-topped and has a very rough surface. Near it is a group of gray hills, on which is dark green vegetation. A pillar rock lies off the promontory and is separated from its extremity by a ravine. Two large above-water rocks lie near this pillar rock. A reef, steep-to at its seaward end, extends 0.4 mile NE from the point.

Bukhta Geka, between Mys Ara and Mys Priyatel', is bordered S by hills close inland sloping down to the cliffy shore. About 1.5 miles W of Mys Ara the coast becomes low and the hills recede inland. For about 4 miles to the entrance to Laguna Legunmun, this low coast is covered with grass and the shore consists of a flat sandy beach.

Only the S part of Bukhta Geka has been examined. Between Mys Ara and the end of the cliffs about 1.5 miles W, the bottom is irregular, with depths of 10 to 12m about 1 mile offshore, decreasing rapidly inshore. A reef covered with kelp extends as far as 0.3 mile offshore. About 1 mile offshore from the end of the cliffs to the mouth of Laguna Legunmun are depths of 8.2 to 10m, sand, but a considerable area off this shore dries at LW and at a distance of 0.1 to 0.2 mile offshore are depths of only 0.3m.

Anchorage.—Anchorage can be obtained during good weather, in depths of 9 to 10m, with Mys Ara bearing 146°, distant 1.5 miles. Care must be taken to avoid the 0.9m patch about 1.2 miles NNW of Mys Ara. Vessels should not anchor closer to the shore, as the depths decrease very rapidly. During fresh winds or an onshore swell, vessels should anchor farther offshore in greater depths.

Bukhta Geka is frozen from November to May.

2.21 **Mys Oria** (59°59'N., 165°14'E.), lying about 1.2 miles SE of Mys Ara, is bluff and projects in the form of a flat-topped wedge, faced with gray cliffs. At its extremity is a small green hill. Some pillar and sunken rocks lie close offshore in this vicinity. A light is exhibited on Mys Oria.

The coast from Mys Oria to Mys Lozhno-Il'pinskiy is bold, with the mountains approaching the coast sloping to it in sheer, gray cliffs, 40 to 50m high. The mountains are fairly uniform and have peaked summits from about 305 to 503m high. They are covered with vegetation and when seen from a distance they appear dark with patches of green and gray. Streams flow through the valleys and many end in overfalls over the cliffs.

Mys Lozhno-Il'pinskiy, 9 miles SSW of Mys Oria, is a rounded bold flat-topped headland merging into the mountains about 0.5 mile inland. West of this headland are two large patches with stripes of contrasting color. A reef, which dries and on which the sea breaks heavily, extends 0.5 mile SE from the headland.

Mys Oria Light

The coast from just N of Mys Lozhno-Il'pinskiy to Mys Il' pinskiy, about 8 miles further SW, consists of a level plateau extending as far as 2 miles inland and faced by sloping cliffs about 20 to 31m high.

Karaginskiy Zaliv

2.22 Karaginskiy Zaliv is the name given to that part of the Bering Sea W of a line joining Mys Govena, the E entrance point of Zaliv Korfa, and Mys Ozernoy, about 155 miles SW. Ostrov Karaginskiy, a large island in the middle of Karaginskiy Zaliv, is separated from the mainland by a passage known as Proliv Litke.

Ostrov Karaginskiy

2.23 **East and S sides of Ostrov Karaginskiy.—**The coast S of **Mys Golenishcheva** (59°14'N., 164°36'E.) is high and rocky. A fishing station is situated at the mouth of a stream about 3.5 miles S of the cape. The stream enters the sea through a sandy beach. The coast rises from the head of the bight toward Mys Gorbatyy, a point faced with brown cliffs about 152m high and rising to two round-topped mountains, which from S or N have the appearance of two humps of a camel. Steep-to rocky ledges extend 0.8 mile from Mys Gorbatyy.

A ledge, consisting of above-water rocks and drying rocks, extends off a point about 1 mile W of Mys Gorbatyy and forms a natural breakwater sheltering the fishing station.

About 1 mile from the head of the bight there are depths of 14.6 to 16.5m. Off the head the bottom is sand, changing to rock N and E. The coast in the vicinity of the head is steep-to and should be approached with caution.

Temporary anchorage can be obtained near the head of the bight. The best berth is in depths of 18 to 21.9m off the fishing station, but nearer the W shore, where there are reported to be no dangers.

2.24 The coast from Mys Gorbatyy to **Mys Nizkiy** (59°02'N., 164°44'E.), the E extremity of the island, consists of steep, brown or grayish-brown cliffs, broken here and there by

a stream flowing through a narrow valley and having a sandy beach at its mouth. Rocks and reefs lie up to 0.8 mile off the coast. Mys Nizkiy is formed by moderately high gray cliffs, and about 0.8 mile N of it is a similar point.

From Mys Nizkiy to Mys Kekurnyy, about 8.5 miles S, mountain spurs, 152 to 213m high and covered with trees, approach the coast and form moderately high grayish-brown cliffs, interspersed in places by small extents of sandstone cliffs. In the vicinity of Mys Kekurnyy these spurs increase in height, attaining an elevation of 506m about 2.5 miles WSW of the cape.

Mys Kekurnyy (58°54'N., 164°42'E.), a brown headland, is conspicuous when seen in profile because of its height and its serrated slope. Several pillar rocks lie offshore in the vicinity of this cape.

From Mys Kekurnyy to Mys Rovnyy, about 4 miles SW, the coast consists of continuous steep cliffs except for a small sandy cove about 1 mile SW of the former point. Rocks and reefs fringe the coast about 1 mile off of which there are depths of 11 to 14.6m. Mys Rovnyy is formed by a gradual slope edged with low cliffs. A reef that dries at LW extends 0.2 mile S from the point.

2.25 The coast from Mys Rovnyy to **Mys Promezhutochnyy** (58°48'N., 164°11'E.) is formed by small rocky points separated by small sandy coves, into each of which flows a stream. Mountain spurs, 198 to 396m high, reach almost to the coast and form a line of moderately-high crumbling brown cliffs. Rocks, reefs, and shoals, with depths of 11m or less, lie up to 1.7 miles from this part of the coast.

Ostrovok Ptichiy (58°52'N., 164°30'E.), separated from the coast by a passage about 0.1 mile wide, is flat-topped and covered with grass. A great number of birds nest on the islet. Around the islet are rocks and reefs that fill the passage between it and the coast. The islet is difficult to make out from the offing, as it is about the same height as the cliffs on the neighboring coast.

At **Mys Yuzhnyy** (58°38'N., 163°46'E.), a prominent mountain rises sheer from the point. This mountain is the S peak of the mountain range which rises from the coast in huge brown or light gray slopes and cliffs to elevations of over 731m. Between Mys Yuzhnyy and the isthmus, about 6 miles SW, the coastal hills do not exceed a height of 244m and the coast consists of low, brown sandstone cliffs. From the isthmus to Mys Krasheninnikova the coast consists of low sandstone cliffs, broken by low rocky points, and has a very uniform appearance.

2.26 Mys Krasheninnikova (58°27'N., 163°29'E.), the S extremity of Ostrov Karaginskiy, is formed by cliffs, which do not exceed 31m in height, and generally are of rock formation, but with some sandstone. A remarkable pillar rock of the same height as the cliffs is located immediately off the cape.

From the pillar rock off Mys Krasheninnikova a reef extends SSE for about 2.5 miles and is marked by breakers near its extremity. A continuous belt of kelp extends for 4 miles farther SSE and then continues in isolated patches in a S direction for about 6 miles. This vicinity has not been fully examined, but the kelp appears to grow on a sunken rocky ledge about 2 miles wide. A Russian vessel crossed the ledge 1.5 to 2 miles from the cape and found a least depth of 6.4m. The swell does not break on the ledge because of the kelp, and it is probable that many sunken dangers exist on it. It appears that the ledge does not extend beyond the limits of the kelp.

An isolated sunken rock, position doubtful, was reported (1913) to lie about 12 miles SE of Mys Krasheninnikova, and a sunken rock, position approximate, on which the sea breaks in any swell, was reported (1938) to lie about 19 miles ESE of the cape.

2.27 West and N sides of Ostrov Karaginskiy.—From Mys Golenishcheva to Mys Ploskiy, about 8 miles SW, the coast consists of brownish-yellow cliffs up to 61m high. Small streams flow through gullies into the sea. A flat tableland extends from the steep cliffs of Mys Ploskiy to the foothills of the main range.

About 3 miles SW of Mys Ploskiy, a small river flows through a wide valley. Close E of the river the coast rises and forms an unbroken wall about 45 to 61m high. The hills close to the coast are about 259m high and are part of the spurs of the main mountain range.

From the small river to the base of the spit forming the N side of Guba Lozhnykh Vestey, the coast consists of sandy cliffs, which are at first high, but gradually become lower, with an occasional cliff projecting seaward. The land inland of this coast rises gently to the main mountain range.

The low spit to **Mys Semenova** (58°59'N., 163°41'E.) is formed of sand dunes and is overgrown with grass. Mys Semenova and the N side of the spit for 2.5 miles NE are steep-to, with depths of 37m close to the shore.

Guba Lozhnykh Vestey is entered between Mys Semenova and a blunt point about 6 miles SSE, on which there are some buildings. Northward of the blunt point the coast rises in low, yellow, sandy cliffs, becoming covered with grass farther N and losing height toward the head of the bay, where there is a low sandy beach. The E half of the spit forming the N side of the bay contains a lagoon, which is connected to the head of the bay by a channel. The lagoon has depths of 3m in its E part, and its shores are flooded to a great extent at HW. Lozhnykh Vestey, a village, is situated close S of the lagoon entrance.

No detailed survey of the bay has been made, but it is believed to be clear of dangers. The bay has depths of 9 to 18.3m in its greater part. Toward the E side the depths shoal regularly, and at a distance of 0.8 mile offshore, they are 4.5 to 5.5m. On the N side of the bay the depths are also regular off the inner half of the spit, being 4.5 to 5.5m at a distance of 0.2 mile offshore. Off the outer half of the spit are comparatively greater depths, and the spit becomes more steep-to as the extremity is approached, with depths of 18.3 to 28m off that point. Caution is necessary in approaching the spit in thick weather, as it is steep-to and soundings give no indication of its proximity.

Tides—Currents.—At Guba Loznykh Vestey, the MHW interval is 7 hours 30 minutes. The spring range is 1.8m, while the neap range is 0.9m.

Anchorage.—Anchorage can be obtained in Guba Lozhnykh Vestey in convenient depths. The bottom changes from sand to shingle and mud towards the head of the bay. The best berth is in 12.8 to 14.6m, sand and mud, good holding ground, close under the spit, about 2 miles WNW of Mys Semenova. This berth is sheltered from all but S winds, and although S winds may send

in a considerable sea, the swell soon subsides as the wind drops. The lagoon at the head of the bay affords good anchorage for small craft with local knowledge.

2.28 The first 6 miles S of the SE entrance point of Guba Lozhnykh Vestey consists of grass-covered cliffs alternating with short stretches of sandy beach. For the next 14 miles SSW the cliffs are continuous and higher, from 45 to 61m high, bright yellow in color and intersected by numerous streams. A mountain, 305m high, conspicuous because of its isolated position and conical shape, is located about 1 mile inland and about 5.5 miles S of the SE entrance point of Guba Lozhnykh Vestey. Inland in this vicinity, clumps of birch alder and juniper cover the W slope of the central mountain range. The whole coast is clear of dangers with depths of 6.4 to 9.1m, sand, 0.5 mile offshore.

The NW part of the peninsula, forming the S part of Ostrov Karaginskiy, is low and sandy.

Anchorage.—Anchorage, sheltered from S winds, can be obtained, in depths of 6 to 11m, sand, about 0.5 mile off the N side of the peninsula.

Aspect.—The W coast of the peninsula for the first 3 miles S is low and sandy, but for the remainder it consists of gray-brown cliffs of moderate height. A reef, with some above-water rocks, extends about 1 mile WSW of a bluff point, about 3.5 miles NNW of Mys Krasheninnikova. The reef terminates in two pillar rocks. The pillar rocks are conspicuous from N or S. Two conspicuous hummock hills, about 189m high with jagged summits, are located about 4 miles NNW of Mys Krasheninnikova. These hills slope steeply to the coast, but gently inland. Another hill, about 2.5 miles NNW of the cape, is also a prominent landmark.

Proliv Litke

2.29 Proliv Litke is the name that applies to the passage between Ostrov Karaginskiy and the mainland. The passage narrows about midway in to a width of 15 miles and has a least charted depth in the fairway of 31m.

Vessels using the N entrance, between Mys Il'pinskiy and the N extremity of Ostrov Karaginskiy, should steer to pass 3 to 5 miles S of Ostrov Verkhoturova, an island about 10 miles S of Mys Il'pinskiy.

Vessels using the S entrance, between Mys Krasheninnikova, the S extremity of Ostrov Karaginskiy, and Mys Ozernoy, about 43 miles S, should take all precautions to clear the dangers S and SE of Mys Krasheninnikova, and the dangerous rocky patch off Mys Ozernoy. A course to pass about one-third the width of the entrance from the S side is recommended.

2.30 North entrance to Proliv Litke.—Mys Il'pinskiy (59°47'N., 164°50'E.) is a small elevated plateau faced by steep cliffs. Near the point is Gora Il'pinskaya, having a conspicuous conical peak, 119m high. On the point is a fishing station. A small, low, sand, and shingle spit extends from the SW side of the point, and a reef, on which are some above-water rocks, extends about 0.5 mile S from the point, and then continues S as a submerged ledge.

Ostrov Okimkan, about 3 miles SSW of Mys Il'pinskiy, consists of two small gray rocks, 24m high, and a separate group of rocks above water. Kekur Neupokoyeva, consisting of two pillar rocks, one 15m high and the other about half that height, rises from a common base about 0.8 mile SE of Ostrov Okimkan. Dangerous reefs rising from considerable depths surround Ostrov Okimkan and Kekur Neupokoyeva and extend about 0.6 mile SE from the latter. During any swell, these reefs are marked by heavy breakers. The passage between the rocks and Mys Il'pinskiy is encumbered with sunken rocks and kelp.

Ostrov Verkhoturova (59°37'N., 164°40'E.), about 10 miles SSW of Mys Il'pinskiy, has three separate peaks, the highest being 381m high and covered with grass. The shores of the island are steep and rocky, except for a sand and shingle beach on the N side. The S part of the island is formed by a low plateau, faced by steep cliffs forming two points. Pinnacle rocks lie as far as 0.3 mile off the S point, and three others lie close to the SE point.

A light is shown on the N coast of Ostrov Verkhoturova from a stone tower in the shape of a pyramid, painted black and white in stripes.

Ostrov Verkhoturova Light

Somnitelnaya Banka (59°22'N., 164°40'E.), a rocky and dangerous patch lying about 12.5 miles S of Ostrov Verkhoturova, has a least depth of 0.2m, the position of which is doubtful.

2.31 Mys Golenishcheva (59°14'N., 164°36'E.), the N extremity of Ostrov Karaginskiy, is a rugged promontory faced with steep grayish-brown cliffs. The extremity of the cape is wedge-shaped, white in color, and very conspicuous against the brown color of the neighboring cliffs. This cape is remarkable, as no other headland in the N part of the island has this white extremity. The main range of Ostrov Karaginskiy extends in an unbroken mass SW from the cape, the N peak being 0.7 mile from the extremity of the cape. About 2.5 miles SSW of the cape is a conical mountain, 460m high, which is higher than the others in the vicinity and is conspicuous when seen from any direction.

Close to Mys Golenishcheva is a pyramidal rock, from which a reef extends NE. A shoal, with a depth of 1.6m, lies about 3.5 miles NE of the cape and is reportedly marked by breakers.

Recommended Channels.—The recommended channel leads between Ostrov Verkhoturova and Somnitelnaya Banka. A vessel proceeding through this channel should steer to pass 3 to 5 miles S of Ostrov Verkhoturova in depths of more than 37m, over a bottom of pebbles and coarse sand.

In the channel between Ostrov Verkhoturova and Ostrov Okimkan and Kekur Neupokoyeva to the N, the depths are very irregular over a rocky bottom. In the approach from the E, the depths shoal rapidly. In this passage the depths are more than 16.5m.

The channel between Ostrov Okimkan and Kekur Neupokoyeva on the S and Mys Il'pinskiy on the N is encumbered with sunken rocks and kelp, through which is a narrow fairway with a least depth of 5.5m. This channel is very dangerous and should not be attempted.

The channel between Mys Golenishcheva and Somnitelnaya Banka has a depth of 12.2m. A 1.6m patch, marked by breakers, lies about 3.5 miles NE of Mys Golenishcheva.

2.32 West (mainland) side of Proliv Litke.—Zaliv Anapka is entered between **Mys Il'pinskiy** (59°47'N., 164°50'E.) and Mys Il'pyr, the SE extremity of Poluostrov Il'pyr, about 19 miles WNW. The E side of the bay is formed by low cliffs, inland from which the land rises to mountains. The S part of Poluostrov Il'pyr is high, its coast consisting of steep cliffs. It is connected to the mainland by a low sand and shingle isthmus. From the offing the peninsula appears as an island.

Zaliv Uala is entered between the SW extremity of Poluostrov Il'pyr and Mys Shilkan (Ostrov Shilka), about 11.5 miles W. Rocky patches, some of which dry, are located as far as 2 miles W of Poluostrov Il'pyr. Ostrov Shilka is a small islet connected at LW to the mainland W by a narrow strip of sand. The shore for about 4.5 miles NNE of Ostrov Shilka is cliffy, but then it slopes down to a low sand and shingle spit separating the shallow lagoon at the head of the bay from the sea. From the entrance to the lagoon, the N shore of the bay rises again and consists of sandy cliffs to Poluostrov Il'pyr.

2.33 Kichiginskiy Zaliv (59°52'N., 163°33'E.), entered between Mys Shilkan and the mouth of Reka Kichiga, about 9 miles WSW, is a shallow bay.

Reka Kichiga extends 0.8 mile N to Reka Belaya, forming a lagoon within the mouth which is separated from the sea by a sandy spit on each side of the entrance. The current flows out of the entrance at a velocity of 5 to 6 knots, being little affected by the flood tidal current. The entrance is very narrow and suitable only for boats with local knowledge.

Two prominent mountains, Gora Trekhvershinnaya, with three peaks, and Gora Naklonnaya, with steep sides, are located about 5 and 10 miles W, respectively, of the mouth of Reka Kichiga.

The coast for about 4 miles SSW of the mouth of Reka Kichiga is low and then consists of low sandy cliffs to **Mys Pakklan** (59°38'N., 163°25'E.).

Anchorage.—Anchorage can be taken, in depths of 10 to 13m, mud and sand, about 1 mile off the low stretch of coast W of the mouth of Reka Kichiga. A vessel proceeding to this anchorage should approach it with Gora Trekhvershinnaya bearing 270°. A rocky patch, with a depth of 1.8m, lies about 5 miles E of Mys Pakklan.

2.34 Zaliv Tuumlyat (59°28'N., 163°22'E.) is a bight entered between low and dark Mys Pakklan, and a point about 15 miles S. The shore SW of Mys Pakklan to Laguna Tymlat consists of sandy cliffs, then a narrow sand and shingle spit separates the lagoon from the sea. The S shore of the bight is formed by low cliffs. Close to the S shore of the bight are small hills, and farther inland are mountains covered with bushes and trees. Reka Tymlat, its entrance in the SW corner of Zaliv Tuumlyat, should be used only with local knowledge. A very small islet lies close offshore, about 2 miles SE of the mouth of Reka Tymlat.

Laguna Tymlat is entered about 1 mile N of the mouth of Reka Tymlat. The lagoon entrance is narrow and visible only when close to it. Local fishermen report depths of 1.8 to 2.1m in this channel, and the same or greater depths inside the lagoon.

Anchorage.—Anchorage can be obtained, in 15m, shingle, with the mouth of Reka Tymlet bearing 247°, distant 2.3 miles, and 1.2 miles off the spit. The spit is hard to make out at a distance greater than 2 to 2.5 miles, and the mouth of the river is hardly noticeable. The holding ground is poor, and it is not advisable to anchor in shallow depths or closer inshore.

Vessels should approach the above anchorage with **Gora Dvukhvershinnaya** (59°34'N., 162°59'E.), conical-shaped and twin peaked, bearing about 292°. During any swell the whole area off the entrance to both the lagoon and the river is marked by breakers. The fishing stations are reported to be lighted at night.

2.35 Bukhta Ossora is entered between **Mys Ossorskaya** (59°13'N., 163°16'E.), the extremity of a low, sand and shingle spit, and Mys Lozhno-Kuzmishcheva, about 5 miles S. The bay affords anchorage, in depths of 11 to 20m, sand and shingle, sheltered from winds from any direction. The S side of the bay is steep and fairly low, with some straggling hills and mountains covered with bush and trees inland. Primetnyy Kholm, 436m high and conspicuous, is located about 5 miles WNW of Mys Lozhno-Kuzmishcheva. The W shore of the bay is fringed by a low sand and shingle beach; the hills recede inland and increase in height. From Reka Ossora to the sand and shingle spit, the shore is low and sandy for the first 0.5 mile, then rises in low cliffs. A fishery, the buildings of which are conspicuous from a distance of about 8 miles, is situated at the head of the bay.

A 4m depth lies about 1.5 miles SSE of Mys Ossorskaya. A 4.7m depth lies 1.7 miles ENE of Mys Lozhno-Kuzmishcheva. The inner side of the spit, and the N and S sides of the bay, have depths of 10m about 0.5 mile offshore. The bottom of the bay consists of coarse sand and shingle.

A stranded wreck, which is conspicuous throughout Bukhta Ossara, lies on the NW side of the spit, almost 1 mile N of the S extremity.

2.36 Ossora Port (59°15'N., 163°04'E.) is situated on the W shore of Bukhta Ossora. There are two piers at the settlement. One pier, 20m long and 15m wide, is used for cargo operations; it can only be approached at HW. The second pier, 28m long and 15m wide, has a depth of 1.5m alongside at LW. The pier is used for fish products.

Anchorage.—Sheltered anchorage can be obtained in Bukhta Ossora, on the NW side of Kosa Ossorskaya 0.5 mile offshore, in 12 to 13m. This anchorage is sheltered from the E and SE.

Another anchorage berth lying 0.5 mile offshore of the set-

tlement, in depths of 12 to 15m, coarse sand and shingle bottom, is sheltered from the prevailing autumn NW and NE winds.

Bukhta Karaga

2.37 Bukhta Karaga is entered SW of **Mys Peschanaya Kosa** (59°02'N., 163°10'E.), the extremity of a low, sand and shingle spit, covered with vegetation, extending SSW and W from Mys Kuzmishcheva. The latter point is the SE extremity of the elevated peninsula separating Bukhta Karaga from Bukhta Ossora.

The coast between Mys Kuzmishcheva and Mys Lozhno Kuzmishcheva, about 5 miles N, is cliffy. A sand and shingle spit, covered with vegetation, extends NNW from Mys Vkhodnoy, the S entrance point of the bay. The conspicuous hull of a vessel is situated on the N side of the entrance, on the S side of the N entrance spit.

The bay is surrounded by hills, with rounded summits, sloping gently to the shores, which are mostly marshy. Mys Starshiny is the extremity of a low sand and shingle spit, covered with juniper, extending NW and parallel to the NE shore of the bay. A fishing station is situated on this spit.

A bank, with depths of less than 5m, extends NNE from Mys Vkhodnoy. A depth of 1.9m lies at the outer end of the above bank, in the middle of the entrance to the bay. A depth of 5m lies about 1 mile SE of the above depth. There are depths of 11 to 12.8m about 0.3 mile off the N side of the extremity of the N spit to abreast its elbow.

Tides—Currents.—The MHW interval at Bukhta Karaga is 3 hours 49 minutes.

Anchorage.—Bukhta Karaga affords completely sheltered anchorage. The best anchorage is in depths 11 to 12.8m, mud, about 0.2 to 0.3 mile off the N side of the N spit. Another berth is in 10m, mud, about 0.5 mile offshore, abreast the fishery on the spit of which Mys Starshiny is the extremity.

Directions.—Vessels entering Bukhta Karaga should approach with the SW extremity of the N entrance spit bearing 337°, and steer to pass this point at a distance of 0.2 to 0.3 mile off. There is a least depth of 7.3m on this course. The channel is only 0.15 mile wide at its narrowest point.

Bukhta Karaga to Ukinskaya Guba

2.38 The coast for 2.5 miles SW of **Mys Vkhodnoy** (58°59'N., 163°04'E.) consists of yellowish-brown sandstone cliffs, about 30 to 46m high, backed by hummocky hills covered with bush and small trees. For the next 6 miles SW the coast is low and sandy.

Reka Makarova and Reka Kayum have a common entrance between two narrow sandy spits. The outflow of these two rivers causes discoloration for some distance from the common entrance.

A cliffy headland lies about 1.5 miles S of the above-mentioned entrance. A sandy bank, with several groups of rocks, some above-water, extends over 0.8 mile E of the headland. The coast for 3 miles SW of the above bank is fringed by short reefs and drying rocks. A vessel, with a draft of 5m, reported touching bottom about 3 miles E of this cliffy headland. The coast from the headland to the mouth of Reka Dranka, about 6.5 miles SW, rises in low brown cliffs and is approached by straggling, hummocky hills.

Reka Dranka flows NE and parallel to the coast for its last 7 miles, and is separated from the sea on this reach by a sand and shingle spit. A building, about 7 miles W of the mouth of the river, is conspicuous from the offing.

Reka Pankara forms a large lagoon before it flows into the sea between two spits. The entrance (58°35'N., 162°21'E.) can be identified by the yellowish-brown cliffs, 30 to 46m high, extending 3 miles N from the entrance. The outgoing current in the entrance and in the channel inside attains a velocity of 3.5 to 4 knots.

The best anchorage off Reka Pankara is in a depth of 9m, about 0.6 mile offshore, midway between the entrance and the fishing station about 0.3 mile N. The bottom is shingle, poor holding ground.

The spit separating the lagoon of Reka Pankara from the sea is low and sandy. The coast S of this spit for 6.5 miles consists of light yellow sandy cliffs, 31 to 46m high in the center, and gradually becoming lower toward each end. A narrow sand and shingle spit separating the lagoon of Reka Rusakova from the sea extends from the cliffs to the mouth of Reka Rusakova, about 10.5 miles SSW. The entrance to the river lies between two narrow spits. Sandbanks, marked by breakers, extend seaward from the extremity of each spit.

Anchorage.—Anchorage can be obtained, in depths of 9 to 10m, sand and shingle, about 0.8 mile offshore, abreast the fish cannery about 5 miles N of the mouth of Reka Rusakova.

From 0.5 mile S of the entrance to Reka Rusakova, a line of reddish-brown cliffs extends about 9 miles SSW, varying in elevation from 31 to 46m, being low toward either end. The cliffs, in some places, rise sheer from the coast, and in others are fronted by a narrow beach of sand, shingle, and gravel. About 7 miles SSW from the mouth of the river, these cliffs are interrupted by a small lake located close inland and not connected to the sea. The coast is low and sandy from the cliffs to the entrance of Reka Khalyulya, about 6 miles S.

Ukinskaya Guba

2.39 Ukinskaya Guba is a bay entered between Reka Khalyulya and **Mys Severo-Zapadnyy** (57°56'N., 162°34'E.). The depths decrease regularly to 6m about 0.5 mile off the W and S shores, except in the vicinity of the mouth of Reka Uka.

Two mountains, over 1,000m high, forming the E spurs of the range trending parallel to the coast some distance inland, are located about 10 miles W of the mouth of Reka Khalyulya. The S mountain has a pointed summit. The N mountain has a somewhat jagged crest extending in a NNE-SSW direction. These two mountains, which are joined by a spur, are conspicuous and are good marks for identifying the mouth of Reka Khalyulya.

The coast from Reka Khalyulya to the mouth of **Reka Uka** (57°50'N., 162°08'E.) is a uniform stretch of sand and shingle beach backed by very gently rising slopes, which are covered by grass near the coast and by bushes farther inland, and which extend a great distance inland to a mountain ridge. The bottom along this stretch is sandy. Reka Uka can be identified by the sandy cliff beginning about 2 miles E of it.

Uka, a village situated on the W bank of Reka Uka nearly

abreast the entrance, is one of the largest settlements in this vicinity. The banks along the lower reaches of the river are low, sandy, and marshy.

Tides—Currents.—In the mouth of the river the velocity of the tidal currents attain a rate of as much as 4 knots.

Anchorage.—Anchorage can be obtained, in depths of 8 to 9m, about 1 to 1.2 miles off the mouth of Reka Uka. It is not advisable to anchor closer, as depths of 6m extend about 1 mile seaward of the mouth of the river.

2.40 The coast for 2 miles ESE of Reka Uka is low and sandy, and then for the next 4 miles consists of a sandy cliff, about 46 to 61m high, fringed by a narrow beach of shingle and gravel. The last 5 miles to the mouth of Reka Malan-Vayam is low and sandy.

The E shore of Ukinskaya Guba is formed by the W side of Poluostrov Nachikinskiy. In the middle of this peninsula is Gora Nachikinskaya, an extinct volcano, which is easily distinguishable from the surrounding peaks by the dark color of its steep sides and by its jagged summit. This mountain is surrounded by numerous others, almost as high, most of which have pointed summits and inaccessible sides.

Mys Severo-Zapadnyy (57°56'N., 162°34'E.) is a rounded shingle point, inshore of which is a lagoon. The point is steep-to, with depths of less than 11m extending 1 mile NW. The coast SSW of the point is low and sandy, but small, rounded, rocky points extend offshore in places.

Ostrov Mandzhur (57°50'N., 162°27'E.), about 7 miles SSW of Mys Severo-Zapadnyy, is covered with grass and its middle part is covered with trees. On the middle of the islet is a sloping hill, 88m high. The coasts of the islet are almost everywhere bold. A beacon, consisting of a wooden pyramidal structure, about 6m high, its seaward side faced by white slats, stands near the edge of the cliff at the NW extremity of the islet. The beacon is clearly visible from seaward.

Anchorage.—The best anchorage off Ostrov Mandzhur is in a depth of 7m, sand and mud, 0.5 mile SW of the spit, located on the N part of the SW side of the island. A vessel should never attempt to anchor farther E as the depths decrease rapidly in that direction.

Ukinskaya Guba to Zaliv Ozernoy

2.41 **Mys Nachikinskiy** (57°57'N., 162°42'E.) is a cape formed by a small plateau descending from the mountains. It is edged with low cliffs, and its N point is small and sharp. A reef extends nearly 0.2 mile off the cape. It is steep-to off its extremity, with depths of 20 to 28m, sand, about 0.5 mile off the cape.

Mys Nizkiy (57°49'N., 163°12'E.), lying 18 miles ESE of Mys Nachikinskiy, is a low rounded point, fringed by a broad sand and shingle beach strewn with large rocks and backed by a moderately low brown cliff. A reef, extending about 2 miles N of the cape, has a group of drying rocks near its extremity, which is steep-to. The cape should be given a berth of at least 3.5 miles.

Mys Ozernoy (57°43'N., 163°19'E.), the S entrance point of the S entrance to Proliv Litke, is a low, narrow point extending E and is distinguished by a small sand hill on its point. Another sand hill, about the same height, is located a little farther inland and is separated from the former sand hill by a gap. A detached range of mountains, with five conspicuous peaks of very peculiar columnar appearance, rises about 5 miles W of Mys Ozernoy and extends NNE toward Mys Nizkiy. A light is shown from Mys Ozernoy; a radiobeacon transmits from the light.

Mys Ozernoy should be given a wide berth, as a reef extends 1.5 miles off it.

Caution.—A sunken rock, the exact position of which is unknown, lies about 10 miles NE of Mys Ozernoy. When in this vicinity, vessels should proceed with caution.

Zaliv Ozernoy

2.42 **Zaliv Ozernoy**, between Mys Ozernoy and **Mys Stolbovoy** (56°41'N., 163°17'E.), 63 miles S, affords no protection from NE winds, but shelter can be obtained in its SW end during winds from between the S and E. Gora Dvoynaya, about 8 miles SSW of Mys Ozernoy, and the mountains in the vicinity of Mys Stolbovoy, form good marks and are visible in clear weather from any part of the bay.

Mys Dvoynoy, about 9 miles SSW of Mys Ozernoy, is the E of two small blunt points 1 mile apart. The yellow cliffs approach the cape somewhat closer than the W point. Reefs, extending about 1 mile SE of these points, consist mainly of submerged rocks marked by breakers. Gora Dvoynaya, about 2 miles N of the cape, is higher than the surrounding mountains and is very conspicuous, especially from the S or N, appearing as a twin-peaked mountain with steep, somewhat rounded slopes.

Mys Yuzhnyy, about 7 miles farther SSW, is a point formed by brown cliffs of moderate height. Seen in profile it appears as a level, raised plateau, rather low near the extremity of the cape. A large reef, consisting almost entirely of drying rocks, but with some sunken rocks near its extremity, extends 1.3 miles from the cape and the coast for some distance N.

2.43 The entrance to **Reka Ozernaya** (57°21'N., 162°47'E.), lying about 13 miles SW of Mys Yuzhnyy, forms a large lagoon enclosed by a low, sand and shingle spit, before flowing into Zaliv Ozernoy. The S and W shores of this lagoon are low and covered with grass and small bushes, but its N shore is formed by a cliff at the foot of some hills rising to a height of 101m. The mouth of the river is located between the N end of the spit and this cliff, and can be identified by the fact that the coast consists of light yellow sandy cliffs just N of it, and is low S of it. The mouth of the river is fronted by a bar, which can be distinguished by the sea breaking on it. The current of the river is strong, and at times attains a velocity of 4 knots.

The coast for about 5.5 miles S of Reka Ozernaya is flat and sandy, and then to **Mys Tupoy** (57°01'N., 162°51'E.), which consists of cliffs, 46 to 61m high, becoming gradually higher S. An off-lying danger, consisting of a sunken rock, position doubtful, was reported (1921) to be about 8 miles NE of Mys Tupoy. Near Mys Tupoy the cliffs along the coast are reddish-brown, but farther S they are somewhat lower and change to light yellow, sloping, sandy cliffs, about 46 to 61m high, which are very conspicuous from the offing. The SW corner of Zaliv Ozernoy consists of low, sandy beach.

Coast between Mys Kamchatskiy and Mys Afrika from SSW

2.44 Reka Stolbovaya (56°42'N., 162°56'E.) flows SE parallel to the coast, separated from the sea by a narrow spit, before turning NE to its mouth. The current in the river, before it enters the sea, attains a velocity of 6 to 7 knots.

Mys Pokatyy (56°44'N., 163°05'E.), lying about 5.5 miles NE of the mouth of the Reka Stolbovaya, slopes gently seaward, is faced with reddish-brown cliffs, and is covered with grass and bushes. The cape terminates in two small points, from each of which a reef extends about 0.5 mile from the point. The W reef is a drying ledge, and on the middle of the E reef is a small pillar rock.

Mys Sivuchiy, about 5 miles farther E, is the N extremity of a rugged peninsula formed by a detached mountain, 399m high, about 2.5 miles SW. The mountain slopes in wide terraces to the cape, which is faced by low cliffs. The cape is steep-to and is clear of dangers, the depths N of the cape being 37m about 0.3 mile off. Large numbers of seals breed on Mys Sivuchiy.

Ostrovok Stolbovoy, a basaltic islet about 1 mile SE of Mys Sivuchiy, is separated from the mainland by a narrow passage 0.15 to 0.2 mile in width. The E end of the islet appears as a massive crag about 150m high and is separated from the rest of the islet by two clefts.

Mys Stolbovoy (56°41'N., 163°17'E.), lying about 3.5 miles SSE of Mys Sivuchiy, is a rugged high headland, the coast of which consists of grayish-brown cliffs 180 to 215m high. Mountains, about 455m high, rise from the coast in almost vertical slopes, which are bare except for small patches of scrub. A rock, 31m high, lies close to the cape. The coast in the vicinity of the cape is steep-to, with depths of 28 to 37m about 0.5 mile offshore. A shoal, with a depth of 11.2m, position doubtful, lies about 5 miles SE of Mys Stolbovoy and 3 miles offshore.

Kamchatskiy Poluostrov

2.45 Kamchatskiy Poluostrov separates Zaliv Ozernoy from Kamchatskiy Zaliv. The coasts of the peninsula are high, and are cliffy in the S and NE parts.

Ozero Nerpich'ye is a large lake connected to Reka Kamchatka by a narrow lagoon with depths of 3.4 to 5.5m. This lake is joined on its N side by Reka Tochkalnum to Ozero Stolbovoye, which is connected to Zaliv Ozernoy by Reka Stolbovaya. This system of lakes and rivers covers the whole of the isthmus joining the peninsula to the mainland.

A wide valley extends across the peninsula and terminates in a bay located about midway along the E coast of the peninsula. It divides the N and S groups of mountains on the peninsula, and is conspicuous from the offing.

A high sandstone bluff, showing bands of different colored strata, is located about 7 miles S of Mys Stolbovoy. In this vicinity the mountains, which occupy the NE part of Kamchatskiy Poluostrov, approach the coast rising steeply to elevations of more than 610m.

Mys Afrika (56°11'N., 163°22'E.), lying 31 miles S of Mys Stolbovoy, is the E point of Kamchatskiy Poluostrov. The point is formed by a low sandy spit projecting into the sea in a SE direction. The spit has a broad base, but gradually tapers seaward. It is thickly covered with cedar groves. Groups of rocks are visible from a short distance offshore at many places on the spit, especially on its S side. Gora Afrika, rising to an elevation of about 900m, is located 4 miles WNW of the cape. A spur of this mountain parallels the coast about 3 miles inland and appears as a tableland. On the side of the cape this spur slopes steeply toward the base of the spit and terminates in a high precipice of sandstone. A light is exhibited from the cape.

Mys Afrika Light

Rocky reefs extend for about 0.5 mile offshore on all sides of the cape. A drying rock, marked by breakers, lies 1.8 miles SE of the extremity of the cape. An above-water rock lies about 0.8 mile W of this drying rock. About 1.5 miles E of Mys Afrika the depths range from 22 to 28m, shells and shingle, but N of this area the bottom changes to sand.

The coast from Mys Afrika to about 16 miles N is backed by the slopes of mountains extending parallel to the coast. The highest peak, about 6.5 miles NNW of Mys Afrika, is a reddish bare summit. Northward of this peak is a line of conical peaks, covered with bush and gradually becoming lower N.

Caution.—Along the section of the coast, between Mys Afrika and Mys Kamchatskiy, the 200m curve lies not farther than 5

miles offshore and the bottom shelves steeply toward the coast. When approaching this coast in thick weather, a vessel should proceed at a reduced speed, taking soundings continuously, and should not navigate in depths of less than 73m.

2.46 Mys Kamchatskiy (56°00'N., 163°03'E.), lying 15 miles SW of Mys Afrika, is the S extremity of Kamchatskiy Poluostrov. The point is formed by a low sand and shingle spit, which has a width of 0.5 mile and extends about 1 mile S from the foot of a mountain that rises to a height of 786m, 2.5 miles NW of the extremity of the cape. The spit is strewn with fragments of rocks. Close to the extremity of the cape there is a remarkable group of rocks, 12.2 to 15.2m high, which, when sighted from a distance, has the appearance of an old fortress. It is known locally as Kamen Gorod, meaning Rock City.

The outermost of the dangers fringing the cape is a submerged rock located 2.5 miles SW of the extremity of the cape. This rock is clearly marked by breakers in the usual swell, but has only blind rollers when the swell is slight. An above-water pinnacle rock lies about 2.5 miles W of the extremity of the cape.

Within an area extending about 5 miles S from the S coast of Poluostrov Kamchatskiy, the depths are extremely uneven, and there is much kelp, easily identified by its greenish-brown color. A vessel should give this coast a berth of at least 5 miles, keeping in depths of more than 45m.

Sopka Shivelyuch (56°40'N., 161°30'E.), an extinct volcano, about 70 miles NW of Mys Kamchatskiy, is the highest peak of an isolated mountain group. Due to its great elevation it is visible from all parts of Zaliv Ozernoy, from the E side of Poluostrov Kamchatskiy, and from the N half of Kamchatskiy Zaliv. From seaward it appears as a small snow-capped peak.

Komandorskiye Ostrova (Komandorski Islands)

2.47 Komandorskiye Ostrova, consisting of Ostrov Beringa and Ostrov Mednyy (Copper Island), are located about 100 miles ESE of Mys Afrika, and 190 miles from Attu, the nearest of the Aleutian Islands. The islands belong to Russia, the governor normally residing at Nikol' skoye, a settlement on the W side of Ostrov Beringa.

The islands are of volcanic origin, consisting of basalt and syenite rocks, and were caused by the same forces that produced the Aleutian chain. There are no active volcanoes on the islands, but the activity of the Aleutian volcanoes are felt on the islands.

Komandorskiye Ostrova are very high, being visible in clear weather from 40 to 50 miles. In general, the depths a few miles off the islands are considerable.

The islands have long been famous for the fur trade. Seal breeding grounds, which are government game preserves, are situated on both islands.

Caution.—The islands are covered in fog for a large part of the navigation season. When anchoring, vessels should take into account the fact that earthquakes, which occur frequently at Komandorskiye Ostrova, are sometimes accompanied by seismic waves. Vessels navigating in the vicinity of Komandorskiye Ostrova should always keep clear of kelp. None of the bays afford completely sheltered anchorage, and frequently the wind shifts suddenly. During storms or fresh winds, vessels at anchor in any of the bays are advised to proceed to sea.

In order not to frighten any of the seals on Komandorskiye Ostrova, vessels passing these islands should not navigate too close to the shores, should not shoot any guns when in this vicinity, and should not shine their searchlights on the shores.

Ostrov Beringa

2.48 Ostrov Beringa (55°00'N., 166°15'E.) is mountainous in its central and SE parts. The NW part of the island is of a different character. The hills are flatter and form a series of plateaus sloping down to the coast in terraces.

Gora Shtellera (54°53'N., 166°24'E.), the highest mountain in the island, is located about 15 miles NW of the SE extremity of the island, and has a crater-shaped summit. Northward of this mountain is the conspicuous valley known as Dolina Polovinnaya, which appears to divide the island in two and is especially remarkable from the NE.

Stolovye Kholmyy, two very peculiar flat-topped hills, are located about 9 miles E of Mys Severozapadnyy, the NW extremity of the island. The N hill is 143m high, and the S hill is 137m high. The highest hill in the N part of the island is 188m high, about 2.5 miles E of Stolovye Kholmyy.

The surface of the island, except in its high S part, consists of tundra. In places are large tracts of meadow land covered with coarse grass.

Dangerous and unsurveyed reefs with detached rocks fringe the island.

2.49 North coast of Ostrov Beringa.—The N coast of Ostrov Beringa is very uniform and moderately high. From the E, the formation of the tableland on the N side of the island gives the appearance of a whole series of fortifications. Reefs, on which are some above-water rocks, extend as far as 2 miles offshore.

Mys Severovostochny (55°18'N., 166°17'E.), the NE extremity of the island, is a low, narrow headland. Mys Tonki, a slender point, lies about 2.7 miles NW. The entire shore of Bukhta Sarannaya, the bight between Mys Tonki and Mys Yushina, 11 miles W, is fringed by sunken rocks and should be approached with great caution.

Mys Yushina (55°22'N., 165°57'E.), the N extremity of the island, is a low point from which a reef is reported to extend 2 miles in a N direction. Sivuchy Kamen' (Ostrov Sivuchiy) (Sea Lion), 3 to 4.6m high, of remarkable shape, lies on this reef, close NNW of the point. This rock is connected to the point by a row of low rocks. At a distance, these rocks are not visible and Sivuchy Kamen' appears detached.

A patch of kelp lies 0.8 mile W of Sivuchy Kamen'.

Anchorage.—Anchorage with shelter from S winds can be obtained between Sivuchy Kamen' and a reef marked by kelp 0.5 mile E. The best berth is in a depth of 18m, sand and shells, with Mys Severozapadny bearing 241°, a prominent red storehouse (the only building of its kind in the vicinity) bearing 192°, and Mys Tonki bearing 104°. Anchorage may also be taken, in depths of 14.6 to 16.5m, with Sivuchy Kamen' bearing 250°, and the red storehouse bearing 202°.

Caution.—Vessels are prohibited from passing any closer than 2 miles from Mys Yushina.

2.50 Mys Severo-Zapadnyy (55°17'N., 165°44'E.), 8 miles WSW of Mys Yushina, is hilly and is the NW extremity of the island. A white pyramid beacon, 5m high, stands at an elevation of 26m on the point. The point is fringed to a considerable distance by a reef, and some drying rocks, not always marked by breakers, lie off this reef about 1.5 miles W to WSW of the point.

A shoal, with a depth of 29m, was reported (1946) to lie about 18 miles NW of Mys Severozapadny. Depths of 29m (position approximate), 12.8m (reported in 1964), and 40m lie 23 miles NW, 30 miles NW, and 11.5 miles SW, respectively, of Mys Severozapadny.

2.51 Southwest coast of Ostrov Beringa.—Mys Zabiyaka (55°15'N., 165°53'E.) is a 55m high headland. It is darker and higher than the coast in the vicinity. It appears as a small island when viewed from the S. A shoal, with a least depth of 2.5m, lies with its N end 1 mile WSW of the point and extends as a narrow ridge 0.8 mile S. There are depths of over 18.3m around it.

Kamen Ari, about 4 miles SW of Mys Zabiyaka, consists of two rocks, the N being pointed and about 46m high, and the S being perfectly flat and about 2.1m high.

Ostrov Toporkov, about 5 miles E of Kamen Ari, is a flat islet, difficult to distinguish from seaward as it blends with the higher land of the coast. A drying reef extends as far as 0.1 mile from the islet. The S and SW sides of this reef are steep-to. The best landing place is at the N end of the island. Puffins breed on the island in great numbers.

Kamen' Polovinchatyy, about 1.5 miles W of the N end of Ostrov Toporkov, is a rock, awash, and marked by breakers in ordinary weather. A 6.4m patch lies about 0.2 mile N of the rock.

2.52 Mys Vkhodnoi Rif (55°11'N., 165°58'E.), a peninsula 18m high near its extremity, is fringed with rocks extending 0.3 mile offshore on its W and SW sides. Foul ground extends as far as 0.7 mile W to SW from the peninsula. Banka Yakut, a shoal with a least depth of 5.5m, lies 0.6 mile N of the extremity of the peninsula. In the channel between Mys Vkhodnoi Rif and Ostrov Toporkov the depths are uneven, varying between 12.8 and 29m in the middle of the channel.

Nikol'skiy Reyd is entered N of Mys Vkhodnoi Rif. In the approach from the S or SW, the flat-topped Stolovye Kholmyy are conspicuous, and often are visible above the low fog. In case Stolovye Kholmyy cannot be seen in thick weather, it is advisable first to pick up Sivuchy Kamen' and then proceed in. The passage leading N of Sivuchy Kamen' and Ostrov Toporkov is not recommended. Vessels should pass about 0.3 mile S of Ostrov Toporkov, then alter course NE to the anchorage.

Ice.—In some years slush and young ice occur from November to February. Occasionally there are large quantities of drift ice from the E coast of Kamchatka after W and NW winds.

Tides—Currents.—Tides at Nikol'skiy Reyd are of the mixed type, with diurnal tides predominating. The tidal range varies between 0.3 and 1.3m.

Anchorage.—A large vessel should anchor, in 20.1m, sand, on the line joining the N extremity of Ostrov Toporkov and the radio towers at Nikol'skoye, and with the extremity of Mys Vkhodnoi Rif bearing 145°.

Winds from the SW through WNW send a heavy swell into the anchorage. There is a ground swell, even in ordinary weather. The anchorage, due to the poor holding ground, is dangerous, especially in autumn, when W winds are more frequent than in summer, and are fresh and prone to producing squalls for long periods. This anchorage is the best in the island. Vessels should be ready to put to sea on short notice, since, sudden shifts of wind are frequent, especially in autumn. Southeast winds veer to the S and SW; NE winds back to the N and NW. Several sealing vessels have been driven ashore.

2.53 Nikol'skoye (55°12'N., 165°59'E.) (World Port Index No. 62630), on the SE side of the roadstead, is the residence of the governor of Komandorskiye Ostrova, and the administrative center of the islands.

The coast from Nikol'skiy Reyd to the SE extremity of Ostrov Beringa is cliffy and high. It is steep-to except for some reefs extending offshore at Mys Poludennyy, Mys Kazarmennyy, and Mys Shepitanski.

Mys Orekhovski (55°03'N., 166°04'E.) appears from the N as a labyrinth of small caves and grottoes.

Bukhta Gladovskaya (54°55'N., 166°16'E.), a small bay lying 12.5 miles SSE of Mys Orekhovski, has a depth of 46m, sand and shells. Mys Ostrovnoy, about 6 miles farther SE, from a distance appears as two flat islets which merge into one as the point is approached, and are connected to the coast by a low isthmus. A drying rock lies 1 mile S of the point.

Mys Monati (54°42'N., 166°40'E.), the SE extremity of the island, is high and cliffy, but terminates in a gentle slope. In clear weather, the cape may be seen for 30 miles. A prominent rock, shaped like a tower, is located NW of the cape. The cape is fringed by a reef and shoal water extends about 1 mile W and 3 miles SE from it. In good weather, all the rocks on this reef can be seen. It is nearly always marked by breakers.

2.54 Northwest coast of Ostrov Beringa.—An almost continuous reef, extending 0.7 to 2 miles offshore, stretches along this coast. Vessels should keep at least 3 miles off the coast.

Mys Nepropusk (54°45'N., 166°42'E.), 3.5 miles N of Mys Monati, is a conspicuous cliff. The coast for about 10 miles N of Mys Monati consists of steep cliffs.

Mys Komandor (54°57'N., 166°31'E.), about 12.5 miles N of Mys Nepropusk, is formed by a solitary hill rising straight from the coast.

Bukhta Polovina (54°57'N., 166°29'E.), in which there is a shelving beach, is entered W of Mys Komandor. A small stream flows into the head of the bay.

Mys Buyan, 10 miles NNW of Bukhta Polovina, is prominent. A 15m shoal, position approximate, lies 19.5 miles E of Mys Buyan.

2.55 Staraya Gavan' (55°12'N., 166°14'E.), a break in the coastal reef lying about 10 miles NNW of Mys Buyan, extends W to the shore of a bight and has a width of 0.25 mile. The reef on the N side consists of a mass of rocks, partly submerged and partly above-water and marked by breakers. For a distance exceeding 1 mile N of this harbor, reefs extend from the shore and break up the sea and swell during N winds. Local reports

state that even during strong NE winds the force of the sea is spent on the outer rocks, and the water in the channel and harbor is comparatively smooth. The reef on the S side of the harbor is a continuous group of rocks, 0.5 to 1m high. Several submerged rocks extend farther E from this reef and are marked by breakers.

The depths in the approach to the harbor decrease regularly. At a distance of 3 miles offshore the depths are 46m, shells. The depths in mid-channel decrease from 14.6 to 9.1m, the bottom in the N part being rocky, and in the S part being sandy.

The harbor is exposed to all E winds and has not been well surveyed.

Anchorage.—Anchorage for large vessels can be taken, in 28m, rock and sand, on the line joining the outer breakers on either side. Only small vessels with local knowledge can enter the harbor and obtain anchorage in depths of 3.7 to 9m, sand.

Approaching from the N, vessels will notice two gaps in the mountains S of Mys Severovostochnyy. Through the first gap is seen Stolovye Kholmyy. The second gap indicates Staraya Gavan', which should be approached on a W course, continuously sounding. Entering the harbor presents no particular difficulties, the entrance being defined by the breakers on either side.

Ostrov Mednyy

2.56 Ostrov Mendyy consists of a narrow mountainous ridge rising steeply from the sea. Short spurs extend from the ridge and terminate in bluff headlands.

Gora Gavanskaya (54°49'N., 167°30'E.), on the E side of Gavan Preobrazhenskaya, is a conical mountain covered with snow throughout the year. It rises to a height of 587m, is the highest point of the island, and forms an excellent landmark.

Rocks lie close offshore all around Ostrov Mendyy. There are no good anchorages. In almost all the bays, temporary anchorage can be taken, in depths of 46 to 55m.

Gavan' Preobrazhenskaya, a small cove, lies W of Gora Gavanskaya. A number of rocks and a pillar rock extend about 0.2 mile NE of the W entrance point, slightly protecting the harbor from N. Preobrazhenskaya, at the head of the harbor, is the only permanent settlement on the island.

Mys Sulkovskogo (54°52'N., 167°22'E.), the NW extremity of the island, is a rocky point from which a reef extends nearly 3 miles NW. The point should be given a wide berth. On the middle of the reef are Bobrovye Kamni (Sea Otter Rocks), two large jagged conspicuous rocks named because of their shape.

Kitolovnaya Banka (54°59'N., 167°07'E.), with a least depth of 3m, is located 11 miles NW of Mys Sulkovskogo. Some reports state it lies 1 mile NW, and other more recent reports state that it lies 1 mile SW of its charted position. The shoal is marked by breakers during heavy seas or swell. Tide rips have been observed in the passage between the shoal and Ostrov Mendyy. These were more noticeable some distance W of the charted position of the shoal. A depth of 15m lies approximately 10 miles NW of Kitolovnaya Banka.

2.57 Northeast coast of Ostrov Mednyy.—Between **Mys Peschanyy** (54°50'N., 167°28'E.), a high conspicuous point about 4 miles SE of Mys Sulkovskogo, and Mys Sivuchiy Kamen, about 3 miles further SE, the coast recedes about 1.5 miles to form a bay. Two detached above-water rocks lie off Mys Peschanyy. Sivuchiy Kamen is two above-water rocks lying off Mys Sivuchiy Kamen.

Bukhta Peschanaya, in the NW part of the aforementioned bay, extends 0.8 mile W from its entrance and has a width of about 0.5 mile. The depths decrease gradually from 29m in the entrance to 11m about 0.2 mile from the head, then decrease rapidly. The bottom is sand.

Anchorage.—Anchorage is recommended for small vessels at the head of Bukhta Peschanaya. Although a continuous swell enters the anchorage even during N winds, from which it is protected by a high hill, this anchorage is preferable to that which lies off Gavan' Preobrazhenskaya.

Anchorage for large vessels can be obtained, in 35m, gray sand, abreast a cleft in a vertical cliff, with Mys Peschanyy bearing 336°, Mys Sivuchiy Kamen bearing 112°, and the detached pillar rock off the entrance to Gavan' Preobrazhenskaya bearing 176° and in line with a church in the village. The holding ground is poor and the anchorage is insecure with N winds.

2.58 Bukhta Korabelnaya, a bight entered N of **Mys Korabelny** (54°42'N., 167°44'E.), affords anchorage during W winds. Mys Korabelny terminates in a nearly vertical cliff, 15 to 24m high, from which a reef extends 0.5 mile NNE. A settlement comprising several huts is situated between sand dunes at the head of the bight.

Anchorage.—Anchorage can be taken, except during onshore winds, in a depth of 22m, coarse sand, with Mys Korabelny bearing 100°, and the middle of the settlement bearing 185°. Landing is very difficult on account of the almost incessant swell and a shoal which extends some distance offshore from the settlement.

2.59 Mys Cherny (Black Point) (54°41'N., 167°50'E.), the most salient point on the NE side of Ostrov Mendyy, lies about 4.5 miles SE of Mys Korabelny, is composed of dark-colored bluffs, and is very high.

Bukhta Glinka, 4 miles SSE of Mys Cherny, has a summer settlement situated on the hillside at its head, and a wooden house, painted red, is situated directly below the settlement. Nearly behind the settlement is a large light-colored watercourse. Reefs extend from both entrance points.

In the entrance to Bukhta Glinka are depths of 37 to 55m, shoaling to 22m close inside the entrance.

Anchorage.—Anchorage can be taken at the entrance, with the settlement bearing 230°, Mys Cherny bearing 327°, and Mys Glinka, the S entrance point, in line with Mys Yugovostochny. During W winds, moderate gusts come down the hills, but there is neither sea nor swell at the anchorage. During E winds, anchorage is impossible and landing difficult.

The SE end of the island is formed by a large isolated hill with steep cliffs on all sides, joined to the main part of the island by a narrow isthmus. A dangerous reef extends about 3 miles SE from the SE end of the island, between Mys Yugovostochny and Mys Yuzhny, about 2 miles SSW. Several conical detached rocks lie near the coast on this reef.

2.60 Southwest coast of Ostrov Mednyy.—The SW coast of the island is especially steep-to. The NW half of this coast is very steep-to and may be approached closely with safety. The

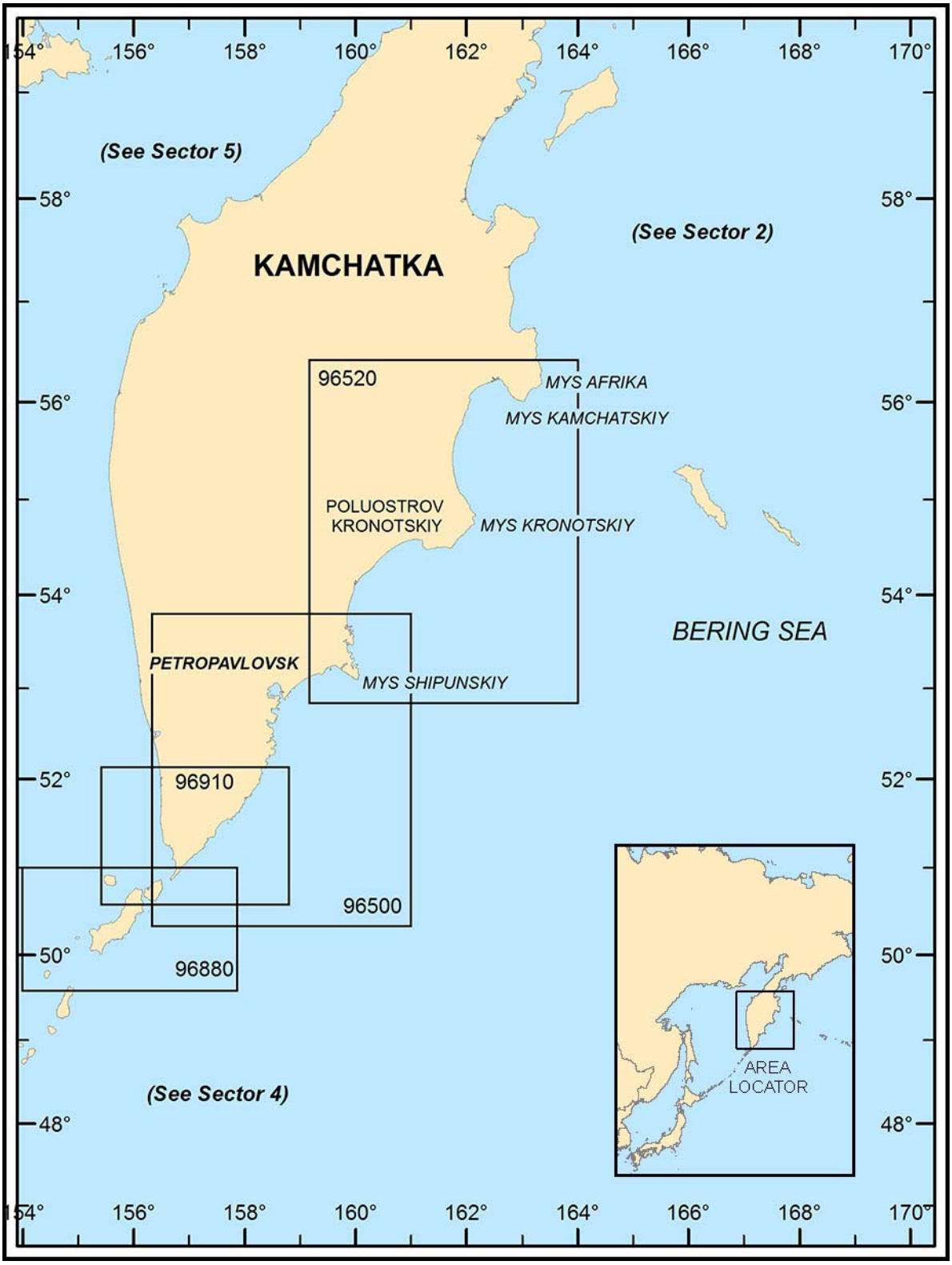
coast is fringed by pillar rocks, some of which are prominent from offshore.

Mys Palata (54°34'N., 167°50'E.), about 152m high, fringed with reefs and rocks, is the most prominent headland on this part of the coast, lying 6 miles WNW of Mys Yuzhny. It is perpendicular on its S side and is said to resemble a large house with a steep peaked roof.

Anchorage.—Anchorage can be obtained, in a depth of 22m, rock, about 0.7 mile offshore, off the seal rookeries S of Mys Palata.

2.61 Mys Vodopadski (54°39'N., 167°40'E.) lies 7 miles NW of Mys Palata and derives its name from a waterfall nearby. Korabelnyy Stolb, about 2 miles NW, is a very conspicuous pillar rock, 31m high, joined to the mainland and lying among a group of rocks off a conspicuous bluff headland. Korabelnoye Lezhbishche is a rookery along this stretch of coast, which consists of nearly perpendicular bluffs, between the projections of which are small coves affording shelter to the seals when breeding.

Sivuchiy Kamen' (Sea Lion Rock) (54°50'N., 167°22'E.), about 15 miles NW of Mys Vodopadski and 1 mile S of Mys Sulkovskogo, the NW extremity of the island, is a very conspicuous pillar rock.



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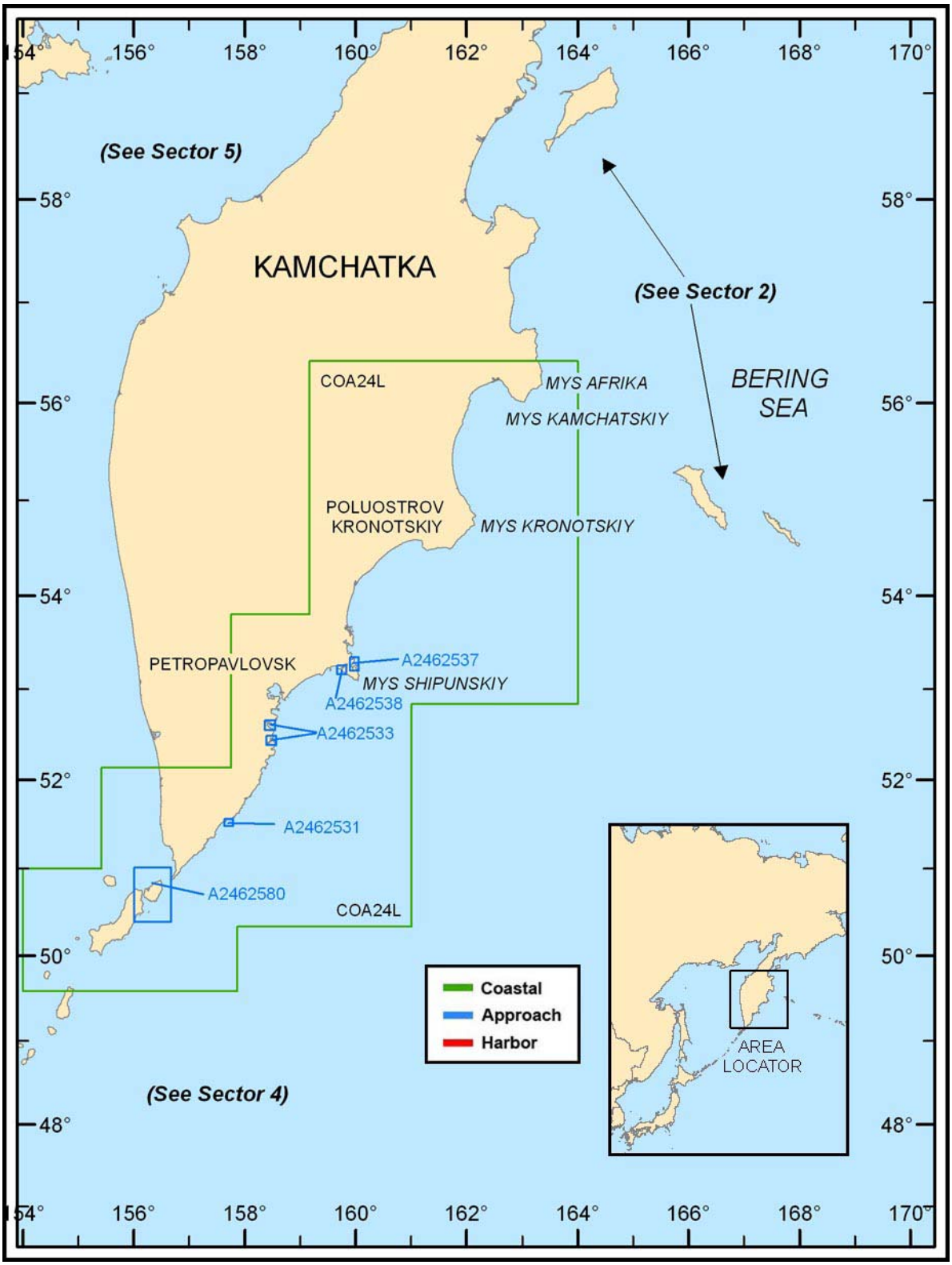

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SECTOR 3

EAST COAST OF KAMCHATKA—KAMCHATSKIY ZALIV TO MYS LOPATKA

Plan.—The coast described in this sector comprises the E coast of Kamchatka from Poluostrov Kamchatskiy to Mys Lopatka, including Pervyy Kuril'skiy Proliv (Kuril Strait). The arrangement of the sector is from N to S.

General Remarks

3.1 Winds—Weather.—In Kamchatskiy Zaliv, winds from the SW quadrant prevail in summer and are accompanied by clear weather. Northeast winds bring foul weather. Gales are most frequent between October and March. In winter the winds are predominantly between the NW and NE, and when from the latter direction are frequently accompanied by blizzards.

The presence, during clear weather, of a light misty cloud enveloping the summit of the volcano of Shivelyuch is considered locally as a sign of approaching E, and particularly NE winds.

It appears that off the E side of the peninsula the colder, deeper water comes, or is forced, to the surface, a phenomenon ascribed to the effect of tidal currents, causing fog to form quickly over the sea. In calms, or with gentle onshore breezes, a dense protracted fog blankets the coast.

Ice.—Kamchatskiy Zaliv generally does not freeze completely, however by the end of December or early January, it is more or less filled with loose floes. In February the gulf is solidly packed with hummocky ice. During the month of March, the gulf ordinarily is free from ice, but beginning in April and until the middle of May, the gulf is packed with heavy masses of hummocky ice carried in from the N part of the Bering Sea. It should be noted that the part of the coast between the Osyp' Lakhtak and Mys Kamchatskiy is often free of ice, while the remaining part of the gulf is solidly packed with ice. The earliest recorded appearance of ice is November 15; the latest is January 16.

Drift ice is usually adrift in Kronotskiy Zaliv in the winter. The average number of days with ice is 152. The earliest recorded appearance of ice is December 6, the latest recorded appearance of ice is January 5.

Drift ice generally moves SW in March in the open sea off Mys Mayachnyy and the sea is free of ice early in April. Navigation may be seriously impeded during winter and spring in the open sea off Mys Mayachnyy, but icebreakers can generally keep a passage open.

Tides—Currents.—Between Mys Kamchatskiy, Mys Kronotskiy, and Mys Shipunskiy, the stream of the constant Kamchatka current is 40 to 50 miles wide, and flowing in a general SSW direction, has a velocity of 0.6 knot.

Between Mys Shipunskiy, the entrance to the Avachinskaya Guba, and Mys Lopatka the main stream of the Kamchatka current flows in a general SSW direction and has a velocity of 0.7 to 0.9 knot.

South of Mys Shipunskiy, a narrow branch of the main Kamchatka current flows in the direction of Mys Nalycheva, with a velocity of 0.5 knot then flows S, then SW and joins the main stream of the Kamchatka current.

Tides in Kamchatskiy Zaliv are of a mixed type, the diurnal type prevailing. When the moon is close to the equator the tides are semi-diurnal, and when the moon has its maximum N or S declination the tides are diurnal. Semi-diurnal tides have a smaller range and somewhat higher LW.

The tidal currents here ordinarily have a velocity of 1 to 2 knots. At the head of the gulf the currents may reach a velocity of 3 to 4 knots, the flood current setting W and the ebb current setting E. Overfalls caused by conflicting currents may be observed inside the gulf.

The tidal wave approaches the S coast of Poluostrov Kamchatskiy from the ESE and divides; one branch flows N along the E coast of the peninsula, causing a N flood current, while the other branch flows NW along the SE coast of the peninsula into Kamchatskiy Zaliv, where, upon reaching its N shore, the current changes its direction to the W and flows parallel to the N shore of Kamchatskiy Zaliv. During the ebb, the directions of the tidal currents are reversed. The tidal currents here barely exceed a rate of 1 to 1.5 knots, reaching the higher limit only in the vicinities of capes projecting into the sea. Notwithstanding the relative weakness of these tidal currents, eddies have been observed, especially off Mys Kamchatskiy, and overfalls of conflicting currents, though gradually weakening seaward, extend for a distance of 10 to 15 miles offshore.

The tidal currents off the coasts of Poluostrov Kronotskiy attain a rate of 1.5 to 2 knots and cause eddies and overfalls that extend seaward off the headlands for a considerable distance.

Tidal currents in the vicinity of Mys Shipunskiy attain a rate of 1.5 to 2 knots at springs and 1 knot at neaps. The tidal wave advancing from the ocean divides at Mys Shipunskiy; one branch setting N and the other NW along the coast. The two branches of the ebb currents meet about 10 miles SW of Mys Shipunskiy and form eddies and also a very confused short sea when the wind is fresh.

The tidal current between Mys Zhupanova and Mys Shipunskiy parallel the coast and attain a rate of 1 to 2 knots. The flood current sets N and the ebb current sets S. In the open sea, the flood current sets NE and the ebb current sets SW.

Caution.—Abnormal magnetic variation has been observed between 53°35'N and 55°10'N. Although the disturbance at Mys Chazhma has been reported to be 9°30'W of the normal variation, it was found negligible at a distance of 3 miles from the coast and was not perceptible at a distance greater than 10 miles offshore.

Near the coasts of Poluostrov Kronotskiy the deflection of the compass needle may reach 15° to 20° at a distance of 1 to 1.5 miles offshore, but is not perceptible at a distance of 5 miles offshore.

The area of abnormal variation, which lies in the greater part of Kronotskiy Zaliv, is appreciable within a distance of 3 miles of the coast, but is not perceptible at a distance greater than 10 miles offshore.

An area of magnetic disturbance, in which a variation of 1°

less than the normal has been observed, is centered in 55°30'N, 163°40'E, extending over a radius of about 10 miles.

Kamchatskiy Zaliv

3.2 Kamchatskiy Zaliv, entered S of **Mys Kamchatskiy** (56°00'N., 163°03'E.) and N of Mys Kronotskiy, about 80 miles SSW, has generally low shores, and the coastal mountain ranges are at a considerable distance inland.

Sopka Klyuchevskaya (56°04'N., 160°38'E.), an active volcano located 93 miles NW of Mys Kamchatskiy, is located in the center of a large group of high mountains and is the highest mountain in Kamchatka.

For about 5 miles W of Mys Kamchatskiy, mountains with elevations of over 609m are located within 1.5 miles of the coast, and front the sea with steep precipices and bluffs, fringed at their base with a narrow sand and gravel beach that is thickly studded with fragments of rock.

Osyp' Lakhtak, about 13 miles NW of Mys Kamchatskiy, is a very remarkable scar caused by a landslide. It rises from the sea to the top of the shore cliffs at a slope of 30°, and being yellow in color, stands out very conspicuously against the background of the generally darker color of the coast. From the offing it appears as a large triangular patch with its base resting on the sea.

Anchorage.—Anchorage in the bight close N of Osyp' Lakhtak affords some shelter from SE winds to a small vessel anchored close inshore.

Caution.—In the vicinity of Osyp' Lakhtak, particularly S of it, the depths are extremely irregular. The bottom has numerous very deep holes and crevices close inshore. An anchor, with a full length of chain, was lost near a position where a depth of 9.1m was obtained by the lead; therefore, when anchoring here, back out the anchor until it takes hold and the necessary scope of chain is out.

3.3 **Ust-Kamchatsk** (56°13'N., 162°29'.), a town situated on the right bank of Reka Kamchatka, where it makes a sharp bend before flowing into the sea. The entrance channel to Reka Kamchatka, the largest river in Kamchatka, leads between two broad sandy shoals extending off the extremities of the two spits that form the mouth of the river.

The town is visible for about 8 miles and the masts of a coastal radio station located about 3 miles WSW of the town are also visible for a range of approximately 8 miles.

A radiobeacon transmits from Ust-Kamchatsk, with a beacon standing on the framework of a former light, 28m in height, on the E side of the entrance to Reka Kamchatka.

Tides—Currents.—The MHW interval at the mouth of Reka Kamchatka is about 4 hours. The spring rise is 1.8m, while the neap rise is 0.9m.

Anchorage.—The whole of the low and sandy coast on either side of the mouth of the Reka Kamchatka is steep-to and, except for the shoals at the mouth of the river, is clear of dangers.

Anchorage can be obtained 0.5 to 0.8 mile offshore, either W of the mouth of the river, in a depth of 11 to 12.8m, sand, or E of the mouth of the river, in a depth of 14.6 to 20.1m, sand. During calm weather, a long swell often sets in without warning and soon becomes heavy. The surf is particularly heavy abreast the anchorage, and it is not advisable to anchor closer than 0.5 mile offshore. The tidal currents flow parallel to the coast and have a tendency to keep a ship broadside to the swell.

In thick weather a vessel should steer directly for the mouth of Reka Kamchatka, anchor when a depth of 29m is reached, and wait until the vessel's position can be ascertained.

Caution.—Near the canneries, long lines of nets are laid out extending up to 0.5 mile offshore. The outer ends of the nets are marked by small floats.

3.4 **Mys Kryugera** (56°01'N., 162°05'E.) is the E extremity of a small, rounded, and defined peninsula rising to a twin peaked, hummocky hill, 128m high. The point consists of continuous reddish-brown cliffs, about 100m high. The cape is fringed with reefs, usually marked by breakers, which extend between 1 mile NE and 1.5 miles SE from the cape.

Bukhta Kryugera (56°01'N., 162°03'E.) is entered between Mys Kryugera and a small cape marked with a pillar rock close offshore, about 3.5 miles N of Mys Kryugera. The whole shore of this bay is formed by continuous reddish-brown cliffs, 122 to 152m high, sloping down to a narrow sand and shingle beach that skirts the shore of the bay. In the S corner of the bay, close to Mys Kryugera, there is a large canning factory.

Only the S half of the bay has been surveyed and the depths here are irregular. The bottom is mostly rocky, with isolated patches of sand and shingle. An isolated pillar rock lies about 1.2 miles NW of Mys Kryugera and about 0.3 mile offshore. The entire water area for 0.6 mile offshore should be regarded as dangerous due to submerged rocks and shoal patches. Outside this distance the depths increase to 18.3 to 20.1m about 2 miles offshore. A 4.5m depth and an obstruction lie 2.5 and 3 miles NE, respectively, of Mys Kryugera.

Tides—Currents.—The tides here are of a mixed type, with the diurnal prevailing. The MHW interval is 3 hours 20 minutes. The spring rise is 1.3m.

Anchorage.—Bukhta Kryugera is sheltered from winds from the S through W to NNE. Furthermore, the reef that extends off Mys Kryugera serves as a breakwater. The anchorage in Bukhta Kryugera, though partly sheltered, is in a depth of 13m and is the only sheltered anchorage in Kamchatskiy Zaliv.

Two beacons, in line bearing 190°, near the canning factory, lead to the anchorage. During the navigation season these aids are marked by small buoys displaying flags.

3.5 **Mys Krasnyy** (55°56'N., 162°01'E.), about 6 miles SSW of Mys Kryugera, is the bluff extremity of a small solitary hill located near the coast, and is about 171m high. This cape is not very conspicuous but can be identified by its red color with white horizontal bands in the upper strata. A small valley, with a sand beach and small stream at its mouth, lies immediately N of the cape. Rocks, marked by breakers, lie up to 0.8 mile from the cape. From the rocks, a shoal, with a depth of 9.6m over its outer end, extends 1.3 miles NE. A detached shoal, with a depth of 2.6m, lies 3.2 miles ENE of the cape.

Mys Shuberta, about 14 miles SW of Mys Krasnyy, is a slightly projecting headland consisting of reddish-brown cliffs about 61m high. The low coast S of the cape makes the cape somewhat conspicuous from the offing. A large pyramidal rock lies close off the cape.

3.6 **Mys Chazhma** (55°03'N., 161°54'E.), lying about 40 miles S of Mys Shuberta, is a narrow bare sandstone tongue bordered with cliffs. Above-water and drying rocks extend about 0.2 mile off its N and S sides. Gora Primetnaya, about 12 miles NW of Mys Chazhma and 3.5 miles inland, is the highest summit of a range of flat-topped mountains. The range extends about 10 miles NNW of Gora Primetnaya and lies 5 miles from the coast.

Bukhta Chazhma, between Mys Chazhma and a low rounded point 3 miles NW, is bordered on its S shore by reddish cliffs fronted by a narrow gravel beach. A low sandy beach, with the shore rising on either side of it, lies at the mouth of Reka Bol' shaya Chazhma (Reka Chazhma). Above-water and submerged rocks lie off the mouth of the river; foul ground extends 0.5 mile offshore.

Anchorage.—Anchorage can be obtained, in 13.7m, fine sand, with the mouth of Reka Bol'shaya Chazhma bearing 214°, distant 1 mile, Mys Chazhma bearing 114°, distant 2 miles, and Gora Primetnaya bearing 304°.

3.7 The peninsula, about 16 miles SE of Mys Chazhma, ends in two low, bluff points. The N point is formed by the spur of a hill, 213m high, about 1 mile W of the point. The reefs extending off this point are steep-to, with depths of 37m about 0.5 mile off the reefs.

Mys Kamenistyy (54°50'N., 162°10'E.), about 1 mile S of the N point, is a small hill, 201m high, with a cone-shaped summit. Close off this point lies a large pillar rock, from which a reef, composed mainly of drying rocks, extends 0.8 mile E and is marked by breakers at its outer end.

Bukhta Kamenistaya, entered S of Mys Kamenistyy, has not been examined, although with the exception of three above-water rocks on its W side close inshore, no dangers have been noted. A line of soundings parallel with the coast 1.5 miles offshore reveals depths gradually decreasing to 22m, sand, abreast the head of the bay. The turbid surface water in this bay, probably due to particles of sand and mud suspended in it, is green in color.

Mys Kronotskiy (54°44'N., 162°10'E.) is the E point of a peninsula which, on all sides, slopes steeply to the coast from the top of a mountain, 340m high, located close within the cape. A vessel reported breakers with white vapor or steam ascending from them, close S of the cape. Mys Kronotskiy is conspicuous in profile because the lower third of its slope is a landslide scar which rises from the extremity of the cape at an angle of about 45°. A rocky ledge, the greater part dry at LW, extends 1.3 miles ESE from the cape. A high and slender pillar rock, about halfway along the ledge, is a good landmark. The outer end of the ledge is marked by breakers, but is steep-to, the depths being 35 to 50m about 0.5 mile off it. Masses of kelp surround the cape and extend a short distance beyond the ledge. It appears as brownish-green patches easily discernible on the surface of the sea.

A light is shown from Mys Kronotskiy.

Kronotsky Volcano (Sopka Kronotskaya) from the estuary

Poluostrov Kronotskiy

3.8 Poluostrov Kronotskiy, separating Kamchatskiy Zaliv from Kronotskiy Zaliv, is formed by the E and NE spurs of Sopka Kronotskaya, but its S part is an elevated tableland terminating on its seaward side in sheer cliff. A vessel approaching the coast of the peninsula in thick weather should sound continuously and exercise due caution off Poluostrov Kronotskiy, as there are depths of 101 to 128m which decrease rapidly.

Numerous rocks and reefs exist along the coast of the peninsula, but they do not extend offshore beyond 2 miles.

Sopka Kronotskaya, about 56 miles W of Mys Kronotskiy, is an isolated cone-shaped extinct volcano and serves as a remarkable landmark from considerable distances. It is clearly discernible from the S part of Kamchatskiy Zaliv, from the E of Poluostrov Kronotskiy, and the entire volcano is visible from Kronotskiy Zaliv.

The rocky ledge, about 2.5 miles SW of Mys Kronotskiy, is marked by many pillar rocks. Sivuchiy Kamen, meaning Seal Rock, about halfway along the ledge, is conspicuous due to its size.

Kamen' Kub, about 14 miles SW of Mys Kronotskiy, is a very conspicuous solitary rocky islet rising sheerly from the water. From the offing it appears as a cube, with its flat top covered with grass. Its almost vertical sides, covered with bird guano, render it conspicuous from seaward. There are rocks 0.5 mile SSW and 1 mile ESE of the islet.

Mys Kozlova (54°29'N., 161°43'E.), the SE extremity of Poluostrov Kronotskiy, is 46m high, steep, and sharply defined when sighted from the NE and SW. A reef, which is steep-to and composed of a chain-like formation of rocks and pillar rocks, extends 1 mile S from the cape and terminates in a remarkable pillar rock, inclined seaward, which stands on a high rock base, often almost covered by seals. This 21m pillar rock is known as Kamen' Kozlova.

Kronotskiy Zaliv

3.9 Kronotskiy Zaliv is entered between **Mys Kozlova** (54°29'N., 161°43'E.) and Mys Shipunskiy, about 112 miles SW. The shore of the gulf is high in its N and S parts, but between these high sections it is either low or formed by comparatively low cliffs.

Bukhta Morzhovaya, in the S part of the gulf, is the only bay affording completely sheltered anchorage. Kronotskiy Zaliv has not been adequately surveyed and should be navigated with due caution.

Several conspicuous mountains lie comparatively near the coast and form excellent landmarks discernible on a clear day from considerable distances.

Sopka Karymskaya (Sopka Berezovaya) (54°03'N., 159°28'E.), an active volcano, has a rounded summit of brownish-gray color easily identified by the smoke rising from its crater.

Gora Shirokaya (53°52'N., 159°33'E.) has a broad slope paralleling the coast.

Sopka Zhupanova (53°35'N., 159°09'E.), an isolated active volcano, is particularly conspicuous from the E and NE.

3.10 The coast from Mys Kozlova to Mys Ol'ga, about 14 miles W, fronts the sea with a solid wall of uniform brown cliffs, backed by a gently sloping tableland. Two groups of rocks along this coast form good landmarks. Kamen' Morskoy, a conspicuous pillar rock, 37m high, with a white top showing up clearly against the background of brown cliffs, is the dominant feature of the group of rocks about 5.5 miles W of Mys Kozlova. The other group, about 4 miles E of Mys Ol'ga, includes a high, brown, pillar rock, with a rounded top.

Mys Ol'ga, a small peninsula, 46m high, can be identified by a conspicuous sharply-pointed conical hill that rises a short distance N of the cape. There are several large pillar rocks close off the cape. A steep-to reef extends 0.5 mile S from the cape.

Bukhta Storozh (54°34'N., 161°10'E.), located about 7 miles NW of Mys Ol'ga, affords no protection from the SE swell that comes in around the E shore of the bay. The E side of the bay is fringed by reefs and rocks, paralleling it about 1 mile off, and marked by a continuous line of breakers.

Temporary anchorage may be obtained in the corner of Bukhta Storozh, in 7.8m, sand, 0.8 mile from either shore. When approaching this anchorage, a vessel should favor the N shore of the bay, which is clear of dangers. Care should be taken to avoid a detached 2.6m shoal lying 6.2 miles NW of Mys Ol'ga, about 1.5 miles SSW of the anchorage.

Caution.—Reported observations made in Bukhta Storozh indicated the deflection of the compass needle to be about 5°.

3.11 The coast for 7 miles NE and 16 miles SW of the mouth of the **Reka Kronotskaya** (54°31'N., 160°45'E.) is low and sandy. The mouth of the river is difficult to distinguish from the offing. An oval-shaped hill, 229m high, and a fairly conspicuous hill, 311m high, located 7.5 miles and 10.5 miles NNE, respectively, of the mouth of the river, in line bearing 016°, lead to a position about 1.2 miles E of the mouth of Reka Kronotskaya.

Anchorage.—Anchorage may be obtained, in 12.8m, 0.5 mile offshore, with the peak of Sopka Kronotskaya bearing 338°, and the mouth of Reka Kronotskaya bearing 008°.

3.12 **Reka Semlyachik** (54°06'N., 159°55'E.), entered 36 miles SW of the mouth of Reka Kronotskaya, flows through a wide valley and reaches the coast as a river of considerable size. Before discharging into the sea the river flows S, being separated from the sea by a narrow sand and gravel spit. The mouth of the river is not easily discernible from the offing, but it can be identified by a low, sandy coast N of it and coastal cliffs immediately S of it. The village of Krasnyy Partizan lies near the mouth; Barmotina village is situated 3 miles N of it.

Mys Zhupanova (53°40'N., 159°55'E.) is the NW extremity of a peninsula, the head of which is formed by three hills rising from a single mass of high land extending 0.5 mile SE to Mys Yuzhnyy. The peninsula is connected to the mainland by a low sand and gravel isthmus. The central hill is 55m high, and Mys Yuzhnyy is 100m high. From the offing, the peninsula appears as a wedge-shaped islet, with its thin edge toward the land. Having a dark color, this wedge is fairly conspicuous against the lighter background.

A detached rocky shoal, with a least depth of 2.4m, lies 0.7 mile NNW of Mys Zhupanova. The shoal is steep-to, with depths of 11m around it.

Anchorage.—Mys Zhupanova Anchorage, the bight W of

Mys Zhupanova, has low and sandy shores, covered with pumice in places. Large ships can obtain anchorage, in a depth of 10m, mud and sand, with Mys Zhupanova bearing 100°. The berth is sheltered from the SE through SW to NW. Small vessels can anchor closer inshore in depths of 4m with the cape bearing 080°. Stranded wrecks lie about 1.2 miles W and 2.5 miles NW of the cape.

The low coast S of Mys Yuzhnyy is fronted offshore by a barrier consisting of detached groups of above-water and submerged rocks extending about 4 miles SSE from Mys Yuzhnyy, and parallel to the coast. The N end of the barrier is an isolated submerged rock about 0.8 mile E of Mys Yuzhnyy and marked by breakers. About 1 mile SE of Mys Yuzhnyy is a group of six pillar rocks disposed in two small clusters. The next member of the barrier, about 2.5 miles SSE of Mys Yuzhnyy, consists of Skala Ekspeditsii, a round-topped grass-covered rock, 93m high. A short reef extends NE, and a submerged rock lies about 0.5 mile SE of Skala Ekspeditsii. A pillar rock, 13m high, lies about 0.5 mile S, and a submerged rock, marked by breakers, lies about 2 miles SSE, respectively, of Skala Ekspeditsii.

3.13 Mys Kron'ye (Mys Krone) (53°28'N., 159°57'E.) is a rounded rugged headland lying about 12 miles S of Mys Zhupanova. A rocky mountain within its extremity rises to a height of 472m, and sloping steeply, particularly on its S and E sides, fronts the sea with steep, brown cliffs. For 6 miles N of Mys Kron'ye, the mountains rise close to the coast from sheer brown cliffs of moderate height. A reef extends S and SE about 0.6 mile from the headland. The central part of the reef consists of drying rocks, but its outer part is a submerged ledge, which is marked by breakers when the swell is considerable. Its extremity is steep-to. This headland can be identified by a conspicuous pillar rock, 30m high, about 0.1 mile NE of the cape.

Bukhta Kalygir, entered S of Mys Kron'ye, has precipitous grayish-brown cliffs of medium height on its W shore, backed by mountains. Northward of the cliffs is the mouth of a broad valley with Ozero Kalygirskoye, a salt water lake, separated from the bay by a narrow, long, and low sandy spit covered with grass and bushes. The entrance to the lake is at the NE end of the spit near which lies the small village of Kalygir.

Mys Sredniy (53°23'N., 159°56'E.), the S entrance point of Bukhta Kalygir, lies 5.5 miles S of Mys Kron'ye and is a high rugged headland with precipitous gray cliffs. It is fringed with above-water rocks close inshore. An isolated submerged rock, marked by breakers, lies 0.3 mile N of the headland. A conspicuous detached pillar rock lies 0.1 mile N of the rocky point, about 1 mile NW of Mys Sredniy.

The NW part of Bukhta Kalygir, where the depths 0.2 mile offshore do not exceed 12.8m, is the most shallow. The depths increase S and E toward Mys Kronye, with the bottom being sand.

It is reported that there is anchorage, in 11.9m, sand and shell, about 0.3 mile off the middle part of the cliffy shore W of Mys Kron'ye, and also farther W, 0.3 mile off the cliffs nearest to the low-lying shore, in 7m. The anchorage should be approached from the SE with caution, taking soundings continually.

Bukhta Bol'shaya Medvezhka is entered between Mys Sredniy and Mys Argali, 3 miles further SE. The SW part of its shore is a spit ridged with accumulations of sand and gravel and backed by a lake which lies in a spacious valley. Except for this low section, the shore of the bay is hilly and covered with forest. A group of above-water rocks, extending no more than 0.2 mile offshore, is located about 1.5 miles S of Mys Sredniy. The depths in the entrance are 27 to 37m.

Anchorage.—Anchorage, sheltered from SE to S through NW winds, can be obtained, in a depth of about 21m with Mys Argali, the S entrance point, bearing 110°.

3.14 Mys Argali (53°20'N., 159°58'E.) is the N point of a small mountainous peninsula that forms the SE shore of Bukhta Bol'shaya Medvezhka. The coast on the seaward side of the peninsula consists of high rocky gray cliffs rising over 440m. About 1.3 miles SSE of Mys Argali, a rock, 2.4m high, lies 0.2 mile offshore.

Bukhta Morzhovaya (53°16'N., 159°58'E.) is entered between Mys Argali and Ostrov Morzhovyy, about 4.5 miles SSE. The island rises to a height of 192m and has grayish cliffs, which on its S side are higher and steeper, and which descend to the NE end of the island in a series of gently sloping terraces. On its seaward side, the island is steep-to, with depths of 56m about 0.2 mile off this side of the island. Ostrov Morzhovyy is separated by a narrow obstructed passage from a point on the mainland which rises to a flat-topped steep-sided hill, 125m high.

Bukhta Morzhovaya is divided into two parts by a rocky headland, nearly 91m high, about 3.5 miles WSW of Ostrov Morzhovyy. The N part is wide and exposed. The S part, a comparatively long and narrow arm with a sand and shingle beach at its head, is completely sheltered from the winds and sea. The shores of the entire bay are formed by steep slopes of mountains that surround the bay and rise to heights ranging from 457 to over 610m.

The depths at the entrance to the bay are 55m, sand, decreasing to 11m, sand, about 0.6 mile off the head of the N part of the bay. Depths of 27.5 to 29.5m, sticky mud, prevail over the N half of the S arm, decreasing very gradually to 18.3m, about 0.3 mile offshore at its head.

Anchorage.—Anchorage, sheltered from winds and sea, is obtained, in 18 to 21.9m, near the head of the S arm of Bukhta Morzhovaya. Sticky mud provides excellent holding ground.

Caution.—During thick or foggy weather, which is very frequent in summer, it is most difficult to make out the entrance to Bukhta Morzhovaya in a calm or with gentle onshore breezes. With moderate SE or NE winds the fog may clear up periodically on the lee side of the land. Therefore, with a SE wind a vessel should steer toward Ostrov Morzhovyy, and with a NE wind, Mys Argali. A mid-channel course in the bay and in the S arm of the bay is recommended. In clear weather, the entrance is easily identified by Ostrov Morzhovyy. Ordinarily a SE wind spreads a fog over the whole N part of the bay, but leaves the S part fairly clear. With NE winds accompanied by rain, fog spreads over the entire bay, the fog being much denser around the mountain tops and considerably thinner closer to the shoreline.

3.15 Mys Shteyna (53°09'N., 160°04'E.), a high cliffy point 8 miles S of Ostrov Morzhovyy, is the N limit of an elevated plateau. This plateau, extending about 3 miles S, forms the SE extremity of Poluostrov Shipunskiy. The extremity of

the peninsula, 269m high, is flat-topped, with high sheer brown cliffs.

Mys Shipunskiy (53°06'N., 160°02'E.) is the E of two small projections on the SE extremity of the above-mentioned plateau. A mountain, about 5 miles NW of Mys Shipunskiy, has a sharp, jagged summit rising to a height of 981m, and makes a conspicuous landmark when sighted from either the E or W.

A palisade-like formation of pillar rocks extends 0.8 mile ESE from Mys Shipunskiy and terminates in a large pillar rock, about 13m high, which is in line with the rest of the rocks, but is separated by about 90m from the rest of the row. A dangerous line of rocks, both above-water and submerged, extends from the W projection in a SSW direction for about 1.3 miles to a submerged rock marked by breakers. Then it changes its direction and extends ESE for about 0.8 mile, terminating in a rocky islet, 3.7m high, located about 1.3 miles SSW of Mys Shipunskiy. This rocky islet is the outermost danger off Mys Shipunskiy. Both these lines of rocks are visible 10 to 12 miles in clear weather, and form a good landmark. These rocks are practically steep-to, with depths of 50 to 55m less than 0.5 mile S of the outermost rocky islet and depths of 91m at a distance of 0.8 mile E of the E rock.

A light with a transmitting radiobeacon is situated on Mys Shipunskiy.

Caution.—Very dense fogs are prevalent in the vicinity of Mys Shipunskiy. A vessel approaching Mys Shipunskiy in thick weather should sound continuously and should navigate in depths of not less than 110m. With smooth water on an ebb tide, the eddies will give a warning of a proximity to the cape. The bottom shelves more steeply off the E side than off the S, and particularly the SW side of the cape. The bottom is mainly shingle, changing to sand N of the cape, and to rock as the cape is approached.

Depths of less than 50m have been reported to lie in an area about 6 miles E of Mys Shipunskiy.

Mys Shipunskiy to Avachinskaya Guba

3.16 Sopka Kozelskaya (53°13'N., 158°53'E.), an extinct volcano, conical and sloping gently to the coast, is an excellent landmark only 10 miles inland. The white stripes of snow on its black slopes can be seen through the haze when the peaks are obscured.

Sopka Avachinskaya, an active volcano, lies about 2.5 miles NW and forms one mountainous mass with Sopka Kozelskaya, the valley between being of no great depth. There is never any snow near its summit due to internal heat.

Sopka Koryakskaya, an extinct volcano, 6 miles NW of Sopka Avachinskaya, has a well-shaped conical summit making it a very conspicuous landmark particularly from Avachinskaya Guba.

The coast between Mys Shipunskiy and Mys Vkhodnoy, 12 miles SE, is elevated and bluff, and indented in places by small sandy bays between rocky headlands.

Bukhta Bechevinskaya (53°13'N., 159°45'E.) is entered between Mys Vkhodnoy and Mys Lovushek, about 1.3 miles farther NW. About 2 miles within the entrance of the bay a shingle spit extends from either side toward its middle, dividing the bay into nearly two equal parts. Depths in the bay decrease from 12m on the N side of the entrance to 2.1m in the fairway of the channel between the spits, which is less than 90m wide. The depths increase again to over 50m in the inner part of the bay.

The S side of **Mys Lovushek** (53°13'N., 159°43'E.) terminates in two small projections. It is fringed with rocks and reefs extending about 0.3 mile S and SW. Grayish-yellow cliffs immediately NW of Mys Lovushek, changing to brown cliffs farther NW, form an excellent landmark, as there is no other place in the vicinity with similar coloring. The bay should not be approached from the SW.

Tides—Currents.—The MHW interval in Bukhta Bechevinskaya is 3 hours 6 minutes. Springs rise 1.4m, while neaps rise 1.2m. The tidal currents in the bay are almost imperceptible, except in the passage between the spits where, with the spring tides, the currents attain a velocity of 6 to 7 knots.

Anchorage.—Anchorage, protected from all directions except SW, can be taken in the SW half of Bukhta Bechevinskaya, with local knowledge, in depths of 5 to 11m, sand. A good position is in 9.6m, sand, with the two projections of Mys Lovushek in line bearing 256°, and the SE entrance point bearing 175°.

3.17 Ostrov Krasheninnikova (53°13'N., 159°33'E.), a precipitous island lying 6 miles W of Mys Lovushek, is fringed by rocks and a detached above-water rock lies 0.5 mile SSW of it. The mouth of Reka Vakhil', about 3.5 miles NE of the S end of Ostrov Krasheninnikova, was marked by a fishing station nearby. A rock, which dries and only breaks when there is at least a moderate swell, lies about 1.5 miles SSW of the mouth of Reka Vakhil'.

Anchorage.—Anchorage can be obtained by vessels with local knowledge, in a depth of 21.9m, fine sand and shells, about 2.7 miles E of the N extremity of Ostrov Krasheninnikova and 0.5 mile E of the previously-described drying rock.

The anchorage should be approached from the S with a low oval-shaped hill 0.5 mile E of the mouth of Reka Vakhil' bearing 020°, which leads to the anchorage. Anchor when the N extremity of Ostrov Krasheninnikova bears 270° or Mys Lovushek bears 098°.

3.18 Mys Nalycheva (53°09'N., 159°24'E.), lying about 7 miles SW of Ostrov Krasheninnikova, is a high and cliffy cape with dark-colored precipices. A mountain with a rounded summit rising to a height of 593m is located close inland, sloping gradually on its N side. Mys Nalycheva, when seen from the SE, is conspicuous against the background of a yellowish low coast. From the SW, because of the lake lying W of it, the cape appears as an island. A rocky reef extends about 0.3 mile S of the cape.

From Mys Nalycheva to the mouth of **Reka Khalaktyrka** (Reka Kalakhtyrka) (52°58'N., 158°50'E.) the coast is uniformly low and sandy. It is steep-to and clear of dangers. Reka Polovinnaya enters the sea 8.2 miles NE of Reka Khalaktyrka. Along this stretch the muddy water from the mouth of **Reka Mutnaya** (53°04'N., 159°00'E.) gives a dull yellow color to the sea for several miles seaward. Abreast the mouth of Reka Khalaktyrka and about 0.8 mile offshore lies a rock-islet, which being covered with guano, has a white color. A reef, on which the sea breaks and on which is an above-water rock, lies between the islet and the coast.

The coast between Reka Khalaktyrka and Mys Vertikal'nyy, about 5 miles SW, is high, cliffy, and fronted by foul ground extending about 1 mile offshore. A detached 4.5m patch lies 2 miles ENE of Mys Vertikal'nyy and 1.2 miles offshore.

Caution.—Danger Area No. 2 and Caution Area No. 4 are located E of Avachinskaya Guba between 53°N and 52°N, as best seen on the chart. The following specific hazards to navigation have been identified within this area:

1. Area of submerged explosives, depth unknown, within a radius of 0.8 mile of position 52°55'18"N, 158°47'30"E.
2. Two mooring buoys, one of which is submerged at depth unknown, centered on position 52°57'48"N, 158°57'24"E.
3. A stranded wreck at position 52°52'42"N, 158°44'30"E.
4. A specific area to be avoided, with submerged obstructions with depths of 1m, within a 1-mile radius of position 52°47'N, 158°57'E.

Ostrov Toporkov (52°55'N., 158°47'E.), lying 2.2 miles NE of Mys Vertikal'nyy and about 0.3 mile offshore, is 51m high and of dark color.

3.19 Mys Mayachnyy (52°53'N., 158°42'E.), about 1.2 miles SW of Mys Vertikal'nyy, has steep, precipitous sides, about 151m high, and is fringed on its W side by a drying reef.

A broad reef extends 1.5 miles ESE from Mys Mayachnyy. The sea breaks on this reef with the slightest swell. Being steep-to, this reef is dangerous in thick weather. A light with a transmitting radiobeacon is exhibited on the point.

Kamni Tri Brata (Three Brothers), 0.8 mile NW of Mys Mayachnyy, is a group of three very conspicuous basaltic pillar rocks on the coastal reef extending about 0.4 mile offshore.

Caution.—Several regulated areas, best seen on the chart, lie off the coast between Mys Shipunskiy and Avachinskaya Guba.

Avachinskaya Guba (Petropavlovsk-Kamchatskiy)

3.20 Avachinskaya Guba, entered between Mys Mayachnyy and Mys Bezymyannyy, about 3.5 miles SW, is easy to access on a clear day and affords sheltered anchorage for a large number of vessels. The entrance is difficult to distinguish when bearing less than 304°, as the cliffs on both sides have the appearance of a continuous line. The bay also includes Petropavlovskaya Gavan'. Bukhta Rakovaya, is on the E side of the harbor, S of Petropavlovskaya Gavan', and Bukhta Tar'ya, in the SW part of the bay.

3.21 Petropavlovsk-Kamchatskiy (53°01'N., 158°39'E.) (World Port Index No. 62600) is the principal port of Kamchatka and the site of a naval base. Petropavlovsk-Kamchatskiyaya handles general and bulk cargo including timber, refrigerated cargo, containers, machinery, cement clinker, grain, and iron.

Winds—Weather.—From May through August S winds prevail. From September through April NW winds are prevalent and are of a force not less than Beaufort Scale 3. They are steady and produce considerable sea in Avachinskaya Guba. The strongest winds are usually from October to April.

There is a certain regularity on clear summer days in the shifting of the wind. Calms, or very gentle land breezes from N to NW, are prevalent in the morning. Between 0900 and 1100 in the morning the wind begins to shift gradually W to S and becomes calm about 1400, but later in the afternoon it is superseded by a light to moderate sea breeze from the SE quadrant.

January and February are the coldest months of the year and have an average daily minimum temperature of -12°C. The warmest part of the year is a period of approximately 3 weeks, ending around August 10. The mean daily maximum temperature in August is 17°C.

Fog in Avachinskaya Guba is uncommon. Frequently during the summer the peaks of mountains that surround the bay are enveloped by fog, but Avachinskaya Guba remains clear. With E winds the fog from the sea rolls occasionally into Avachinskaya Guba. With W winds fog may cover the peaks of the W shore of the bay and spreads gradually over the entrance. Fog is observed most frequently from June through August.

Ice.—Only in especially severe winters is the whole of Avachinskaya Guba covered with ice. Usually only the small inlets are frozen. Zaliv Izmennyy, in the NE part of the entrance, does not freeze completely, but drift ice enters it.

Petropavlovskaya Gavan' is icebound from the end of November or mid-December until the beginning of May. The harbor can easily be kept open, and icebreakers work in the severe months. The earliest recorded first appearance of ice was November 20, the latest was January 7. The earliest final disappearance of ice was March 10; the latest was May 9.

The navigation of vessels may be seriously impeded during the winter and spring in the open sea off Mys Mayachnyy, but icebreakers can generally keep a passage open.

Tides—Currents.—The tidal currents in the entrance to Avachinskaya Guba have a velocity of 1.5 to 2 knots at springs, the flood setting NNW and the ebb setting in the opposite direction, both causing tide rips. The tidal currents in Petropavlovskaya Gavan' are weak, setting N along the E shore of the outer harbor and dying away towards the inner harbor.

Depths—Limitations.—Petropavlovsk-Kamchatskiyaya is approached through Avachinskaya Guba. A depth of 12m in the entrance to the bay limits the size of vessel that can enter.

Depths of 20 to 24m prevail in the central part of Avachinskaya Guba. The shores of the bay, with the exception of the shallow area S of Banka Z and the NW shore of the bay, are fairly steep-to, having depths of 7.3m close inshore.

A bank, with depths of less than 3m, extends slightly less than 2 miles N of the peninsula on which Mys Uglovoy is the NE extremity.

The port is divided into Outer Harbor and Inner Harbor. All main commercial berths are located in Outer Harbor, while berths for smaller vessels and floating dry-docks are situated in Inner Harbor. Outer Harbor has 12 cargo berths with a total quayage of 1,770m and depths alongside ranging from 4.4 to 10.8m. Inner Harbor has six cargo berths with total quayage of 856m and depths alongside of 2.4 to 7.3m.

The outer harbor of Petropavlovskaya Gavan', E of Poluostrov Signal'nyy, has depths of 9 to 16.5m. The main wharf, on the E side of the outer harbor, has a berthing length of 465m and a depth of 9.1m alongside. A quay for the use of naval vessels, about 152m long, is situated close S of the main wharf and has a depth of 3.7m alongside. A wharf, constructed on the spit which separates the outer and inner harbors, has a berthing

Petropavlovsk-Kamchatskiy

length of 480m, with depths of 4.6 to 9.1m alongside.

Aspect.—Avachinskaya Guba is sheltered by hills around the bay, and by higher hills and mountains inland. **Mys Bezymyannyy** (52°51'N., 158°39'E.) has reddish-brown precipitous sides about 200m high. The headland is identified by a sharp-peaked pillar rock that is inclined toward the shore and conspicuous from the N or S.

Mys Sredniy, about 1.8 miles farther N, is a precipitous red point terminating in a conspicuous sharp-pointed pyramid, 129m high. Two conical rocks lie 0.3 mile E of the point.

Pilotage.—Pilotage is compulsory in Avachinskaya Guba for all the following vessels and is available 24 hours:

1. Foreign vessels.
2. Vessels carrying hazardous cargo.
3. Gas carriers.
4. Nuclear-powered vessels.
5. Vessels over 10,000 gt and tankers over 3,000 gt navigating between the anchorages and all berths or piers in the bay.
6. All vessels entering or departing the port of Petropavlovsk-Kamchatskiyaya.

For arrival and departure, pilots should be requested by facsimile or e-mail 24 hours prior to arrival at the pilot boarding station and confirmed 4 hours before arrival. Vessels at the roads or at the berths should request a pilot by facsimile or e-mail no later than 2 hours in advance.

The pilot boarding station is in position 52°51'30"N, 158°47'00"E.

Pilots can be contacted, as follows:

1. Call sign: Pilot
2. VHF: VHF channel 9
3. Telephone: 78-4152-434132
   78-4152-434142
4. Facsimile: 78-4152-434132
5. E-mail: pilotptr@gmail.ru

Regulations.—Vessels should report their ETA via agents 72 hours, 48 hours, 24 hours, and 6 hours prior to expected arrival, including vessel draft, cargo to be loaded or unloaded, and other detailed information as requested by the harbormaster.

If ice breaker assistance is required, vessels must report their ETA directly to the harbormaster 6 hours prior to arrival and reconfirm again 2 hours before assistance is required.

Vessels entering Avachinskaya Guba must request permission from the Duty Officer on VHF channel 12 at least 30 minutes prior to arrival at the boundary line.

Vessels larger than 200m in length, 25m in width, and a draft of 9m must obtain permission from the harbormaster.

Inbound vessels must give way to outbound vessels.

Upon approach (within 1 mile) to port waters, speed must be reduced to 5 knots. the maximum speed allowed in Avachinskaya Guba is 9 knots.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (VTS) system is established for Avachinskaya Guba. The five reporting positions are detailed in the table titled **Avachinskaya Guba—Reporting Points.**

Avachinskaya Guba—Reporting Points	
Name	**Position**
Mys Mayachnyy	52°53'00"N, 158°42'00"E
Mys Zavoyko	52°56'24"N, 158°39'30"E
Mys Sevemyy	52°58'06"N, 158°39'06"E
Bukhta Rakovaya	52°58'24"N, 158°40'48"E
Mys Signal'nyy	53°00'24"N, 158°38'30"E

A guard vessel is located in position 52°57'N, 158°37'E to regulate the direction of vessel traffic through the fairway between the parallels of 52°56'00"N and 52°57'24"N, since two-way traffic is prohibited in this area.

Additional VTS rules are, as follows:

1. Vessels sailing in port waters must comply with COLREGS 72 rules and the Port State Control Inspection.
2. While in port waters, overtaking is prohibited.
3. Vessel greater than 60m in length are restricted from entering the port in winds of Force 7 or greater; however, the harbormaster may grant an exception upon request.
4. If visibility is less than 0.3 mile, a vessel can still be granted permission to enter port by the harbormaster if the vessel's radar is in good working order.

5. Traffic to the fishing port is halted 15 minutes before another vessel's arrival or departure at the commercial port.
6. Vessels must always maintain enough speed for steerage while in port waters.

Contact Information.—The port contact information is given in the table titled **Petropavlovsk-Kamchatskiy—Port Contact Information**.

Stanitskogo Mel' (52°53'N., 158°39'E.) are two drying rocks marked by breakers at HW, about 0.5 mile S of Mys Stanitskogo.

Babushkin Kamen', about 0.4 mile SE of Mys Uglovoy, is a conspicuous rock islet, 63m high, and has the appearance of a tall black cap.

Mys Pinnekl'poynt, about 2 miles NNW of Mys Myachnyy, is very conspicuous and can be identified by a high pinnacle rock close off its extremity. Shallow water extends 0.3 mile W from the point.

Ostrov Izmennyy, about 1.5 miles farther NNW, is a rocky islet, 9m high, lying on the steep-to S end of a reef.

Rakovaya Mel' (52°58'N., 158°38'E.), with a least depth of less than 1.8m and marked by spar buoys, is steep-to on all sides and dangerous in thick weather.

Anchorage.—Designated anchorages in Avachinskaya Guba, along with some specifically prohibited areas for anchoring, are, as follows:

1. **Russian Regulated Area (RRA) 161A—**Centered near position 52°59'30"N, 158°34'00"E is for large vessels, with anchor berths available for vessels carrying both regular and dangerous cargo, in the W part of the area.
2. **Russian Regulated Area (RRA) 161—**In Petropavlovskaya Gavan, about 0.5 mile SW of Mys Signal'nyy, in depths of 18 to 20m.
3. **Russian Regulated Area (RRA) 160—**West of Kovsh (53°01'42"N., 158°37'36"E.), in depths of 14 to 21m.
4. **Russian Regulated Area (RRA) 235—**Quarantine anchorage located 2 miles SW of Mys Seroglazka (53°02'47"N., 158°35'40"E.).
5. **Bukhta Bezymyannaya—**Entered N of Mys Bezymyannyy, with anchorage available on the SW side of the bay, in depths of 11 to 20m, and sheltered from S and SE winds. The depths of 18.3m at the entrance gradually decrease to about 9.1m near the middle of the bay. The W half of the bay has depths of less than 9.1m.
6. **Bukhta Rakovaya—**Sheltered from all winds with excellent anchorage available, in depths of 20m or less, mud. Although the bottom is mostly all mud there is sand in depths of less than 9m.
7. **Bukhta Krasheninnkova—**Entered between **Mys Kazak** (52°58'N., 158°28'E.) and Mys Artishok, about 2 miles S, offers excellent anchorage sheltered from all winds, in depths of 11 to 22m, mostly mud and sand, and except for the spit extending SW of Ostrov Khlebalkin, is clear of dangers. The bay has depths of 22m in the entrance, decreasing to 18.3m, mostly mud and sand, near its head. However, anchorage within Bukhta Krasheninnkova is prohibited W of a line from Mys Koza and Mys Kosa, 5 miles ESE.

Anchorage is also prohibited in the following areas:

1. An area SW of Poluostrov Izmennyy extending across the entrance,
2. Within Bukhta Zavoyko E of a line between Mys Vilkova (52°54'42"N., 158°40'48"E.) and Mys Zavoyko,
3. Within all of Bukhta Solyonoye Ozero.
4. Within all of Bukhta Bogorodskoye.
5. Within all of Bukhta Ilyicheva.

Caution.—Due to insufficient information concerning the relocation and maintenance, many navigational aids within Avachskaya Guba and the approaches are not shown on the chart.

A dangerous wreck lies in a depth of 16.6m in position 52°57'01"N, 158°38'13"E.

A stranded wreck lies in position 52°58'40"N, 150°45'13"E.

Avachinskaya Guba to Mys Lopatka

3.22 Ostrov Starichkov (52°47'N., 158°37'E.), about 4.5 miles SSW of Mys Bezymyannyy, is fringed by above and below-water rocks, and has cliffy shores which rise in its SW part. Kekur Chasovoy, a conspicuous, slender, pillar rock, slightly inclined toward the land, lies less than 0.3 mile NNW of the island. Kekur Karaul'nyy, a high pyramid-shaped pillar rock, also conspicuous, lies close off the N end of the island. A sunken rock is reported to lie 0.5 mile E of the island, while a 2.7m patch lies 1 mile N of the island.

Vulcan Vilyuchik (Sopka Vilyuchinskaya) (52°42'N., 158°17'E.), a conspicuous, conical, extinct volcano is an excellent landmark, distinctly visible on a clear day long before the land comes into sight. Sopka Mutnovskaya (Sopka Povorotnaya), about 15 miles farther S, constantly emits steam and smoke from a crater on its N side, which is not visible from seaward.

Petropavlovsk-Kamchatskiy—Port Contact Information

	Harbormaster	Port Operators	Central Port Radio	Commercial Port Controller
Call sign	Petropavlovsk Radio 5	Petropavlovsk Radio 6	Petropavlovsk Radio 1	Petropavlovsk Radio 2
VHF	VHF channel 9	—	VHF channel 16	VHF channel 14
Telephone	78-4152-421326	78-4152-434100	—	—
Facsimile	78-4152-421397	78-4152-434419	—	—
E-mail	mappk@mail.kamchatka.ru	sea@port.kamchatka.ru	—	—

Note.—The Marine Rescue Center can be reached by telephone at 78-4152-412880. Harbor Fleet Control can be contacted via VHF channel 30. The Duty Officer can be contacted via VHF channel 12.

Mys Opasnyy (52°41'N., 158°36'E.), formed by moderately high cliffs, predominantly red, has reefs extending about 0.6 mile seaward from it.

Bukhta Sarannaya, entered N of Mys Opasnyy, has high and cliffy N and S shores. The W shore of the bay is a low sandy beach, except for a high bluff near the middle. Depths in the bay decrease from 37m in the entrance to 11m about 0.5 mile from the W shore, which together with the N shore, is fringed by rocks.

3.23 Bukhta Zhirovaya is entered S of **Mys Otvesnyy** (52°37'N., 158°33'E.), a promontory formed by high precipitous gray cliffs. Mys Otvesnyy is steep-to and clear of dangers. Bukhta Zhirovaya is divided into two arms by a slender rocky spit extending from the W side of the bay in an ESE direction and terminating in Mys Razdel'nyy. The NW arm is Bukhta Vilyuchinskaya and the SW arm is Bukhta Zhirovaya.

Bukhta Vilyuchinskaya is entered between Mys Razdel'nyy and a small promontory about 1.2 miles ENE, which is identified by a group of four pillar rocks located 0.3 mile S of its extremity. The NE shore of the bay is backed by a continuous mountain range over 610m high. The SW shore of the bay is backed by high land, being about 142m high in the vicinity of Mys Razdel'nyy, and rising to about 758m abreast the head of the bay.

Tides—Currents.—The MHW interval in Bukhta Vilyuchinskaya is approximately 4 hours. The spring tides are diurnal with a rise of 1.8m. The neap tides are semi-diurnal, with a noticeable diurnal inequality and rises from 0.6 to 1.2m.

Anchorage.—Bukhta Vilyuchinskaya affords good anchorage to vessels with local knowledge, in depths of 7 to 22m. Depths of 22m, sand, just outside the entrance of the bay decrease sharply to 15m, sand, immediately inside the entrance, then decrease gradually to about 7.3m, sand, near the middle of the bay. Depths increase again to 14.6 to 18m in the inner half of the bay.

3.24 Bukhta Yuzhnaya Zhirovaya is entered between Mys Razdel'nyy and **Mys Krutoy** (52°34'N., 158°31'E.), a rounded cape formed by gray cliffs rising sheerly from the sea and backed by coastal elevations of 610m close inland. The cape is steep-to and clear of dangers.

Anchorage.—Anchorage can be taken, in depths of 14.6 to 16.5m, about 0.8 mile off the low sandy shore at the head of Bukhta Yuzhnaya Zhirovaya, but it is open E.

Bukhta Akhomten (52°26'N., 158°30'E.) is protected by mountains over 610m rising close inland on its N and S sides. The shores are steep-to, and with a few exceptions depths of 10m are found about 0.1 mile offshore. Depths of 22 to 29m, mostly sand, or sand and mud, prevail throughout the greater part of Bukhta Akhomten. The head is marshy and low.

Pilotage.—Vessels must pick up a pilot at Bukhta Akhomten before proceeding through the danger area in the approach to Avachinskaya Guba. A small Coast Guard station is at Bukhta Akhomten.

Anchorage.—Anchorage can be taken, in a depth of 16m, sand, good holding ground, about 0.8 mile from the head of Bukhta Akhomten, sheltered from all but E and NW winds, which cause a heavy swell. In the spring, when NE winds prevail, the bay may be obstructed by ice, but is said to be never closed for more than 3 to 5 days at a time.

Bukhta Tikhirka, immediately N of Bukhta Akhomten, has cliffy N and S shores. The W shore is low sandy beach backed by low land. There are depths of 18.3 to 22m in the entrance, decreasing uniformly toward the head. The depth is about 11m in the middle part.

Winds—Weather.—Frequently in calms, and particularly so with gentle NE winds, Bukhta Tikhirka is filled with a very dense fog.

Anchorage.—Anchorage can be taken by small vessels, in 5 to 7m, sand, from 0.1 to 0.15 mile from the head of the bay. The bay is clear of dangers, but exposed to sea and swell.

3.25 **Mys Piramidnyy** (52°23'N., 158°35'E.) is a precipitous cape identified by a conspicuous pyramid-shaped rock lying close to the shore. Close seaward of this rock is a small sharp-pointed rock surrounded by some scattered rocks. Mys Povorotnyy, about 3.5 miles farther S, is prominent from the S, rising to a height of 870m.

Mys Polosatyy lies about 4 miles farther SSW and is very high, and composed of brown cliffs marked with white oblique stripes. The E side of the point is steep-to.

From Mys Polosatyy to Bukhta Mutnaya, 4.5 miles SW, the color of the bluffs is chiefly gray, with occasional brown and red patches. The shores of Bukhta Berezovaya, which indents this part of the coast, consist of sand and gravel. Between Bukhta Mutnaya and Mys Asacha, 4 miles SSW, the coast is rocky and rises to elevations over 600m.

Kamen' Sivuchiy (52°11'N., 158°26'E.) is a barren, rocky islet, about 24m high, lying close offshore.

The S shore of Bukhta Mutnaya is bluff and slopes down to the mouth of Reka Mutnaya, which flows through a broad, low valley into the head of the bay. The coast rises sharply N of the mouth of the river.

3.26 **Mys Asacha** (52°08'N., 158°23'E.) lies 8.5 miles SSW of Mys Polosatyy. Mys Asacha is high and rocky, with reddish-brown cliffs. A reef extends 0.8 mile SSE from it.

Bukhta Asacha is entered between Mys Asacha and Mys Siamo (Mys Kruglyy), about 4 miles SSW. Mys Asacha, high, rocky, and composed of reddish-brown cliffs, has a reef extending 0.7 mile SSE from it. Shelter from strong NE winds can be obtained for small vessels, with local knowledge, off the N side of the bay, in a depth of 13m, with Mys Asacha bearing 085°.

Mys Siamo is fringed by above and below-water rocks, and a reef extends about 1 mile E of the point. A pillar rock, 14m high, lies on this reef about 0.6 mile offshore. A light is shown from Mys Siama.

The NE and SW shores of Bukhta Asacha are cliffy, but the NW shore is a sandy beach backed by gentle slopes of hillocks covered with trees and bushes. The depths decrease very gradually toward the head of the bay and are about 14.6m at a distance of 1 mile off the NW shore of the bay. A detached drying rock, ordinarily marked by breakers, lies about 0.8 mile E of the mouth of Reka Asacha, which discharges into the head of the bay. This bay affords in its N recess some shelter from NE winds.

Mys Piratkov (51°58'N., 158°17'E.) is a roundish cape formed by precipitous high cliffs with numerous brooks flow-

ing through its steep, narrow fissures. The vertical cliffs are bare, but on those that slope there is a low growth of vegetation. A detached rock, which dries, lies about 0.8 mile NE of the cape.

Sopka Khodutka (52°02'N., 157°43'E.), a cone-shaped volcano 23 miles W of Mys Siama, is very conspicuous from seaward.

3.27 Mys Krestovvy (51°49'N., 158°06'E.), 12 miles SW of Mys Piratkov, terminates in a sharp hill which, being partly red and partly white, is prominent and a good landmark.

Bukhta Khodutka is an open roadstead lying between Mys Krestovvy and Mys Kuzachin, about 6.5 miles SW. The greater part of its shore consists of low, sandy beach. The mouth of Reka Bol'shaya Khodhutka is at the N end of the beach. An area marked by breakers has been observed about 1.5 miles ESE of the mouth of the river.

Mys Kuzachin (51°43'N., 158°00'E.), 7 miles SW of Mys Krestovyy, is 306m high and rises to a tableland. It is marked by a small valley with a sandy beach nearby. About 1.5 miles SSW of the cape and close offshore lies a pinnacle rock, 27m high.

Mys Khodzhelayka (51°38'N., 157°55'E.), 6.5 miles SW of Mys Kuzachin, has a reef extending about 0.8 mile S from it.

Mys Zheltyy (51°33'N., 157°46'E.), located 7 miles SW of Mys Khodzhelayka, is so named because of the yellow color of its bluffs, which rise to a height of 207m. A detached reef, which uncovers 2m, lies about 0.8 mile SSE of the cape. Foul ground and drying rocks extend about 0.6 mile S of the point located 1 mile WSW of Mys Zheltyy.

Ostrov Utashud, about 4 miles SW of Mys Zheltyy, consists of three pointed rocky elevations, with the SW elevation being 214m high. The island forms an excellent landmark, the dark color of the rocks and bluffs on its seaward side standing out against the background of the coast. The island has the appearance of three islets from a distance. A submerged reef, identified by thickly-growing kelp, extends about 0.5 mile NW from the N extremity of the island.

3.28 Bukhta Vestnik (51°26'N., 157°36'E.) is a wide and exposed roadstead between Mys Zheltyy and Mys Inkanyush, about 16 miles SW. The entire shore of this roadstead, except for a short distance near its S end, is a long continuous sandy beach backed by low land. The shore is clear of dangers and comparatively steep-to.

Tides—Currents.—The MHW interval in Bukhta Vestnik is 3 hours 19 minutes. The spring rise is about 1.5m and the neap rise is about 1.2m.

Aspect.—Sopka Zheltovskaya (51°34'N., 157°19'E.) is a very conspicuous volcano in clear weather, and can be identified by its summit consisting of three peaks. It lies about 17 miles W of Mys Zheltyy.

Sopka Il'inskaya, a conspicuous volcano about 7 miles SW of Sopka Zheltovskaya, is a well-shaped cone, marked by a broken crater at its summit.

Anchorage.—Vessels can anchor 0.2 to 0.3 mile off the W shore of Ostrov Utashud, in a depth of about 13m, with shelter from the SSE through E to NE. The reef extending from the N end of the island renders effective protection from a NE swell.

Bukhta Vestnik, in the area NE of Ostrov Utashud, offers no protection from E or S winds and NE winds cause a swell, but with winds from between the N and W it is a quiet anchorage. There are general depths of 13 to 25m in this area, shoaling gradually shoreward.

Anchorage can be taken with local knowledge, in 15m, sand, about 0.7 mile WSW of the point which lies about 1 mile WSW of Mys Zheltyy.

Caution.—Foul ground extends up to 0.4 mile off the shore NW of the above-mentioned point. A dangerous wreck lies less than 3 miles WSW of Mys Zheltyy.

3.29 Sopka Kambal'naya (51°18'N., 156°53'E.), the southernmost of the volcanoes of Kamchatka, lies 22 miles WSW of Mys Inkanyush. It has a steep slope near the summit and a gentle slope nearer its foot. On a clear day this volcano makes a good landmark from seaward. Sopka Shirokaya, another volcano, rises about 6 miles WNW of Sopka Kambal' naya.

Kamen' Gavryushkin (51°14'N., 157°18'E.), 9.5 miles SW of Mys Inkanyush, is a conspicuous dark rock, 15m high. Its dark color in contrast to the lighter shades of the coast, and a deep fissure in the rock visible from seaward make it an excellent landmark. An above-water rock and several submerged rocks lie midway between Kamen' Gavryushkin and the coast.

Mys Trekhpolosnyy, about 3.5 miles SW of Kamen' Gavryushkin, is composed of brown, rocky bluffs marked with three oblique white stripes. A dangerous shoal, about 2 miles in length, lies about 2 miles ESE of Mys Trekhpolosnyy.

3.30 Mys Tri Sestry (51°07'N., 157°03'E.), 8.5 miles SW of Mys Trekhpolosnyy, is the SE extremity of a rather precipitous headland. Kamni Tri Sestry, close off Mys Tri Sestry, consists of a group of three rocks, one of which dries, and over two of which the sea breaks. Bukhta Tri Sestry, a sandy cove entered between two cliffy points immediately W of Kamni Tri Sestry, can be identified by two bare patches in the form of a "W."

The coast from Mys Tri Sestry to a small brown rocky islet 7 miles SW consists of yellowish-gray moderately-high cliffs, which alternate in places with short stretches of sandy beaches, where rivulets discharge into the sea. The brown rocky islet stands out against the grayish-brown color of the coast, and is a good landmark when approaching the coast in thick weather, as are two rocky islets about 4.5 miles farther SW.

Mys Lopatka (50°52'N., 156°40'E.), the S point of Kamchatka, is the extremity of a tongue of sand hills, 46 to 61m high, and about 10 miles long. A narrow sand and shingle beach fringes the cape. Reefs, covered with seaweed, extend 0.5 mile S and 1 mile E of the cape. The cape should be passed at least 2 miles S, at which distance a vessel will be clear of the seaweed. A light is shown from the point.

Rif Lopatka, with depths of less than 11m and a least depth of 1.8m, extends 9 miles NW from a position 1.5 miles W of Mys Lopatka.

Pervyy Kuril'skiy Proliv (Kuril Strait)

3.31 Pervyy Kuril'skiy Proliv (50°50'N., 156°35'E.) separates Mys Lopatka, the S extremity of Kamchatka from Ostrov Shumshu, the NE island of the Kuril Islands. The strait, known

to the Japanese as Shimushu Kaikyo, has a width in its narrowest part of about 6 miles. The navigable channel, about 3 miles wide between the 10m curves, extends in a NNW-SSE direction between Rif Lopatka and Ostrov Shumshu.

Winds—Weather.—The strait is reported to be often partly or completely foggy.

Ice.—The strait is open to navigation throughout the year. Drift ice may be encountered from January to May, particularly in March and April.

Tides—Currents.—In Pervyy Kuril'skiy Proliv the flood current sets NNW and the ebb in an opposite direction. A velocity of 4 knots may be experienced at neaps. Tide rips occur all over the strait, particularly off the points and along the reefs, and patches of broken water are frequently caused by the action of winds and currents.

Caution.—Navigation of Pervyy Kuril'skiy Proliv presents no difficulties, day or night, in clear weather. In case of poor visibility, which is frequent, vessels should use caution and sound continuously.

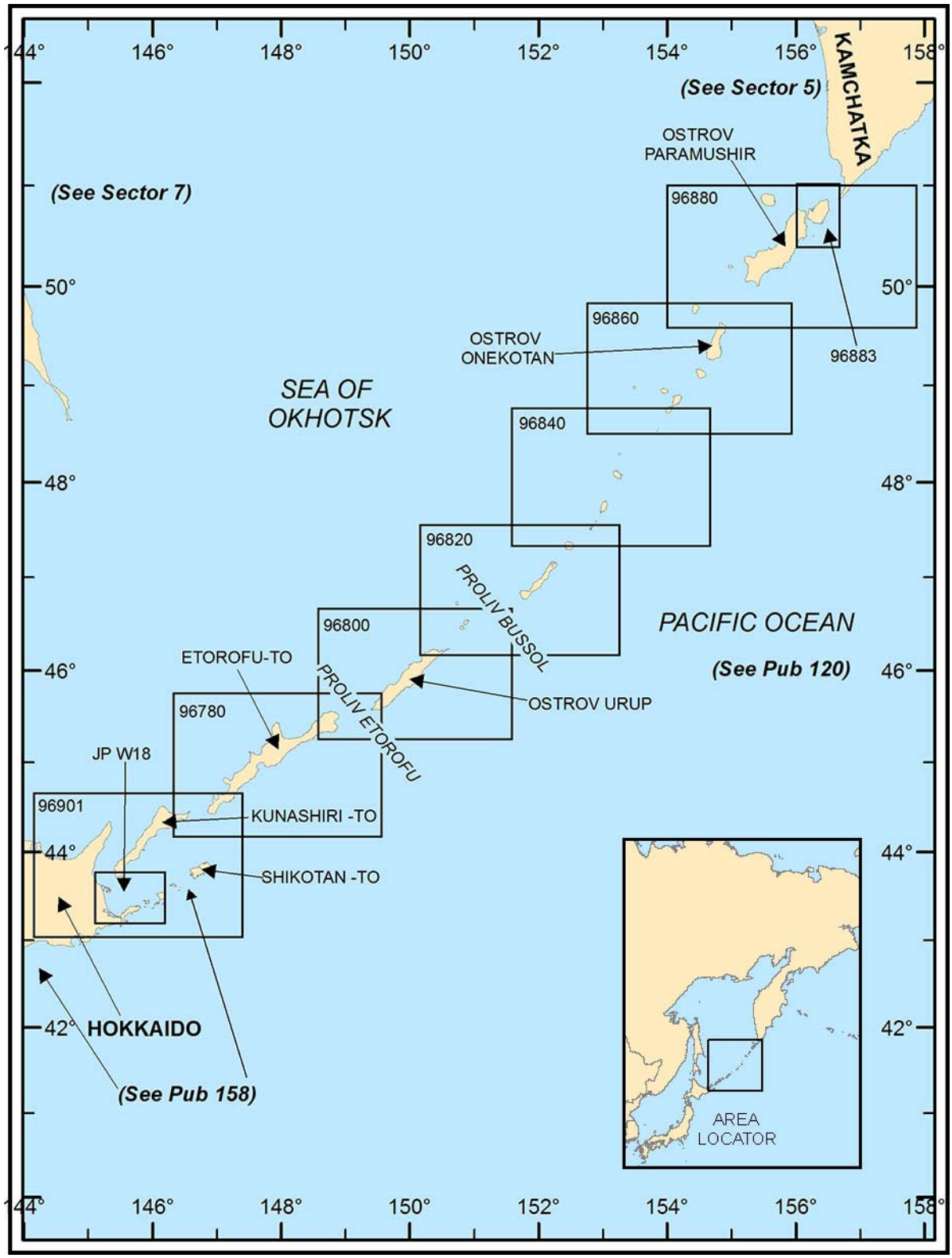
Approaching from the E, a slight drift S should be expected. The coast should be approached cautiously until the vessel's position has been determined, then Mys Lopatka should be rounded at a distance of about 2 miles. The fog is usually less dense in the vicinity of the cape. With poor visibility, the brown rocky islet 12 miles NE of the cape stands out against the grayish-brown color of the coast and is a good landmark, as are the two rocky islets about 4.5 miles SW of the islet.

Approaching from the W, in thick weather, a vessel's position should be accurately determined. If the land cannot be identified, the NW coast of Ostrov Shumshu should be approached, off which anchorage can be obtained.

The recommended course through the strait is NNW at a distance of 3.5 miles off Mys Lopatka.

The channel between Rif Lopatka and Mys Lopatka should not be attempted.

The recommended route through the Kuril Islands is via Chetvertyy Kuril'skiy Proliv (Onekotan Kaikyo), which is described in paragraph 4.15.



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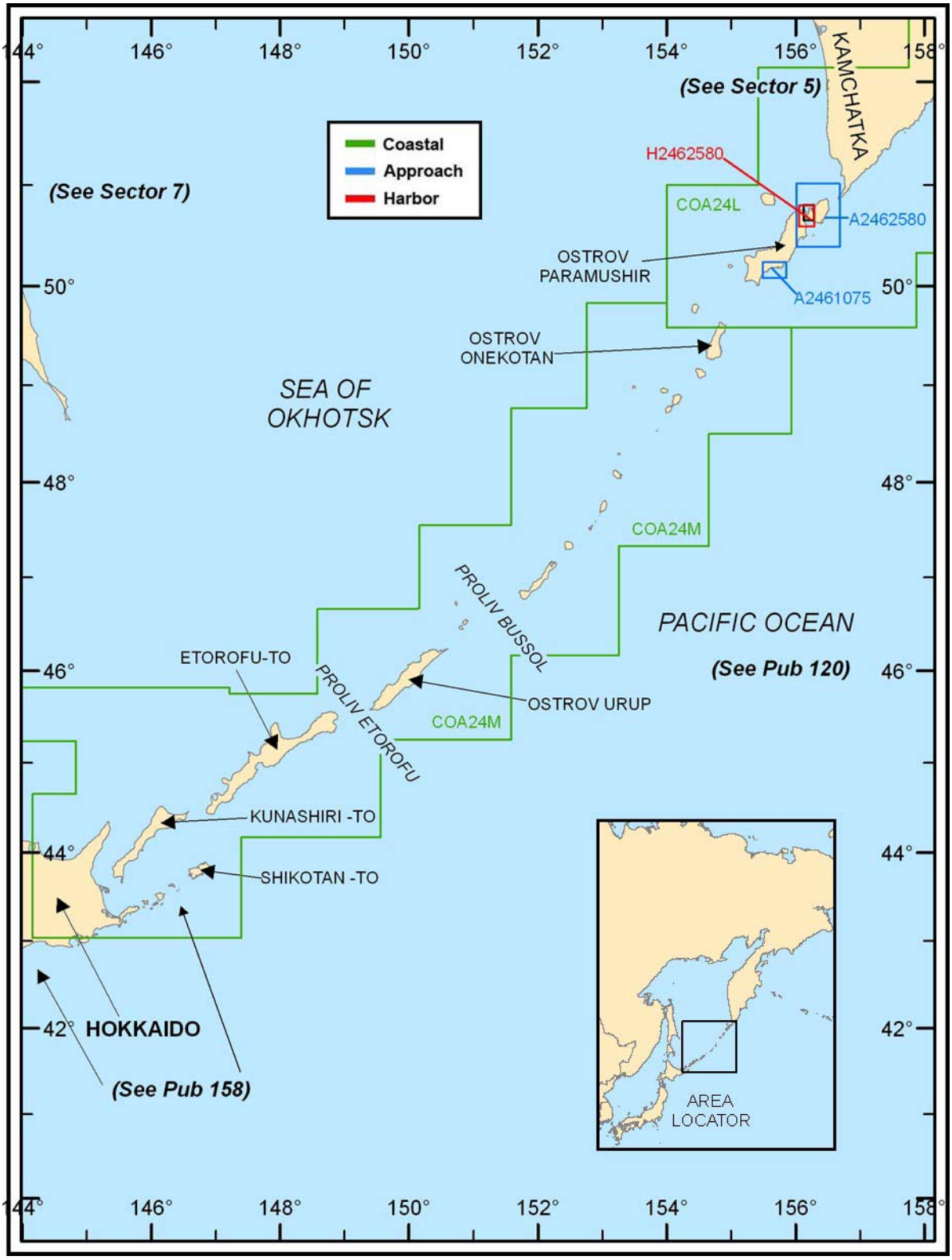
SECTOR **4** — CHART INFORMATION



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SECTOR 4

THE KURIL ISLANDS

Plan.—This sector describes the islands and straits of the Kuril Islands. The arrangement of the sector is from NE to SW.

General Remarks

4.1 Winds—Weather.—At Ostrov Onekotan, NW winds last from September to May or June. In July and August, much lighter SE winds are prevalent, with the probability of fog.

The mountains of Ostrov Onekotan act as a barrier, and with SW winds there may be a dense fog along the Pacific coast, while the opposite coast is clear. For similar reasons, vessels usually keep to the NW of the islands when navigating in the vicinity of the NE Kuril Islands in summer. Near Ostrov Shumshu strong NW or SE winds are frequent in autumn and winter.

At Reyd Tyatinskiy, from November to March, the period of NW winds, the weather is mostly part fair. Between March and June the predominant winds are E, and in summer they are SE with frequent haze or fog.

The Kuril Islands are subject to the two monsoon seasons. The winter monsoon generally brings NW or W winds, especially predominant from November to February. The summer monsoon produces SE or E winds from June to September. In all seasons, the winds are variable, strong winds being more frequent in winter than in summer.

Navigation in the vicinity of the Kuril Islands is generally made dangerous by prevailing thick weather, principally resulting from fog and snow and by the proximity of ice. Winter gales are also frequent. The fogs, occurring mostly in summer, may be dense and moist, amounting almost to rain, with accompanying cloudy skies, or there may be banks of fog extending to heights less than 24m with a cloudless sky above. The dry fogs usually extend to a considerable height and in calm weather may lift about 24 to 30m above the sea, leaving it perfectly clear below. When the islands are enveloped in fog, the higher summits may often be seen when the lower land is completely obscured.

In depths of less than 28m, the presence of thick kelp, which grows in masses throughout the islands, may indicate the presence of land. Within 3 miles to the leeward of the islands, sulfur fumes may be detected.

Fog is less frequent on the leeward side of the islands. Warning signals are sometimes made by horn or bell from the shores near the anchorages. The horns have been audible at a distance of about 1.5 miles.

Fog is relatively thick and frequent NE of Ostrov Simushir, as compared to the area SW. The thick fogs accompany E winds after the latter part of May, becoming almost continuous during the SE winds of July and August. Their number greatly diminishes with the beginning of NW winds in September. After winds and rain, when the weather is changing, the occurrence of fog frequently decreases for a few days.

Ice.—Drift ice in the Sea of Okhotsk usually approaches the Kuril Islands with winds between the N and W, or NE and NW, and leaves with winds between the S and SW, or S and SE. This condition is more or less reversed on the Pacific Ocean coasts of the chain, where the drift ice arrives with winds between the E and S and is carried away by those from the NW to SW. It is reported that field ice in the Sea of Okhotsk, the E extremity of which has been described as sludge and broken ice, may be encountered approximately 50 to 60 miles W of the Kuril Islands during the months of January, February, March, and April.

The drift ice is generally most prevalent on the NW side and in the SW part of the Kuril Islands. There is comparatively little between Ostrov Urup and Kamchatka, in which area Pervyy Kuril'skiy Proliv and Chetvertyy Kuril'skiy Proliv are reported to be free of ice during the entire winter. The N ocean current of the E Sea of Okhotsk, running in a counterclockwise direction along the NW coasts of the islands, may drive ice from this NE region. There is also less fast ice in the NE part of the chain. Some ice is rafted and piled along the W coast of that area, but except for Ostrov Shumshu and Ostrov Paramushir, it is formed principally by small floes scattered in places.

At Shibetoro Misaki, on the NW side of Ostrov Iturup (Etorofu To), drift ice may be set onto the coast by winds from between the N and W in late January, gradually forming fast ice which may extend miles offshore. In the vicinity of Shana, on the same coast, with NW or W winds, fast ice forming in mid-January may fill the bays by the end of that month, and floes brought by wind and current from the N and NW parts of the Sea of Okhotsk have been reported to arrive after the early part of February. This latter ice, which is cleared off by the middle of May, occasionally may occupy the coasts and straits over a considerable area, including Ostrov Kunashir (Kunashiri Shima), Ostrov Iturup (Etorofu To), and Shikotan To. The floes, 4 to 9m thick, with much of their bulk consisting of snow, pass through the various straits and melt in the Pacific Ocean.

Drift ice arriving in the Kuril Islands area during April and May appears to be liberated from the fast ice on the E coast of Sakhalin Island N of 50°N, thaws by March, and is later carried S by wind and current toward the N coasts of Hokkaido. The floes are then carried NE by the current flowing along the NW side of the Kuril Islands and continue to the coasts of Ostrov Iturup, Ostrov Urup, and Ostrov Simushir. Part of this ice passes through Proliv Yekateriny (Kunashiri Suido), Proliv Friza (Etorofu Kaikyo), and Proliv Urup, reaching the SE side of the chain, after which it is carried away by the S drift of the Oyashio. It is not encountered after the middle of May.

It is reported that generally field ice does not create hazards to navigation in the Kuril Islands, but that during and after January, vessels should exercise caution because of drift ice. In winter, with the exception of certain areas and times, the islands are not considered to be icebound for navigational purposes. Ice-free anchorages have been reported throughout the chain. Data regarding these and other descriptions of ice in local areas are given in this sector.

Tides—Currents.—The Kuril Islands are influenced in summer by an extension of the warm Tsushima Current, a

branch of the Kuroshio Current, which flows E through La Perouse Strait. This current, after leaving the strait, continues along the N coast of Hokkaido to Shiretoko Misaki, and then divides into two branches, one setting N into the Sea of Okhotsk, apparently reaching the middle islands of the Kuril Islands, and the other entering Nemuro Strait and Proliv Yekateriny (Kunashiri Suido). In winter, the Tsushima Current is almost obliterated in La Perouse Strait.

The cold Oyashio Ocean Current flows S along the SE coast of Kamchatka and the E side of the Kuril Islands. At the middle part of the islands it appears to join a current setting from the Sea of Okhotsk, and continues S to an area off the S coast of Hokkaido. Its general velocity in summer appears to be less than 1 knot. Information regarding the flow of the Oyashio in winter is lacking.

Except near spring and autumn syzgies, when the moon is at full or new phase, there is a large diurnal inequality along the coasts of the Kuril Islands, and diurnal tides are frequent. In areas other than the Sea of Okhotsk region S of Ostrov Simushir, the greatest inequality in the time of tide occurs generally at HW, and the greatest difference in height occurs at LW. Near summer and winter syzygies, the difference in height may attain 1.5m in the S part of the islands, and about 1.9m in the N part. During the same period, in the Sea of Okhotsk region S of Ostrov Simushir, it may attain a difference in height of about 1.3m, and there is a marked inequality in the time and height of both HW and LW.

In areas other than those around the channels between the islands, the tidal currents in the vicinity of the Kuril Islands are not strong, but in accordance with the tides, there is considerable diurnal inequality. The flow of water is also complicated by the ocean currents which set NE along the NW side of the islands and SW along the SE side. In the narrow channels the velocity is great.

On the SE side of the islands the flood tidal current is SW and the ebb is NE. The flow on the NW side follows the same directions, with some local differences. On both sides, when diurnal inequality is great, the direction may change twice in 24 hours.

The Kuril Islands (Kuril'skiye Ostrova), formerly called Chishima Retto, extend about 630 miles in a SW direction between the S extremity of Kamchatka and the E coast of Hokkaido. The larger islands are generally high, steep, and volcanic, with rugged coasts and occasional defined cones.

The main islands, named from NE to SW, are Ostrov Paramushir (Paramushiru To), Ostrov Simushir (Shimushiro To), Ostrov Urup (Uruppu To), Ostrov Iturup (Etorofu To), and Ostrov Kunashir (Kunashiri Shima). Pervyy Kuril'skiy Proliv (Kuril Strait) is described in paragraph 3.31.

Caution.—Vessels are forbidden from making unnecessary visits to any of the Kuril Islands between **Proliv Yekateriny** (44°27'N., 146°45'E.) and **Chetvertyy Kuril'skiye Proliv** (49°45'N., 155°10'E.). This area has been reserved and government fox farms are situated on the islands.

Regulations for the Protection and Husbandry of Sea Mammals prohibit the entry of vessels into the waters close to the coasts described in this sector without the permission of the Fisheries Board, except when in a traffic separation scheme, designated fairway, or recommended route.

Vessels transiting the area are not allowed to make sound signals (except as required by COLREGS 1972), fire guns, fly airplanes or helicopters below 4,000m, fish, or collect seaweed and other marine products.

Ostrov Shumshu

4.2 Ostrov Shumshu (Shimushu To), the NE and the only low island of the Kuril Islands, consists of plateaus rising in steps, and there are no mountains.

Mys Kurbatova (Kokutan Saki) (50°52'N., 156°29'E.), the NE extremity of Ostrov Shumshu, consists of low sandy hills fringed with rocky ledges. A reef, on which is a rock, 3m high, extends about 0.3 mile E of the cape. A rock, awash, lies 0.3 mile NW of the cape. A light is shown on Mys Kurbatova.

The E coast of Ostrov Shumshu is a succession of steep cliffs, rocky points, and sandy beaches. **Mys Yaugich** (50°46'N., 156°31'E.), the E point of the island, lying 6.5 miles S of Mys Kurbatova, is a flat rocky projection bordered about 1 mile ESE by a reef, upon which the sea breaks heavily, and marked by tide rips. Rif Vostochnyy, with a depth of 5.2m and always marked by tide rips, lies about 2.5 miles NE of Mys Yaugich.

Bukhta Babushkina, the only bay on the E side of Ostrov Shumshu, lies on the N side of Mys Babushkina.

The S half of the bay is full of rocks which extend up to 0.9 mile offshore, but the N half is sandy and has depths in it of 6 to 9m. In summer and autumn, a heavy seas usually runs into the bay and it is not a safe anchorage.

Mys Babushkina, the SE point of the island, is cliffy and can be easily recognized by the brown color of its S side and by a black pointed rock about 0.2 mile E of its extremity.

Anchorage.—In summer, when S winds are prevalent, temporary anchorage can be taken anywhere off the NW coast of the island.

Caution.—Abnormal magnetic variations have been observed in the vicinity of Ostrov Shumshu.

Proliv Vtoroy Kuril'skiy (Paramushiru Kaikyo)

4.3 Proliv Vtoroy Kuril'skiy leads between Ostrov Shumshu and Ostrov Paramushir (Paramushiru To). The least navigable width is about 0.4 mile, and the strait is seldom used by large vessels due to the eddies caused by the irregularities in the depths. The S part of the fairway passes through a small area with depths of 8.2 to 18.3m, and in places throughout the strait the shore banks with depths less than 18.3m lie close to mid-channel on either side.

Winds—Weather.—Fog occurs from June to September, with the highest frequency during July. The weather is usually quite unfavorable, though changeable. There is scarcely any summer.

Ice.—Drift ice from the Sea of Okhotsk interferes with navigation during the winter months. This is especially so when the winds are from the W through N to NE. In severe winters, Proliv Vtoroy Kuril'skiy may be completely blocked by ice. The ice begins to arrive during late December in the average year. Ice is not encountered after the middle of May.

Tides—Currents.—In the strait, the flood tidal current is N and the ebb is S. When the diurnal inequality is small, the change occurs about 1 hour 30 minutes after HW or LW at Na-

Proliv Vtoroy Kuril'skiy and Proliv Alaid

kagawa Wan. When the inequality is large there may be a diurnal tide, with the S current flowing from about 7 hours before until about 2 hours after LLW at Nakagawa Wan, the N current flowing during the remaining 15 hours.

In the narrows of the strait the velocity may exceed 5 knots, but at neaps in summer, the velocity in this area is only about 3 knots. At springs in summer, the N current may attain a velocity of about 1.5 knots in the S entrance, and about 2.5 knots in the N entrance.

Caution.—Magnetic variation has been reported in the vicinity of the strait.

Several submarine cables lie in the strait and in the approaches and may best been seen on the chart.

4.4 The S approach to Proliv Vtoroy Kuril'skiy lies between **Mys Levashova** (Arahata Saki) (50°30'N., 156°10'E.) and Mys Babushkina, 12 miles NE. In the approach, two groups of dangers lie S and SE, respectively, of Ostrov Shumshu.

Ostrov Bazarnyy (Kotani Shima), 23m high and the largest island in the S group of dangers, lies about 4.5 miles E of Mys Levashova. Togari Shima (Ostrov Bakliny), lying 0.8 mile SW, is 46m high and can be easily distinguished. Banka Kazach'ya (Kiyosue Ne), with a depth of about 1.2m, and sometimes marked by seaweed, lies 1.8 miles S of Togari Shima. An 11m rocky patch lies 2 miles farther SW.

Ostrov Baklinin (Chiri Shima), two rocks, lie 0.5 mile ESE of Ostrov Bazarnyy and appear as one islet from a distance. Amatani Ne, a 7.8m shoal marked by breakers, lies about 0.8 mile ENE of Ostrov Baklinin.

None of the islets should be approached within 1 mile.

The SE group of dangers consists of Skala Vladimira (Shiro Iwa), a small rock about 6m high, part of which appears white, but which is not easily identified; Mel' Koksher (Tanaka Ne), a steep-to rock, with a depth of 4.1m, about 1.5 miles NNE of Skala Vladimira; and Rif Nezametnyy, a rock having a depth of 3.6m, lies about 2 miles farther NE.

Gora Vysokaya (Mitsuka Yama) (50°41'N., 156°17'E.) is the highest hill on Ostrov Shumshu and from a distance resembles a castle.

The S shore of Ostrov Shumshu is bold and cliffy, and should not be approached within a distance of 1 mile.

The N approach to Proliv Vtoroy Kuril'skiy has no off-lying dangers. **Mys Chibuynyy** (Imai Saki) (50°46'N., 156°12'E.), the E point of the N entrance, is a vertical cliff and shows up well from the N. Hirata Ne, a 5.9m shoal, lies about 1.8 miles NE of Mys Chibuynyy. Gora Ploshchadka (Matsumura Yama), about 0.7 mile SSE of Mys Chibuynyy, is somewhat conspicuous. A light is shown from Mys Chibuynyy.

Caution.—Non-Russian vessels are required to approach Proliv Vtoroy Kuril'skiy in designated fairways which may best been seen on the chart.

4.5 East side of Proliv Vtoroy Kuril'skiy.—Mys Derbeshova (Fujita Saki) (50°41'N., 156°11'E.) is a dark rocky point. Sotono Se, a 3.7m shoal, lies about 0.8 mile SSW of the point, and Skala D'yak, a prominent rock which dries 2m, lies on the edge of a reef fringing the shore 0.7 mile NW of Mys Derbeshova.

Zaliv Kozyrevskogo (Kataoka Wan) (50°43'N., 156°11'E.), 1.5 miles N of Mys Kozyrevskogo, is a dark rocky point. Sotono Se is a cove with Baykovo (Kataoka), a small naval base and supply port for Ostrov Shumshu, at its head. A mole at Baykova has an alongside depth of 3.6m.

Anchorage.—Anchorage can be had about 0.4 mile WSW of Wakabayashi Saki, the N entrance point of the cove, in 11m, sand and shingle, but the tidal currents are rather strong, and usually vessels will not ride head to wind during gales. Holding ground is reported to be poor.

4.6 West side of Proliv Vtoroy Kuril'skiy.—Mys Ozernyy (Miyagawa Saki) (50°36'N., 156°10'E.), 6 miles N of Mys Levashova, is low, stony, and backed by low hills covered with scrub. A black cliff, about 1 mile NNW of the point, is conspicuous from the S, even in winter when the land is covered with snow.

Zaliv Severo-Kuril'skiy (Kashiwabara Wan) (50°41'N., 156°08'E.), entered between Mys Opornyy (Ishikawa Saki) and Mys Voranova (Nagare Saki), 1.5 miles further N, offers anchorage in moderate depths about 0.5 mile offshore, close within the 20m curve. The holding ground of black sand is fairly good. The bight offers some shelter, but when W squalls from the mountains oppose the strength of the tidal current, a vessel may ride uneasily. There is some danger of dragging during strong winds.

Mys Voranova is the SE extremity of a prominent tableland. The point is cliffy, but the cliffs are not remarkable.

Severo-Kuril'skiy (50°41'N., 156°08'E.), located on the NE side of Ostrov Paramushir, is the only port of any size in Kuril'skiye Ostrova and faces Proliv Vtoroy Kuril'skiy. Severo-Kuril'skiy is home to a local fishing fleet with cargo handling for deeper draft vessels being carried out in the roadstead off the port.

Winds—Weather.—Gale force winds can occur in Proliv Vtoroy Kuril'skiy when it is calm W of the N extremity of Ostrov Paramushir. Winds in the strait can also be calm or from a

completely different direction when there are W gales experienced N of Ostrov Paramushir. During winds from the NW, swells will enter the harbor, causing severe problems for any vessels moored alongside.

Ice.—Ice begins forming in Proliv Vtoroy Kuril'skiy by December and in severe winters the strait will become completely blocked with ice. Drift ice will be present by the first of January but in milder winters not until February, then all ice is gone by the middle May into June.

Tides—Currents.—Tidal currents in Proliv Vtoroy Kuril'skiy usually flow N during flood tide and S during ebb tide. Tidal currents in the narrowest part of Proliv Vtoroy Kuril'skiy may exceed 5 knots and the rate of the S current will usually be stronger than the current flowing N. Spring tides during the summer and winter will reach a rate of 1.5 knots at the S end of the strait and 2.5 knots at the N end of the strait.

Depths—Limitations.—The port is approached from Proliv Vtoroy Kuril'skiy and entered close NW of Mys Opornyy (50°41'N., 156°09'E.). Three jetties are contained within a single basin, with four berths on the on the inner side of the E jetty. The lengths of the alongside berths are, as follows:

1. Berth No. 1—214m.
2. Berth No. 2—113m.
3. Berth No. 3—112m.
4. Berth No. 4—107m.

Cargo handling for vessels with drafts of 3 to 5m or greater is carried out in the outer roads off the harbor using barges and scows.

Pilotage.—Pilotage is compulsory for all vessels over 200 dwt. All vessels more than 60m long or with drafts of 3 to 5m or greater can enter the harbor only after consultation with the harbor authorities and the pilot service.

Pilots will board in position 50°41'16"N, 156°08'16"E.

Vessels should send their ETA to their agents 12 days, 4 days, and 3 days in advance of their expected arrival and then reconfirm their ETA 12 hours in advance.

Anchorage.—Anchorage can be taken within the harbor but vessels must wait to have anchorage positions assigned by the authorities.

Caution.—Russian Regulated Area No. 161B is located in the N part of the harbor. See Pub. 120, Sailing Directions (Planning Guide) Pacific Ocean and Southeast Asia for details on this and other Russian Regulated Areas that exist in Proliv Vtoroy Kuril'skiy.

The ruins of several piers lie along the SW coast of the harbor close W of the basin with the four jetties.

Zaliv Artyushima (Murakami Wan) (50°44'N., 156°09'E.) is shallow and the holding ground of sand over rock is not good. Heavy tide rips usually occur over the uneven bottom fronting this bight.

Ostrov Atlasova (Araito To)

4.7 Ostrov Atlasova (50°52'N., 155°33'E.) is separated from Ostrov Paramushir by Proliv Alaid (Araito Kaikyo), an unencumbered strait about 12 miles wide at its narrowest part. The N coast of the island is low, with sandy beaches in places; most of the S coast is cliffy.

Gora Alaid (Oyakoba Yama), a very prominent, conical volcano, in the center of the island, has two summits, the NE summit being somewhat smaller than the SW summit. It is always capped with snow.

Poluostrov Vladimira (Taketomi Shima), a small volcanic islet, 133m high, on the E side of the island, is joined to the coast W by a sandy spit. A light is shown from Poluostrov Vladimira.

Tides—Currents.—Both flood and tidal currents set round the coast of Ostrov Atlasova in a clockwise direction. Velocities of 0.7 to 1.3 knots have been observed.

Caution.—Magnetic variation has been observed in the vicinity of Ostrov Atlasova.

Ostrov Paramushir

4.8 Ostrov Paramushir, the largest island in the N part of the Kuril Islands, has a string of mountain ranges surmounted by conspicuous peaks. The coasts of the island are largely cliffy and rock-strewn. Foul bottom extends about 2 miles off the SE side in places. Off the NW side, which is especially bold and rugged, there are no dangers at a distance greater than 1 mile.

Winds—Weather.—Ostrov Paramushir has strong W winds from the end of October through April. In July and August, E winds are most prevalent, but in Bukhta Shelikhova, on the NW coast, there is the likelihood of ESE winds between April and July, and of NW winds in August and September.

Caution.—In summer, large fishing nets, buoyed and marked, but sometimes unlighted at night, may be encountered extending as far as 4 miles offshore, in the vicinity of Ostrov Paramushir and Ostrov Shumshu. Motor drifters, with nets as much as 3 miles in length, may be encountered farther offshore.

Abnormal magnetic variation has been observed in the vicinity of the island.

The Russian authorities have stated that navigation is prohibited within the coastal waters along the S and W coasts of Ostrov Paramushir between Mys Ozernyy and **Mys Neproydennyy** (50°17'N., 155°12'E.).

4.9 Southeast side of Ostrov Paramushir.—Mys Rifovyy (Tomari Saki) (50°29'N., 156°08'E.) is a gravelly point lying 2 miles SW of Mys Levashova. Rif Izmony (Tomari Se), a rock with a depth of less than 1.8m, lies about 1 mile SE of the point. Ostrov Chaykina (Kamone Shima), about 1.5 miles SW of Mys Rifovyy, is a group of rocky islets. The NE and highest islet is 15m high. The islets should not be approached too closely as there are sunken rocks in the area.

Mys Uglevoy (Mamiya Saki) (50°24'N., 156°01'E.), 6.5 miles SW of Mys Rifovyy, is fronted by foul ground extending about 0.5 mile E. Several above-water rocks lie on this foul ground, the E being Skala Opasnaya (Matsutake Iwa), shaped like a mushroom and conspicuous from the S. Ostrov Chernyy (Hira Iwa), a black rock, lies about 0.6 miles offshore, and 2.2 miles N of Mys Uglevoy.

Zaliv Puyshariya (Asahi Wan), between Mys Rifovyy and Mys Uglevoy, affords anchorage with some shelter from SE swells in 18m, about 0.8 mile W of Ostrov Chaykina. The bay is not safe during S or E winds. A rock, formerly Mukai Ne, with a depth of 5.5m, and marked by breakers, lies 1.2 miles offshore, about 1.5 miles SSE of Mys Uglevoy.

Bukhta Rifovaya, a small bay on the W side of Mys Rifovyy, affords temporary anchorage sheltered from all winds except those from between the S and W, to small vessels. Local knowledge is required and care is necessary to avoid a rock, with a depth of 1.8m, lying 0.4 mile offshore, 0.6 mile W of Mys Rifovyy.

A recommended berth is situated in a depth of 16m, sand, 0.5 mile E of the NE islet of Rif Izmony, having regard to the dangers (Tomari Se) lying 0.4 mile NE of this berth. The berth is not suitable with a wind or swell from the S.

Landing is possible only at HW, in Bukhta Rifovaya, which has a beach of shingle fringed with rocks on which the sea breaks.

4.10 Mys Kokina (Tatsukami Saki) (50°11'N., 155°48'E.), about 16 miles SW of Mys Uglevoy, is a narrow prominent tongue of land, 26m high, fringed with a rocky ledge covered with seaweed and marked by breakers. Ostrov Bazarnyy, a long, flat, detached rock, lies about 1.8 miles E of the point. Foul ground extends 1.3 miles off the coast between Mys Kokina and Maru Hana, about 1.7 miles WSW.

Tides—Currents.—The tidal currents appear to meet in the vicinity of Mys Kokina. The flood tidal current NE of the point sets to the N or E, and the ebb in an opposite direction, the maximum velocity being around 1 knot. The flood tidal current SW of the point sets SW and the ebb NE.

Bukhta Okeanskaya (Suribachi Wan) (50°11'N., 155°44'E.), a small fishing harbor, has a rocky bottom and its entrance is encumbered by ledges and thick growths of kelp. Some fishing and canning stations, with prominent chimneys and two radio masts, are situated on the E shore of the bay.

Yaokuri Saki (50°11'N., 155°39'E.), prominent and cliffy, is backed by a hill with a red summit. A reef, parts of which uncover and is always marked by breakers, extends about 0.8 mile SSW of the point.

Zaliv Tukharka (Otomae Wan), close W of Yaokuri Saki, affords protection from the SW through N to NE winds. The E part of the bay is somewhat protected by the reef extending SSW from Yaokuri Saki. Parts of this reef are above-water and it is always marked by breakers.

Anchorage.—Anchorage, good holding ground, fine sand, is available between the 10m and 20m curves. Approach to the anchorage should be made with Otomae Yama, the hill on the E side of the mouth of the river at the head of the bay, bearing 000°, and then anchoring in a depth of 12.8m.

Anchorage can also be obtained, in about 20m, with the hill backing Yaokuri Saki bearing 030°, distant about 1.5 miles.

4.11 Okino Shima (Ostrov Dym) (50°09'N., 155°34'E.) is conspicuous. Rocks, sometimes marked by breakers, with depths of 5m or less, lie 0.5 mile SW and 0.3 mile E of the islet.

Mys Vasil'yeva (50°00'N., 155°23'E.), lying 11 miles SSW of Ostrov Dym, is the S extremity of Ostrov Paramushir. It lies at the S end of a low, marshy cape, fringed with foul ground. Chidoriga Iwa, consisting of three rock heads which dry 1.5m and are marked by breakers, lies about 1.5 miles ESE of Mys Vasil'yeva, and is the outermost danger on this side of the point. Rakko Iwa, a rock, lies near the extremity of a rocky reef, covered with seaweed and extending about 0.6 mile SW of Mys Vasil'yeva. A light is shown from Mys Vasil'yeva.

Tides—Currents.—Near Mys Vasil'yeva the flood tidal current is W, with a velocity that may attain more than 3 knots. The ebb tidal current sets E with a velocity of about 1 knot, although the ebb current is usually neutralized by an opposing current, and frequently there is a continuous W current.

Anchorage.—Zaliv Vasil'yeva (Musashi Wan), entered W of Mys Vasil'yeva, affords protection from N and E winds. Good anchorage can be taken about 1 mile W of the town of Kharitonovka (Raishi), on the E side of the bay, in depths of 12.8 to 14.6m, fine sand. Farther W, the seaweed becomes too thick to permit anchoring.

Mys Kapustnyy (Kapari Saki), 7 miles WNW of Mys Vasil'yeva, is the SW extremity of Ostrov Paramushir. It is fringed by a drying reef and surrounded by kelp. A light is shown from a red octagonal tower with white bands on the point. A dangerous reef, upon which the sea usually breaks, extends about 0.7 mile S from the point. A rock, with a depth of 11m, lies about 1.3 miles S of Mys Kapari.

Ose Yama, a hill with a sharp summit, about 3.5 miles NNE of Mys Kapari, is a good landmark.

Tides—Currents.—Near Mys Kapari, both the flood and ebb tidal currents frequently set NW with velocities of 2 to 3 knots. Tide rips are frequent.

4.12 Northwest side of Ostrov Paramushir.—Vulkan Fussa (Shiriyajiri Dake) (50°16'N., 155°15'E.), a 1,772m high prominent extinct volcanic cone, lies about 13 miles N of Mys Kapustnyy. There is a bluff faced with steep cliffs on its NW side.

Ostrov Antsiferova (Shirinki To) (50°12'N., 154°59'E.) has six summits, the highest of which, near its center, is 748m. On its W side, the wall of the crater has collapsed and a gap has been formed. Except near its E point the coasts of the island consist of vertical cliffs. A thick growth of seaweed surrounds the island.

Proliv Luzhinka (Shirinki Kaikyo), the deep passage leading between Ostrov Paramushir and Ostrov Antsiferova, is about 8 miles wide in its narrowest part and is free of dangers, but in its vicinity thick fogs are frequent. Caution should be exercised because of the strong N tidal currents in Proliv Luzhinka.

Bukhta Krasheninnikova (Kujira Wan) (50°18'N., 155°21'E.), close NE of Vulkan Fussa, has very deep water and heavy seas run in during N winds. With S winds, violent squalls may sweep down from the valleys between the steep peaks around the bay.

Vulkan Chikurachki (Chikura Dake) (50°20'N., 155°27'E.), on the E side of Bukhta Krasheninnikova, about 9 miles NE of Vulkan Fussa, has traces of a landslip on its W side. Gora Lomonosova (Kammuri Take), about 4.5 miles farther SSW, affords a good mark for the head of the bay.

Anchorage.—Temporary anchorage can be obtained, in a depth of 24m, about 1.8 miles NE of Kujirahama, a village near the river mouth on the S side of the bay.

4.13 Mys Shelikhova (Daigo Saki) (50°23'N., 155°35'E.), about 15 miles NE of Vulkan Fussa, is a somewhat salient point that is fringed by rocks, some above-water, extending 0.3 mile offshore.

Bukhta Shelikhova (Kakumabetsu Wan), entered E of Mys

Chetvertyy Kuril'skiy Proliv from W

Shelikhova, is sheltered from all but N winds, being the best harbor in Ostrov Paramushir. Mito Yama, a conspicuous hill, rises about 1.5 miles S of Mys Shelikhova. From the W the hill appears steep-to, from the NW flat-topped, and from the NE pointed. Daibyobu Dake and Amefuri Dake are two flat-topped and prominent hills located about 2.7 miles ESE and 2.2 miles SE, respectively, of Mito Yama. Kuro Zaki, a dark rocky point about 31m high, lies 2.2 miles ESE of Mys Shelikhova and is reported to be not easily identified.

Because of the hills encircling Bukhta Shelikhova, the bay is protected from the thick fogs accompanying prevailing SE winds between April and July. The bay may be relatively free of fogs when they are numerous and thick on the SE side of the island and in Proliv Vtoroy Kuril'skiy.

Anchorage.—Anchorage can be taken, in a depth of 20m, sand, good holding ground, with Kuro Saki bearing 100°, distant about 1 mile.

Anchorage can also be taken, in a depth of 21m, sand, with Kuro Zaki bearing 158°, distant 0.6 mile.

4.14 Mys Medvezhonok (Kamogawa Saki) (50°26'N., 155°43'E.), about 6 miles ENE of Mys Shelikova, is a prominent reddish point.

Tides—Currents.—The flood and ebb tidal currents off the NW coast of Ostrov Paramushir are influenced by a current, the resultant flow almost always setting NE. The velocity of the flow rarely exceeds 1 knot, except in the vicinity of Mys Shelikhova, where it sometimes attains a rate of 2 knots.

Gora Fersmana (Arakawa Dake) (50°31'N., 155°30'E.) is a rocky prominent peak located about 2.7 miles E of Mys Fersmana. Gora Antsiferova (Omaru Yama), 2.2 miles SSW of Gora Fersmana, is a prominent rocky peak frequently obscured by clouds.

Mys Kozyrevskogo (Araise Saki) (50°39'N., 155°51'E.), 9 miles NNE of Mys Fersmana, is a steep cliff 115m high, and is conspicuous from the NE or SW. Discolored grayish water marks the river mouth about 5 miles NE of Mys Kozyrevskogo.

Chetvertyy Kuril'skiy Proliv

4.15 Chetvertyy Kuril'skiy Proliv, the very deep passage between Ostrov Paramushir and Ostrov Onekotan, about 29 miles SW, is the recommended route for vessels bound between ports on the E coast of Kamchatka and ports in the Sea of Okhotsk. In thick weather the NE side of the strait should be given a wide berth as the rocky S points of Ostrov Paramushir may be obscured when higher land is visible.

Traffic Separation Scheme.—An IMO-approved Traffic Separation Scheme lies in the waters of Chetvertyy Kuril'sky Proliv and may best be seen on the appropriate chart.

Tides—Currents.—In Chetvertyy Kuril'skiy Proliv, the flood tidal current sets WNW and the ebb flows in an opposite direction. The velocity of the tidal currents may exceed 2 knots.

4.16 Ostrov Makanrushi (Makanru To) (49°47'N., 154°26'E.), a volcanic island, lies on the SW side of Chetvertyy Kuril'skiy Proliv. The NE and S shores of the island consist of gravel beaches with low hills rising close inland. The other coastal sections of the island consist of high cliffs with a steep and narrow beach at their foot.

Tides—Currents.—Off the W and N sides of Ostrov Makanrushi, the flood tidal current flows N and the ebb flows S or E. Off the E side of the island, the flood is S and ebb is N. The velocity seldom exceeds 1 knot.

Anchorage.—Anchorage is available off the coves on the SE and W sides of the island, in depths of less than 37m, about 0.8 mile offshore.

Caution.—Abnormal magnetic variation has been observed in Chetvertyy Kuril'skiy Proliv and in the vicinity of Ostrov Makanrushi.

Skala Avos' (Kamen' Avos) (Hokake Iwa), about 13 miles WSW of the summit of Ostrov Makanrushi, is a bare gray triangular rock, 35m high, resembling a vessel under sail. Four small rocks lie close E and NE of it. A reef, covered with seaweed, extends about 0.5 mile NE of Kamen Avos'. A rock, which dries 0.6m, lies at the end of the reef.

The group is steep-to and is frequented by birds and sea lions.

Islands and Passages between Chetvertyy Kuril' skiy Proliv and Proliv Kruzenshterna

4.17 Ostrov Onekotan (Onnekotan To) (49°25'N., 154°45'E.) has bold and cliffy coasts. There is a great amount of vegetation, but no tall trees. The 10m curve lies up to 1.5 miles off the salient points of the island.

Gora Krenitsyna (Kuroishi Yama) (49°21'N., 154°42'E.), the highest mountain in the S part of the island, is a conspicuous volcanic cone rising from the center of a lake.

Vulkan Nemo (Nemo Yama) (49°34'N., 154°49'E.), the highest mountain in the N part of the island, is an active volcano, emitting smoke from its SE side.

Mys Kimberley (Kimpei Masaki) (49°38'N., 154°49'E.), the NW point of the island, is fringed with a kelp-covered reef extending about 0.3 mile NW.

Mys Ivan-Malyy (Kinto Zaki), the NE point of the island, lies 4 miles ESE of Mys Kimberly, and has a conspicuous, de-

tached rock, close E of it.

Bukhta Vlakiston (Kuroishi Wan), the open roadstead near the middle of the E side of the island, offers anchorage during W winds, in depths of 18.3 to 28m, sand bottom. Westerly squalls sometimes descend the valley at the head of the bay and can be avoided by anchoring in the N part of the roadstead. Mys Mussel' is the S entrance point of Bukhta Vlakiston.

Gora Shestakova (Yencho Zan) (49°29'N., 154°44'E.), a round-topped mountain, appears sharp from the SW.

Anchorage.—Bukhta Nemo (Nemo Wan), on the N end of the W side of Ostrov Onekotan, close S of Mys Kimberley, offers good anchorage, protected from the swell which accompanies the SE wind of summer, in depths of 18.3 to 27m, good holding ground of sand.

Good holding ground, can be taken in a depth of 29m, with Vulkan Nemo bearing 167° and Mys Kimberley bearing 038°. In Bukhta Nemo the tidal current sets SW during the flood tide and NE on the ebb, the maximum velocity being not more than 0.8 knot. These tidal currents are believed to be the countercurrent of those farther out.

4.18 Proliv Krenitsyna (Harumukotan Kaikyo), the channel between Ostrov Onekotan and Ostrov Kharimkotan (Harumukotan To), has a width of 7.5 miles between the 10m curves extending from the NE and SW shores.

Tides—Currents.—In Proliv Krenitsyna, the flood tidal current sets NW and the ebb SE, but they are influenced by ocean currents. The NW current is stronger, especially in summer, and is accompanied by tide rips and eddies. Velocities of 2.5 knots in the middle of the strait, and of 4 knots on its SW side, have been experienced.

Ostrov Kharimkotan (Harumukotan To) (49°07'N., 154°31'E.) has its summit, Vulkan Severgina (Harumukotan Dake), in the form of a double truncated dome which appears bell-shaped from a distance.

A hill, 488m high, and a domed-shaped mountain, 713m high, are located 1 mile NNW and 1 mile NNE, respectively, of the volcano. A plateau of deep purple lava is located close to the NE coast in this vicinity. The NW part of the island consists of low sand hills, with several small ponds and a lake.

Tides—Currents.—Heavy tide rips are formed off the S extremity of the island; a NW current with a rate of 6 knots has been experienced.

Anchorage.—Anchorage can be taken in the bight E of the N extremity of the island, sheltered from S winds, by vessels with local knowledge, in poor holding ground.

Caution.—The shape and heights of Ostrov Kharimkotan were reported to have changed considerably because of the great volcanic eruption on it. Caution should be used in the vicinity of the island, and when approaching the anchorage, as it is probable that changes have occurred in the surrounding depths.

4.19 Proliv Severgina, about 16 miles wide at its narrowest part, leads between Ostrov Kharimkotan and the N sides of Ostrov Shiashkotan (Shasukotan To) and Ostrov Ekarma (Yekaruma To).

Tides—Currents.—In Proliv Severgina, the flood tidal current sets WNW and the ebb sets ESE. Observations made in summer indicate that in mid-channel the N current seldom exceeds a velocity of 2 knots, but the strength increases toward the coasts on either side and may attain 5 or 6 knots off Ostrov Kharimkotan and Ostrov Shiashkotan. Tide rips occur near both of these islands.

Ostrov Shiashkotan (Shasukotan To) (48°51'N., 154°10'E.) consists of two mountainous parts connected by a narrow isthmus about 90 to 152m high. The island has rugged coasts fringed with rocky ledges and seaweed in most sections.

The summit of the island rises in the NE part. Kuro Dake, about 1 mile N of the summit, is a dark flat-topped mountain, steep on all sides. Close SW of Kuro Dake, nearly in the middle of the NE part of the island, is a sharp brown peak.

The summit of the SW part of the island, about 1 mile NNE of its S extremity, has on its W side surrounded by masses of sulfur, a former crater from which large quantities of steam are emitted.

Higashi Ura is a roadstead on the SE side of the isthmus joining the NE and SW parts of Ostrov Shiashkotan. A reef extends about 0.8 mile offshore from its center. A rock, which dries 0.9m, lies at the outer end of this reef. A rather conspicuous square column of rock, 17m high, lies close off the NE entrance point of the bay.

Anchorage.—Good temporary anchorage is available to vessels with local knowledge, in a depth of 27m, sand, NE of the reef in the center of the bay, when anchorage on the NW side of the island is untenable.

4.20 Mys Yuzhanin (Ara Saki), the S extremity of Ostrov Shiaskotan, has high steep cliffs. In its vicinity, for a distance of 5 miles SW, the NW tidal current is usually strong and tide rips occur.

Bukhta Otome (Otome Wan), a roadstead on the NW side of the isthmus, opposite Higashi Ura, lies between Kanega Saki and Hiraiso Zaki, about 2.5 miles NE. Kanega Saki is a prominent black flat-topped precipice, 29m high. Hiraiso Zaki is a brown cliff with a flat summit.

Anchorage.—Anchorage, exposed to winds from the N and W, is available in moderate depths over sandy bottom. Fog on the SE side of the island usually travels over the low isthmus, and during E or SE gales there may be violent offshore squalls. A good berth in a depth of 27m, sand, lies with Kanega Saki bearing 242°, distant about 0.6 mile. Amatsu Yama, 515m high, about 1.5 miles SSE of Kanega Saki, serves as a useful mark for the anchorage.

Oneta Misaki, the NW point of Ostrov Shiashkotan, is marked by a conspicuous flat-topped rock which lies on a ledge close off the point.

4.21 Ostrov Ekarma (Yekaruma To) (48°57'N., 153°57'E.) is separated from Ostrov Shiashkotan by Proliv Ekarma (Yekaruma Kaikyo), a strait about 4.5 miles wide and unobstructed.

The island is steep-to on all sides. The coasts of the island consist mostly of cliffs, but on its N and E sides are beaches of boulders.

Tides—Currents.—In Proliv Ekarma, the flood tidal current is NE and the ebb is SW. The flood current begins to run 2 to 3 hours after LLW, but it is influenced by the ocean current. The ebb current may attain a rate of 2.7 knots, while the flood current does not exceed a rate of 2 knots.

Ostrov Chirinkotan (Chirinkotan To) (48°59'N.,

Proliv Nadezhoy to Proliv Diany from NW

153°29'E.), about 16 miles W of Ostrov Ekarma, has two conical peaks, of which the higher and sharper is nearer the W side of the island. The coasts are steep, but near the NE extremity of the island is a stony beach, off which lies a rock, 24m high.

Ostrova Lovushki (Mushiru Retsugan), forming an arc of a semi-circle, appear to be the remains of the E side of an ancient crater. **Naga Iwa** (48°33'N., 153°51'E.), near the N end, has two grass-covered summits. Taka Iwa, about 0.5 mile farther SE, is a steep rock with a flat top. **Kaihyo Iwa** (Azarashi Iwa) (48°32'N., 153°51'E.), the S above-water rock of the group, is bordered about 0.5 mile ESE by a 6.4m patch.

There are numerous other rocks, some above-water, in Ostrova Lovushki. There is a thick growth of seaweed, sometimes run underwater by the tidal current, in depths of less than 18.3m.

Caution.—Two 8.5m patches lie about 6 miles and 6.5 miles E, respectively, E of the S end of Ostrova Lovushki. An 18m patch lies about 6 miles E of the N end of Ostrova Lovushki.

Proliv Kruzenshterna

4.22 Proliv Kruzenshterna lies between Ostrov Shiashkotan, previously described in paragraph 4.19, and Ostrov Raikoke, about 38 miles SW. The channel is divided into two passages by Ostrova Lovushki.

The passage S of Ostrova Lovushki is very deep and quite safe.

The passage N of Ostrova Lovushki is not recommended due to the tide rips extending about 7 miles SW from Ostrov Shiashkotan.

Tides—Currents.—A strong NW tidal current flows through the middle of Proliv Kruzenshterna, and also within 5 miles of the SW end of Ostrov Shiashkotan. This tidal current causes tide rips SW of Ostrova Lovushki and Ostrov Shiashkotan. At times, eddies and whirlpools are formed.

Islands and Passages between Proliv Kruzenshterna and Proliv Bussol'

4.23 Ostrov Raikoke (Raikoke Jima) (48°18'N., 153°15'E.) rises to a summit, 551m high, which is a large crater. The rim of the crater has crumbled away to a considerable extent. The coasts of the island are steep-to.

Proliv Golovnina (Koroni Kaikyo) lies S of Ostrov Raikoke. The tidal currents do not attain any great rate in the strait and it is free of dangers.

Ostrov Matua (Matsuwa To) (48°05'N., 153°12'E.) is a conical active volcano, continuously emitting white smoke. The long slope extending SE from the summit terminates in low hills and terraces, S of which is a sandy beach. The SE extremity of the island is fringed by reefs and islets extending about 0.5 mile S. The largest islet is 29m high. From a point 2 miles W of the SE extremity, a reef, awash in places and covered with kelp, extends about 1 mile S.

Bukhta Ikeda, a small anchorage, lies between Ostrov Matua and Ostrov Toporkovyy (Iwaki Jima), a small, flat, grassy island, about 0.5 mile E. The anchorage is divided into N and S parts by a kelp-covered reef joining the two islands. A light is shown from Ostrov Toporkovyy.

Tides—Currents.—The tidal currents flow N and S with velocities exceeding 3 knots for a distance of 7 to 8 miles offshore on the E and NE sides of Ostrov Matua. Rates of as much as 5 to 6 knots have been reported.

Tidal currents 1 mile S of Ostrov Toporkovyy flow N on the flood tide and S on the ebb tide at a rate of 2 knots.

Anchorage.—Ikeda Wan offers some shelter from wind and sea, but there is no protection from the swell. The holding ground is not good.

In the N anchorage, the best berth is in a depth of 21m, about 0.3 mile W of the NW extremity of Ostrov Toporkovyy.

In the S anchorage, the best berth is in a depth of about 16m, SW of the summit of Ostrov Toporkovyy.

Proliv Nadezhoy from SE

Proliv Nadezhdy (Rashowa Kaikyo), between Ostrov Matua and Ostrov Rasshua, about 16 miles SSW, is free of dangers except for the reef extending S from Ostrov Matua. A bank,with a depth of 14m over it, lies about 7 miles SSW of Ostrov Matua.

Tides—Currents.—Strong currents through the strait make caution necessary when there is poor visibility. In Proliv Nadezhdy, the flood tidal current is NW and the ebb is SE. When diurnal inequality is large, there may be a single flood and single ebb period in the tidal day. The flood current begins to run 2 or 3 hours after LLW. According to observations made in summer, the velocities on the N side of the strait do not exceed 2 knots, but on the S side may be greater than 5 knots. Tide rips occur, being greatest on the N side during the flood and on the S side during the ebb.

4.24 Ostrov Rasshua (Rashowa Jima) (47°46'N., 153°01'E.) is high towards its N and S ends, with a gap between. Its summit, in the N part, has an active volcano on its SE side. The volcano constantly emits sulfur, which gives the ground in the vicinity a yellow color. The E half of the crater has subsided. The coasts of the island mainly consist of high cliffs. At its S extremity there is a narrow stretch of level land.

A detached rock, which dries 0.6m, lies about 0.8 mile SE of the S extremity of the island.

Proliv Srednego (Suride Kaikyo), between Ostrov Rasshua and Ostrova Ushishir, about 9 miles SSW, is reported to be the most dangerous passage in the Kuril Islands and should be avoided if possible. The navigable channel is about 4 miles wide between Kamen' Button (Botan Iwa) on its NE side, and **Kuro Iwa** (47°36'N., 152°53'E.), the N rock of Ostrova Srednego, on its SW side.

Kamen' Button (Botan Iwa), about 1.5 miles SSW of the S extremity of Ostrov Rasshua, is steep-to and 0.3m high. The tidal currents are so strong in its vicinity that it is nearly always hidden by breakers.

Ostrova Srednego is a group of reefs and rocks, some above-water, with Kuro Iwa, a black rock at its N extremity. Ashika Shima, 0.3m high, the SE extremity of the group, lies about 2.3 miles SSE of Kuro Iwa. A rock, 0.9m high, lies nearly midway between Kuro Iwa and Ostrova Ushishir.

The strong tidal currents in Proliv Srednego attain a velocity of 4 knots and there are heavy tide rips.

4.25 Ostrova Ushishir (Ushishiru Shima) (47°32'N., 152°49'E.) consists of two islands joined by a reef that dries.

Ostrov Ryponkicha (Kita Jima), the NE island, reaches its highest elevation, 130m, at Ishi Yama at its SW end.

Ostrov Yankicha (Minami Jima), the SW island, rises to a sharp summit on its W side. A large, deep crater, breached by the sea on its S side, occupies the middle part of the island. Tancho Iwa, a remarkable columnar rock, lies close S of the SE point of the island.

Tides—Currents.—In the vicinity of Ostrova Ushishir, the flood tidal current is N, with a velocity of not more than 2 knots, and the ebb tidal current is S, with a velocity of as much as 6 knots. Sometimes the S current may run all day.

Anchorage.—Higashi Wan, S of Ostrov Ryponkicha, offers anchorage, in depths of 26 to 35m, fine sand, E of the N extremity of Ostrov Yankicha. A good berth lies in a depth of 29m, with Ishi Yama bearing 306°, distant about 0.7 mile. The anchorage should be approached with Ishi Yama bearing 306°, and anchoring when the E end of the 41m rock SW of Ostrov Ryponkicha bears 028°, and the E extremity of Tancho Iwa bears 208°.

Nishi Wan offers anchorage, in depths of 26 to 35m, W of the SW extremity of Ostrov Ryponkicha. To avoid the bank N of Nishi Wan, the anchorage should be approached with the N extremity of Ostrov Yankicha bearing 106°, and anchoring when the summit of this island bears 201°.

Proliv Rikorda (Ketoi Kaikyo), between Ostrova Ushishir and Ostrov Ketoy (Ketoi Shima), about 14 miles SW, has an extensive bank in its center, which causes whirlpools and eddies.

4.26 Ostrov Ketoy (Ketoi To) (47°20'N., 152°29'E.) has the steep W slope of the summit, on the W side of the island, conspicuous. White smoke is continuously emitted from the N side of a red peak, about 1.7 miles E of the summit.

The W, NW, and NE coasts consist of mostly high cliffs, but on the E and S sides, the slope is more gradual and the cliffs are 30 to 60m high.

At the foot of the cliffs are beaches of large stones from which reefs extend offshore for a short distance.

Pine woods grow on the SE slopes of the island and there are willows in the valleys and near the edges of the cliffs.

Mys Monolitnyy, the SW extremity of Ostrov Ketoy, is a rocky point, close to the S side of which is a remarkable pointed rock, 15m high.

Between Mys Monolitnyy and the S extremity of Ostrov Ketoy, 30 miles E, there is a slight indentation in the coast in which there are depths of less than 18m, many rocks, mud, and seaweed.

The S extremity of Ostrov Ketoy is a cliffy projection, 38m high, from which a flat rocky ledge extends SE for 0.1 mile. A rock, about 3m high, lies 0.7 mile offshore, off the SW coast of the island.

A waterfall, which is conspicuous from N, is located 0.9 mile E of the N extremity of Ostrov Ketoy.

Ostrov Simushir from S

Anchorage.—With N winds, vessels with local knowledge can anchor on the S side of Ostrov Ketoy. A suitable berth lies in 42m, fine sand, with Ashi Zaki bearing 028°, and Mys Monolitnyy (Nakagiri Zaki) bearing about 284°. The tidal currents at the above anchorage are reported to be strong.

On the W and N coasts, anchorage can be obtained by small vessels with winds from the N through E to SE, in a bay entered between Mys Monolitnyy and a point 1.2 miles NNW, close N of which is an islet 31m high. The recommended berth is in a depth of 18m, sand, about 0.3 mile from the shore. Local knowledge is required.

Proliv Diany (Shimushiru Kaikyo), a deep strait with no offlying dangers, leads between Ostrov Ketoy and the NE end of Ostrov Shimushir, about 10 miles SW.

Tides—Currents.—In Proliv Diany, the flood tidal current sets NW, while the ebb current sets SE. When the diurnal inequality is large there may be only one flood and one ebb current during the tidal day. According to observations made in summer, when the current is diurnal, it runs SE for 5 or 6 hours before LLW at Bukhta Broutona until 3 or 4 hours after that LW; a velocity of 3 knots is attained. During the remaining 15 hours there is a weaker NW set.

4.27 Ostrov Simushir (Shimushiru To) consists of a chain of extinct volcanoes with wooded slopes in its central and NE part. The SW part is mountainous with few trees. The SE coast of the island is steep-to. The NW coast is fringed by rocks, close inshore, and bordered by a thick growth of seaweed.

Gora Uratman (47°07'N., 152°15'E.) has steep black slopes and is located on the SE side of Bukhta Broutona, a flooded crater at the N end of Ostrov Simushir.

Vulkan Prevo, about 8 miles SW of Gora Uratman, is conical and very prominent.

Gora Mil'na (Vulkan Mil'na) (46°49'N., 151°47'E.) rises near the S extremity of the island, forming its summit. This section is joined to the rest of the island by a low neck.

Mys Rollin, the S extremity of the island, is 136m high; the slopes above are covered with shrubs and herbage.

Caution.—Volcanic activity has occurred about 14 miles S of Mys Rollin.

4.28 Zaliv Mil'na (Shimushiru Wan) (46°52'N., 151°50'E.) is located on the NW side of the island, about 5.5 miles NNE of Mys Rollin. A light is shown from the S entrance point of the bay. A sandy beach lies at the head of the bay. A prominent rock stands on top of the cliffs, about 0.5 mile W of the S entrance point.

Ice.—Drift ice, up to 1.5m in thickness, sometimes obstructs Zaliv Mil'na in the latter part of March or April according to the direction of the wind, but it only remains about 1 day.

Tides—Currents.—The weak tidal currents on the SE side of Ostrov Simushir are influenced by the ocean current, the resultant flow being usually SW with a velocity not exceeding 1.5 knots. Off Mys Otvesnyy, the NE extremity of the island, a rate of over 3 knots has been experienced. Off Mys Vasina, 10 miles SW of Mys Otvesnyy, there is a NE set from 2 to 3 hours after LW.

Off Mys Aront, the W extremity of Ostrov Simushir, observations made in summer at springs indicate that the ocean current usually flows NW, its velocity sometimes exceeding 3 knots.

In Zaliv Mil'na, both flood and ebb tidal currents frequently set W, with velocities of 0.8 to 2.5 knots. A NE set is seldom experienced.

The tidal currents flow in a NE-SW direction along the NE part of the NW coast of the island. The SW current begins 2 or 3 hours after LW and its velocity may exceed 1 knot. The NE current does not exceed 0.8 knot.

Anchorage.—Zaliv Mil'na is free from off-lying dangers, but there is often a strong W current and heavy squalls may blow down from the mountains. The recommended anchorages are near the 10m curve, N of the SW end of the neck or W of the NE end. The anchorage cannot be considered safe.

Anchorage can also be obtained in Taki Ura, a slight indentation on the NW side of the island about 5.5 miles WSW of Mys Otvesnyy the NE extremity. The recommended berth is in a depth of 27m, mud, with the waterfall at the head of the U-shaped cove bearing 120°, distant about 0.6 mile. A prominent rocky islet lies about 0.15 mile offshore 2 miles NE of the waterfall.

Caution.—Because of the low land at its head, Zaliv Mil'na is not protected from the dense fogs which usually accompany E winds. It may be foggy when there is clear weather in the lee of the high hills on either side.

Proliv Bussol' and Proliv Urup

4.29 Proliv Bussol' (46°40'N., 151°51'E.) and Proliv Urup lead between the SW end of Ostrov Simushir and the NE end of Ostrov Urup, about 56 miles SW. The straits are separated by three small islands, consisting of Ostrova Chernyye Brat'ya, Ostrov Chirpoy, and Ostrov Broutona. Ostrova Chernyye Brat'ya consists of Ostrov Chirpoy, the NE island, and Ostrov Brat Chirpoyev, the SW island.

An IMO-adopted Traffic Separation Scheme lies in the waters of Proliv Bussol and may be best seen on the appropriate chart.

Tides—Currents.—The flood tidal current between Ostrov Simushir and Ostrov Urup sets N, and the ebb sets S, attaining velocities of up to 3 knots. The tidal currents are influenced by the ocean currents, and the resultant flows are irregular.

In Proliv Snou, between Ostrov Chirpoy and Ostrov Brat Chirpoyev, the flood tidal current sets NW, and the ebb SE, with velocities of up to 3 knots. The flood tidal current begins 2 or 3 hours after LW. Eddies are sometimes formed in the E entrance of the strait.

Proliv Bussol, about 36 miles wide, leads between Ostrov Broutona and Ostrov Chirpoy, to the W, and Ostrov Shimushir, to the E. This is the widest channel in the Kuril Islands. The channel is unobstructed, but caution is necessary due to the uncertainty of the tidal currents, especially with E winds, which send in dense fog usually extending across the strait.

Ostrova Chernyye Brat'ya (Chirirhoi To) appear from the SE as three cones of different heights. The islands, being small, are subject to fogs. The greatest frequency is between May and July, during SE winds.

A considerable amount of driftwood may be found on the coasts of the islands, especially on sandy beaches.

4.30 Ostrov Chirpoy (Kita Jima) (46°32'N., 150°53'E.) is surmounted by three peaks aligned in a N-S direction. The N peak, Vulkan Chernogo (Okuzure Yama), the summit of the island, has perpendicular cliffs caused by landslips on the NW side of its crater. White smoke is continually emitted from the middle peak. The S and lowest peak sometimes emits a few columns of steam.

Bukhta Peschanaya is formed on its NE side by a narrow peninsula, 166m high, which is joined to the NE end of Ostrov Chirpoy by a low, sandy isthmus. Heavy squalls sometimes descend from the mountains. In summer, a S swell rolls in and breaks heavily.

The S coast of Ostrov Chirpoy, between its W extremity and a point 3.2 miles E, consists of rocks of porous lava and is of a dark brown color.

The SE extremity of the island is cliffy, 31m high, and is a habitat for numerous sea birds whose cries can sometimes be heard for a distance of 0.5 mile. Close S of the point is an islet, 3m high, on which sea lions can usually be seen.

A semi-circular cove on the S side of the point has a pebble beach backed by high land. The ruins of a building associated with some disused sulfur mines stand on the shore.

Ostrov Brat Chirpoyev (Minami Jima), separated from Ostrov Chirpoy by Proliv Snou, a deep passage, rises to a conical summit near its W side. **Mys Semenova** (46°27'N., 150°51'E.) is the SE extremity of Ostrov Brat Chirpoyev. The headland is 33m high, and from it the land slopes gently upward. In summer, it is usually enveloped in fog. Rakko Jima, a steep, conical islet, lies close NE of the island. A reef, with some above-water rocks, extends about 0.3 mile E of this islet, and a rock, which dries 0.9m, lies about 0.5 mile SE of the islet. Skala Lev, a rock, lying close inshore, W of the summit of Ostrov Brat Chirpoyev, resembles a lion lying down, near which tide rips and eddies occur.

Ostrov Broutona from W

4.31 Ostrov Broutona (Buroton To) (46°43'N., 150°45'E.), about 11 miles NNW of Ostrov Chirpoy, is a dome-shaped island, fringed with cliffs about 274m high. Its coasts consist of beaches of large stones. A rock, 28m high, the highest of several, some of which are submerged, lies close off the NW coast of Ostrov Broutona and is frequented by large flocks of sea bird. Tidal currents in the vicinity of the island are weak, and the resultant set is mainly NNE with a maximum velocity of around 2 knots.

Proliv Urup (Minami Uruppu Suido), about 15 miles wide, leads between Ostrov Brat Chirpoyev and the NE extremity of Ostrov Urup. The strait is free of dangers, except for the tide rips off Mys Kastrikum. The tidal currents are strong, and in foggy weather the passage should not be attempted unless the vessel's position is certain, as the low NE point of Ostrov Urup and the islets off it, may be obscured while the high land W is visible.

Caution.—Volcanic activity has been reported about 55 miles ENE of Mys Kastrikum. Mys Kastrikum. No further information is available.

Magnetic disturbance is reported to exist within a radius of 8 miles from Ostrov Broutona.

Ostrov Urup

4.32 Ostrov Urup is generally extremely rugged on the NW side of the range of mountains running lengthwise through it. On its SE side, there is a gradual slope to the coast. Peaks over 1,219m high rise in the N, middle, and S parts of the island. The summit of Ostrov Urup, in the S part, has several other peaks of nearly equal elevation around it.

The coasts of Ostrov Urup are generally cliffy, with little sandy beach; level land is found only near its SW extremity. The island is fringed with kelp, especially towards its SW end, where it covers the sea for stretches of 5 or 6 miles, and presents the appearance of reefs.

On the NW shore of Ostrov Urup there are no dangers more than 1 mile offshore.

There are no safe anchorages and the best temporary ones are situated off the NW side of the island.

Winds—Weather.—Ostrov Urup has prevailing S winds from May to July, with frequent calms. By September, W winds predominate, but later in autumn the direction is variable. At Reyd Otkrytyy, on the NW coast, locally strong SE winds occur from May to July. At Zaliv Natalii (Tsurigane Wan), on the same coast, the winds are very strong in summer.

Near Ostrov Urup, fogs occur most frequently from May to September, being particularly numerous between June and August. On the SE side of the island, fogs are generally expected with S winds. In June and July, the fogs are relatively low and peaks on the island may appear, but in August and September it may be possible to make out the coast while the upper slopes are enveloped in fog.

Tides—Currents.—The tidal current on the SE side of Ostrov Urup is SW on the flood tide and NE on the ebb tide, with velocities of less than 1 knot.

The tidal currents on the NW side of the island, with the exceptions of the straits on either end, have a general SW or W flow on the rising tide, and a NE or E flow on the falling tide. A velocity of about 1.5 knots is attained.

The tidal currents on either side of the island are greatly affected by the winds and the ocean currents.

4.33 Southeast side of Ostrov Urup.—The SE coast of Ostrov Urup consists almost entirely of high cliffs, with a fringe of large boulders and rocky reefs extending 1 mile offshore in places.

Caution.—The kelp grows thicker on this side of the island than on the NW side and it is not safe to navigate close inshore. In summer, high seas run all along the coast and there are neither secure anchorages nor safe landing places.

Mys Kastrikum (Karasunoo Misaki) (46°14'N., 150°35'E.), a cliff about 31m high, is the extremity of a flat tongue of land that forms the NE point of Ostrov Urup. A light and radiobeacon are situated on the cape. About 0.5 mile SW of the cape, a conspicuous sandy hillock, 42m high, affords a good mark from seaward. Four islets, joined by reefs and above-water rocks, extend about 1.7 miles ENE from Mys Kastrikum. A bank, with depths of less than 18m and having tide rips above it, extends about 1.5 miles E and 1.2 miles N of the outer islet. Thick beds of kelp are found in the vicinity of the cape, and the tidal currents are strong.

Banka Dvukhmetrovaya (Kombu Se), a 2.9m patch, marked by a thick growth of kelp, lies about 5 miles SW of Mys Kastrikum, and about 1.5 miles offshore.

Kaimen Zan (46°08'N., 150°17'E.) has three summits and is conspicuous from SE.

4.34 Mys Khiva (Hiyori Zaki) (46°04'N., 150°19'E.), 15

miles SW of Mys Kastrikum, has cliffs 38m high and is conspicuous from a distance. An islet, 36m high, lies close off its S side. A steep-to patch, with a depth of 4.1m, lies about 1 mile SE of Mys Khiva.

Mys Temnyy (Ana Zaki), about 9 miles farther SW, is a salient rocky point, 51m high. A large cave on the S side of its extremity shows up from the SW. Togari Iwa, a detached pointed rock, is conspicuous about 1.2 miles S of Mys Temnyy.

Mys Razmytyy (Chuo Zaki) (45°50'N., 150°02'E.), 10 miles SW of Mys Temnyy, has a flat islet, 30m high, close off it.

Mys Etolina (Garan Zaki), about 5 miles farther WSW, is a prominent high point with cliffs formed of columnar rocks. The point is surmounted by two hills, the S of which is 127m high and can be identified when the mountains are obscured by fog, except when it is covered by snow.

Anchorage.—In good weather, temporary anchorage can be taken by vessels with local knowledge in the bay NE of Mys Etolina. The best berth is in 22m, sand, good holding ground, with Mys Etolina bearing 237°, distant about 1.5 miles. Vessels at anchorage here may roll heavily at times.

Mys Kuzinoty (Kushino Misaki) (45°34'N., 149°32'E.), 21 miles SW of Mys Etolina, is a high point, which appears from the SW to have a serrated crest. A conspicuous 40m rock lies close off its extremity.

4.35 Northwest side of Ostrov Urup.—Mys Van-der-Lind (Nobunotsu Misaki) is the cliffy extremity of a plateau, about 101m high, forming the SW extremity of Ostrov Urup. A bank, with depths of 18.3m and less, over which the strong tidal currents raise dangerous tide rips, extends about 2 miles SW of the cape. Near the middle of this bank, about 0.7 mile offshore, is a rock on which the sea usually breaks.

A light is shown, and a radiobeacon transmits, from a structure on Mys Van-der-Lind.

Satano Iwa (Totano Iwa), a small islet, lies about 1.2 miles N of Mys Van-der-Lind. About 1 mile NE of this islet is Uchino Iwa, consisting of two small rocks.

Zaliv Shchukina (Futagojima Hakuchi) (45°38'N., 149°27'E.), between Uchino Iwa and Ostrov Krab (Futago Jima), a flat-topped islet about 2.8 miles NNE, offers temporary anchorage for small vessels from all but W winds. A good berth lies in a depth of 18m, good holding ground, about 0.7 mile S of Ostrov Krab. The tidal currents are strong and vessels sometime roll heavily. This anchorage can be considered safe during the summer.

Tides—Currents.—The tidal current sets NE in the area 1 to 2 miles SW of Ostrov Krab from 2 to 3 hours after LW until 2 or 3 hours after HW. At other times the current sets S. The maximum velocity is 1 knot.

Mys Tetyayeva (Taka Saki), about 1.5 miles NE of Ostrov Krab, is a prominent headland, 156m high, and faced with a conspicuous, brown cliff on its S side.

Between Mys Tetyaeva and Mys Sevryuga, another high point 8 miles NE, the coast consists mostly of high cliffs fringed with boulders. It is backed by hills and in it are the mouths of several streams. The cliffs for 3 miles NE of Mys Tetyaeva are light gray and prominent. In the vicinity of Mys Sevryuga, the cliffs are red.

A remarkable waterfall breaks over cliffs, 285m high, about 3.2 miles NE of Mys Sevryuga.

4.36 Reyd Otkrytyy (Reid Otkhpytiy) (45°52'N., 149°46'E.), fringed with kelp and rocky shoals off beaches of gravel and stone, has depths of 18.3m about 0.7 mile offshore. Tokotan Kawa, a river with a small lake upstream, flows into the roadstead. A conspicuous sandy cliff, about 0.6 mile NE of the river mouth, affords a mark to vessels entering the roadstead. Gora Rudakova (Daiba Yama), with a prominent rocky cliff on its N side, rises about 1 mile NE of the cliff.

Tides—Currents.—The flood tidal current sets SW between 1 and 3 miles offshore of Reyd Otkrytyy, and the ebb NE. The SW current is of longer duration than the NE current and attains a velocity of 1.5 knots. The NE current runs for 1 hour or so after HW, with a velocity not exceeding 1 knot.

Anchorage.—The recommended anchorage is in a depth of 20m, fine sand, with the mouth of Tokotan Kawa bearing 122°, distant about 0.8 mile. Caution must be exercised as a rocky shelf, with depths of less than 5.5m, extends about 0.4 mile NNW of the mouth of the river. This anchorage is usually safe in summer, but the tidal currents are strong and the bottom slopes steeply.

4.37 Vulkan Tri Sestry (Iwo Yama) (45°56'N., 149°55'E.) has three peaks, the N peak being sharp and conspicuous. Mara Yama, a conical mountain, about 1.5 miles SW, can sometimes be identified when the mountains NE are obscured by fog.

Gora Kolokol (Uruppo Fuji) (46°02'N., 150°04'E.), the highest mountain N of Reyd Otkrytyy, is conical and prominent.

Zaliv Natalli (Tsurigane Wan) is entered between **Staten Misaki** (46°06'N., 150°05'E.) and Mys Yakor' (Nobu Misaki), a steep headland, about 6 miles NE. In general, the bay is exceedingly deep, with mountains rising close to its shores.

Aspect.—Gora Nepristupnaya (Gyuto Zan), with a conspicuous rock summit, rises about 1.5 miles SSW of Staten Misaki, and Aka Yama, reddish in color, is conspicuous about 2 miles S of the same headland. Gora Antipina (Tsurigane Yama), with two pointed summits, rises about 2.5 miles E of Mys Yakor', the upper part of its W slope being formed by nearly perpendicular cliffs.

Anchorage.—Zaliv Natalli offers good anchorage, except during NW winds, in a depth of about 18m, fine sand, good holding ground, near the head of the bay. At greater distances offshore the depths increase rapidly and caution must be exercised, as the 200m curve lies between 1 and 2 miles off the head of the bay.

4.38 Bukhta Novokuril'skaya (Mishima Wan) (46°13'N., 150°20'E.) offers anchorage to small vessels with local knowledge, in 21m, sand, with the conspicuous pointed rock, 20m high, close inshore on the E side of the bay, bearing 105°, distant about 0.5 mile.

Kamome Jima, a flat, rocky islet, 5.5m high, lies about 0.5 mile offshore, 3 miles E of the E entrance point of Bukhta Novokuril'skaya.

Daisanto Zan (46°11'N., 150°23'E.) has three summits in a N-S direction.

Proliv Friza (Etorofu Kaikyo)

4.39 Proliv Friza, a deep unobstructed strait, leads between

the SW extremity of Ostrov Urup and the NE end of Ostrov Iturup (Etorofu Jima), about 22 miles W. A bank, with depths of 18.3m and less, over which the tidal currents raise dangerous tide rips, extends about 2 miles SW of the SW extremity of Ostrov Urup. Near the middle of this bank is a rock over which the sea usually breaks. There are no dangers on the W side of the strait.

Winds—Weather.—The prevailing wind is NW during the winter. The mean wind velocity is 13 to 18 knots.

Ice.—In Proliv Friza, the drift ice generally appears at the end of February and is not found after the middle of May.

Tides—Currents.—Though complete observations are not yet available, it appears that in Proliv Friza the flood tidal current is N and the ebb is S, the change occurring from 1 to 2 hours after HW or LW. However, the set through the strait is extremely irregular, because of the influence of the warm and cold ocean currents which flow near its N and S entrances, respectively.

In summer, about 13 miles E of Mys Il'ya Muromets (Rakkibetsu Misaki), the S current exceeds 2 knots in velocity, changing to a N current about 2 hours after LW. About 3 miles off the coast of Ostrov Iturup, there appears to be a constant S current, which may attain a velocity of 4.5 knots off Mys Il'ya Muromets. Several miles off Ostrov Urup there appears to be a constant N current, and a velocity of 4.8 knots has been experienced.

Ostrov Iturup (Etorofu To) (Etorofu Jima)

4.40 Ostrov Iturup, the largest and most important island of the Kuril Islands, is mountainous and rugged. The coasts of the island are mainly steep-to with no dangers outside of 1 mile offshore.

Winds—Weather.—Ostrov Iturup has strong NW winds, accompanied by heavy seas, from late October until the end of April. In summer, SE winds prevail. At Kuril'sk (Shana), on the NW coast, NW to W winds are predominant from November to March. The winds are variable the remainder of the year, with E to SE winds predominating from June to September. The average wind velocity is highest (18 knots) in December, and lowest (8 knots) in July. Extreme velocities of over 70 knots have occurred in the winter months.

Kuril'sk has a mean annual temperature of 4.4°C. Extreme maximum readings of 30.6°C have been made in July and August, and readings as low as -24.4°C have occurred in February and March. Subfreezing temperatures have been read in all months except August.

At Kuril'sk, snow falls on an average of 144 days. It may be expected daily in December and January, and in both February and March, the average is about 25 days. The falls are light and dry, and the annual precipitation of rain is only 15.5cm.

The NW side of Ostrov Iturup is the most clear of fog, and at Kuril'sk there is an average of 46 days with fog annually, of which 42 days are from April to August, 12 days being in the month of July. The most frequent fogs are found on the SE coast of the island from June to August, with very few clear days.

Ice.—On the NW side of Ostrov Iturup there is drift ice from January on. These floes freeze together and form ice floes which drift about, influenced by the winds and currents. Floes carried S become stranded on the shores of the bays, and freeze together forming a mass of ice, which by February may extend several miles offshore, with a thickness of about 3m. This ice breaks up in April and finally disappears in May.

On the SE side of the island, the bays do not freeze over, and are seldom obstructed by drift ice.

Tides—Currents.—A warm ocean current flows NE through the sea of Okhotsk off the NW side of Ostrov Iturup. Off the SE side of the island, a cold current flows mainly SW. The velocities do not exceed 1 knot.

On the SE side of Ostrov Iturup the flood tidal current has a general SW set. The ebb current is NE, but because of the influence of the SW ocean current the flow in the flood direction is longer in duration and somewhat greater in velocity. Velocities of more than 2 knots may be attained W of Mys Urumpet (Urombetsu Misaki), near the SW end of the island. Velocities E of the same point are less than 1 knot and the directions are irregular.

On the NW side of Ostrov Iturup, SW of Mys Przheval' skogo (Notoro Misaki), the flood tidal current follows the coastline, flowing SW or into the bays, and the ebb current takes an opposite direction. The velocities seldom exceed 1 knot, except off Mys Bol'shoy Nos (Poronotsu Bana), where they may be greater than 2 knots. In areas other than that near Proliv Yekateriny (Kunashiri Suido), the flow is influenced by the ocean current which sets NE, the velocity in that direction being somewhat greater. Off Mys Przheval'skogo the flood current is NE and the ebb is SW, the change occurring about 1 hour after HW or LW. Maximum velocities of 2 knots during the flood and about 1.5 knots during the ebb are attained.

Between Mys Przheval'skogo and Kuril'skiy Zaliv (Shana Wan) the flood current sets E or towards the coast, and in the opposite direction during the ebb, the velocities not exceeding 0.5 knot. Near the N extremity of Poluostrov Chirip (Chirippu Santo) it appears that in summer the resultant current is always W, and during the flood current a velocity of 1.5 knots may be experienced. Between Poluostrov Chirip and Mys Friza (Shibetoro Misaki) the flood current is usually SW and the ebb NE, but both are irregular. The velocities seldom exceed 1 knot, except in the vicinity of Mys Friza, where a velocity of 2 knots may be attained.

4.41 Southeast side of Ostrov Iturup.—Mys Il'ya Muromets (Rakkibetsu Misaki) (45°30'N., 148°54'E.), the extremity of Ostrov Iturup, has vertical cliffs in its vicinity. A large conspicuous waterfall at the cape plunges into the sea from a height of 140m.

Bukhta Medvezh'ya (Moyoro Wan), close S of Mys Il'ya Muromets, offers shelter from winds between the SSW and NNW. Strong tidal currents and the abruptly shelving bottom of sand make precautions against dragging necessary. Heavy swells are frequently encountered, particularly with E winds.

Ice.—It is reported that this bay is rarely blocked by drift ice.

Tides—Currents.—The flood tide sets NE while the ebb tide sets SE. Either current may attain a velocity of 3 knots.

Aspect.—Gora Medvezh'ya (Moyoro Dake) (45°23'N., 148°51'E.), with a pointed summit, is one of several peaks S of the bay. Io Dake, the W peak, constantly emits white smoke. The mountains are colored yellow in places by sulfur.

The chimneys of the sulfur refinery at Medvezh'e (Moyoro),

in the SW part of the bay, are conspicuous. A conspicuous cable railway extends S of the town to a spur of the mountains.

Anchorage.—To avoid W squalls from the valley, the recommended anchorage is NE of Medvezh'e, in a depth of about 17m, sand, with the point E of the town bearing 175°, distant about 0.5 mile.

4.42 Mys Sevorsi (Seoroshi Misaki) (45°19'N., 148°45'E.) is a high, cliffy, and steep-to point. A flat-topped hill rises to an elevation of 567m, 1 mile to the NW.

Mys Razdel'nyy (Toshiruri Misaki) (45°15'N., 148°30'E.), a low, flat point lying 12 miles WSW of Mys Sevorsi, has a chain of small rocks extending 0.8 mile S. The rocks show up well from the NE or SW. Gora Golets (Rucharu Yama), a flat rounded mountain about 6.5 miles W of the point, is conspicuous from the S.

Mys Yevgeniya (Otochishi Misaki), a cliffy point, about 11 miles WSW of Mys Razdel'nyy, is 145m high, has no trees, and appears as an island from a distance. Mys Isoya (Isoya Misaki), about 5 miles farther SW, is surmounted by a conspicuous, rocky hill, 76m high, which appears as a large solitary building from a distance S.

Vulkan Teben'kova (Odamoe Yama) (45°02'N., 147°55'E.) is the summit of, and lies at the E end of, a conspicuous mountain range. Tsurarippu Yama, about 2 miles WSW, has a jagged summit, which sometimes emits white smoke; there are conspicuous red cliffs on its S and E sides.

Zaliv Kasatka (Hitokappu Wan) is entered E of **Mys Burevestnik** (Uembetsu Saki) (44°55'N., 147°40'E.), a point fringed by a rocky shoal, covered with seaweed and extending about 0.4 mile offshore. Mys Burevestnik is backed by a level plateau, about 15m high, extending 7.5 miles SW, and extending to the foothills of Gora Burevestnik, a peak rising about 9 miles WSW of the point.

Winds—Weather.—In Zaliv Kasatka, N winds prevail from September to April, and S winds for the remainder of the year. In February and March, occasional SE gales raise heavy seas in the bay. During E and SW winds, the sea may be choppy.

Between the middle of December and the middle of March, the snowfall may be as much as 0.9m. April is generally clear, and in May, the rainy month, the precipitation is very light. Fogs are numerous from the latter part of May until the middle of July.

Ice.—Zaliv Kasatka is seldom icebound. Drift ice may occasionally enter the bay during April, especially during strong S winds.

Aspect.—A light is shown from Mys Burevestnik. A light is shown, also at Toshimoye, in the NE part of the bay.

Anchorage.—Adequate shelter can be had, depending on the direction of the wind, off the town of Kasatka (Toshimoye) in the NE part of the bay, in a depth 10m, sand, about 0.6 mile offshore. Anchorage may also be taken off the town of Burevestnik (Uembetsu), in the SW part of the bay, in a depth of 12m, sand, about 0.3 mile offshore.

The holding ground is not good in these anchorages and there is danger of dragging, especially during strong S winds. The mountains on either side of the bay offer shelter from SW or NE winds.

4.43 Mys Urumpet (Urumombetsu Saki) (44°35'N., 147°15'E.), about 26 miles SW of Mys Burevestnik, is a headland formed by cliffs, 196m high, which terminate a mountain ridge. Ostrov Odinokiy (Tori Shima), a group of five rocks, the highest of which is 51m, lies about 0.7 mile ENE of the point and is conspicuous from a distance.

Mys Burunnyy (Busso Saki), about 2.5 miles SW of Mys Urumpet, is a treeless point with a rocky islet lying close off it. A waterfall, on a cliff about 1 mile W of the point, is conspicuous.

Vulkan Berutarube (Berutarube Yama) (44°28'N., 146°56'E.), on the SW end of Ostrov Iturup, is conspicuous from a distance and joined by low land on its NE side to the remainder of the island. Mys Rikorda (Shikaragarishi Saki), a S spur of Vulkan Berutarube, is a high cliff of a faded red color, with a saddle-backed summit.

Tides—Currents.—In the vicinity of Mys Rikorda, the flood tidal current follows the coast in a SW direction, and the ebb is NE, with velocities exceeding 3 or 4 knots being attained. Tide rips occur when the currents are at strength.

4.44 Northwest side of Ostrov Iturup.—Mys Gnevnyy (Berutarube Saki) (44°27'N., 146°52'E.), about 3 miles W of Vulkan Berutarube, is the steep-to W end of Ostrov Iturup.

Zaliv Dozornyy (Tannemoe Wan), a bight about 6 miles NE of Mys Gnevnyy, offers anchorage to vessels with local knowledge, but is exposed to considerable swell. Vessels at anchor swing to the strong tidal currents. Winds from the NE through E to SW blow across the low land at the head of the bay from an E direction due to the configuration of the land. A submarine telegraph cable is laid from the head of the bay.

Zaliv L'vinaya Past' (Moekeshi Wan) (44°37'N., 147°00'E.), formed by a crater breached by the sea, should be avoided. During gales from all directions except the N, violent winds sweep down from the hills encircling the inlet.

Zaliv Dobroye Nachalo (Naibo Wan) (44°43'N., 147°08'E.) offers the best anchorage on the NW side of Ostrov Iturup. The bay is entered between Mys Kabara (Kabara Misaki), the E entrance point of Zaliv L'vinaya Past', and a peninsula about 10 miles NW, on which stands Gora Atsonupuri (Atosa Nobori), an isolated volcano. Gora Atsonupuri has a conspicuous gray landslip on its NW slope. The N half of the head of the bay is a sandy beach, through the middle of which flows the river Tikhaya (Onnenaibo Betsu).

Heavy fogs frequently enter the bay through the valleys on either side of the range of hills in the S part of the head of the bay.

Anchorage.—The recommended anchorage for vessels with local knowledge is in 10 to 20m, fine sand, between 0.4 mile and 1 mile W of the mouth of the Tikhaya.

Odesskiy Zaliv (Utasutsu Wan), E of the peninsula of Gora Atsonupuri, is exposed N. Small vessels, with local knowledge, can anchor off the towns at the NE and SW end of the sandy beach at the head of the bay.

Caution.—A detached reef, with a least depth of 11.4m, lies about 3.5 miles W of the mouth of the Tikhaya.

4.45 Gora Stokap (Hitokappu Yama) (44°50'N., 147°21'E.), a volcano with a dome-shaped summit, has a conspicuous landslip on its W side. A mountain range extends about 6 miles ENE from this volcano, then descends abruptly,

terminating in low terraces.

Bukhta Zolotaya (Furebetsu Byochi), a small cove, is entered between **Hatcho Shima** (45°04'N., 147°32'E.), a conspicuous black islet, and the S side of two drying rocks, about 240m N.

Mys Przheval'skogo (Notoro Misaki) (45°06'N., 147°30'E.), 59m high, is the dark flat-topped extremity of a peninsula, about 3 miles long. A conspicuous rock lies close off the W end of the point. A drying rocky ledge extends about 0.1 mile NW of the rock. Mys Ksana (Sango Saki), the N extremity of the peninsula, lying 0.6 mile NE of Mys Przheval'skogo, has an above-water rock, 5m high, near the extremity of a reef extending about 0.2 mile N of the point. The rock shows up well from E and W. Tide rips are often formed ENE of Mys Ksana.

Anchorage.—Large vessels anchor near the 20m curve, which is about 0.3 mile W and 0.4 mile NW of Hatcho Shima, and about 0.4 mile off the shore SE of Mys Przheval'skogo.

4.46 Zaliv Kuybyshevskiy (Rubetsu Wan) (45°06'N., 147°40'E.) does not afford safe anchorage. The bay is open to onshore winds and also to the winds that traverse across the island through the valley at its head. The holding ground of fine sand over rock is not good.

Winds—Weather.—In Zaliv Kuybyshevskiy, NW winds prevail in winter, and those between E and S predominate in spring and summer. A SE gale in summer is nearly always followed by a NW wind. The worst season of the year is autumn with E gales.

Fogs begin to develop in the latter part of March and continue until September, being most numerous in June and July.

Ice.—The bay may be obstructed by drift ice, which enters with winds between W and N, and is driven out by winds from between E and S, between the middle of January and the end of May. The floes are often heavy, and have been observed to pile up to a thickness of about 3m.

Aspect.—Gora Pereval'naya (Nobori Yama) (45°09'N., 147°49'E.) has a flat summit, and is the summit of the high land on the E side of the bay.

Riuyenshiri, a 59m hill, backs a small point, about 0.5 mile SW of the mouth of the river at Kuybyshevka (Rubetsu) (45°06'N., 147°42'E.).

Anchorage.—In good weather, a vessel, with local knowledge, can anchor, in 11m, off the town of Kuybyshevka, with Riuyenshiri bearing 173°, distant about 0.6 mile.

4.47 Kuril'skiy Zaliv (Shana Wan) (45°14'N., 147°51'E.) lies on the W side of the inner end of Poluostrov Chirip (Chiruppu Hanto), the large mountainous peninsula projecting N from the middle part of Ostrov Iturup. The peninsula has two summits. Kita Chirippu Zan, the N summit, is somewhat flat-topped. Minami Chirippu Zan, the S summit, has a pointed summit. Between these two summits is the crater of a dormant volcano, which has precipitous sides, either dark red or brown, and is conspicuous.

Winds—Weather.—See general description of winds, weather, and fog for Ostrov Iturup in paragraph 4.40.

Ice.—Along the shores of Kuril'skiy Zaliv, thin ice forms usually in the latter part of January. At about the middle of February, drift ice is carried into the bay by W or NW winds and often cements into solid fields. Winds from between the E and S drive the ice out of the bay; it generally disappears by the latter part of April.

Aspect.—A meteorological observatory, at which storm signals are shown, is situated close N of the river mouth at Kuril'sk (Shana). A conspicuous temple is situated on the SW bank of the river, about 0.2 mile SE of the river mouth. A prominent radio mast surmounts a 23m hill, about 0.3 mile E of the temple.

Anchorage.—Anchorage can be taken in the NE corner of the bay, about one mile W of the mouth of the Reka Kurilka, depths 15 to 18m, sand. Local knowledge is required. Anchorage is not considered safe during strong N gales since heavy sea will enter the bay.

Additionally there are eight designated anchorages as listed below:

1. No. 1—45°01'48"N, 147°51'42"E.
2. No. 2—45°14'24"N, 147°51'42"E.
3. No. 3—45°15'18"N, 147°52'12"E.
4. No. 4—45°15'18"N, 147°51'54"E.
5. No. 5—45°15'06"N, 147°51'30"E.
6. No. 6—45°14'48"N, 147°51'30"E.
7. No. 7—45°14'24"N, 147°51'00"E.
8. No. 8—45°15'30"N, 147°51'06"E.

Caution.—An area of foul ground lies within 600m of the coastline between position 45°15'13"N. 147°52'50"E and position 45°15'40"N, 147°52'20"E.

4.48 Nayoka Wan, entered S of **Ikabanotsu Saki** (45°16'N., 147°52'E.), is not safe with winds from between the SW and NW, as the bottom consists of sand over rock. Ice conditions are similar to those in Kuril'skiy Zaliv.

Anchorage.—Anchorage can be taken by vessels with local knowledge, in a depth of 16m, with Ikabanotsu Saki bearing 322°, distant about 0.5 mile.

Two rivers enter the sea about 4.5 miles and 6.5 miles N, respectively, of Mys Ikabanotsu. The water in the latter river is muddy and of a bluish-green color, and can be distinguished from the sea water for about 1 mile offshore. Parachirippu Iwa, a conspicuous, square rock, 61m high, lies close inshore, about 1.5 miles NNE of the N river mouth.

4.49 Mys Breskens (O Misaki) (45°26'N., 147°56'E.), the N extremity of Poluostrov Chirip, is steep-to and flat-topped. It only shows up from the E or W. A radiobeacon is situated on the cape.

Tides—Currents.—About 1.5 miles off the coast between Mys Breskens and Mys Shpora (Onneshireyeto Bana), about 2 miles SE, the current always sets NW, with velocities of 0.5 to 1.5 knots.

Bukhta Konservnaya (Shamambe Byochi), entered S of **Mys Konservnyy** (Kukidono Saki) (45°20'N., 148°01'E.), has comparatively steep shores. On its W side are the cliffy densely-wooded slopes of Minami Chirippu Zan, by which it is sheltered from NW winds. Pon Nobori, a conspicuous hill, about 2.3 miles S of Mys Konservnyy, is a good landmark.

Ice.—In Bukhta Konservnaya and Reyd Udobnyy (Bettobu Byochi), fast ice may be expected to form in the early part of January, and to remain until the beginning of May. Drift ice may obstruct these anchorages from the middle of February

until the latter part of April.

Anchorage.—The recommended anchorage is in a depth of about 27m, sand, with Mys Konservnyy bearing 354°, distant a little more than 0.4 mile.

4.50 Reyd Udobnyy (Bettobu Byochi), a roadstead at the S end of the E side of Poluostrov Chirip, lies on the E side of **Iju Bana** (45°17'N., 148°02'E.), a small promontory. Foul ground extends about 0.4 mile off the W side of the roadstead. The shore bank on the S side extends about 0.3 mile offshore.

Tides—Currents.—In Reyd Udobnyy the currents flow roughly E and W; the E current having its maximum rate from 2 to 3 hours before HW, and the W current from 2 to 3 hours before LW. The E currents following the LLW and the succeeding W currents are the stronger and attain rates of 1 knot.

Aspect.—Parasan Yama, about 6 miles S of Iju Bana, is a ridge running E and W, with a large columnar rock on it, conspicuous from a distance. Fuyuni Nobori, a mountain with a flat thickly-wooded summit, rises about 7 miles ESE of Iju Bana.

Anchorage.—Reyd Udobnyy has a bottom of sand, good holding ground, and there is little swell. Local vessels usually anchor, in a depth of 20m, with the summit of Iju Bana bearing 272°, distant about 0.9m. During the fishing season, caution should be exercised because of nets.

4.51 Shusu San (45°13'N., 148°15'E.) is a hill rising in the S part of a range of hills traversing Ostrov Iturup in a SSE-NNW direction. Conspicuous white cliffs, about 91m high, fringe the coast at the N end of these hills. Particularly good shelter is afforded N of the white cliffs.

A plain, covered by coarse grass and shrubs, occupies the narrowest part of Ostrov Iturup, E of the above-mentioned range of hills. In summer, during SE winds, thick fog may arrive over this plain from the Pacific Ocean, occasionally covering the sea area in its vicinity.

Gora Sibetoro (Shibetoro Dake) (45°24'N., 148°35'E.) is not discernible because of other mountains in its vicinity. A prominent mountain, with a conspicuous sharp peak, 647m high, rises about 2.5 miles SW of Gora Sibetoro. A peak, surmounted by a triangular, sharp-point rock, prominent from the N, rises about 1 mile N of Gora Sibetoro. About 1 mile farther NW, a mountain with two sharp summits also serves as a good mark.

Soi Sho (45°28'N., 148°32'E.), a detached rock with a depth of 2.3m, lies about 0.8 mile offshore. Another rock with the same depth lies about 0.6 mile SW of Soi Sho.

4.52 Bukhta Slavnaya (Shibetoro Byochi) is entered between **Ostrov Shlem** (Daikoku Shima) (45°29'N., 148°35'E.) and Mys Friza (Shibetori Misaki), about 4 miles NE. Ostrov Shlem lies about 230m offshore. Its N side, whitened by guano, is conspicuous. Mys Friza is a black, rocky cliff, which is conspicuous from the SW or NE. A large pointed rock, 11m high, lies about 0.4 mile NE of the cape.

Hatcho Iwa, a rock 0.6m high, lies about 0.8 mile ENE of Ostrov Shlem. Benten Shima, a cliffy islet, about 1.5 miles ENE of Ostrov Shlem, has a small but conspicuous shrine on its grassy summit. A reef, with a least depth of 0.5m, extends about 0.3 mile NW from the islet. A rocky spit, with several drying rocks near its extremity, extends about 0.5 mile WSW of a point lying 1 mile SW of Mys Friza.

Winds—Weather.—Light E winds may be experienced in Bukhta Medvezh'ya, simultaneously with violent offshore squalls being experienced in Bukhta Slavnaya.

Tides—Currents.—In the vicinity of Mys Friza, the tidal currents are irregular and the bottom is uneven.

Anchorage.—The anchorage in the S part of the roadstead is in a depth of about 24m, fine sand, with Hatcho Iwa bearing 197°, distant 0.3 mile. Anchorage can also be taken, in depths of 12.8 to 20.1m, fine sand, between Benten Shima and the extremity of the rocky spit about 1.2 miles NE.

The anchorage is fairly safe during the SE winds of summer, but with NW winds vessels should leave the anchorage,\ or seek shelter in Bukhta Medvezh'ya.

4.53 The coast from Mys Friza to Mys Koritskiy (Kamoiwakka Misaki), about 4 miles E, is rugged and nearly steep-to with the 20m curve about 0.3 mile offshore.

The summit of **Gora Kamuy** (Kamoi Dake) (45°31'N., 148°48'E.), a large flat-topped mountain, has a range curving NW from it and terminating in cliffs about 3 miles E of Mys Friza. Close S of the above-mentioned cliffs are two prominent, pointed peaks, which are frequently visible when Gora Kamuy is enveloped in cloud or fog. The precipitous coast between Mys Koritskiy and Meekushi Misaki (Miyekushi Bana), about 3.5 miles E, has a conspicuous 76m waterfall near its middle part.

Proliv Yekateriny (Kunashiri Suido)

4.54 Proliv Yekateriny, a deep strait, leads between the SE end of Ostrov Iturup and **Mys Lovtsova** (Atoiya Misaki) (44°27'N., 146°35'E.), the NE extremity of Ostrov Kunashir (Kunashiri Shima). The strait is about 12 miles wide in mid-channel and clear of dangers with the exception of the foul ground extending NE of Mys Lovtsova.

Ice.—The strait is generally clear of drift ice by the end of April, but may become ice-free as early as February. Ice may remain until the early part of May. There is usually less ice on the E side of the strait.

Tides—Currents.—In Proliv Yekateriny, the flood tidal current is S and the ebb is N. The change occurs at nearly HW and LW. The tidal currents do not attain any great rate and are somewhat irregular.

During the summer, a strong S current in mid-channel opposes the N ebb current, and except near the coast, there is a resultant S set which may attain a velocity of 5 knots. Strong eddies sometimes extend from the side of the strait.

Caution.—A Traffic Separation Scheme is located in the strait.

Ostrov Kunashir

4.55 Ostrov Kunashir, the SW island of the Kuril Islands, is mountainous. **Gora Tyatya** (44°21'N., 146°15'E.), in the NE part of the island, is the summit of Ostrov Kunashir. **Vulkan Mendeleyeva** (Shimanobori Yama) (43°59'N., 145°44'E.), an extinct volcano, is conspicuous in the SW part of the island. The SW half of the island is partly surrounded by the E coast

of Hokkaido and the Habomai Islands (Suisho Shoto), for which reason Ostrov Kunashir is sometimes mistaken for part of the Hokkaido mainland when seen from S.

Winds—Weather.—On the coasts of Ostrov Kunashir, the strongest winds are from the NW. From early September to the latter part of April, NW winds prevail, and after November they are usually accompanied by snow, making the area most dangerous to mariners.

Snowfall usually occurs from the early part of November to the middle of May. From January to March, the coasts of Ostrov Kunashir may be icebound, interrupting communication by boat.

On all sides of Ostrov Kunashir fog may be experienced, but it occurs with much greater frequency on the SE coast. The season lasts from early May to late August, the heaviest fogs developing during June and July, and the frequency and density depending entirely upon the wind direction. With NW winds, the fogs are dissipated and clear weather results, but S winds cause thick weather. Fogs do not usually occur with W winds, which are rare during summer, and they are somewhat thin during E and N winds.

Tides—Currents.—Off the N half of the SE coast of Ostrov Kunashir, about 2 to 3 miles offshore, the flood tidal current is W and the ebb is E, the change occurring at the times of HW and LW. The flood current is influenced by an ocean current which sets in the same direction, thereby flowing somewhat longer and with greater velocity than the ebb. In general, the W current increases its rate with the longitude. Off Mys Yuzhno Kuril'skiy (O Saki), the maximum velocities of the W and E currents, respectively, are 0.8 knot and less than 0.5 knot. At a distance of 4 to 5 miles off Zaliv Spokoynyy (Shiranuka Wan), the flood current is about 2 knots and the ebb about 1 knot.

Along the NW coast of the island, the flood current is SW and the ebb flows NE, but neither current attains any great rate. Because of the influence of a S ocean current, the set in this area is almost always SW, and when the flood current is at strength, the velocity may be as much as 2 knots.

Off the N coast of the island, at a distance of about 2 miles, there is almost always an E set, a velocity of 1 knot being attained at flood strength. In the vicinity of Mys Dokuchayeva (Rurui Misaki) an E set of 1.8 knots has been experienced.

4.56 Southeast side of Ostrov Kunashir.—Mys Lovtsova(Atoiya Misaki) (44°27'N., 146°35'E.), a low tongue of land, is the NE extremity of Ostrov Kunashir. Inari Yama, a prominent, isolated hill, rises to an elevation of 151m, about 1.2 miles SW of the point. A light is shown from Mys Lovtsova and a radiobeacon transmits from this structure. Ostrov Benten (Benten Jima), a steep, rocky islet, with a sharp, grassy summit, 49m high, is conspicuous about 0.2 mile NE of the extremity of Mys Lovtsova. A drying reef extends 0.7 mile NE of Ostrov Benten to Skala Morzhovaya (Tokkari Iwa), a double-peaked rock that dries 1.5m. A reef, with a depth of less than 2m, extends about 1 mile NNE of Skala Morzhovaya. A bank, with depths of 14.6 to 18m, extends about 1.3 miles farther N. With a light swell, the bank and reef are marked by breakers.

Anchorage.—Anchorage can be taken on the E side of Mys Lovtsova, about 0.5 mile offshore, in depths of 12.8 to 14.6m, sand, good holding ground, with Inari Yama bearing 340°, distant about 0.9 mile.

The section of coast to a distance of 2 miles SSW of Mys Lovtsova consists of low sandy beach. The E coast of the peninsula, to Mys Spokonyy (Akaishi Hana), consists of cliffs and precipitous bluffs gradually increasing in height toward Mys Spokonyy. Jigoku Yama, 253m high, about 1 mile NNE of Mys Spokonyy, is the summit of the peninsula, and is conspicuous from the S. This section is characterized by foul weather and is considered to be the most dangerous area on the SE coast of Ostrov Kunashir.

4.57 Zaliv Spokonyy (Akaishi Hana), entered W of Mys Spokonyy, is sheltered E and W by mountains on either side. A reef, near the middle of the roadstead, dries 1.5m at its W end, and except when the sea is smooth, it is usually marked by breakers.

Ice.—Drift ice enters Zaliv Spokonyy with winds between SE and S. Winds from the NE or SW drive the ice out of the bay.

Anchorage.—During the NW winds of winter, good anchorage is obtainable, in a depth of 22m, sand, with **Mys Mysovoy** (Okappuno Misaki) (44°16'N., 146°18'E.) in line bearing 233° with Rausu Dake, a rounded summit about 1 mile S of Vulkan Mendeleyeva (Shimanobori Yama), and with Mys Spokonyy bearing 098°.

4.58 Gora Tyatya (Chacha Dake) (44°21'N., 146°15'E.) is conspicuous from all directions with favorable weather conditions, and though usually enveloped in clouds of fog, it is more frequently visible than Gora Rurui, about 8 miles NW. Maru Yama, a solitary peak with a rounded summit rising from the gap between the above-mentioned peaks, is conspicuous from the NE or SW, and often can be made out when the higher peaks are obscured.

Reyd Tyatinskiy (Chinomiji Hakuchi) (44°16'N., 146°11'E.), a small roadstead, has a generally rocky bottom and is not recommended in bad weather. In summer, small vessels, with local knowledge, can usually take temporary anchorage.

The shore of the bay is of black sand, backed by a narrow strip of grass. Except at the head of the bay, it is fringed with rocks and reefs, some of which dry. A bank, with depths of less than 5.5m, extends from it for up to 0.4 mile.

Ice.—There is fast ice at Reyd Tyatinskiy from January to the latter part of April; drift ice, accompanying E and N winds, is usually found until the early part of May.

4.59 Mys Rogacheva (Ruyobetsu Misaki) (44°11'N., 146°03'E.) is a cliffy headland with a rounded summit more than 137m high. Ostrov Rogacheva (Ara Shima), a steep-to grassy islet, 56m high, about 0.3 mile SE of Mys Rogacheva, is the only islet off the SE coast of Ostrov Kunashir. The cape, with its off-lying islet, forms one of the most conspicuous landmarks on the SE coast of Ostrov Kunashir.

Mys Yuzhno-Kuril'skiy (O Saki) (44°01'N., 145°53'E.), 12 miles SW of Mys Rogacheva, is a low, treeless point, and the E end of a small peninsula, which appears as an island from a distance. A radiobeacon is situated on the cape. A low white sandy beach extending about 3 miles N of the point has a conspicuous columnar rock, 31m high, at its N end. The reefs along this stretch are usually marked by breakers.

Bukhta Yuzhno-Kuril'skaya (Furukamappu Wan), entered SW of Mys Yuzhno-Kuril'skiy, has low land extending from its head across Ostrov Kunashir, but hills rise steeply to elevations of about 50m on either side of the bay. A rock, with a depth of 5m and seldom marked by breakers except with a S wind, lies about 1 mile WSW of Mys Yuzhno-Kuril'skiy.

4.60 Yuzhno-Kuril'skiy (Furukamappu) (44°01'N., 145°51'E.) lies on the NE shore of the bay. An offshore pipeline facility, marked by two buoys, extended about 1.2 miles offshore in the vicinity of Seseki. There are 8 piers in the port with 7 of them used for general service. Pier No. 1 also accommodates passenger vessels, and Pier No. 8 is used by the Russian Federation Ministry of Defense. Depths alongside are the deepest at Pier No. 1 with 8m depths. All the other piers are for very small vessels with depths between 1 and 2.9m.

A remarkable black pointed rock, 5.5m high, lies 0.2 mile off the head of the bay, 2 miles W of Mys Yuzhno-Kuril'skiy.

Anchorage.—Bukhta Yuzhno-Kuril'skaya offers comparatively safe anchorage from all winds, except those between the S and SE. With strong NW winds, squalls descend from the mountains. The bay does not freeze over in winter, but drift ice may obstruct it in April and May. There is reported to be good holding ground of sand in depths of about 9m in the middle of the bay.

Anchorage may be taken, in a depth of 10m, fine sand, with the black pointed rock bearing 346°, distant 0.8 mile, having regard to a detached shoal, with a depth of 4.3m, lying 0.4 mile SE of the rock. This berth, though safe from winds from the W to NW, was found to be unsuitable with a swell from the SE.

In addition to the anchorage areas described above, there have been twelve additional anchorages designated as described below:

a. 44°01'00.0"N, 145°51'06.0"E.—No. 1.
b. 44°01'07.8"N, 145°50'03.6"E.—No. 2.
c. 44°00'36.0"N, 145°50'18.6"E.—No. 3.
d. 44°00'20.4"N, 145°50'07.2"E.—No. 4.
e. 44°00'15.6"N, 145°51'08.4"E.—No. 5.
f. 44°10'10.2"N, 145°49'35.4"E.—No. 7.
g. 44°00'10.2"N, 145°50'56.4"E.—No. 8.
h. 44°00'10.2"N, 145°51'48.6"E.—No. 9.
i. 43°59'10.2"N, 145°49'36.0"E.—No. 11.
j. 43°59'07.2"N, 145°50'54.6"E.—No. 12.
k. 43°59'10.2"N, 145°51'57.0"E.—No. 13.
l. 44°00'14.4"N, 145°49'10.8"E.—No. 15.

Mys Mechnikova (43°56'N., 145°47'E.) located about 4 miles S of Bukhta Yuzhno-Kuril'skaya is a steep headland fringed by a reef.

Caution.—A dangerous wreck, partially submerged is located 13.6 miles SSE of Mys Mechnikova.

4.61 Vulkan Golovnina (Tomari Yama) (43°50'N., 145°30'E.), a dormant volcano in the form of an almost perfect cone, can be made out from a distance when visibility is good.

Anchorage.—Temporary anchorage can be taken, in 12.8m, sand, with Vulkan Golovnina bearing 264°, and Vulkan Mendeleyeva bearing 023°. Temporary anchorage can also be obtained, in 24m, about 1 mile E of Mys Mechnikova (Rausu Zaki), with Vulkan Mendeleyeva bearing 310°, and Mys Yuzhno Kuril'skiy bearing 032°.

4.62 Mys Veslovskiy (Keramui Saki) (43°39'N., 145°33'E.) is the extremity of the low sand spit, covered with grass, forming the S end of Ostrov Kunashir. The lighthouse and buildings in the vicinity sometimes resemble a ship from a distance. Rif Burun (Keramoi Sendan), a bank defined by the 10m curve, extends about 12 miles SE of the point. For a distance of about 9 miles offshore the depths on this bank are less than 5.5m in places. There is a least depth on the bank of 4.5m. Heavy seas are sometimes raised on the bank.

A bank, with depths of 18m and less, joins the S end of Ostrov Kunashir to the chain of islands lying SE. A 9.1m patch lies about 16 miles ESE of Mys Veslovskiy.

Zaliv Izmeny (Tomari Wan), a small bay formed on its E side by the long sandspit terminating in Mys Veslovskiy, offers safe anchorage for vessels of light or moderate draft.

Ice.—Drift ice may obstruct the anchorage between February and April. It is brought in by SW winds, and driven away by NE winds. It is reported that the floes do not exceed 20m in length, 10m in width, and 0.9m in thickness.

Aspect.—Vulkan Golovnina, N of the bay, can be made out in the offing. The red cliffs about 0.8 mile NW of Mys Paltusov (Notsueto Saki), the W entrance point of the bay, are very good landmarks and also show up well on radar.

Anchorage.—Anchorage can be taken, in 6.4m, fine sand, about 3 miles NNW of the light on Mys Veslovskiy. Protection is afforded here from N winds, and S winds do not raise much sea.

Caution.—Care must be taken to avoid the shoal water extending about 1 mile W of Mys Veslovskiy, and the shoals extending 6.5 miles S of Mys Paltusov.

Nemuro Strait

4.63 Nemuro Strait (Nemuro Kaikyo) separates Ostrov Kunashir from the E coast of Hokkaido. The N part of the strait is very deep, but the S part is restricted by shoals.

Ice.—The only season free from considerations of drift ice in Nemuro Strait is usually from early May until late October. This ice, carried by wind and current, originates on the E coast of Sakhalin. The greater portion found in the strait comes from the N, but other floes of the Sakhalin ice drift SE through the S passages of the Kuril Islands and enter Notsuke Suido from the E, after combining with ice brought S by the Oyashio Ocean Current. By December, fast ice may extend to a considerable distance offshore in the strait.

Notsuke Suido (Proliv Izmeny), a passage about 9 miles wide, leads between the SW end of Ostrov Kunashir and Nokke Sake, on the E coast of Hokkaido. It is the narrowest part of Nemuro Strait. The passage is restricted by shoals, its navigable width, with depths of 5 to 10m, ranging from 1 to 2 miles. The shoals are continually shifting, and the irregular depths change frequently.

The coasts in the vicinity of the passage are low, with mountains rising at a distance and often obscured by fog, and the fairways are unmarked, causing navigation to be both intricate and dangerous. However, the passage is frequently clear in summer, even when belts of fog extend from the E extremity of Hokkaido to the S end of Ostrov Kunashir.

Vessels of less than 500 tons and a draft of less than 4m usually navigate this waterway.

Ostrov Kunashir (continued)

4.64 Northwest side of Ostrov Kunashir.—A volcano, formerly known as **Iwaoi Yama** (43°54'N., 145°30'E.), lies about 4 miles N of Vulkan Golovnina. It is 342m high with continuous white smoke being emitted from the mountain and from blow holes on the nearby shore. A yellowish-gray cliff is on the NE side.

Mys Alkhina (Uenshiri Zaki), about 3 miles farther NE, is faced with dark cliffs and rises to a dome-shaped hill, surmounted by trees. Two sharp rocks, about 14m high, close offshore, about 1.5 miles NE of the point, are somewhat conspicuous from the N.

Between Mys Alkhina and Mys Stolbgatyy, 8 miles NE, the coast consists of sandy beaches fringed with rocky shoals.

Mys Stolbgatyy (44°02'N., 145°40'E.) is 26m high, faced with black rocks, and covered with scrub.

Bukhta Pervukhina is entered between Mys Stolbgatyy and Mys Spiridonova, 5.5 miles NE. The bay is exposed to N, E, and W winds; the depths in it are shoal. The head of the bay is low, fringed with reefs, and backed by a lagoon. This low land extends across Ostrov Kunashir, but has on it three hills, between 46m and 76m high, by which the bay may be identified.

Mys Spiridonova (44°06'N., 145°45'E.) is fringed with boulders and rises to a wooded mountain, 441m high.

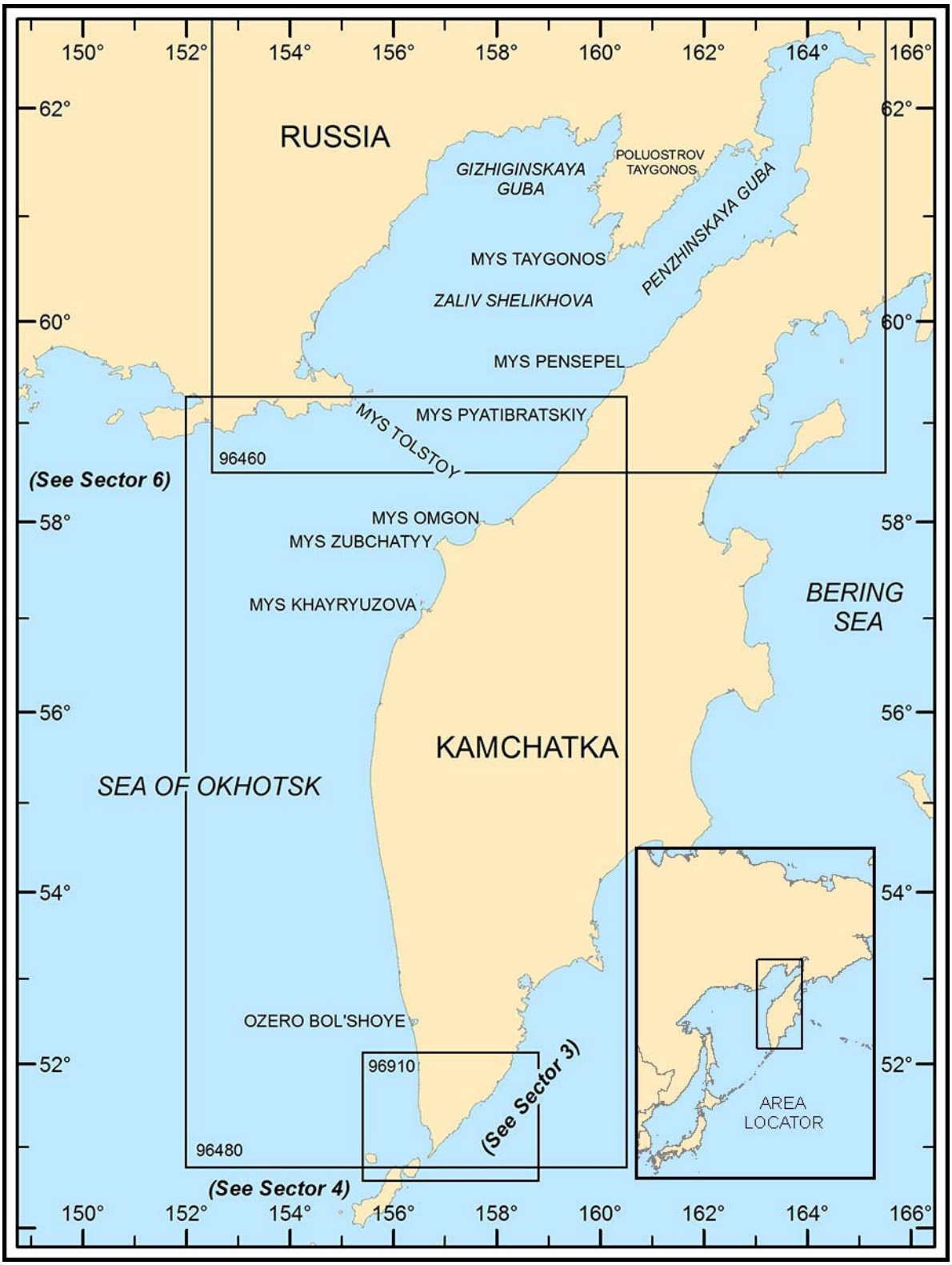
4.65 Mys Krasiyiotes (Aka Zaki) (44°09'N., 145°47'E.), about 3.5 miles NE of Mys Spiridonova (Ikabanotsu Zaki), is fronted by conspicuous red cliffs, 183m high, and is a good mark. About midway between the two points is a rather conspicuous, high, black cliff.

Mys Prasolova (Chashikotsu Zaki) (44°23'N., 146°01'E.), at the N end of some very conspicuous red cliffs, has a high, pointed rock, conspicuous from the SW or NE, close off it. Mys Belyy Utes (Nokkappu Misaki), about 6 miles farther NE, has a white cliff, somewhat conspicuous from the SW, on its S side.

Mys Dokuchayeva (Rurui Misaki) (44°31'N., 146°11'E.), the N extremity of Ostrov Kunashir, a cliffy grass-covered headland, has a rocky shoal, always marked by breakers, extending about 0.2 mile N. Gora Rurui, which rises about 4 miles SSW of Mys Dokuchayeva, has a pointed summit and is very conspicuous, especially from November to June, when it is usually snow-capped. Skala Shpil', a black, pointed rock, 62m high, about 1 mile SE of the cape, lies close off a white cliff and is prominent.

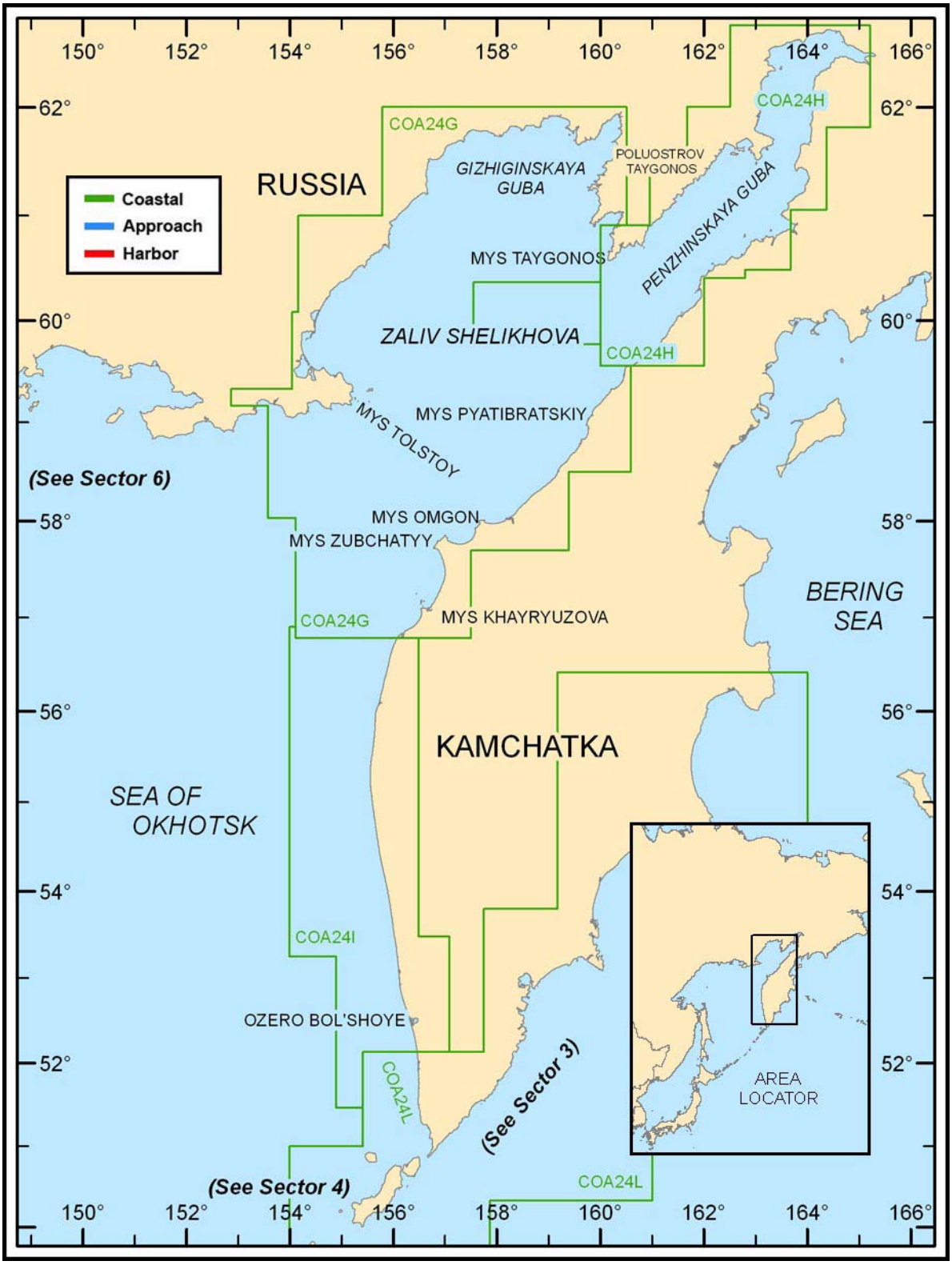
Anchorage.—Vessels with local knowledge can take open anchorage, with offshore winds, in suitable depths almost anywhere off the N coast of Ostrov Kunashir.

Note.—Suisho Shoto (Malaya Kuril'skaya Gryada) (43°26'N., 145°55'E.) and Shikotan Jima (Ostrov Shpanberga) are described in Pub. 158, Sailing Direction (Enroute) Japan, Volume 1.



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

SECTOR **5** — CHART INFORMATION



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SECTOR 5 — DNC LIBRARY INFORMATION

SECTOR 5

WEST COAST OF KAMCHATKA—MYS LOPATKA TO MYS UTKOLOKSKIY

Plan.—The coasts described in this sector comprise the E side of the Sea of Okhotsk, which consists of the W coast of Kamchatka, and Zaliv Shelikhova, including Penzhinskaya Guba and Gizhiginskaya Guba. The arrangement of the sector is from S to N.

General Remarks

5.1 Winds—Weather.—The climate of Zaliv Shelikhova is severe. The warmest month of the year is August, with a mean monthly temperature of 11°C. Frost begins to occur early in September and rivers are frozen from the middle of October to the end of May. January and February, with a mean monthly temperature of -24°C, are the coldest months.

Fog occurs in all seasons of the year, but mainly in spring and summer. It is infrequent in the autumn and rare in the winter. It is mainly associated with winds from between the SE and SW.

Strong NE winds prevail in winter from October to the end of April. During the winter, winds backing to the W are accompanied by clear, cold days, but those winds from between the NE and NNE are accompanied by blizzards. In May, the wind drops and alternates with calm days. In summer, the prevailing winds are SW in the S part of the gulf and S in the N part of the gulf. The strongest winds occur towards the end of September and in October and November.

In winter, the winds are mainly offshore, and in summer mainly onshore, on the W coast of Kamchatka. The winter monsoon is only defined from December to March, when the winds are predominantly E or NE. The winds of the summer monsoon, W to SW, are most predominant in June and July.

Between May and the first part of August, heavy fog along the coast from Mys Lopatka to Mys Utkolokskiy is frequent, though it rarely occurs after the end of August. Easterly winds often clear the coast from fog, which may still persist at sea.

Ice.—The central part of Zaliv Shelikhova does not freeze. Fast ice begins to form along the shores in November and, increasing its width steadily, merges into ice fields, with a maximum thickness of 1.5m, extending 25 to 35 miles seaward by the middle of April. In average years, drift ice appears in December and all ice clears in early July. Strong NE winds during the spring and summer can help to clear the bay.

In the open sea off Rechka Kikchik, fast ice and drift ice usually appear in December and clear in April.

At Mys Khayryuzova fast ice begins to form in most years in November, some years not forming at all. Drift ice appears in November and the sea is covered with ice up to 0.6m thick in December. The ice begins to break up in April and finally clears in May.

On the W coast of Kamchatka, ice begins to form by the middle or end of November, and eventually attains a thickness of 0.9 to 1.2m, fringing the coast to a distance of 20 to 30 miles offshore in the N part. The ice begins to break up around the end of April, and is carried away by the S current toward the Kuril Islands, in the vicinity of which this ice, already broken, remains through May and part of June, but is seldom present after the end of June.

Tides—Currents.—In Zaliv Shelikova, the tides are diurnal at springs, but otherwise are semi-diurnal and irregular. The tidal range is 7.9m at the entrance and increases gradually to about 11.3m at the head of the gulf.

The current sets NE and divides at Mys Taygonos, with the W branch flowing counterclockwise along the shores of Gizhiginskaya Guba. The rate is not more than 0.2 to 0.5 knot.

Tidal currents generally set parallel to the shores and there is hardly any lateral drift, but the currents are strong and form eddies and countercurrents. In the S part of the gulf, the rate is 2.7 to 3 knots, and less on the E shore. In The Gorlo, tidal currents attain a rate of 4.7 to 5 knots, less on the E side, and 6 to 7 knots in the vicinity of the islands near The Gorlo. In the N part of the gulf, velocities may reach 3 to 3.5 knots.

There is practically no period of slack water at the turn of the currents.

Mys Lopatka to Mys Utkolokskiy

5.2 Mys Lopatka (50°52'N., 156°40'E.), the S point of Kamchatka, is described in paragraph 3.30. The coast from Mys Lopatka to Mys Utkolokskiy, about 425 miles N, is backed by a broad belt of tundra extending to the W slope of Sredinnyy Khrebet, the central mountain range that trends more or less parallel to the coast from 60 to 70 miles inland.

Since the coast in those regions where the coast is low lacks distinctive features, a number of beacons surmounted by various topmarks have been erected to facilitate navigation. These beacons are not maintained and some of them may be partly or totally destroyed.

The best time of the year for navigation in these waters is the month of April and the first half of May. Navigation in clear weather presents no difficulties. The peaks of mountains, which are discernible from considerable distances, form good landmarks and the distance offshore may be checked by soundings.

Anchorage.—This coast affords no sheltered anchorages for vessels other than small craft with local knowledge, which can find protection in the mouths of the rivers.

Caution.—Vessels should exercise great care in approaching this coast. An area of caution, designated Area 24, extends approximately 45 miles offshore of this coastline and covers a distance of more than 350 miles in a N-S direction. Caution is advised due to inadequate surveys and the existence of uncharted dangers in this area. The limits of this area are best seen on the chart.

In fog, vessels approaching the low section of coast between **Reka Ozernaya** (51°30'N., 156°30'E.) and **Mys Khayryuzova** (57°05'N., 156°32'E.) should anchor, in depths of 12.8 to 14.6m, and wait for the fog to clear. Due to the irregularity of the bottom off the coast between Mys Lopatka and Reka Ozer-

naya, especially in the S part, vessels should not approach this coast unless they are certain of their positions.

Vessels should exercise great care in approaching this coast during the fishing season, which lasts from May to August or September, a period through which a considerable number of fishing vessels remain anchored along this coast, in depths of 11 to 14.6m, at a distance of 1 to 1.5 miles offshore. These vessels neither carry anchor lights nor sound fog signals.

Fishing nets, the outer ends of which are usually marked by small buoys or floats displaying small red flags, extend up to 3 miles offshore abreast fisheries, which are numerous along this coast. It is inadvisable to approach this coast after dark or in fog.

Rivers and rivulets, which are numerous along this coast, rarely flow directly into the sea, being obstructed by the strip of gravel thrown up by the heavy surf. They flow inside this gravel strip, sometimes for several miles, until they find an outlet to the sea. The entrances into the rivers are usually fronted by sand bars, often nearly dry. The entrances and the bars are subject to frequent shifts.

5.3 The coast between Mys Lopatka and Mys Kambal' nyy, about 14 miles N, is low and sandy. A ledge, covered with kelp, about 5 miles NNE of Mys Lopatka, extends 1 mile offshore.

Mys Kambal'nyy (51°06'N., 156°42'E.) is the SW extremity of a peninsular projection, backed by the slope of Gora Moshkovskaya, 503m high. Two detached hills are located N and S of Gora Moshkovskaya. The S hill rises to a height of 174m near the extremity of the cape. All three elevations are cone-shaped and conspicuous from the W.

Ostrov Kambal'nyy, a barren islet, 37m high, lies about 0.3 mile SW of Mys Kambal'nyy. Reefs, marked by kelp, extend about 0.5 mile NW and SE of the islet. The SW side is reported to be steep-to.

Tides—Currents.—Tidal currents in the vicinity of Mys Kambal'nyy attain a velocity of 2 to 2.5 knots at springs and 1 to 1.5 knots at neaps. The flood current sets N and NNE and the ebb sets S and SSW.

Zaliv Kambal'nyy is entered between Mys Kambal'nyy and Mys Sivuchiy, about 13 miles NNW. The latter point is a blunt mountainous cape rising steeply from the sea. Two pillar rocks, the seaward one the larger but lower of the two, lie a short distance off the extremity of the cape. Reka Kambal'naya discharges between two gravel spits about 4 miles N of Mys Kambal'nyy. The buildings of a fishery stand on the beach about 0.8 mile S of the river mouth.

The approximate HW interval at Zaliv Kambal'nyy is about 6 hours. The spring rise is about 2.1m, while the neap rise is 0.9 to 1.5m.

Caution.—A 9m patch lies about 6.5 miles NW of Mys Sivuchiy.

5.4 Sopka Kambal'naya (Gora Kambal'naya) (51°18'N., 156°53'E.), the southernmost of the volcanoes of Kamchatka, is conspicuous on all bearings and appears cone-shaped from the S. Sopka Shirokaya is located about 6 miles WNW of Sopka Kambal'naya.

Reka Ozernaya (51°30'N., 156°30'E.) flows through a narrow valley and discharges into the sea through a basin included between two curved spits. An obelisk and a part of a mast, marking the graves of the crew of the wrecked Japanese cruiser Niitaka, are situated on a hill, 37m high, a short distance N of the mouth of the river, and form a good landmark. A light is shown at the mouth of Reka Ozernaya.

Reka Yavina, nearly 10 miles farther N, may be identified by two posts situated close S of the river mouth, which is fronted by a shallow bar.

5.5 Reka Golygina (51°55'N., 156°29'E.) enters the sea after turning N within a narrow strip of land ending in a flat. Reka Opala enters the sea about 3 miles N, but for about the last 10 miles flows S and is separated from the sea by a fairly wide sand and gravel spit, from the extremity of which a flat extends S. The settlement of Opala is situated on the spit about 2 miles N of the mouth of Reka Opala.

Tides—Currents.—The MHW interval in the vicinity of Reka Opala and Reka Golygina is 6 hours 50 minutes. The spring rise is about 1.8m, while the neap rise is about 0.9m.

Reka Bol'shaya, the largest river on the W side of Kamchatka, approaches the coast in a general SW direction, then flows SSE for about 10 miles, separated from the sea by a narrow spit of sand and gravel. A drying flat lies at the extremity of the spit. The entrance (52°33'N., 156°18'E.) of Reka Bol'shaya is marked by two range beacons on the mainland abreast the entrance. The entrance can also be identified by a steep sand hillock, with three summits, located near the shoreline immediately N of the entrance. This hillock is fairly conspicuous against the background of clouds or mist that occasionally obscure the inland elevations. A light is shown close N of the entrance.

Small vessels up to 500 gt with a draft of not more than 3.5m can enter, but local knowledge is necessary.

Tides—Currents.—The MHW interval at the mouth of Reka Bol'shaya is 7 hours 50 minutes. The spring rise, which is diurnal, is 3m, and the neap rise, which is semidiurnal, is 0.9 to 1.2m. The flood current in the entrance attains a velocity of 3 to 3.5 knots; the ebb current, a velocity of 4 to 5 knots.

Pilotage.—Pilotage is compulsory for vessels entering the river with a draft of over 2m. Request for pilots should be made to the port authority. Vessels approaching the port should maintain a continuous listening watch on an agreed frequency. To assist vessels, the port radio station will transmit, on request, RDF bearings on 418 kHz. In conditions of reduced visibility the coast radar station on request, will provide radar pilotage.

Anchorage.—Anchorage can be obtained, in a depth of 9m, fine sand, good holding ground, about 1.2 miles offshore abreast the river entrance.

5.6 Oktyabr'skiy (52°40'N., 156°15'E.) is a small port situated on the narrow spit of sand W of Ozero Bol'shoye, 7 miles N of the entrance to Reka Bol'shaya.

Ice.—The port is usually icebound between the first part of November through mid-April.

Tides—Currents.—Tidal currents in the entrance to Ozero Bol'shoye can reach velocities of 3 to 3.5 knots at flood and range between 4 and 5 knots during ebb tide.

Depths—Limitations.—A quay is suitable for berthing vessels up to 60m in length, 500 gt, and with a maximum draft of 3.5m.

Pilotage.—Pilotage is compulsory for vessels with drafts of

2m or more and is available 24 hours.

Vessels should request pilots from the Port Director and maintain a listening watch on an agreed frequency.

During conditions of reduced visibility or when the aids to navigation are inoperable, the coast radar station will provide radar pilotage upon request to the Port Director.

Contact Information.—See the table titled **Oktyabr'skiy—Contact Information**.

Anchorage.—Anchorage can be obtained about 1 mile off the mouth of Reka Bol'shaya in depths of 9m, fine sand.

Regulations.—All vessels, except for Russian vessels, must use Fairway No. 21 for arrival and departure, which begins in position 52°35'18"N, 155°55'42"E.

Caution.—A wreck has been reported (2014) to lie W of Ozero Bol'shoye, in a depth of 23m, in position 52°31'42"N, 156°05'58"E.

5.7 Mys Levashova (52°48'N., 156°10'E.) is marked by a fairly conspicuous angular bluff. The W side of this bluff faces the sea, and the S side recedes inland almost at right angles to the coast. Mys Levashova forms no projection, but is called a point because the angular bluff has the appearance of a headland from seaward. A sandy beach, about 1 mile in length, extends SSE from Mys Levashova to the low spit extending to the mouth of Reka Bol'shaya.

Rechka Utka (Rechka Utra), about 22 miles N of Mys Levashova, has flat coasts in its vicinity, and there is a heavy surf even in calm weather.

Rechka Kikhchik (53°28'N., 156°01'E.) enters the sea after flowing N for about 2 miles, separated from the sea by a narrow strip of land on which there is a fishery. A light is shown from a structure close S of the entrance.

Anchorage.—Anchorage may be obtained by vessels with local knowledge about 0.5 mile offshore, in a depth of 8m. From the anchorage a mountain, with a saddle-shaped summit, 18 miles inland, bears 090°.

Reka Vorovskaya (Reka Bol'shaya Vorovskaya) (54°13'N., 155°50'E.) forms near its mouth a shallow lagoon about 0.4 mile wide and about 20 miles long. It is separated from the sea by a narrow sand and gravel spit on which there is a continuous chain of fisheries and storehouses. The entrance to the lagoon is narrow and the bar is subject to change. Small local craft can enter at HW.

Anchorage.—Anchorage can be taken, in 11 to 16m, about 1 mile offshore, in the entrance of the lagoon.

5.8 Reka Kolpakova (Kompakova) (54°40'N., 155°40'E.) changes its course to a N direction near the coastline, and forms a lagoon 8 miles long, separated from the sea by a spit of sand and gravel. Factory No. 42, on the spit, is fairly conspicuous about 6 miles S of the entrance.

Detached 11m patches lie 11 and 15 miles NW of the entrance.

Reka Krutogorovaya (55°02'N., 155°36'E.) flows for the last 3.5 miles in a N direction, being separated from the sea by a spit of sand and gravel. A cannery marks the bend of the stream, and the buildings of Factory No. 16 are situated about 2 miles farther S. A light and a radiobeacon are situated in the vicinity of the mouth of Reka Krutogorovaya.

A precipitous sand cliff, on the coast about 1.5 miles N of the mouth of Reka Krutogorovaya, recedes inland at nearly right angles, and is fairly conspicuous from seaward. Several houses are situated in a slight depression of this cliff.

Anchorage.—Anchorage can be taken, in a depth of 10m, about 1.5 miles offshore, with the chimney of Factory No. 16 bearing 089°.

The coast between the mouth of Reka Krutogorovaya and that of Reka Oblukovina, about 13 miles N, is fronted with a low slender islet of sand and gravel, separated from the coast by a rather narrow channel. The entrances at the N and S ends of the islet are inconspicuous.

5.9 Reka Icha (55°42'N., 155°39'E.) enters the sea after flowing 6 miles N inside a 22 mile long narrow strip of sand and gravel. A fishery of considerable size, about 2.5 miles S of the N end of a lagoon, is situated in the vicinity of a coastal sandy precipice that recedes sharply inland.

Gora Sopochnaya (56°02'N., 156°01'E.), a detached cone-shaped mountain, is a conspicuous landmark about 12 miles ESE of the mouth of Reka Sopochnaya. Beacons have been established near a fish cannery, about 2 miles S of the mouth of Reka Sopochnaya.

The coast from Reka Sopochnaya to Reka Moroshechnaya, about 45 miles NNE, is low and backed by a chain of mountains parallel to the coast and about 7 miles inland. **Gora Moroshechnaya** (56°48'N., 156°18'E.), the highest of the above-mentioned chain, has a conical peak and is a good landmark. It is 442m high and lies 5 miles E of the mouth of the Reka Moroshechnaya.

A bank extends from the mouth of Reka Moroshechnaya, the depths 2 miles offshore being only 5.9 to 6.4m.

5.10 Mys Khayryuzova (Mys Khariuzov) (57°05'N., 156°32'E.), the cliffy extremity of a peninsula, has a reef, dry in parts, extending about 1 mile NNE of it. Gora Konus, a conspicuous cone-shaped mountain, rises about 16 miles E of the cape.

Oktyabr'skiy—Contact Information

	Call Sign	VHF	RT Frequency
Port Director	Albom 6	—	2620 kHz
Oktyabr'skiy 1	Oktyabr'skiy 1	VHF channel 11	—
Oktyabr'skiy 2	Oktyabr'skiy 2	—	2575 kHz
Oktyabr'skiy 4	Oktyabr'skiy 4	—	2182 kHz and 2300 kHz
Oktyabr'skiy 58	Oktyabr'skiy 58	VHF channels 11 and 16	—

Ostrovok Ptichiy, an islet about 4.5 miles NNE of Mys Khayryuzova, rises to a height of 104m near its central part. Above and below-water rocks extend 0.5 mile N and 1 mile S of the islet. The channel between the islet and the cape has not been surveyed and unknown dangers are likely to exist in it.

A detached rock lies about 5 miles NW of Ostrovok Ptichiy.

The area E of Mys Khayryuzova and Ostrovok Ptichiy is shoal, and vessels should not proceed S of the parallel of the N end of Ostrovok Ptichiy.

Anchorage.—Anchorage may be obtained 1.5 miles NNW of Mys Khayryuzova, in a depth of 11m.

Caution.—A 3m patch, position approximate, was reported (1956) to lie about 26 miles W of Mys Khayryuzova. A 7.3m patch, existence doubtful, lies about 24 miles W of the same cape. A depth of 9.1m was reported (1963) to lie 56°57'N; 154°32'E; an approximate position 66 miles WSW of Mys Khayryuzova.

A submarine cable lands 8 miles ENE of Mys Khayryuzova.

5.11 Poluostrov Utkolokskiy, a mountainous promontory, rises from the low land at its inner end to elevations of over 518m at its seaward end. **Mys Yuzhnyy** (57°44'N., 156°47'E.) and Mys Utkolokskiy, respectively, are its SW and NE extremities.

Mys Yuzhnyy is steep and rocky, decreasing in height towards its extremity. A reef, which dries at LW, extends about 2 miles S of the cape. A chain of rocks, above and below-water, extends about 1.7 miles S of the cape.

Anchorage.—The bight SE of Mys Yuzhnyy is the only anchorage on the W coast of Kamchatka offering protection from the W winds and the heavy swell. The anchorage is protected by the cape and the chain of rocks extending S from it. Anchorage can be taken, with local knowledge, in 10m, about 2 miles E of the extremity of the reef.

5.12 Mys Zubchatyy, about 6 miles NE of Mys Yuzhnyy, is a steep-to peninsular projection, and rises sheerly from the sea to a 384m high jagged summit.

Mys Utkolokskiy (57°54'N., 157°04'E.), conspicuous and easily identified, rises vertically to a sugarloaf elevation, 381m high, backed by another similar type elevation, 438m high, close SW. A drying reef extends about 0.5 mile NE of the cape. A pillar rock, in the middle of the reef, is conspicuous.

Tides—Currents.—The flood currents, flowing into Zaliv Shelikhova from the Sea of Okhotsk, attain a velocity of 3 to 3.5 knots at springs off Poluostrov Utkolokskiy, causing tide rips and eddies, particularly off the projecting capes.

The tidal currents force the cold water at the bottom to rise to the surface. This cold water may reduce the surface temperature to as much as 8°C below the normal air temperature in the vicinity, causing the fog prevailing through May, June, and July. Fog is rare beginning in the first half of August, and with strong W or SW winds, fog does not occur here.

Zaliv Shelikhova (Penzhinskiy Zaliv)

5.13 Zaliv Shelikhova, forming the NE end of the Sea of Okhotsk, is entered between Mys Utkolokskiy and Mys Tolstoy, about 96 miles NW. Penzhinskaya Guba and Gizhiginskaya Guba occupy the NE and N parts, respectively, of Zaliv Shelikhova.

Navigation in the spacious Zaliv Shelikhova presents no difficulties on a clear day and the shores of the gulf afford numerous landmarks. In foggy weather, which prevails here during the spring and summer, vessels approaching the shore should be guided by continual soundings. Vessels favoring the W side of the entrance should navigate in depths of not less than 100m, which are 3 to 4 miles E of Ostrova Yamskiye. It has been observed that when dense fog envelops Ostrova Yamskiye, the fog is lighter N of this group of islands.

Tides—Currents.—The tidal currents, which attain at Ostrova Yamskiye a velocity of up to 5 knots, should be taken into account. The phase of the tide and the direction of the current should be determined on the basis of the HW interval at Zaliv Udacha, the bight close N of Mys Tolstoy.

Vessels favoring the E side of the entrance should navigate in depths not less than 55m. The tidal currents here flow along the coast.

5.14 East side of Zaliv Shelikhova.—Bukhta Kavacha lies between Mys Utkolokskiy and **Mys Omgon** (58°01'N., 157°41'E.). An above-water rock, position doubtful, lies about 8 miles E of Mys Utkolokskiy. A drying ledge, in the S part of the bay, extends in an ENE direction for over 2.2 miles, and about 0.7 mile offshore. Foul ground extends about 1 mile W of Mys Promezhutochnyy, on the E side of the bay.

Mys Omgon, the NW extremity of a rocky peninsula, has two similar mountains near its extremity. The seaward and higher of the two mountains rises to a height of 354m. On the seaward side of this mountain is a pointed, 122m high hill, with a pillar rock under its foot. From a distance, Mys Omgon has the appearance of an islet with two peaks.

Foul ground extends about 0.3 mile N and W of Mys Omgon. A cliffy islet, about 4 miles SSW of Mys Omgon, lies about 0.8 mile offshore, connected with the coast by a drying reef and surrounded by scattered rocks.

Mys Babushkina, about 2 miles E of Mys Omgon, is formed by a huge pointed cliff, which is steep on all sides. From a distance, the cape is conspicuous on E and W bearings and has the appearance of a detached pointed rock lying a short distance offshore. From the N, it is inconspicuous.

Tides—Currents.—The flood current flows in a NE and ENE direction, and the ebb in a reverse direction, in the vicinity of Mys Omgon, attaining a velocity of 2 to 2.5 knots.

Fogs, due to colder water coming to the surface, are frequent off Mys Omgon, especially in May, June, and July.

Caution.—Banka Mineola, with a least depth of 5.5m, is charted about 6.5 miles NE of Mys Babushkina. The position is approximate.

A detached patch, with a least depth of 2.6m, lies about 10 miles NE of Mys Babushkina.

5.15 Reka Tigil' (58°02'N., 158°13'E.), which is over 260 miles long, enters the sea 14 miles E of Mys Babushkina. Drying shoals extend 1 mile from both sides of the entrance. Vessels wishing to enter must obtain a pilot.

Mys Kamyatyan (Mys Kamatan) (58°18'N., 158°44'E.), 34 miles NE of Mys Babushkina, is a slight projection formed by two hills, the SW hill about 259m high, and the NE hill about 207m high. The cape is rendered somewhat conspicuous by the

light color of its precipices facing the sea.

Reka Voyampolka (Vayam-Palka) (58°31'N., 159°10'E.) enters the sea 19 miles NE of Mys Kamyatyan and is rendered conspicuous by the elevated N bank, which terminates in a high cape marked by landslides, and contrasts sharply with the S bank of the river. A small settlement is situated on the S bank, near the mouth of the river.

Anchorage.—Anchorage can be taken, with local knowledge, in a depth of 9m, about 2.5 miles W of the mouth of Reka Voyampolka. Care should be taken to avoid the 3.7m shoal, about 1.5 miles NW of the river entrance.

5.16 Gora Urginskaya (58°44'N., 159°36'E.), a flat-topped mountain, 223m high, lying 18 miles NE of Reka Voyampolka, dominates other elevations in the vicinity, and, having the appearance of a trapezoid from seaward, forms an excellent landmark from the offing.

Mys Kakhtaninskiy (Mys Kokhtaninskiy), about 7.5 miles farther N, rises to a height of 225m close inland. Ostrovok Chayachiy, a white islet, covered with guano, lies about 0.8 mile W of the headland. A drying reef extends from the islet to the headland, and a drying reef fringes the W side of the islet.

Mys Pyatibratskiy, about 10 miles farther NNE, rises steeply to Gora Pyatibratskaya, 482m high. Reka Palana, about 6 miles NNE of the cape, can be recognized by the buildings of a fish cannery, conspicuous from seaward, near the river mouth.

Mys Kinkil'skiy (Mys Kinkil'skoy) (59°20'N., 160°12'E.), 16 miles NE of Reka Palana, is slanted on its seaward side and its flat top is backed by a plateau receding inland. A short drying reef extends NW from the cape, and a similar reef extends a short distance offshore for about 1 mile E of the cape.

Mys Pensepel, a low blunt cape, about 18 miles NE of Mys Kinkil'skiy, is the seaward termination of the valley through which Reka Lesnaya (Reka Lesnoye) flows. Reka Lesnaya forms a marshy delta covered with small shrub and scrub trees. The river enters the sea about 9.5 miles SSW of Mys Pensepel', flowing SSW for the last 6 miles, separated from the sea by a narrow strip of sand and shingle.

Mys Ostrovskoy (59°43'N., 161°02'E.) is a steep rounded cape formed by the seaward termination of a coastal elevation, 308m high. The W slope of this elevation projects slightly from the coast. A drying rock lies about 5 miles SW of the point and about 1.3 miles offshore.

A chain of mountains, extending 43 miles NE of Mys Ostrovnoy, has no conspicuous summits except a cone-shaped peak, 564m high, near the N end of the chain. A precipitous rectangular cape, about 24 miles NE of Mys Ostrovnoy, forms the only fairly conspicuous projection along this coast. A ledge, which dries, extends about 1.8 miles N from the NE end of the cape.

5.17 Mys Bozhedomova (60°18'N., 161°53'E.), 44 miles NE of Mys Ostrovnoy, is a cliffy brown cape, conspicuously marked by numerous white patches. A finger-like pillar rock lies near the extremity of the cape. Rocks, which dry, extend about 1 mile SSW of the pillar rock.

Ostrovok Yengalycheva, a barren islet about 1.7 miles SW of Mys Bozhedomova, is steep on all sides, rising sheerly from the sea at HW, but at LW a foreshore of sand and shingle fringes it on all sides. Above and below-water rocks extend about 0.5 mile SSW of the islet, and a drying reef extends about 0.3 mile NNE. Navigation between Mys Bozhedomova and the islet is not recommended unless the extremities of both reefs are clearly visible.

Bukhta Podkagernaya, a very shallow bight E of Mys Bozhedomova, dries at LWS.

Tides—Currents.—The MHW interval at Bukhta Podkagernaya is about 3 hours 15 minutes. The spring tide is diurnal and the spring tidal range is up to 6.7m. The neap tide is semidiurnal and has a range of about 3.3m. Generally, the tides here are irregular.

Anchorage.—Anchorage, with local knowledge, can be taken in the roadstead S of Bukhta Podkagernaya, in 6.5m, fairly good holding ground of sand and shingle, S of the parallel of Ostrovok Yengalycheva, and with Mys Bozhedomova bearing N.

Penzhinskaya Guba

5.18 Penzhinskaya Guba, entered between Mys Bozhedomova and Mys Taygonos, about 54 miles WNW, has no sheltered anchorages, despite its considerable size and appreciably indented shores. The shores of the gulf are generally high and bluff. The Gorlo, the narrowest part, separates the gulf into two parts.

Caution.—Despite swift currents, Penzhinskaya Guba presents no difficulties on a clear day, since throughout the greater part of the bay both shores are visible and afford a sufficient number of landmarks.

In fog, vessels should keep on the NW side of the S half of the gulf and at a safe distance offshore. A sudden decrease in depth from 30 to 35m to 10m is a sign of danger and indicates that the vessel has been set E.

In the N part of the gulf, vessels proceeding toward the head of the gulf should use the passage between Mys Valizhgen and the E end of the shallow area that extends toward this cape from Ostrov Dobrzhanskogo.

5.19 East side of Penzhinskaya Guba.—Between Mys Bozhedomova and **Mys Dal'niy** (60°26'N., 161°54'E.), 8 miles N, the coast is high and cliffy, backed by mountains, 450 to 550m high, from 1.5 to 2 miles inland. Rocks, which dry, extend about 0.5 mile NW of Mys Dal'niy.

Ostrov Konus (60°34'N., 162°08'E.), conical in shape, is bordered about 0.5 mile W by a group of above and below-water rocks; similar group lies about 1.5 miles N of the island.

Gora Bol'shaya (60°31'N., 162°23'E.) rises about 1.5 miles inland and is conspicuous. From the W, the mountain appears as a detached ridge paralleling the coast and marked by three summits.

Ostrov Zubchatyy (60°48'N., 162°45'E.) has a serrated summit. Drying rocks extend about 0.7 mile N, and about 0.3 mile S from the island. Two detached rocks, nearly awash at LW, lie about 4.8 miles W and SSW, respectively, of the S end of the island. The area between these rocks and the island is dangerous to navigation.

Ostrov Rovnyy lies about 16 miles ENE of Ostrov Zubchatyy and is steep-sided. Submerged rocks lie about 1 mile SSW and 0.8 mile WNW, respectively, of the S end of the island.

Rekinninskaya Guba (Rekinskaya Guba), a shallow bay, lies S of **Mys Ugol'nyy** (61°00'N., 163°30'E.). A dangerous ledge, which occasionally dries in places and is otherwise indiscernible, projects nearly 1.8 miles SSW from the extremity of an inconspicuous cape located 1.5 miles SE of Mys Ugol'nyy.

Tidal currents attain a velocity of 2.5 to 3 knots in the vicinity of Mys Ugol'nyy.

5.20 Mys Nottatey (61°07'N., 163°37'E.), 8 miles NNE of Mys Ugol'nyy, is surrounded on all sides by pillar rocks, some of which are of unusual shape. Drying rocks extend about 0.5 mile SW and W of the cape.

Gora Stolovaya, a table-top mountain, about 1.5 miles inland of Mys Nottatey, rises to a height of about 579m and, exceeding other elevations in the vicinity, is conspicuous.

Gora Golova, a detached rounded coastal mountain, about 1 mile SW of Gora Stolovaya, rises to a height of about 396m and is identified by a knoll-shaped summit, the S side of which is a sheer precipice.Ostrovok Skala, about 7.5 miles NNW of Mys Nottatey, is a very conspicuous barren islet with a pointed summit.

Gora Golova from ESE, distant 2 miles

The cliffs bordering Zaliv Mamechinskiy, from about 4 miles NE of Mys Nottatey to Poluostrov Mamechinskiy, are conspicuous for their varied colors, white, yellow, and gray, alternating with black, brown, and red.

Mys Vodopadnyy (61°25'N., 163°46'E.), the S extremity of Poluostrov Mamechinskiy, is marked by numerous waterfalls. A rocky spit extends about 1 mile SW from the W side of the cape.

The entire W side of Poluostrov Mamechinskiy, on the E side of The Gorlo, faces the sea with a wall-like formation of forbidding cliffs of great heights, occasionally cut through by gulleys of swift mountain streams. Gora Mamet Bol'shoy, its highest point, rises about 6 miles NE of Mys Vodopadnyy. The pointed summit of this cone-shaped mountain is very conspicuous from the offing on a clear day.

The coast from Mys Mamet, the NNE extremity of Poluostrov Mamechinskiy to Mys Valizhgen, about 27 miles N, faces the sea with a row of bluffs 91 to 122m high.

5.21 West side of Penzhinskaya Guba.—Mys Taygonos (60°34'N., 160°11'E.) is the S extremity of Poluostrov Taygonos, the S part of which is a fairly even plateau facing the sea with sheer cliffs 76 to 91m high. Rocks, which dry, extend a short distance off the cape. The cape is inconspicuous from the S, as it merges with the coastal elevations in the background, but it may be identified by a whitish patch on its cliffs near its extremity.

Tides—Currents.—Tidal currents attain a velocity of 3 knots in the vicinity of Mys Taygonos, forcing cold water to the surface, and causing the fogs which are frequent in the vicinity of the cape.

Bukhta Taygonos, about 10 miles NE of Mys Taygonos, has depths of 13m, shingle and mud, in the entrance, shoaling to 5.5m about 0.5 mile within the entrance. The N half of the inlet dries.

Caution.—Caution is necessary approaching the cape in fog, as there are depths of 70m less than 1 mile from it.

5.22 Mys Povorotnyy (60°43'N., 160°46'E.), 20 miles ENE of Mys Taygonos, is conspicuous due to its reddish cliffs, backed by mountain peaks, about 762m high. Two large pillar rocks are located on a detached drying reef, which lies about 3 miles SE of the cape. It is not advisable to use the channel between the reef and Mys Povorotnyy, as it has not been thoroughly examined. Considerable tide rips and eddies, formed by the strong tidal currents, are observed E of the cape and the reef during the flood, and W of them during the ebb.

Between Mys Nablyudeniy, a hard to identify point lying 20 miles NE of Mys Povorotnyy, and Mys Naklonnyy, about 36 miles further NE, the coastal elevations, which rise to about 610m at the S end of the coast, decrease in height to not more than 122 to 183m near Mys Naklonnyy. The latter point can be identified by its slanting seaward face. The small bays along this coast are silted.

Ostrov Tretiy (61°35'N., 162°34'E.) rises to a height of 546m in the W part of the island. The N side of the island is joined to the coast by a drying flat. A reef, resembling a picket fence when dry, extends across this flat.

Anchorage.—Anchorage can be taken S of Ostrov Tretiy, but vessels should not anchor within 1.5 miles of the island as the bottom is rocky. Farther out, the bottom is sand and gravel. Vessels with a draft not exceeding 5.5m can anchor about 1 mile NE of the E extremity of the island, with good holding ground, and out of the influence of the tidal currents. Local knowledge is necessary for both anchorages.

5.23 Mys Yelistratova (61°31'N., 163°02'E.), the S extremity of Poluostrov Yelistratova, is formed by the seaward termination of a spur of a mountain, 253m high, located about 1.2 miles NE of the extremity of the cape. The W side of the cape is cliffy, but its E side faces the narrows with a grayish-brown bluff. A saddle-shaped twin summit pillar rock lies close within the S extremity of a drying reef projecting S from Mys Yelistratova.

Ostrov Vtoroy and Ostrov Krayniy, about 1.5 and 2.5 miles S, respectively, of Mys Yelistratova, are foul on all sides. Ostrov Krayniy has precipitous shores, and a drying ledge extends 0.5 mile WSW from its SW end. Fairly even depths of 30 to 35m, rock, are at a distance of 2 to 2.5 miles off the islets.

Anchorage.—Anchorage in the vicinity of the islets is untenable due to the swift tidal currents and poor holding ground of rock.

5.24 Poluostrov Yelistratova forms the W side of The Gorlo, or narrows, of Penzhinskaya Guba, and is connected to the mainland by a low isthmus. A mountain range, with general

elevations of 250 to 450m, trends along the entire seaward side of the peninsula, but attains an elevation of 609m in its S part.

Mys Sredniy (61°36'N., 163°15'E.) is the extremity of a small cliffy peninsular projection, 168m high, extending from the E side of Poluostrov Yelistratova.

Mys Opasnyy, about 7 miles NE of Mys Sredniy, is the N of two headlands 2.5 miles apart forming the NE extremity of Poluostrov Yelistratova. The S headland is formed by sheer cliffs of great height. Mys Opasnyy faces the sea with 180 to 215m high precipices rising within to a hill about 300m high. The cape is very prominent.

Rocks, which dry, extend about 1 mile ENE of Mys Opasnyy. A detached group of rocks, drying at half tide, lies about 1.2 miles NNE of the same headland. A patch, with a depth of 1.2m, lies about 3 miles NNE of Mys Opasnyy.

Caution.—Tidal currents attaining a velocity of 5 knots along the NE side of Poluostrov Yelistratova cause eddies and cross currents in the vicinity of the above-mentioned rocks and may be a source of great danger. Mys Opasnyy should not be approached within 2 miles.

5.25 Mys Pupyr' (62°03'N., 163°12'E.), 22 miles NNW of Mys Opasnyy, is a high, sharp rock, connected to a bluff headland, 234m high, and formed by a spur of a coastal mountain rising about 6 miles SW of the extremity of the peninsula. The point is fringed by rocks and shallow water extends 1 mile offshore.

Mys Obryvistyy (62°19'N., 163°21'E.), 16 miles NNE of Mys Pupyr', is formed by the seaward face of a sloping hill rising to a height of 152m about 2 miles inland.

Ostrov Dobrzhanskogo, about 4 miles ENE of Mys Obryvistyy, rises to a height of 271m on the E side of the island. The island, because of its relatively great height, is conspicuous and having the appearance of a hillock when seen from the N entrance of the narrows, forms a useful landmark for vessels navigating in the N part of Penzhinskaya Guba.

Ostrov Dobrzhanskogo

An oval-shaped islet, about 46m high, lies 0.7 mile NNE of Ostrov Dobrzhanskogo, and two small flat-topped islets lie off the W end of the island.

5.26 Head of Penzhinskaya Guba.—The head of Penzhinskaya Guba, lying N of a line extending between Mys Obryvistyy and Mys Valizhgen, is generally shoal. A shallow area, which is only partly surveyed, occupies the middle part of the gulf between Mys Valizhgen and Ostrov Dobrzhanskogo, and has depths of 1.2 to 2.6m, with drying flats in places. Between the E end of this shallow area and Mys Valizhgen, a channel with depths of 8.2 to 13m extends in a general NE-SW direction, widening N and S of Mys Valizhgen.

Mys Krayniy (62°26'N., 164°33'E.), about 14 miles NE of Mys Valizhgen, is the S entrance point of the common estuary of Reka Penzhina and Reka Talovka. The coastal cliffs in the vicinity of the cape are about 37 to 46m high. The settlement of Ornochek is situated on the N entrance point of the estuary, about 10 miles NE of Mys Krayniy.

Anchorage.—Vessels, with local knowledge, bound for Ornochek and with a draft of up to 5.5m, should, after passing about 2 miles W of Mys Valizhgen, steer a NNE course until Ornochek bears about 067°, then steer for it on this bearing and anchor not more than 1.5 miles SSE of Ornochek, so as to give sufficient berth to a 3.4m shoal about 2.5 miles SSW of the settlement.

Zaliv Shelikhova (continued)

5.27 West side of Zaliv Shelikhova.—Mys Tolstoy (59°10'N., 155°12'E.), the W entrance point of Zaliv Shelikhova, rises to a height of 232m and is dominated by Gora P'yagina, about 8 miles NW, which is a good landmark. Four rocks lie close off the cape, which is steep-to and clear of dangers.

Ostrova Yamskiye, a group of five rocky islands, lies between 2 and 11 miles E of Poluostrov P'yagina. Ostrov Atykan, the SE inland of the group, is steep-to and lies about 9 miles ENE of Mys Tolstoy. Ostrov Atykan has the aspect of a huge cliff rising sheerly from the sea to a height of 332m near its SW end. The island appears conical on all bearings except those approximately NW and SE.

Ostrovok Baran, about 5 miles W of Ostrov Atykan, rises to a pointed summit, 155m high, and slopes steeply on all sides. The shores of the islet are steep-to, and there are no dangers seaward of the rocks lying close off the NW and SE extremities of the islet.

Ostrovok Khatemal'yu, lying between Ostrovok Baran and the peninsula, is composed of forbidding cliffs rising to a height of 225m, and has the aspect of four pillar rocks close together, disposed in an E-W direction.

Ostrov Matykil', about 5 miles N of Ostrov Atykan, rises to a height of 707m near the middle of the island. Two pillar rocks lie close off the NW end of the island. The shores of Ostrov Matykil' are steep-to and clear of dangers.

Ostrovok Kokontse, about 1 mile WSW of Ostrov Matykil', rises to a height of 91m and has the aspect of an unbroken row of basalt pillar rocks, which are deeply serrated and descend to the sea in terraces.

Tides—Currents.—Tidal currents in the area of Ostrova Yamskiye attain at springs a velocity of 4 to 4.5 knots near the coast, about 4 knots in the middle part of the group, and 3 to 3.5 knots along the E side of the group. At neaps, these currents attain respective velocities equal to about 50 per cent of those at springs. The period of SW is brief and the change of currents occurs rather abruptly. The flood sets N, the ebb S.

The tidal currents cause the colder bottom water to rise, making the surface temperature in places around the islands up to 11°C less than the average air temperature in the vicinity. The islands are seldom free of fog, particularly with onshore winds. Offshore winds clear the group to some extent.

Refraction, particularly strong near the time of sunset, occurs in the area of the islands.

Abnormal magnetic variation exists in the area of Ostrova Yamskiye.

5.28 Mys Yapon (59°29'N., 154°56'E.), a steep, fairly conspicuous cape, is bordered 1.7 miles SSE by a mountain 704m high, and 1 mile SSW by a mountain 469m high.

Mys Keytevan (59°32'N., 154°36'E.), 10 miles WNW of Mys Yapon, is steep-to and clear of dangers. It is rendered conspicuous by Gora Konus, a conspicuous cone-shaped mountain rising about 1 mile S of the extremity of the cape.

Yamskaya Guba is entered between Mys Keytevan and Mys Iretskiy, about 21 miles NNW. The N and S shores of the bay are high at the entrance, but decreasing in height W. They merge into a low shore, which is backed by plains of tundra.

Mys Iretskiy, steep-to and clear of dangers, is formed by the steep cliffy slope of a twin-peaked hill rising to a height of 195m at the elbow of an L-shaped peninsula. From a distance the twin-peaked hill has the appearance of a dark spot on a lighter background of the coast.

Winds—Weather.—Winds in Yamskaya Guba ordinarily do not exceed a force of 4 or 5, but occasionally attain a force of 6 or 7. These winds prevail throughout June, July, and the first half of August. Calms prevail throughout the latter half of August and the first half of September. The autumnal NE winds begin in the second part of September, often attaining a force of 11. The NE winds, as a rule, are accompanied by misty weather and precipitation.

It has been observed that a mist enveloping Gora Verkhniy Tolstoy and Gora Nizhniy Tolstoy indicates the approach of NE winds of great force.

Fog in Yamskaya Guba is comparatively rare, but during calms it penetrates into the bay from the area of Ostrova Yamskiye.

Ice.—Ice usually appears in Yamskaya Guba in October, and the bay is frozen late in December or early January, and may be up to 1m thick. During exceptionally mild winters, complete freezing does not take place until February. The ice breaks early in June, and the bay is clear of ice by the end of June or the first part of July.

Tides—Currents.—The tides, which generally are irregular in Yamskaya Guba, are diurnal at springs, but are semidiurnal at neaps. The maximum tidal range occurs in July, late in November, and early in March, being about 6.4m at springs and about 2.1m at neaps. The tidal range was observed to be about 5.4m in August and 4.5 to 4.8m in the middle of September.

The tidal currents are particularly pronounced in the S part of Yamskaya Guba and in the entrance of Zaliv Perevolochnyy, attaining velocities of 8 to 8.5 knots at springs in July, from 5.5 to 6 knots in August, and 4 to 4.5 knots in September. These currents do not exceed, on the average, 3.5 knots at neaps, and are imperceptible at the anchorage abreast the settlement of Brokhovo, situated about 5 miles NNW of the extremity of Kosa Yamskaya.

Aspect.—Gora Sedlo, about 9 miles WSW of Mys Keytevan, is conspicuous, consisting of two peaks separated by a saddle.

Ostrov Buyan, 32m high, about 13 miles WNW of Mys Keytevan, is visible from seaward over Kosa Yamskaya.

Gora Svetlyy Konus, a conspicuous cone-shaped mountain of light color, rises about 18 miles W of Mys Iretskiy and forms the SW end of a detached angular mountain range.

Anchorage.—Vessels can anchor as convenient, in depths of 11 to 31m, but the greater part of the bay has a rocky bottom, poor holding ground. Anchorage in Yamskaya Guba is untenable with NE and SE winds. When these winds begin to blow, vessels should put to sea.

5.29 Reka Iret' (59°55'N., 154°29'E.), entering the sea about 2 miles N of Mys Iretskiy, flows S for the last 3.5 miles, separated from the sea by Iretskaya Kosa, a sand and shingle spit. Depths of 10.8m lie 0.2 to 0.3 mile off the S part of Iretskaya Kosa, and there are depths of 2.1m in the entrance.

Tides—Currents.—The HW interval at the mouth of Reka Iret' is 4 hours 30 minutes at springs, but otherwise is irregular. The tidal range is 4.5 to 6.4m at springs and 1.5 to 2.1m at neaps. The tidal currents attain a velocity of 5 to 6 knots.

Anchorage.—Anchorage can be obtained in convenient depths off the seaward side of Iretskaya Kosa, 0.5 mile N of the extremity of the spit, where the tidal currents are not pronounced.

5.30 Mys Aregichinskiy (60°30'N., 155°27'E.) lies 47 miles NE of Mys Iretskiy. It is the S end of a rocky headland, terminating in a small tableland, conspicuous from the E, and marked by a cluster of pointed rocks at its extremity.

A partly drying reef extends 0.5 mile S of the extremity of the cape, and is marked by two small pillar rocks rising from its middle part and by two conspicuous pillar rocks on a common base near the extremity of the reef.

Mys Aregichinskiy

Mys Seryy, 1.5 miles NE of Mys Aregichinskiy, has gray cliffs contrasting sharply with the prevailing brown color of this coast, and gives to Mys Seryy the appearance of a conspicuous light-colored patch discernible from the offing.

Bukhta Yemlinskaya, the bight W of Mys Aregichinskiy, has high and precipitous shores, and depths of 12.8 to 22m.

Anchorage.—Anchorage, sheltered from NE winds, can be obtained in a position a short distance off the N shore of the bight. Vessels approaching this anchorage should proceed with due precautions and should sound continually.

Gizhiginskaya Guba

5.31 Gizhiginskaya Guba, entered between Mys Aregichinskiy and Mys Taygonos, about 140 miles E, has elevated and rocky shores, with few off-lying dangers. The bay has no completely protected anchorages.

Winds—Weather.—During the summer, S winds prevail. North winds are frequent and attain their maximum force during the autumn and the first part of the winter. Storms are common during the second half of September, October, and November. Fresh NW winds, interrupted by NE blizzards, prevail from December until the end of March. The season of gentle winds and calms lasts from the middle of April to the end of May.

The mean annual temperature in this vicinity varies between -7° and -5°C. Only five months of the year have a mean temperature above the freezing point. Frost begins to occur by the middle of September, and the month of October has a mean monthly temperature below freezing.

During the navigational season, dense fog occurs frequently in the SE part of the bay. The foggiest months are May and June. During July, the fog often envelops only the elevated parts of the coast, leaving the coastline clear. During August fog is rare, being rather an exception in the N and W parts of the bay.

During fog in the N part of the bay, vessels should make landfall W of **Mys Varkhalamskiy** (61°39'N., 159°34'E.), and then wait off this point until the weather clears.

Tides—Currents.—Generally the tides in Gizhiginskaya Guba are irregular. At springs, the tidal range, which is 6.7m at the entrance into the bay, increases to 7.9m at the head of the bay. At neaps, the tidal ranges are marked by inequities of up to 1.5m, the greater range being 2.7 to 3.3m.

The flood current sets N along the shores of the gulf and the ebb current sets S. At springs, the tidal current in the vicinity of Mys Taygonos attain a velocity of 2 to 2.5 knots, and moderate to 1.5 knots or less along the W shore of the bay. At the head of the bay the tidal currents are weak and irregular.

The constant current that sets along the Sea of Okhotsk in a counterclockwise direction flows in Gizhiginskaya Guba accelerating or retarding the tidal currents.

5.32 West and N sides of Gizhiginskaya Guba.—Mys Ostrovnoy (60°42'N., 155°54'E.) is the S extremity of a rocky, elevated peninsula, which has the appearance of an island when seen from along the coast. An islet, with a jagged summit, 15m high, lies 0.5 mile S of the cape. Above-water and submerged rocks extend 0.5 mile S of the islet.

Zaliv Ostrovnoy, immediately W of the above peninsula, dries out to about 1.5 miles from its head.

Tumanskiy Reyd, a totally exposed roadstead, is entered N of Mys Dyryavyy, a cliffy point about 14 miles N of Mys Ostrovnoy. Reka Tumany discharges immediately N of the point. A low sandy beach extends about 3 miles N of the river mouth to a small detached cliff, the N entrance point of the roadstead.

A drying reef, marked by an above-water rock near its extremity, extends S from the N entrance point of Tumanskiy Reyd. Two above-water rocks lie on the outer end of a drying reef extending SE from Mys Dyryavyy.

Tumannoye (Tumanskoye) settlement is situated near the mouth of Reka Tumana.

The bottom of the roadstead shelves gradually toward the shore, and depths of 7.3 to 9.1m, sand and shingle, have been obtained at a distance of 0.3 to 0.4 mile offshore.

Anchorage.—Vessels anchor in adequate depths abreast the midsection of the sandy beach, where the tidal currents are weaker. The holding ground is fairly good, although, local knowledge is necessary.

5.33 Mys Viliginskiy (61°13'N., 156°40'E.), 38 miles NE of Mys Ostrovnoy, is the extremity of flat-topped peninsular projections, 91 to 122m high. A pillar rock, connected to the cape by a low isthmus, has from a distance the appearance of a detached rock. The cape is clear of dangers.

Mys Nadezhdy (61°30'N., 156°43'E.), about 18 miles farther N, is the E extremity of a small, rectangular peninsula with gray cliffs, about 91m high. A reef lies 0.4 mile NE of the point. A mountain, rising to a height of 829m, about 6.5 miles NNE of the peninsula, dominates other elevations nearby and is conspicuous.

Zaliv Pestraya Dresva, on the N side of Mys Nadezhdy, has depths of 11m within a confined area in the middle of the entrance, decreasing to depths of 5.5m about 0.4 mile off the N and W shores of the bight.

Tides—Currents.—The MHW interval at Zaliv Pestraya Dresva is approximately 5 hours 30 minutes. The tidal range at springs is 7m and is diurnal, but at neaps it is semidiurnal and is 2.4m and 3m.

Anchorage.—Small vessels can obtain anchorage sheltered from N and NE winds off the N shore, or sheltered from S and SE winds in the SW part of the bight.

5.34 Mys Gorka (61°41'N., 157°42'E.) is formed by the spur of a mountain, 568m high. A hill, 247m high, about 1.5 miles N of the cape's extremity, serves with the mountain to make the cape easily identified. A small rocky islet lies close S of the cape.

The coast between Mys Gorka and Mys Varkhalamskiy, about 64 miles E, is precipitous, jagged, and bordered by rocks, and should not, in general, be approached closer than 2 miles, except at Nayakhanskiy Reyd. Above-water and drying rocks extend to about 1.7 mile SW of **Mys Opasnyy** (61°47'N., 158°31'E.), 32 miles E of Mys Varkhalamskiy.

Guba Nayakhanskaya is entered between **Mys Storozhevoy** (61°50'N., 158°52'E.) and Mys Taynochin, about 15 miles E. Mys Storozhevoy, a precipitous cape, has a detached, pointed pillar rock surrounded by rocks close off its extremity. A rocky ledge extends about 1 mile SSE of a point 2.5 miles W of Mys Storozhevoy.

Mys Taynochin (61°49'N., 159°23'E.), 46m high, is bordered about 1 mile SW of Ostrov Taynochin, to which it is connected by a drying ledge. A pointed pillar rock close offshore, and a rather flat-topped pillar rock farther seaward, lie on this ledge. Rocks are scattered on all sides of the island.

The W and E shores of the bay face the sea with brown precipices, but the N shore is a plateau receding far inland and facing the sea with gray and yellow sand bluffs.

Mys Nayakhanskiy, about 6.5 miles NE of Mys Storozhevoy, rises to a steep hillock, 65m high, in the central part of the cape, which faces the sea with steep precipices, about 34m high. A beacon is situated on Mys Nayakhanskiy. Two masts of a radio station, in line bearing 326°, are situated NW of the cape and are prominent from E or SE.

Reka Nayakhan, entered E of Mys Nayakhanskiy, forms a bay at its entrance, which dries at LW. A broad flat extends 0.5 mile from the entrance. The summer station of Nayakhan settlement, which increases during the fishing season, is situated on the N side of the mouth of the river. Mys Ostrovnoy, on the W side of the entrance, is connected to the coast by a low isthmus of sand and shingle, and has the appearance of an islet from a distance.

5.35 Nayakhanskiy Reyd (61°54'N., 159°00'E.), a roadstead off the mouth of Reka Nayakhan, is exposed to winds

from the SW through S to SE, which prevail during the navigational season and render anchorage here uncomfortable. Strong N and NE winds cause a heavy sea. The constant swell makes landing difficult or impossible, but the best place at HW is in a cave under Mys Nayakhanskiy, where a path leads to the settlement of Nayakhan.

Depths of 11m, shingle, lie at a distance of 1.7 miles offshore in the W part of the roadstead, and about 2 miles offshore in the E part of the roadstead. The depths decrease to 5.5m, sand, at a distance of about 0.5 mile offshore in the W part of the roadstead, and 1 mile offshore in the E.

Tides—Currents.—Tidal currents in Nayakhanskiy Reyd do not exceed a velocity of 1.5 knots at springs, and 0.8 knot at neaps.

Mys Rifovyy (61°45'N., 159°29'E.) is bordered close S by an islet, which is foul to a distance of 0.3 mile. Ostrov Chetyre Pal'sta, a group of rocks on a common drying base, about 2.5 miles WSW of Mys Rifovyy, consists of numerous small rocks and four large ones, the principal of which, a serrated rock islet, lies in the center of the group, and the other three pillar rocks resembling fingers. Fairly even depths of 20 to 26m, rock, have been obtained in the middle of the channel separating Ostrov Chetyre Pal'sta from the mainland, but this channel has not been thoroughly sounded.

Varkhalamskaya Guba, immediately E of Mys Rifovyy, has shores consisting of rather forbidding cliffs, 30 to 45m high, fringed with short reefs and scattered rocks to a short distance offshore.

5.36 Mys Varkhalamskiy (61°39'N., 159°34'E.), composed of grayish-brown sheer cliffs, about 61m high, forms the S extremity of Poluostrov Varkhalamskiy, a flat-topped peninsula. Gora Dvukhsopochnaya, rising about 5 miles N of Mys Varkhalamskiy, is the summit of the peninsula. The twin-peaked top is discernible from the W, but not from S. A short drying reef projects S from Mys Varkhalamskiy.

From the S the cape merges with the coast in the background and is inconspicuous, but a slightly projecting cape, about 1.5 miles NW of Mys Varkhalamskiy, has a conspicuous natural tunnel near its extremity that is prominent from the S and forms a useful landmark.

A group of two barren rocks on a common base, surrounded by smaller rocks nearby, lies about 3 miles NW of Mys Varkhalamskiy and about 1.5 miles offshore. Depths of 22m have been obtained about 0.5 mile E of these rocks.

Tides—Currents.—The flood current sets W and the ebb E, attaining velocities of 1.5 to 2 knots in the vicinity of Mys Varkhalamskiy.

The coast between Mys Varkhalamskiy and Mys Yekateriny, about 9.5 miles ENE, consists of a plateau, which falls precipitously from a height of 30 to 46m.

5.37 East side of Gizhiginskaya Guba.—The coast between the SW end of **Mys Taygonos** (60°34'N., 160°11'E.) and Mys Zubchatyy, about 14 miles N, consists of cliffs 61 to 91m high in the S part. Mys Zubchatyy rises almost vertically from the sea, attaining an elevation of 414m about 1.5 miles inland.

Vnutrennaya Guba is entered between Mys Zubchatyy and Mys Vnutrenniy, about 11 miles NW. The shores of the bay are backed by mountain chains, 500 to 600m high. The bay has not

Mys Zubchatyy

been completely surveyed, and its shores are fringed by above and below-water rocks, but none apparently more than 1 mile offshore.

Ostrov Telan, a very conspicuous island resembling a castle, lies about 1 mile SSW of Mys Vnutrenniy. A short reef projects from the NW end of the island, and a wide grassy spit projects in the direction of Mys Vnutrenniy.

Mys Telanskiy (60°56'N., 159°47'E.), the SW extremity of Poluostrov Telanskiy, rises to a height of 510m and is steep-to.

Sredniy Zaliv, entered about 18 miles N of Mys Telanskiy, is open from the S to WSW. The shores of the bay rise sheerly from the sea to heights of 46 to 61m and merge into an elevated plateau. A narrow strip of sand and shingle fringes the shore.

A drying ledge extends about 0.5 mile W of the E entrance point and is marked by a large rock, 46m high, close within its extremity. The depths in Sredniy Zaliv decrease to 20m about 1 mile offshore.

Anchorage.—Anchorage can be taken, in 20 to 25m, in Sredniy Zaliv. The bottom is mud, or mud and sand, except in the vicinity of the ledge where it is rocky. Small vessels anchor on the N side of the ledge, which gives some protection from the sea.

Ostrova Khalpili consists of two principal islets and several smaller islets and rocks, lying off the W side of the flat-topped peninsula, which forms the N side of Sredniy Zaliv. The S of the principal islets, about 0.5 mile off the SW end of the peninsula, has steep slopes rising to a sharp-peaked summit, 61m high. A partly drying reef connects the islet to the mainland. The N principal islet, about 2 miles N of the S islet, has a detached group of drying rocks a short distance off its S side.

The inlet, 5 miles farther NE, is about 2.5 miles wide at its entrance. Rocks lie nearly 0.5 mile off either entrance point. The entire inner half of the inlet dries and is encumbered with rocks.

5.38 Ostrovok Morskaya Matuga (61°23'N., 159°55'E.), a precipitous flat-topped islet, has the same elevation as the cliffs of the point about 0.5 mile E. The islet is connected to the mainland by a drying reef, marked with rocks and pillar rocks, two of which lie close to the islet. The islet appears to be steep-to on its W side.

Ostrovok Glinyanyy, about 5 miles farther NE, has the shape of an irregular cone, and is clearly visible only when a vessel is near the coast.

Between Ostrovok Glinyanyy and Mys Matugin, about 16 miles NNE, the coast consists of cliffs, 46 to 61m high, the greater part backed by a level plateau extending for several miles inland to the foot of a mountain range.

Caution.—Kamen' Opasnyy, a dangerous submerged rock,

occasionally awash, lies about 7 miles SW of Mys Matugin and about 4 miles offshore. The area in the vicinity of this rock has not been surveyed.

5.39 Mys Matugin (61°41'N., 160°15'E.), a precipitous cape, has the appearance of a sheer seaward termination of a slightly projecting tableland.

Ostrov Rechnaya Matuga, a flat-topped islet with precipitous shores and about 61m high, lies with its W end about 1 mile SW of Mys Matugin. A grotto in the W part of the islet is conspicuous from the N and S. The islet is fringed by a partly drying reef. A detached rocky patch lies about 0.3 mile WSW of the W end of the islet. A drying reef, on which are two large cube-shaped rocks, connects the islet to Mys Matugin.

Bukhta Matuga, the bight S of Mys Matugin, shoals gradually to depths of 5.5m about 0.5 mile offshore. A detached drying rocky patch lies 0.4 mile off the mouth of Rechka Matuga, at the head of the bight.

Anchorage.—Anchorage, with local knowledge, can be taken in Bukhta Matuga, in 6 to 11m, sheltered from winds of the NE and SE quadrants. Partial protection from NW winds and from the sea can be taken in that part of the bight close SE of the channel separating Ostrov Rechnaya Matuga from the mainland.

5.40 Head of Gizhiginskaya Guba.—The head of Gizhiginskaya Guba is entered between Mys Matugin and Mys Yekateriny, about 10 miles W.

Winds—Weather.—During the period of good weather throughout the area of Gizhiginskaya Guba, regular breezes prevail in the head of the gulf. The offshore breeze, which attains its greatest force about sunrise, languishes between 0800 and 0900 to a calm and then is superseded by an onshore breeze. This onshore breeze increases in force until 1600 or 1700, but subsides gradually to a calm and is superseded 2 hours after sunset by an offshore breeze throughout the night.

South winds bring fog into the head of the gulf from the vicinity of Mys Taygonos. Particularly dense and protracted fog prevails here during the spring and the first part of the summer. Fog is rare in the latter part of the summer, and, as a rule, does not occur in the fall. Winds from N, E, and W clear the head of the gulf from fog.

Ice.—The river freezes in the middle of October and the entire head of the gulf is covered with ice by the end of November. The ice begins to break in the first part of June, and, as a rule, the head of the gulf is free of ice by the end of the month.

Tides—Currents.—At the head of the gulf the MHW interval is about 2 hours 43 minutes at springs. At neaps, the HW interval is irregular and may vary by 1 hour 30 minutes. The tide is diurnal at springs, the tidal range being 7.9m. The flood lasts about 10 hours, and the ebb, about 14 hours. At neaps, the tide is semidiurnal and the tidal range is about 3m.

The flood current flows in a general NNE direction, and the ebb current in a SSW direction, attaining velocities of 2 to 2.5 knots along the W shore, but only 1 to 1.5 knots along the E shore.

Depths—Limitations.—Inside the entrance, the depths decrease gradually and uniformly. Generally, the W side is somewhat deeper. The bottom is rock in the S section of the head of the gulf, shingle in the middle section, and either sand, or sand and mud, in the N section.

Aspect.—Mys Yekateriny, a flat-topped precipitous cape, is conspicuous on bearings between ENE and NNE, but blends with the coast on other bearings. A large pillar rock, discernible from SW and NE, is located near the extremity of Mys Yekateriny and is connected to the cape by a short, rather low cliffy isthmus. A short drying ledge projects seaward from the pillar rock.

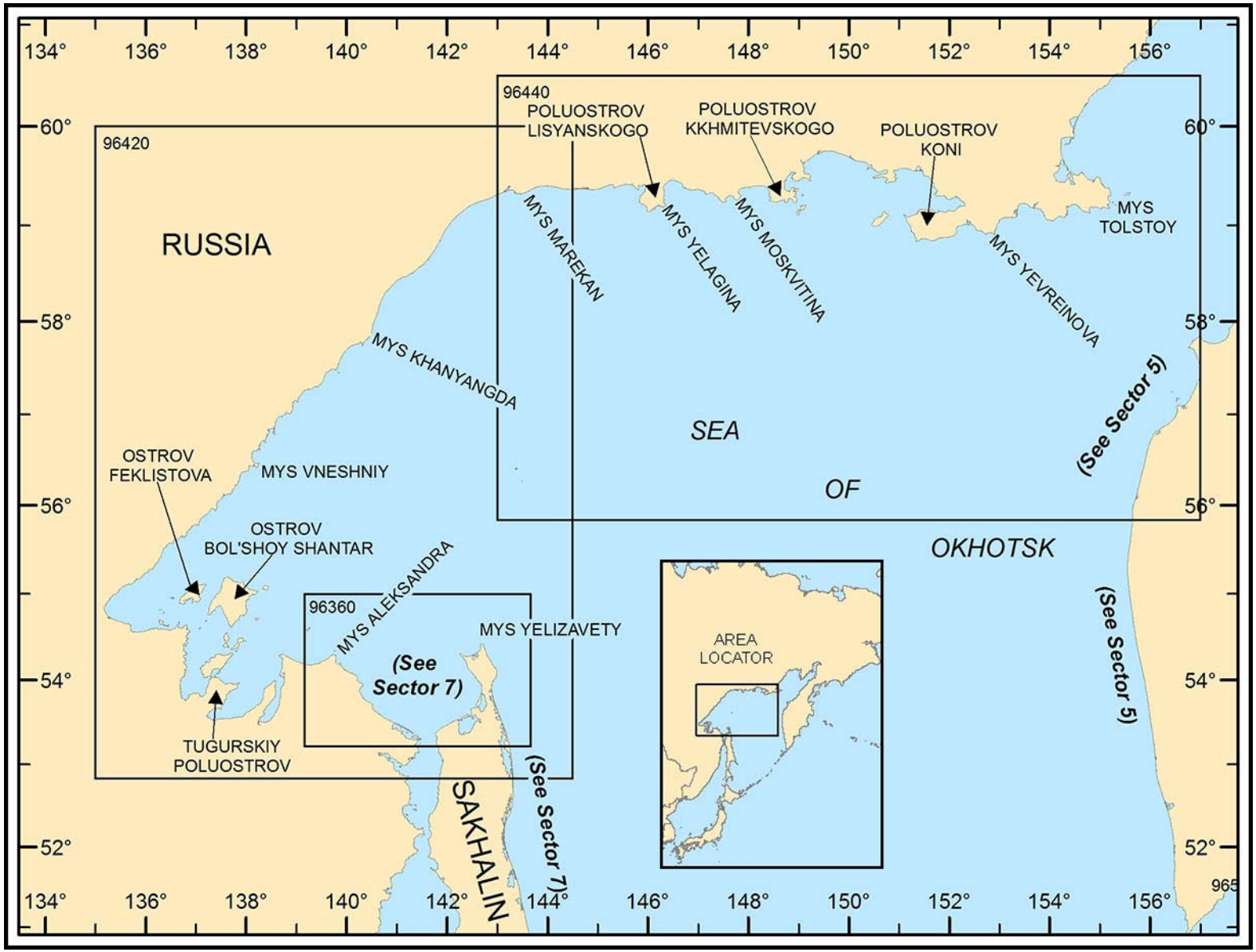
The NW shore of the head of the gulf is precipitous, from 30 to 61m high, and fringed by numerous rocks. The shore adjacent to Reka Gizhiga, at the head of the gulf, is low and consists of a sandy beach backed by marshes extending inland.

The shore between Mys Matugin and Mys Chaybukha, about 8 miles NNE, is a wall-like bluff, 76m high, fringed by rocks. Mys Chaybukha, conspicuous and rising to a height of 95m, is marked by three pillar rocks near its extremity.

Mys Mayachnyy, about 6.5 miles N of Mys Chaybukha, rises to a height of 49m near its extremity.

Anchorage.—Sheltered anchorage, in depths of not less than 7.3m, can be obtained about 2 miles N of Ostrov Rechnaya Matuga, with Mys Matugin bearing 138° and Mys Chaybukha 036°. The bottom here is rock, poor holding ground, and it should be borne in mind that from this position the bottom shelves N and E.

Anchorage off the W shore can be obtained about 6 miles within the entrance, in a depth of 7.3m, with Mys Chaybukha bearing 088° and the W end of Ostrov Rechnaya Matuga bearing 155°. This anchorage has a better holding ground, but the tidal currents here are stronger and it is exposed to the swell.



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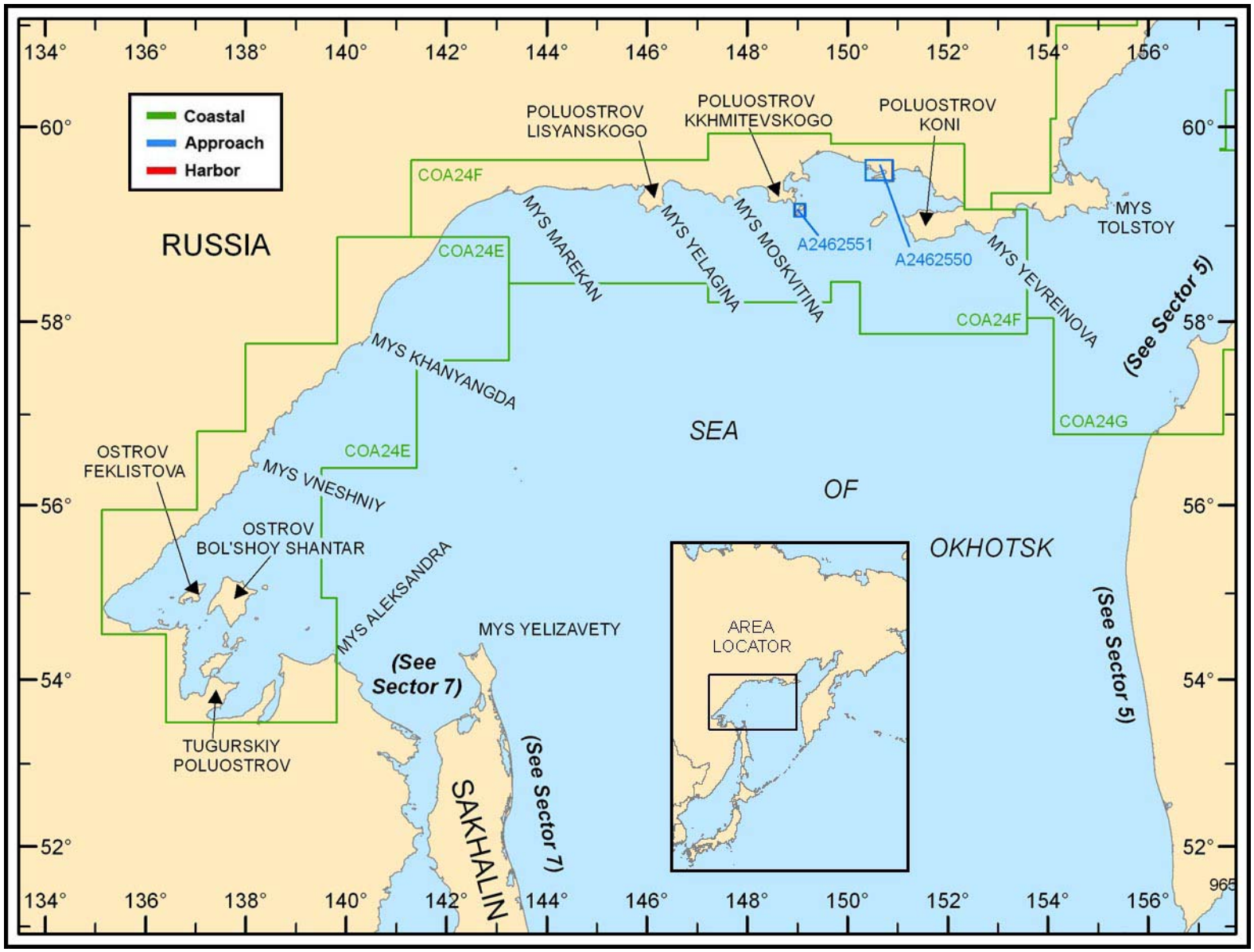
SECTOR **6** — CHART INFORMATION



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SECTOR 6

NORTH AND NORTHWEST SIDES OF THE SEA OF OKHOTSK—ZALIV SHELIKHOVA TO SAKHALINSKIY ZALIV

Plan.—The coasts described in this sector comprise the N and NW sides of the Sea of Okhotsk from Mys Tolstoy to Mys Aleksandra, including Shantarskiye Ostrova. The arrangement of the sector is from E to W, then from NE to SW.

General Remarks

6.1 Winds—Weather.—On the N shore of the Sea of Okhotsk, gentle winds and calms prevailing throughout April and May and gentle SE winds during June and July are occasionally interrupted by strong winds from the NE through E to SE, but rarely last for longer than two successive days. Between the middle of August and middle of September, SW winds become prevalent and may attain Force 3 or 4.

The latter half of September, October, and November is a period of protracted storms from the NE, SE, or NW, which are separated by short-lived calms. Fresh winter winds, N and NW being prevalent, prevail throughout December, January, and February, gradually losing their force toward March.

In Shantarskiye Ostrova, from April to the middle of July, is a period of calms and light airs. From the last part of July to September, SW to W dry winds of moderate force prevail and bring clear weather, the month of August being the best month of the navigational season. In September W winds change to NW winter winds and increase in force toward the end of the month. The last part of September, October, and November is a period of NE storms alternating with fresh NW winds.

Winds from the SE, as a rule, are accompanied by fog, and winds from the NNE to E are accompanied by mist and foul weather. Winds from the SSW to SW tend to disperse fog in the W part of this coast, and in the E part when the wind is of sufficient strength. Winds from the N through W to WSW are accompanied by clear weather.

On the NW coast of the Sea of Okhotsk, fog is frequent from the beginning of spring to midsummer. Fog is continuous in summer, and in the vicinity of **Ostrov Suyatoy Iony** (56°24'N., 143°23'E.). The N coast is often marked by fog, except with winds from the W sector. Vessels approaching this coast in fog should take all precautions upon obtaining a depth of 92m or less, or when within 3 miles of the coast in the E part.

During May, June, and July, 80 per cent of the days of the month experience fog at the E part of the N shore of the Sea of Okhotsk, about 50 per cent of the month is foggy at the mid part, and from 20 to 25 per cent of the month experiences fog at the W part of this coast. During this period, clear weather, which is usually accompanied by gentle offshore winds, is rather occasional and short-lived, often being confined to an offshore lane 15 to 20 miles in width. The number of clear days increases markedly toward the fall.

The season of fog in the vicinity of Shantarskiye Ostrova lasts from early spring to the midsummer, the frequency and density of fog being dependent on the amount of ice brought here from the N and NW coasts of the Sea of Okhotsk. In July, when SW to W dry winds begin to prevail, the number of days with fog decreases markedly.

The coast between Mys Tolstoy and Mys Alevina is fringed by a cold belt of water, 15 to 25 miles wide, in which the surface temperature in the summer is around 2°C, with colder patches near Mys Tolstoy. Farther seaward the temperature at the surface rises sharply to 12°C at the end of the summer.

Between Mys Alevina and Mys Duga, the temperature is approximately 6°C, rising N and S of the area. Approaching Tauyskaya Guba from the S, a vessel will pass through a belt of cold water.

West of Mys Duga, the cold belt becomes narrower and the change of temperature less marked; it ceases to exist S of Okhotskiy Reyd.

Ice.—Ice renders navigation impossible from the end of October or November until July. The N coast is usually free of ice in July, but can be reached in May and June passing through drift ice.

In the vicinity of Shantarskiye Ostrova the first ice is formed in the latter part of October or early November, and usually by the first half of December, solid ice extends into the sea as far as the eye can see. In the spring the ice begins to break up by the end of May or early June, but the drift ice, the amount of which may vary from year to year, remains around the islands, impeding navigation until the latter half of June, more often until July, and occasionally as late as August. Ordinarily, the ice does not interfere with navigation beginning the last part in July, but in some years the islands remain inaccessible throughout the navigational season.

Zaliv Akademii usually clears of ice by the middle of June, but in some years ice may remain in the approaches to the bay after this time. Zaliv Akademii may be temporarily packed with ice, rendering navigation impracticable, in unfavorable years, especially after strong NE winds. These conditions may prevail until as late as mid-August.

Tides—Currents.—The tidal wave advances toward Shantarskiye Ostrova from the ENE, increasing the HW intervals and retarding the SW, as one proceeds W and SW through the islands. The tidal currents range from 2 knots at the NE end of the group to 8 knots in the narrows of the strait between Ostrov Malyy Shantar and Ostrov Belichiy.

A constant current, which sets W along the N shore of the Sea of Okhotsk and attains a velocity of 0.8 knot E of Tauyskaya Guba, gradually loses its velocity and is imperceptible off the W part of this coast.

The flood current sets W, and being combined with the constant current, attains a velocity of 1.5 to 2 knots at springs. The ebb current sets E, and being abated by the constant current, is hardly perceptible or occasionally reversed.

The N coast of the Sea of Okhotsk is generally elevated and steep-to, except for some low sections in the W part and those in the N part of Tauyskaya Guba. A range of mountains ex-

tends near and parallel with the NW coast of the Sea of Okhotsk. The coastal hills begin to recede from the coast N of Mys Nogdan, and the coastline becomes lower, reaching the greatest width in the valleys of Reka Okhota and Reka Kukhtuy.

Mys Tolstoy to Tauyskaya Guba

6.2 **Mys Sredniy** (59°07'N., 154°52'E.), about 11 miles WSW of Mys Tolstoy, is a light-colored conspicuous cape, which is steep-to and clear of dangers. The coast from the head of the bay N of Mys Sredniy to Mys Chernyy, about 7 miles ENE, then to Mys Tolstoy, consists of steep cliffs with remarkable coloring. Generally, the cliffs W of Mys Chernyy are reddish and striped with yellow and green bands, while the cliffs E are dark gray with red patches.

Tides—Currents.—Tidal currents attain a velocity of 2 to 2.5 knots and cause eddies in the vicinity of Mys Sredniy. The flood current sets W and the ebb sets E.

Zaliv Kekurnyy, entered between Mys Sredniy and Mys Promezhutochnyy, about 16 miles W, has generally high shores. The bay is deep and has nearly steep-to shores. Mys Promezhutochnyy, a dome-shaped cape, is inconspicuous from seaward. Mys Vnutrenniy, about 2.5 miles NE, has two pillar rocks close off its extremity, the outer with a twin summit. Two rocky islets lie about 3.5 miles ENE of Mys Vnutrenniy, and an above-water rock lies about 2.5 miles N of the islets. The area between the islets and the rock has not been sounded, and dangers may exist here.

Mys Babushkina (59°02'N., 154°06'E.), 9 miles WSW of Mys Promezhutochnyy, is formed by the sheer seaward slope of a mountain rising to a height of 790m within the cape. Two rocks lying a short distance off the seaward face of the cape are discernible on NE and NW bearings. The cape blends with the background when seen from S.

Zaliv Babushkina, a deep bay with steep-to shores, is entered between Mys Babushkina and Mys Yevreinova, about 37 miles WSW. Two rocks, resembling small sailboats, lie near the shore 3.5 miles N of Mys Yevreinova.

The E shore between Mys Babushkina and Zaliv Shkhiperov, 15 miles NW of Mys Babushkina, is backed by an unbroken chain of mountains, with nearly barren slopes marked with picturesque waterfalls. Zaliv Shkhiperov is shallow and inaccessible. The head of the bay is dominated by a mountain, 1,030m high, about 5 miles NW of Zaliv Shkhiperov.

Mys Brat'yev, about 17 miles NE of Mys Yevreinova, has two similar pointed rocks near its extremity, and another pillar rock near the shore, 0.7 mile W of the extremity of the cape. A small inlet, which dries at its head, lies about 2.8 miles N of the cape.

Mys Vostochnyy (58°55'N., 152°45'E.) is a gray cape formed by the slightly convex seaward slope of a detached coastal mountain, rising to a height of 356m immediately inland. A pillar rock and several smaller rocks lie near the extremity of the cape. When seen from W, the entire seaward slope of the mountain forming the cape appears slightly serrated.

6.3 **Bukhta Zabiyaka** (Zaliv Zabiyaka) is entered between Mys Vostochnyy and Mys Kornilova, a high, cliffy, but inconspicuous cape, about 20 miles W. Mys Pavlovicha, a cape of light gray color, about 7 miles WNW of Mys Vostochnyy, is marked by a group of rocks near its extremity. The shores of the bay are high and rocky. The E shore is steep-to, with depths of 46 to 55m a short distance offshore. The W shore has depths of 37m about 0.5 mile offshore, decreasing abruptly to the shore.

Bukhta Van-der-Shkrufa, at the head of Zaliv Zabiyaka, is a lagoon-like recess, nearly all of which dries, entered between Mys Lelyakhina and Mys Vkhodnoy, about 0.7 mile ENE. Depths of 11m, fine sand and shell, are in the middle of the entrance into Bukhta Van-der-Shkrufa, and also within a confined area extending about 0.3 mile within this entrance, but they decrease suddenly to depths of 5m farther within the entrance. A rock, awash, lies nearly in the middle of the entrance of Bukhta Van-der-Shkrufa, about 0.2 mile N of the line joining the entrance points. There are other dangerous rocks NE of this rock.

Tides—Currents.—The tidal range is 3m at springs and about 1.5m at neaps. The tidal currents attain a velocity of 2 to 2.5 knots in the vicinity of the anchorage.

The coast between Mys Kornilova and Mys Alevina, about 24 miles W, forms the S side of Poluostrov Koni, and is covered by thick fog during a large part of the summer, especially from April to the end of July.

Aspect.—Mys Bligan, a dark gray cape, indiscernible from the S, rises sheerly from the sea about midway along this coast, and can be identified by a pointed rock lying close offshore. The coast E and W of Mys Bligan is steep-to.

Anchorage.—Anchorage, exposed to S winds, can be obtained, in 11m, good holding ground of fine sand, in the middle of the entrance of Bukhta Van-der-Shkrufa.

6.4 **Mys Alevina** (58°50'N., 151°20'E.) is formed by a gray plateau neck of land falling steeply on all sides from heights of about 61m. It is conspicuous from seaward except from the SW. A partly drying reef extends about 0.2 mile SW from the extremity of the cape. A light is exhibited on the cape.

Tides—Currents.—The tidal currents in the vicinity of Mys Alevina attain a velocity of 1.5 to 2 knots. The flood current rounds the cape and sets in a W and a N direction, and the ebb current rounds the cape in a reverse direction.

Tauyskaya Guba

6.5 Tauyskaya Guba, entered between Mys Alevina and Mys Shestakova, a high, steep cape about 78 miles WNW, contains many gulfs, or bays, which offer sheltered anchorage. The important port complex of Nagayeva-Magadan lies in the N part of Tauyskaya Guba.

Ostrov Zav'yalova and Ostrov Spafar'yeva lie in the E and W parts, respectively, of the entrance, and form three entrance channels. The main channel, between the islands, has a width of 43 miles.

There are general depths of 37 to 64m in the bay, decreasing gradually toward the lower shores, but the higher and rocky shores are almost steep-to.

Winds—Weather.—During the navigational season, dense protracted fog prevails in the approaches to Tauyskaya Guba, and to a somewhat lesser extent in the bay itself. The fog may become thinner, or lift entirely, under the N shore of the bay.

The cold water area in the approach to Tauyskaya Guba is about 35 to 40 miles wide. The N border of this area is somewhat affected by the tidal currents, but on the whole it appears settled along a line extending between the middle points of Ostrov Zav'yalova and Ostrov Spafar'yeva. From early June to the end of September, when the normal temperature of surface water in the Sea of Okhotsk is about 12°C, the temperature of the surface water near Mys Alevina is about 4.4°C, and about 6.7°C in the vicinity of Ostrov Spafar'yeva.

The temperature rises markedly within the entrance of Tauyskaya Guba, the rise being the most abrupt in the E entrance channel.

Ice.—Ice begins to form by the middle of October. In winter the shores of the bay are fringed with ice extending 15 to 20 miles offshore. The ice begins to break up during the first half of May, and the bay is clear of ice generally by the middle of June.

Drift ice is found in the channels separating Ostrov Zav'yalova and Ostrov Spafar'yeva from the mainland in December to June. Fast ice forming in the channel between Ostrov Zav' yalova and the mainland is broken up by the currents. Proliv Likhacheva, separating Ostrov Spafar'yeva from the mainland, ordinarily does not freeze.

Tides—Currents.—The tides in Tauyskaya Guba are semidiurnal. The tidal rise is about 4.5m at springs. The tidal rises at neaps are marked with inequality being 1.8 to 2.1m and 0.6 to 0.9m, respectively.

The tidal currents attain maximum velocities of 4.5 to 5 knots at springs and 2 to 2.5 knots at neaps in Proliv Likhacheva, between Ostrov Spafar'yeva and the mainland. These currents lose their velocity gradually within the bay and, being affected by the configuration of the shore, are irregular. The flood current enters the bay from the SE, setting generally E in the E half of the bay, and setting W in the W half of the bay.

The flood tidal current sets N and the ebb S in the channel between Ostrov Zav'yalova and the mainland, attaining a velocity of 1 to 1.5 knots in the S half of the channel, but increasing to 1.5 to 2 knots in the N end of the channel.

Caution.—The approach and entrance into Tauyskaya Guba presents no difficulties in clear weather, but in thick fog it is very difficult. Vessels approaching the bay in fog should attempt to make the E end of Ostrov Spafar'yeva, as the two pointed summits of the island may be readily identified during the temporary and partial clearances, which occur more frequently here than in the vicinity of Ostrov Zav'yalova. The tidal currents must always be taken into consideration.

When approaching from the S, soundings should be taken frequently until it is certain that Ostrov Spafar'yeva has been passed.

It has been reported that a local magnetic anomaly exists in the vicinity of the entrance channels.

6.6 Ostrov Zav'yalova (59°05'N., 150°36'E.) lies in the E side of the entrance. Its summit rises to a height of 1,029m in the N part of the island. A ridge of mountains, 457 to 610m high, extends from this summit to a peak, 856m high, in the S part of the island.

Mys Yuzhnyy, the SW point of the island, is steep-to and consists of a gray steep cliff with a natural rocky platform at its base. The shores of the island rise sheerly from the sea, and are steep-to, with depths of 20 to 25m a short distance offshore. A short submerged gravel spit, marked by a beacon, extends N from Mys Severnyy, the N extremity of the island.

Ostrov Spafar'yeva (59°12'N., 149°03'E.) lies at the W side of the entrance. It consists of two detached groups of mountains, forming the NE and SW parts, respectively, of the island, and connected to each other by an isthmus. Gora Komandora Beringa, a conspicuous cone-shaped mountain, 579m high, is the summit of the island, and lies on the W side of the NE part of the island. The peak of this mountain is often clearly visible above the low-lying fog and forms a good landmark from the offing.

Gora Lysaya (Gora Lis'ya), the summit of the SW part of the island, rises to a height of 366m, about 3 miles SW of Gora Komandora Beringa. Mys Kaktina, the S extremity of the island, rises to an elevation of 299m. A light is exhibited on the E side of Ostrov Sparfar'yeva. A radiobeacon transmits from the light.

Anchorage.—Bukhta Beringa, the bight NW of the low isthmus of Ostrov Spafar'yeva, has depths of 22m in the central part, decreasing gradually to 11m about 0.2 mile from the isthmus. Sheltered anchorage can be obtained in convenient depths, excellent holding ground of mud and sand, in Bukhta Beringa.

Temporary anchorage during winds from the SW and SE quadrants can be obtained, in depths of 18 to 37m, fine sand, off the head of the indentation about 2 miles WSW of Mys Ryabokon, the NW extremity of the island.

During W winds, anchorage can be obtained, in 26m, fine sand, about 0.3 mile off the E side of the isthmus of the island. This anchorage is exposed to the prevailing summer winds and swell.

6.7 East part of Tauyskaya Guba.—Mys Taran (59°07'N., 151°06'E.), the NW extremity of Poluostrov Koni, lies 19 miles NNW of Mys Alevina. It is the extremity of a sloping, tapering ridge projecting NW from a mountain backing the cape. The point is marked by a light.

A submerged spit, having a width of 1.5 miles under the cape, extends in a general N direction for nearly 1.5 miles from Mys Taran. Near the inner end of this submerged spit the depths are about 4m and increase gradually to 20m at the outer end. Depths of 30 to 40m are found on either side of the spit.

The channel between Ostrov Zav'yalova and Poluostrov Koni is deep and free of dangers, but should not be used during fog, as the fairly even depths do not indicate dangerous proximity to the land.

Zaliv Odyan is entered between Mys Skalistyy, located about 11 miles ENE of Mys Taran, and Mys Beringa, about 12 miles farther NE. A detached 11.2m patch, surrounded by depths of 31 to 35m, lies about 0.4 mile NNW of Mys Skalistyy.

Zaliv Odyan is sheltered from all winds except those from the W. The shores of the bay are high at the entrance and decrease in height toward the head of the bay, which is low and sandy.

Ostrovok Umara, an islet about 11 miles E of Mys Skalistyy, is separated from the S shore by a narrow and shallow channel.

Mys Beringa is a precipitous cape rising to a height of 424m. Gora Beringa rises to an elevation of 1,062m about 3 miles ENE of the cape.

Winds—Weather.—In Zaliv Odyan, fog is not as frequent and dense as elsewhere in Tauyskaya Guba.

Ice.—Zaliv Odyan is icebound throughout the winter, and as a rule, ice remains in this bay for a longer time than in other parts of Tauyskaya Guba.

Tides—Currents.—The tidal currents attain a velocity of 1 to 1.5 knots at the entrance, but diminish gradually and are imperceptible at the head of the bay.

Depths—Limitations.—There are depths of 29 to 32m halfway within the bay, shoaling gradually to 9.1 to 11m about 0.7 mile from the head.

Anchorage.—Bukhta Melkovodnaya, forming the head of Zaliv Odyan, affords anchorage, good holding ground, in 11m, mud, in its outer part. This anchorage is sheltered from the prevailing S and E summer winds. Farther in the bottom is sand and rock. Local knowledge is necessary.

Zaliv Rechnoy is entered between Mys Skala, a high cliffy cape, about 2 miles NNW of Mys Beringa, and Mys Rechnoy, about 4.5 miles farther N. The shore of the bight is cliffy and precipitous in places, and several streams flow into it. There are depths of 26 to 29m, shingle or mud, in the bight up to a distance of 0.5 mile offshore. Anchorage, sheltered from E winds, can be obtained in Zaliv Rechnoy.

6.8 Mys Kharbiz (59°31'N., 151°31'E.), 8.5 miles NW of Mys Rechnoy, is formed by a high, steep, cliffy slope of a detached coastal elevation, rising to a height of 502m. The light-colored bands of strata forming the cape and a low section of the coast immediately N of it render the cape conspicuous.

Mys Khodil, an elevated cape about 8 miles WNW of Mys Kharbiz, lies on the W side of the mouth of Reka Ola. A spit extends 0.5 mile SE of Mys Khodil. Gora Ambarushka-Tass, about 3 miles NW of Mys Khodil, has a knoll resembling the roof of a shed on its summit. Dve Skaly, a barren pillar rock comprising three parts, 15 to 18m high, stands on the shore about 1 mile W of the elevated part of Mys Khodil. A beacon is situated on Mys Khodil.

The shore extending about 6 miles E of Mys Khodil consists of low islets, or spits, separating an extensive lagoon from the sea. Koshka Itygran, a low spit, extends about 1.3 miles NW from the SE corner of the lagoon.

Ol'skiy Reyd, the roadstead extending from the coast between Mys Khodil and the base of Koshka Itygran, has depths decreasing uniformly from 11m at a distance of 1.5 miles offshore, to 5m about 0.7 mile offshore. A drying shoal extends about 1 mile S from the E entrance to the lagoon.

Winds—Weather.—The warmest month is July with a mean temperature of 14°C. Night frosts begin to occur in September. Reka Ola freezes early in November. The temperature in December is occasionally -4°C. The snow begins to melt by the middle of April.

Anchorage.—Anchorage can be taken 1.5 miles offshore, in depths of 10 to 11m. The anchorage is not secure, being open to S winds, which prevail in summer, and the tidal currents set along the N shore of the roadstead and tend to place vessels broadside to the swell, which is not heavy due to the protection of Poluostrov Koni.

6.9 Poluostrov Staritskogo, with Mys Sredniy (59°26'N., 150°45'E.) at its S extremity, is a mountainous peninsula, rising to a height of 707m. The S side of the peninsula from Mys Ol'skiy, its SE extremity, to Mys Chirikova, about 13 miles WNW, is high, cliffy, and clear of dangers. A light, from which a radiobeacon transmits, stands on the point at position 59°29.1N, 150°30.1E.

Anchorage.—Anchorage can be taken NE of Mys Ol'skiy in Quarantine Anchorage No. 14 in position 59°30'N, 151°00'E.

Mys Vostochnyy, about 2.5 miles NNE of Mys Ol'skiy, has three pillar rocks in a line extending 0.8 mile ESE. Three islets lie close together about 2 mile ENE of the point. A reef extends 0.4 mile from the islets.

A finger pier, called Veselaya Pier, extends about 215m SSE from the N entrance point of the bight N of Mys Vostochnyy. There are depths of 7 to 7.6m alongside the outer end of the pier.

6.10 West part of Tauyskaya Guba.—Mys Shestakova (59°14'N., 148°55'E.), the W entrance point of Tauyskaya Guba, is a high, cliffy cape, forming the S extremity of Poluostrov Antamlan, a small elevated peninsula about 457m high, which is the SE part of Poluostrov Khmitevskogo. A pillar rock near the extremity of Mys Shestakova is fairly conspicuous from S. There are three high rocks close off the point.

Ostrov Talan, about 6 miles NE of Mys Shestakova, rises to a height of 183m and has cliffy shores.

Zaliv Motykleyskiy is entered between **Mys Stanyukovicha** (59°23'N., 148°59'E.) and Mys Onatsevicha, about 9 miles NE. The shores of the bay are high at the entrance, but decrease in height toward the head. A drying reef extends 0.5 mile NNW of Mys Stanyukovicha, and depths of less than 5.5m extend 0.6 mile off the N side of the cape. Mys Onatsevicha is fringed with five rocks, above-water, extending 1 mile E.

Anchorage.—Anchorage can be taken with local knowledge in Zaliv Motykleyskiy, sheltered from all but E winds, in depths of 8 to 16m.

6.11 Amakhtonskiy Zaliv is entered between **Mys Amakhtonskiy** (59°31'N., 149°13'E.), the NE extremity of Poluostrov Onatsevicha, and the mouth of Reka Arman', about 30 miles ENE. A reef extends about 0.7 mile from the N side of Poluostrov Onatsevicha. Ostrovok Shelikan, an islet 122m high, lies about 5 miles NW of Mys Amakhtonskiy. Tidal currents attain velocities of 2 to 2.5 knots in Amakhtonskiy Zaliv.

Gora Arman Zapadnyy (Gora Arman Vestovyy) (59°49'N., 149°55'E.) is a conspicuous sharp-peaked mountain. Gora Arman Glavnyy (Gora Arman Ostovyy), about 15.5 miles ESE of Gora Arman Zapadnyy, has a cone-shaped summit. On a clear day these mountains form useful landmarks from the offing.

Ostrov Nedorazumeniya (59°35'N., 150°24'E.), an island with its upper part encircled by a number of detached summits along the shores, has the same height and color as that of the coast in the vicinity, and has the aspect of a peninsula from seaward.

A hill, 271m high, about 0.5 mile N of the S extremity of the island, and another hill, rising to a height of 277m about 0.5 mile farther N and forming the summit of the island, dominate the other elevations of the island. Depths of less than 5.5m extend as far as 0.4 mile off the NW side of the island.

Anchorage.—Anchorage, sheltered from the prevailing SE wind and from swell, can be obtained, in depths of 9 to 11m NW of Ostrov Nedorazumeniya. Local knowledge is necessary. Landing on the island is only practicable on the NE part, where

there is a low space of sand and gravel covered with grass. A narrow spit extends 0.2 mile N from this low ground.

Bukhta Nagayeva (59°34'N., 150°43'E.)

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6.12 Bukhta Nagayeva, the best sheltered bay in the Sea of Okhotsk, is entered between **Mys Chirikova** (59°29'N., 150°30'E.) and Mys Ostrovnoy, about 8.2 miles N. The width of Bukhta Nagayeva narrows to about 3 miles approximately 6 miles E of the entrance, then widens back out to 4.5 miles once you are about 10.5 miles E of the entrance.

Nagayeva, on the N shore of the bay, is the largest port in the Sea of Okhotsk and is the commercial port for the industrial center of **Magadan** (59°34'N., 150°43'E.), located at the E end of the bay, There is also a naval base located at the port.

Winds—Weather.—There is little or no protection from strong winds in the port and it is most susceptible to SW gales. During these conditions it is advised that ships put to sea. Dense fog occurs frequently from May through August with as many as 16 days each month with fog.

Ice.—Bukhta Nagayeva freezes by the end of November. The ice may attain a thickness of 0.9m. In the W part of the bay the ice is occasionally broken up for a short time. In the spring the ice breaks up late in May or early June, and the bay clears of ice by the middle of June. Icebreakers and ice reconnaissance aircraft sometimes facilitate entry into the bay in winter.

During the period from November 20 to May 25, the Ice Operating Staff (IOS) will communicate daily with all vessels in the area at 0500 and 2200 UTC (call sign: Magadan Radio 5) on 3730 kHz or 8779 kHz. During this period all vessels sailing N of 50°N must advise the IOS of the following information:

1. Vessel position, course, and speed.
2. Weather information.
3. Ice information.
4. ETA at the Convoy Meeting Point (CMP).

Tides—Currents.— The mean spring range in Bukhta Nagayeva is 3.3m, while the neap range is 1.5m.

The tidal currents at the entrance into Bukhta Nagayeva attain a velocity of 1.5 to 2 knots and cause small eddies in the vicinity of Mys Chirikova, then decrease to a negligible effect off Magadan.

Depths—Limitations.—The depths are about 35m in the entrance, decreasing gradually to 18.3m about 1 mile from the head of the bay, and finally to 10m about 0.3 mile from the head of the bay.

Seven numbered berths for quayside mooring are located in the port plus an oil and chemical berth for tankers and a specialized berth for repairs. Berth No. 4B and Berth No. 5 are dedicated to containerized cargo. Berth No. 4B is 210m in length, with depths of 10.5m alongside. Berth No. 5 is 165m in length, with depths of 9.8m alongside. The tanker berth is 158m in length, with a depth of 9.8m alongside. An oil jetty located 200m W of the quayside berths has a length of 53m and a depth of 7.5m.

Aspect.—Mys Chirikova consists of a ridge of hills about 1 mile long in an E-W direction, connected to the rest of Poluostrov Staritskogo by a narrow neck of land. A light is shown a white tower on Mys Chirikova at position 59°29'N, 150°30'E. A hill rises to a height of 235m near the SE end of the cape. Rocks are scattered to a distance of 135m off the shore of the cape, but depths of 24m have been obtained about 0.1 mile off the S shore of the cape.

A small group of drying rocks, about 1 mile NNE of Mys Chirikova, is marked on the NW side by a lighted buoy.

Pilotage.—Two compulsory pilotage areas are in Bukhta Nagayeva; a third compulsory pilotage area is in Bukhta Veselaya (located on the E side of Poluostrov Staritskogo). The boundaries of these areas are described below:

1. Compulsory Area No. 1—bounded by the coast and lines joining the following positions:
   a. 59°32'35"N, 150°39'00"E.
   b. 59°32'17"N, 150°39'00"E.
   c. 59°33'19"N, 150°45'30"E.
   d. 59°33'50"N, 150°45'30"E.
2. Compulsory Area No. 2—lies within a sector between 239° to 319° drawn from position 59°32'18"N, 150°46'00"E with a length of 1,000m.
3. Compulsory Area No. 3—lies in Bukhta Veselaya and is bounded by the coast and lines joining the following positions:
   a. 59°31'15"N, 150°56'30"E.
   b. 59°28'48"N, 150°57'42"E.

The pilot boarding area for Bukhta Nagayeva is bounded by lines joining the following positions:

a. 59°32'28"N, 150°39'00"E.
b. 59°31'49"N, 150°39'00"E.
c. 59°32'54"N, 150°45'30"E.
d. 59°33'32"N, 150°45'30"E.

The pilot boarding area for Bukhta Veselaya lies within 400m of position 59°50'00"N, 151°00'00"E.

Pilots should be requested via owners or agents at least 2 hours prior to arrival at the pilot boarding areas or departure from the port.

Regulations.—Vessels should send their ETA to the Port Captain 72 hours, 48 hours, and 24 hours prior to arrival and include the following information:

1. Vessel name and owner details.
2. Flag of vessel.
3. Departure port.
4. Draft, both fore and aft.
5. Category of ice strengthening.
6. Main engine power.
7. Propeller material.
8. Name and quantity of cargo.
9. ETA at the port.
10. Agent's name and address.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (Magadan VTS) system operates 24 hours in the Bukhta Nagayeva waters and the area bounded by the lines joining the following positions:

a. 59°32'30"N, 150°43'30"E. (Mys Otlogiy)
b. 59°32'30"N, 150°17'00"E.
c. 59°26'00"N, 150°17'00"E.
d. 59°26'00"N, 150°30'00"E.
e. 59°29'00"N, 150°30'00"E. (Mys Chirikova)

Vessels must contact Magadan VTS on VHF channel 67 (alternate channel 69) to request permission to enter port 2 miles

before entering the VTS area or for departure the port at least 15 minutes before expected departure. A continuous listening watch shall be maintained on VHF channels 16, 67, and 69 while within the VTS operating area.

The Magadan VTS can be contacted as follows:

1. VHF: VHF channels 16, 67, and 69
2. Telephone: 78-4132-630508 (weekdays between 0830 and 1830)
   78-4132-607375 (24 hours)
3. Facsimile: 78-4132-607375
4. E-mail: rosmorport@online.magadan.ru

Contact Information.—See the table titled **Magadan—Contact Information** for details.

Anchorage.—Anywhere in Bukhta Nagayeva is suitable for anchoring, but the E portion is preferred except for the two prohibited areas detailed below.

Anchoring is prohibited within 0.9 mile of position 59°33'02"N, 150°43'27"E due to a submerged obstruction and a wreck in the area. See the Caution paragraph for details.

The Quarantine Anchorage berth (No. 13), for use by foreign vessels, is located at the entrance to Bukhta Nagayeva in position 59°32'N, 150°30'E.

Anchorage Area No. 14 has been established in position 59°30'00"N, 151°00'00"E.

Permission from the State Port Director must be obtained before anchoring within the port limits of Magadan.

Anchoring is prohibited in Russian Regulated Area No. 69V and Russian Regulated Area No. 70, as follows:

1. Area No. 69V—bounded by lines joining the following positions:
   a. 59°31'41"N, 150°44'37"E.
   b. 59°32'21"N, 150°44'37"E.
   c. 59°32'21"N, 150°46'06"E.
   d. 59°32'17"N, 150°46'15"E.
2. Area No. 70—bounded by lines joining the following positions:
   a. 59°33'36"N, 150°42'24"E.
   b. 59°33'36"N, 150°43'12"E.
   c. 59°33'24"N, 150°43'12"E.
   d. 59°33'24"N, 150°42'24"E.

Caution.—Approach and entry into Bukhta Nagayeva presents no difficulty during clear weather, either by day or night. Mys Chirikova can be often identified through a fog of average density, and the N shore of Tauyskaya Guba is often discernible when the fog is light. When heavy fog envelops the entire Tauyskaya Guba, it is better not to approach Poluostrov Staritskogo but to steer for a position W of Ostrov Nedorazumeniya, and anchor upon obtaining depths of 28m until the fog clears.

Magnetic anomalies have been observed at the N shore of Tauyskaya Guba, from Ostrov Nedorazumeniya to the mouth of the Ola River, and also in the area of Ostrov Zavylov and the W shore of the Koni Peninsula. The magnetic declination varies from 17° to 10° and from 11° to 5 °.

Care should be taken to avoid any vessels inside a Deviation Calibration Area close NNW of the approach track, This calibration area, designated Russian Regulated Area No. 142A, is bounded by lines joining the following positions:

a. 59°33'30"N, 150°23'00"E.
b. 59°31'00"N, 150°21'00"E.
c. 59°31'48"N, 150°18'00"E.
d. 59°33'18"N, 150°20'00"E.

A wreck, with a depth of 0.6m, is located in position 59°33'49"N, 150°45'19"E.

An underwater obstruction, with a depth of 4.1m, located about 900m NW of the front light for the Bukhta Nagayeva lighted range.

Underwater obstructions with depths of 15.6m and 9.4m are located 100m S and 80m W of the SW end of Berth No. 1, respectively.

Tauyskaya Guba to Okhotskiy Reyd

6.13 Bukhta Shestakova is entered between **Mys Shestakova** (59°14'N., 148°55'E.) and Mys Gavantsa, an elevated cliffy cape rising vertically from the sea about 4.5 miles W. There are depths of 24m in the middle of the bay, and depths of 5.5 to 7.3m about 0.5 mile off the head of the bay. The bottom is sand. A short reef extends from the shore W of the mouth of a stream at the head of the bay.

Anchorage.—Anchorage in suitable depths can be taken in any part of Bukhta Shestakova. During winds from the E through N to W, anchorage in the bay is calm. The bay affords some shelter under the W and E shores during winds from between the SW and W, or SE to E, respectively.

A wreck lies in a depth of 20m approximately 5 miles NW of Ostrov Spafar'yeva Light.

Magadan—Contact Information

	Call sign	VHF channels	Telephone	Facsimile	E-mail
Harbormaster	—	—	78-4132-692107	—	—
Port Captain *	—	—	78-4132-692337	78-4132-607705	seadm@online.magadan.ru amp-mag@sferacom.ru
GMDSS Controller	—	—	78-4132-297375	—	—
Operations Manager	Magadan Radio 2	14 and16	78-4132-692361	—	—
Port State Control	Magadan Radio 5	9 and 16	—	—	—

* Can also be reached via INMARSAT-C telex at 582-492500265

6.14 Mys Dal'niy (59°14'N., 148°27'E.), lying 10 miles W of Mys Gavantsa, is high and rocky. A sandy spit extends 0.8 mile W from the point. A rock, lying close offshore, is 3 miles N of Mys Dal'niy.

Zaliv Shel'tinga is entered between Mys Dal'niy and Mys Moskvitina, about 20 miles W. The shores of Zaliv Shel'tinga are high and rocky, except for a sandy beach skirting the NW end of the bay. The high sections of the shore are steep-to, and the bay is clear of dangers. The bottom shelves toward the NW end of the bay; depths of 11 to 13m, sand, lie about 0.7 mile off the sandy beach.

Anchorage.—Anchorage, sheltered from SW winds, can be taken off the beach in the NW part of the bay. Anchorage in suitable depths can be taken almost anywhere in Zaliv Shel' tinga, but the best anchorage during SE winds is in the bight N of the spit extending W from Mys Dal'niy.

Mys Moskvitina, high and cliffy, is the S extremity of Poluostrov Onara. Gora Onara, 1,042m high, lies about 2.5 miles N of Mys Moskvitina. It is very steep on its S and E slopes, and the vertical white stripes on its sides are very conspicuous.

Bukhta Luzhina, W of Poluostrov Onara, has high and rocky shores and has not been surveyed.

6.15 Mys Rzhavyy (59°24'N., 146°41'E.), lying 28 miles WNW of the W entrance point of Bukhta Luzhina, is a cliffy, steep-to cape with a red color, which stands out against the brown color of the adjacent coasts on either side and is visible from a great distance on a clear day. Gora Ploskaya, 1,373m high and lying about 8 miles E of Mys Rzhavyy, dominates the coast between the cape and Bukhta Luzhina.

Zaliv Ushki is entered between Mys Rzhavyy and Mys Yelagina, 15 miles SW. The shores of the bay are high and cliffy. The head of the bay is formed by a low shore of sand and shingle, about 4.5 miles in width. Depths of about 26m in the N part of the bay decrease gradually to the shores.

Anchorage.—Anchorage can be taken, in 11 to 13m, sand, but with rocks and shells in places.

6.16 Poluostrov Kamenistyy (59°16'N., 146°20'E.), a narrow peninsula about 15m high, with a flat grassy top, juts out directly E for about 0.5 mile from the coast, 3.5 miles N of Mys Yelagina. The narrow peninsula has low but steep shores, and rocks are scattered on all sides of the peninsula a short distance offshore.

Bukhta Kulku, a rounded recess about 1.7 miles wide at the entrance, lies on the N side of Poluostrov Kamenistyy. Rechka Kulku, a shallow rivulet, discharges at the head of the recess. There are depths of 9m about 0.5 mile off the head of the recess, decreasing rapidly to the shore.

Tides—Currents.—The MHW interval in Bukhta Kulku is 9 hours 30 minutes. Tides are semidiurnal, the tidal rise being up to 2.7m at springs.

Anchorage.—The best anchorage is in a depth of about 12m, poor holding ground, rock, with the E extremity of Poluostrov Kameinstyy bearing 142°, the mouth of Rechka Kulku bearing 255°, and Gora Lisaya bearing 293°. The best landing is close N of the river mouth, where there are no rocks.

Caution.—Vessels approaching Bukhta Kulku from the S should give Poluostrov Kamenistyy a berth of a least 0.5 mile.

6.17 Poluostrov Lisyanskogo, a mountainous peninsula, has high, steep, and generally steep-to shores. **Gora Ushki** (59°22'N., 146°11'E.), the summit of the peninsula, rises to two pointed peaks. Gora Lisaya, 530m high, about 4 miles SSE of Gora Ushki, can be identified by a round barren summit of gray color, and forms a good landmark.

Mys Duga, the S extremity of the peninsula, terminates in a blunt cape, with Mys Duga Vostochnaya and Mys Duga Zapadnaya as the E and W extremities, respectively, of the cape. Both extremities are fringed by reefs and rocks extending 0.8 mile offshore. A light, 34m in height, at an elevation of 82m, is shown on Mys Duga Vostochnaya.

Mys Ushakova, about 8 miles NW of Mys Duga Zapadnaya, is fringed by foul ground extending about 1.2 miles W.

Eirineiskiy Light (59°14.6'N., 145°49.7'E.) is shown from a 8m tower, at an elevation of 41m, on Mys Ushakova.

Caution.—Abnormal magnetic variations exist within an area extending 35 miles WSW from Poluostrov Lisyanskogo, and within a circular area with a radius of 30 miles and the center located about 62 miles SSW of the extremity of Poluostrov Lisyanskogo.

6.18 Guba Yeyrineyskaya is entered between **Mys Shil'kan** (59°22'N., 145°47'E.) and Mys Yeyrineyskiy, 38m high, about 4 miles SSE. Mys Shil'kan has high dark-gray cliffs and is formed by the SE slope of a mountain rising to a height of 463m within the cape.

Gora Trekhsopochnaya, rising to a height of 841m about 3.5 miles NNW of Mys Shil'kan, and Gora Ushki, previously described in paragraph 6.17, form good landmarks from the offing. The E and W shores of the gulf are high.

Mys Kekurnyy (59°24'N., 145°52'E.), a cliffy cape about 3 miles NE of Mys Shil'kan and rising to about 475m 1 mile inland, divides the head of the gulf into two recesses. There are depths of about 24m, sand, halfway up the gulf. A bank, with depths of 7.3m, extends about 0.8 mile from the heads of the E and W recesses, and 0.2 to 0.4 mile from the shores of the gulf elsewhere.

Anchorage.—Anchorage, sheltered from all but SW winds, can be obtained in suitable depths, fine sand, within the E recess of Guba Yeyrineyskaya.

6.19 Mys Gereya (59°24'N., 145°41'E.), a high cliffy cape about 3.5 miles NW of Mys Shil'kan, is identified by a conspicuous pointed pillar rock nearby. The cape is steep-to and clear of dangers.

The coast between Mys Kekurnyy and Mys Gadikan, 10.5 miles W, consists of dark-gray cliffs. A landslide of gray color marks the coast about 3.5 miles E of Mys Gadikan.

Mys Gadikan (59°24'N., 145°19'E.) consists of dark, steep cliffs, and is formed by the seaward slope of a hill, 183m high, about 2.5 miles ENE of the cape. The coastal elevations form a ridge extending in a NW direction from the indentation about 2 miles N of the cape, and recede far inland, backing a low section of the coast.

Gora Shil'ki, about 6 miles NE of Mys Gadikan, has twin peaks, 1,739m and 1,510m high, respectively. Gora Verblyud, 1,235m high, is located 2 miles SE of Gora Shil'ki.

A reef projects 0.5 mile SE from the extremity of Mys Gadikan. The vicinity of the cape has not been surveyed but it is

appears that the cape is the W limit of that part of the N shore of the Sea of Okhotsk which is steep-to.

A shoal, position doubtful, with a least depth of 3.2m, is charted about 9 miles WSW of Mys Gadikan.

The lagoon of Reka Inya extends 11 miles W and 3 miles E from its E entrance (59°23'N., 144°52'E.). The lagoon is separated from the sea by two low, sand and shingle spits projecting from each end of the lagoon, and two islets which lie between the extremities of the spits and form three entrance channels into the lagoon. The N shore of the lagoon consists of marshy land extending about 3 miles inland.

Inya, a small village, lies on the left bank of Reka Inya.

Gora Derevannay, a mountain rising to a height of 440m, about 9 miles NW of the E entrance of the lagoon and about 5 miles inland, can be identified by a knob on its elongated summit.

Anchorage.—Anchorage abreast the lagoon can be obtained, in depths of 9 to 11m, about 1 mile offshore. The anchorage is totally exposed to the sea and to S winds, which prevail in summer.

6.20 Reka Ul'beya, a small, shallow river discharges about 2 miles W of the W end of the lagoon of Reka Inya and forms a small lagoon.

Between Reka Ul'beya and Mys Marekan, about 31 miles W, the low coast of sand and shingle is backed by grassy marshland marked with numerous lakes.

Caution.—A submarine cable extends SW from a position 7 miles W of Reka Ul'beya and follows the coast 470 miles to Petrovskaya Kosa.

6.21 Gora Vetrennyy Kamushek has a treeless summit resembling a gigantic cap about 6.5 miles WNW of the mouth of Reka Ul'beya. Two bare pointed summits, about 667m and 628m high, rise about 4 miles and 5 miles E, respectively, of Gora Vetrennyy Kamushek.

Gora Volnistaya (59°33'N., 143°56'E.), a conspicuous mountain, can be identified by its wavy slopes. It is 1,939m high.

Mys Marekan (59°19'N., 143°27'E.) is formed by the seaward termination of a mountainous range, and rises to a height of about 454m. From the E and W the mountain range appears to have a fairly uniform height, but from the S, Gora Sosok, rising to its summit on the W side of the range, is conspicuous. A light is shown from Mys Marekan.

Okhotskiy Reyd (59°22'N., 143°12'E.)

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6.22 Okhotskiy Reyd is the roadstead at the entrance to Reka Kukhtuy, and consists of the area between the coast and a line joining Mys Marekan and the mouth of Reka Okhota, about 12 miles W. There is always a swell in the roadstead, and a very heavy sea is raised by storms from seaward.

Reka Kukhtuy is entered between Tungusskaya Kosa and Okhotskaya Kosa, and between two coastal shoals projecting S from each of the spits. The position of the channel and its depth change, but the depth on the bar remains unchanged. The entrance channel has an average width of about 90m and usually is discernible by the comparatively calm water between almost continual breakers on either side. Fishing stakes may be encountered within 1.5 miles of the channel entrance.

The port of **Okhotsk** (59°22'N., 143°12'E.), mainly used by fishing vessels, is situated about 1.5 miles up Reka Kukhtuy, on that part of the S bank formed by the base of Tungusskaya Kosa. A light is exhibited here.

Winds—Weather.—Gentle winds and calms prevail from the end of April to the end of May or early June, when S or SE winds begin to prevail. During June and July, SE winds attain a force not exceeding 3. Storms are rare and short-lived. During August and the first half of September, SW winds prevail and increase in force toward autumn. Fresh winds and storms prevail through the second half of September, October, and November. Winter winds from the N and NW of moderate force prevail from December to March, toward the end of which these winds gradually subside in force and become gentle.

April, May, and early June is the season of dense protracted fog, often enveloping the sea and the coast for several days at a time. The fog decreases in density and frequency toward autumn.

Ice.—Ice begins to form in mid-November in the vicinity of the port, with the port officially closing from mid-December to mid-March, with some ice remaining until June if the winter has been severe. During the winter, young ice forms on the coast and usually there is floating ice in the approaches before the end of December, and in severe winters by mid-December. Navigation is possible throughout the winter with icebreaker assistance, but no icebreaker is usually assigned for the port which is formally closed for navigation from December 15th to May 15th. However, some ice may remain in the roadstead until early June after a severe winter. During June, blocks of ice may be seen off the roadstead; these have drifted from Penzhinskiy Zaliv, nearly 400 miles E, and are later driven toward the SW shore of the Sea of Okhotsk.

When the rivers break up, the rate of the streams combines to float the ice up to 10 miles clear of the coast, leaving a lane for safe navigation. The ice in the harbor of Okhotsk reaches a maximum thickness of about 1.8m.

Tides—Currents.—The MHW interval at the mouth of Reka Kukhtuy is 10 hours 13 minutes. The tide is semidiurnal, the tidal rise being 3.3m at springs and about 1.5m at neaps.

The flood current sets along the shore in an ENE direction, and the ebb current in a reverse direction, attaining velocities of 1.5 to 2 knots. In the narrows of the entrance into Reka Kukhtuy the flood and the ebb currents are swift and attain respective velocities of 6 and 7 knots at springs.

Depths—Limitations.—Depths of 9.1m lie, on the average, a distance of 1.7 to 1.5 miles offshore in Okotskiy Reyd. Depths of 3.6m lie a distance of 0.5 to 0.8 miles offshore.

The entrance of Reka Kukhtuy is accessible at HW to vessels with a draft not exceeding 4m. The bar at the middle of the entrance channel has depths of 0.2 to 1.8m (1975), but they are subject to frequent change. Inside the entrance the fairway leads from the bar at the entrance to Reka Kukhtuy, 0.9 mile ENE, with depths of 2 to 4.6m (1975) and then NE for 0.7 mile, with depths of 1.8 to 3.6m (1975) to the quays.

Twelve quays along the S bank of the Reka Kukhtuy have berthing lengths of 10 to 99m and depths alongside of 0.5 to 2m at LW.

Aspect.—Gora Sosok, previously described in paragraph 6.21, about 6 miles E of the mouth of Reka Kukhtuy, is a useful landmark for vessels approaching from the E.

Gora Ostraya and Gora Ploskaya form useful landmarks for vessels approaching from the S. **Gora Ostraya** (59°15'N., 142°10'E.), about 32 miles WSW of the mouth of Reka Kukhtuy, can be identified by its sharp cone-shaped summit. Gora Ploskaya, about 17 miles N of Gora Ostraya, has a flat summit and is visible for 50 miles on a clear day.

Pilotage.—Pilotage is compulsory for all vessels and is available 24 hours.

Pilots should be requested via the Marine Superintendent to the Port Captain 72 hours, 48 hours, and 4 hours prior to arrival.

Pilots board within 0.5 mile of position 59°19'02"N, 143°10'36"E.

Regulations.—Vessels should maintain a continuous listening watch on VHF channel 11 or radio frequency 2325 kHz.

Contact Information.—The Port Radio Center can be contacted, as follows:

1. Call sign: Okhotsk 35
2. VHF: VHF channel 16

The Port Marine Superintendent can be contacted, as follows:

1. Call sign: Okhotsk 31 (VHF)
   Okhotsk 3 (RT)
2. VHF: VHF channel 11
3. RT Frequency: 2325 kHz

Anchorage.—Anchorage can be taken in suitable depths in any part of the roadstead. A vessel should anchor as closely as possible to the entrance of Reka Kukhtuy in depths of 7m, fine sand, with the entrance to the river bearing 335° distant 1.25 miles, the church situated 1 mile ENE of the river entrance bearing 024°, and a small hill near the extremity of Mys Marekan bearing 086°.

During strong offshore winds, anchorage should be taken about 0.75 mile farther seaward, in depths of 11m, with the river entrance bearing 335°.

A quarantine anchorage lies 5 miles ESE of the river entrance.

During gales from seaward, all these anchorages are unsafe.

Caution.—Vessels approaching Okhotskiy Reyd in fog should proceed with caution upon obtaining depths of 30m, and should anchor upon obtaining depths of 18.3m and wait until the fog clears. June and July are the best months of the navigational season.

The approach to Okhotskiy Reyd presents no difficulties in clear weather.

Entrance to Reka Kukhtuy is difficult and should not be attempted if the swell is heavy and cause breakers across the entire entrance channel.

During the summer, fishing nets may extend up to 1 mile S from Tumgusskaya Kosa.

Okhotskiy Reyd to Poluostrov Longdar Negotni

6.23 **Reka Okhota** (59°20'N., 143°02'E.) discharges about 4 miles WSW of Reka Kukhtuy.

The coast between Reka Kukhtuy and Reka Ul'ya, about 50 miles SW, is low and bordered by a beach of sand and gravel. Rechka Urak flows through a small valley about midway along the stretch. Reka Ul'ya forms a shallow lagoon at its mouth.

Mys Nogdan (58°41'N., 141°41'E.), a conspicuous cape about 12 miles SSW of Reka Ul'ya, is steep-to and rises abruptly to 213m from the low coast on either side. The hills N of the cape begin to recede inland and the beach of sand and gravel becomes wider. A detached pillar lies near the coast about 2.7 miles SSW of the cape.

Mys Nizkiy, about 15 miles SW of Mys Nogdan, is a low rounded cape projecting about 0.5 mile seaward. A ledge, partly covered at HW, extends 0.5 mile SE of the cape. Mys Ploskiy, about 4 miles WSW of Mys Nizkiy, is a flat-topped section of coast, of medium height, and discernible only by vessels navigating close to the shore.

The coast between Mys Nizkiy and Mys Khanyangda, about 47 miles SSW, consists of a beach of sand and gravel, of variable width, and covered with driftwood. A continuous line of hills backs the beach.

Mys Khanyangda (57°51'N., 140°30'E.) is formed by the seaward slopes of a mountain rising to a height of 423m near the shoreline. A mountain range, trending 3 to 4 miles inland, gives Mys Khanyangda the appearance of a comparatively low cape from the offing. A pillar rock lies near the coastline a short distance S of the cape and equals in height the precipices of the cape.

Mys Enkan, about 8 miles SW of Mys Khanyangda, is bordered S and NW by short reefs. A detached mountain, 323m high, about 1.5 miles N of the cape, has a hill, 213m high, on its S slope, which terminates in precipices 75 to 90m high on its seaward face.

6.24 **Mys Odzhan** (57°29'N., 139°47'E.), a conspicuous cape lying about 22 miles SW of Mys Enkan, is steep-to, clear of dangers, and faces the sea with precipices of great height. The cape is formed by the seaward slope of a rounded coastal mountain, about 1 mile N of its extremity.

Ostrovok Nansikan, a cliffy islet about 2.5 miles SE of Mys Odzhan, rises to a 137m summit. A large, pointed pillar rock, connected with the islet by a low isthmus, lies at the NW end of the islet. The shores of the islet are steep-to, and depths of 26m, rocky bottom, lie close offshore.

Tides—Currents.—Tidal currents attain a velocity of 1 to 1.5 knots in the channel separating Ostrovok Nansikan from the mainland. The flood current sets in a SW direction and the ebb current in a reverse direction. The tidal currents here cause eddies which, as a rule, are fairly conspicuous on the lee side of the islet.

Caution.—The sea appears to break NE of the islet, although this area has not been surveyed.

6.25 Mys Ugol, about 13 miles SW of Mys Odzhan, rises at the coast line to a prominent peak, 216m high, from a low coast on either side, and is discernible from seaward. Mys Ploskiy, about 3 miles farther SW, is a low cape, the termination of the wooded gentle slope of a mountain rising about 3 miles N of the cape.

A coastal mountain, parallel to the coast, about 6 miles WSW of Mys Ploskiy, faces the sea, with conspicuous reddish-brown stripes on its steep slopes.

Mys Kamker (57°09'N., 139°04'E.), 15 miles SW of Mys

Mys Ugol

Ploskiy, is the extremity of a peninsula rising to a height of 192m. The E and W sides of the peninsula consist of reddish-brown cliffs about 75m high.

Zaliv Feodota, entered W of Mys Kamker, has sloping sandy shores, fringed by rocks, and backed by rather precipitous cliffs. The depths in the entrance of the bay are 14.5 to 18m, decreasing to 9m about 0.5 mile offshore.

Between the S entrance point of Zaliv Feodota and **Mys Eykan** (57°01'N., 138°55'E.), about 5.5 miles SSW, the coast consists of grayish-brown cliffs of great heights. Coastal elevations exceeding 457m high are located a short distance inland in the vicinity of Mys Eykan.

6.26 Zaliv Feodora, entered 2.5 miles W of Mys Eykan, has a rocky and steep W shore, and low and sandy N and E shores. Kamen' Vneshiyye, a group of above-water rocks, lie in the middle of the entrance and divide the entrance into the E and W channels. The W entrance channel is recommended.

Tides—Currents.—The MHW interval in Zaliv Feodora is approximately 9 hours 30 minutes. The tides are semidiurnal. At springs the maximum rise is 3m. At neaps, the HHW rise is 2.1m and the LHW rise is 0.9m. The highest water occurs on the third or fourth day after the new or the full moon.

Depths—Limitations.—There are depths of 11 to 14m in the entrance of the bay, decreasing to about 9.1m in the central part of the bay. A reef extends about 0.3 mile WNW from the E entrance point, but the W entrance point can be approached to within about 90m.

Anchorage.—Anchorage may be taken in Zaliv Feodota only in case of necessity. Calm anchorage can be obtained in the N recess only with offshore winds from the N through W to WSW. During NE to E winds, the anchorage is exposed to the swell rounding Mys Kamker.

Anchorage in suitable depths, good holding ground of mud, sand, and gravel, can be obtained in Zaliv Feodora. The E part of the bay affords somewhat better protection from the swell rounding Mys Eykan and setting into the bay during NE winds, from which the bay is sheltered.

6.27 Poluostrov Nurki is a narrow peninsula, with **Mys Nurki** (56°44'N., 138°33'E.), its S extremity, lying 20 miles SW of Mys Eykan. The S half of the peninsula is formed by the slopes of a conspicuous pointed hill, 207m high, rising steeply from Mys Nurki, then sloping gently N. The N half of the peninsula consists of mostly low, sandy shores, being marked by only one hill, 125m high. The S half of Poluostrov Nurki, even from a short distance offshore, has the appearance of a fairly conspicuous dark island contrasting effectively with the lighter hues of the coast in the background.

Zaliv Aldoma, on the W side of Poluostrov Nurki, offers shelter from NE winds and is possibly the best refuge on the NW shore of the Sea of Okhotsk.

There are depths of 14.6 to 18m in the entrance on the parallel of Mys Nurki, decreasing to 5.5m halfway up the bay. The N part of the bay is shallow.

A drying ledge, which is steep-to, extends in a NW direction for 1 mile from Mys Nurki, the extremity of the ledge being about 0.5 mile offshore. At HW, the ledge is indiscernible when the sea is calm.

6.28 Mal'minskiye Ostrova consists of three small islets and two detached pillar rocks. The largest islet, about 1.5 miles SSW of **Mys Mal'minskiy** (56°42'N., 138°22'E.), rises to a height of 113m. The twin summit of the islet is prominent from the SE. A submerged spit of sand and gravel extends WSW from the islet, and a pillar rock lies about 1 mile W of the islet. A pointed islet, 61m high, and an islet, 46m high, lie 0.5 mile E and 0.5 mile S, respectively, of the largest islet. A pillar rock lies 0.4 mile S of the E islet.

The islets are conspicuous only when the weather is fair, but otherwise are indiscernible from the offing.

Mys Naklonnyy (56°35'N., 138°15'E.), 280m high and lying 8 miles SW of Mys Mal'minskiy, is the extremity of a high, cliffy, and steep projection, which rises to a height of 363m. A small pillar rock lies near the cape.

Between Mys Naklonnyy and Mys L'gotnyy, the NE extremity of Poluostrov Longdar Negotni, about 7 miles S, a rounded open bay is formed. The mountain spurs on the W shore of the bay expose stratification and have the appearance of detached precipices marked with stripes. When the visibility is poor, this unique feature of the shore, if seen, helps in identifying the coast.

6.29 **Poloustrov Longdar Negotni** (56°28'N., 138°11'E.) is a steep-to peninsula connected to the mainland by a low isthmus at the head of Zaliv Ayan. Depths of 37 to 46m, or greater, lie a distance of 0.7 to 1 mile off the seaward face of the peninsula.

Gora Longdar, the summit and highest point on the peninsula, is a conspicuous cone-shaped mountain rising to a height of 631m. The E shore of the peninsula consists of steep cliffs. Mys Vneshniy, the SE extremity of the peninsula, has a detached pillar rock near its extremity. Mys Savaya, about 2 miles W of Mys Vneshniy, consists of grayish-brown precipitous cliffs of considerable height and is steep-to.

Tides—Currents.—In the vicinity of Poluostrov Longdar Negotni the tidal currents attain a velocity of 1.5 to 2 knots at springs, the flood current setting in a SW direction and the ebb current in a reverse direction. Eddies, clearly discernible from a distance of 5 miles offshore, are formed abreast that part of the coast between Mys L'gotnyy and Mys Vneshniy. Winds opposing the tidal currents cause a confused sea in the vicinity of these capes.

6.30 **Ostrov Iony** (56°24'N., 143°23'E.), about 172 miles E of Poluostrov Longdar Negotni, is a barren rock, 165m high. Generally, the shores of the island consist of precipitous cliffs rising sheerly from the sea to heights of 30 to 45m high. From the offing Ostrov Iony has the appearance of a haystack.

A group of four rocks, 9 to 12m high, lies about 0.5 mile NNW of the island. Other detached rocks lie off the island at

about the same distance. Several detached rocks lie 0.1 to 0.2 mile off the S side of the island.

A detached above-water rock, existence doubtful, is reported to lie about 9.5 miles SSE of the island.

A depth of 27.4m is reported to lie about 15 miles SSW of the island.

A depth of 15.1m lies about 48 miles SE of the island. A depth of 11.9m lies 28.5 miles NNW of the island. A depth of 12.8m was reported (1970) to lie 20 miles S of the island.

Winds—Weather.—The currents impinging on the steep rise of the island from the sea bottom force the colder bottom water to the surface of the sea causing, in the vicinity of the island, a protracted dense fog enveloping the island for the greater part of the navigational season. Although the fog becomes somewhat less dense in the latter part of the summer, it is only when the NW autumnal winds begin to prevail that the number of days with fog decreases markedly.

Tides—Currents.—Ostrov Iony lies in the region of the weak constant counterclockwise current, setting here in a general S to SW direction. This current is overborne by the tidal currents, which attain a velocity of 1.5 to 2 knots at springs. The flood current sets in a W direction, and the ebb current in an E or ESE direction.

Numerous eddies, small whirlpools, and tide rips, more pronounced close to the shore, extend as far as 10 to 15 miles offshore on the W, N, and E sides of the island, but much farther on the S side.

Caution.—Ostrov Iony should be given a wide berth, as the island is ordinarily enveloped in dense fog during the navigation season. Depths of 183m will indicate a position 8 to 20 miles offshore, depending on the direction of the approach. All precautions should be taken upon obtaining a depth of 92m. The increasing number and intensity of eddies, as well as a sudden increase in the number of seabirds, will indicate that the vessel is close to the island when the sea is calm. Usually the roar of thousands of sea lions on the rookeries of the island becomes audible at a distance of 1 to 1.5 miles offshore.

Poluostrov Longdar Negotni to Udskaya Guba

6.31 Zaliv Ayan (56°27'N., 138°09'E.), on the S side of Poluostrov Longdar Negotni, is entered between Mys Savaya, previously described in paragraph 6.29, and Mys Zheltyy, marked with reddish-yellow precipices about 1.3 miles NW. There is a small settlement, but no commerce, in Zaliv Ayan. The bay is the most sheltered anchorage on the NW shore of the Sea of Okhotsk.

A large pillar rock lies near the shore a short distance N of Mys Savaya. Ostrovok Chayachiy, a cliffy islet, about 0.7 mile NNW of Mys Savaya, is connected to a rocky headland, 90m E, by a drying ledge.

Banka Lorga Angra, a partly drying steep-to rocky shoal, extends to about 0.3 mile E and SE of Mys Zheltyy. The sea breaks over the shoal at HW.

Winds—Weather.—The period of calms and light airs extends through the spring and early summer. Winds increase in force gradually toward the latter part of the summer and attain their maximum force late in the autumn, but lessen gradually toward the spring.

From May to August, SE winds, alternating with somewhat stronger NE winds, prevail. From October to February, NW to N winds prevail. The latter part of September, October, and November is the period of protracted NE or SE storms. Sudden squalls emerge occasionally from the valleys at the head of the bay during either NW or NE winds.

Northeasterly winds are accompanied with poor visibility and bad weather. South to SSE winds bring fog. Winds from the S through W to NW are accompanied by clear weather.

Precipitation in Zaliv Ayan and its vicinity is much greater than elsewhere in the Sea of Okhotsk. Nearly 90 per cent of the total precipitation per year is recorded during summer and autumn, the maximum being during August and September.

The highest temperature on record for 11 years of observation is 30°C and the lowest is -36.1°C.

May, June, and July is the period of the most fog. The number of days with fog decreases considerably by the first half of August and is rare in the latter part of this month. Fog is an exception during the offshore winds prevailing here through the autumn and winter.

Ice.—The head of the bay freezes at the end of November, and the ice spreads rapidly over the whole bay, attaining a maximum thickness of 0.8m. By the end of March, the coast is fringed with ice to a distance of 25 to 30 miles.

In this vicinity the ice begins to break in April and, as a rule, moves SW along the coast, but masses of broken ice are brought here from the N coast of the Sea of Okhotsk and remain along this coast to the end of June or the middle of July. The average date for the complete freezing is 29 November; the average date of the breaking of the ice in the spring is 11 April.

Tides—Currents.—The MHW interval in Zaliv Ayan is 12 hours 39 minutes. The tides are semidiurnal. At springs, the maximum tidal rise is 2.9m. At neaps, the HHW rise is 2.3m and the LHW rise is 0.2m. The highest water occurs on the second or third day after the new or the full moon.

The tidal currents are more pronounced along the E shore of the bay, attaining a velocity of 1.5 knots in the vicinity of Mys Savaya, but decreasing to 1 knot about halfway along the E shore, and are imperceptible near the head of the bay.

Depths—Limitations.—There are depths of 25 to 30m in the middle of the entrance to Zaliv Ayan, shoaling gradually to about 14.6m, sand, between Ostrovok Chayachiy and Banka Lorga Angra, then to depths of 5.5m about 0.3 mile from the head of the bay.

Aspect.—Gora Longdar, the summit of Poluostrov Longdar Negotni, and Gora Uyskaya, about 10 miles WSW of Mys Zheltyy, form excellent landmarks discernible in clear weather from 35 to 50 miles. Gora Uyskaya, about 2 miles inland, has two pointed summits, 1 mile apart. It has the appearance of a single cone-shaped mountain on NW bearings.

Anchorage.—Anchorage can be taken, in 7.3 to 11m, sand and gravel, N of Ostrovok Chayachiy, and WSW of a sandy strip separating a small lake from the bay. Small vessels can anchor, in about 7 to 9m, sand and mud, about 0.5 mile from the head of the bay. Zaliv Ayan is sheltered from NE winds, but even with NE winds a considerable swell enters. During strong S winds, the anchorage in the bay become untenable.

Caution.—The approach to Zaliv Ayan presents no difficulties in clear weather. Vessels approaching the bay in fog would have a somewhat better chance of identifying the coast S of

Poluostrov Longdar Negotni, where short periods of clear weather occur more often than N of this peninsula.

6.32 Mys Musikan (56°14'N., 137°50'E.), with a very high coast, has rocks, which dry about 3m, extending about 0.2 mile offshore. Mys Lantarskiy, about 7 miles farther SSW, may be identified by a detached conical rock, about 31m high, lying 1.2 miles N of the point and close offshore.

Mys Borisova (55°57'N., 137°23'E.), lying 17 miles SW of Mys Lantarskiy, is the extremity of a promontory which rises to a height of 546m. A small islet, about 1.7 miles N of the cape, may help to identify the cape when coming from the N.

Zaliv Borisova, the bay W of Mys Borisova, has steep-to shores except near its head. Depths of 26 to 37m are in the entrance and also in the greater part of the bay, but decrease rather suddenly to depths of 9.1 to 11m near the head, and merge abruptly into the shoal water extending from the mouth of the rivulet at the head of the bay.

Anchorage.—Anchorage can be taken in Zaliv Borisova, in depths of 11 to 15m, sand and mud, good holding ground, about 0.5 mile from the head of the bay, with Mys Borisova bearing 123°. This anchorage is sheltered from NE winds. Although considerably abated, a heavy swell sets into the bay even during NE winds. During fresh offshore winds, and particularly during NW winds, this anchorage is exposed to sudden strong gusts of wind from the valley of the rivulet.

6.33 Mys Otlichitel'nyy (55°47'N., 137°02'E.), 15 miles SW of Mys Borisova, is steep-to. A very high rock, connected to the cape, rises to half the height of the cliffs and is conspicuous on NE and SW bearings, but is not discernible on the background of the bluffs of the peninsula. Close to the point the mountains are 900m high.

Mys Ukoy (55°38'N., 136°46'E.), 13 miles SW of Mys Otlichitel'nyy, steep-to and consisting of high and prominent rocks, is a narrow tongue-shaped cape jutting out from the S side of an elevated peninsula. A mountain, rising to a height of 536m near the base of Mys Ukoy, has on its S side a serrated ridge sloping toward the extremity of the cape.

Four detached pillar rocks are located 4 to 6 miles NNE of Mys Ukoy. The outer and largest rock is about 0.3 mile offshore and is steep-to.

Zaliv Ukoy, immediately W of Mys Ukoy, has depths of 12.8 to 14.6m on the parallel of Mys Ukoy, decreasing to 9m towards the head of the bay. Steep-to shoals border the head of the bay.

Anchorage.—Anchorage can be taken, in 9 to 10m, sand and gravel, with Mys Ukoy bearing 115°, distant 1.7 miles. This anchorage is sheltered from NE winds, but is exposed to strong gusts of wind occurring during offshore winds.

Mys Eskan, about 10 miles SW of Mys Ukoy, is high, steep, and prominent from the SW. A mountain, about midway between Mys Ukoy and Mys Eskan, rises to an elevation of 1,583m and is the highest point on the NW coast of the Sea of Okhotsk.

Udskaya Guba

6.34 Udskaya Guba lies W of Shantarskiye Ostrova, and is entered between Mys Madzhalinda, 23 miles SW of Mys Eskan, and Mys Mal Dugandzha, about 40 miles SSE. The bay has shores covered with trees, chiefly fir.

Winds—Weather.—Calms and light airs, occasionally interrupted by fresh NE or E winds, prevail in Udskaya Guba through May and June. Southwesterly winds, gradually increasing in force and also occasionally interrupted by fresh NE winds, become prevalent during the first half of July and last until August. This is the best part of the navigational season and all winds, except those from NE, attain moderate force. Between the middle of August and early October, SW winds, which gradually increase in force, are frequently interrupted by fresh W to NW winds.

Northeast winds become more frequent in September and attain storm force. October and November in Udskaya Guba is the season of stormy weather. Northwesterly gales, which may be steady for a week or longer at a time, alternate with NE storms, being separated from each other by short-lived calms. Northwesterly winds prevail through the winter, but gradually lose their force and frequency by March or April, the beginning of the period of calms and light airs.

Northeast winds are accompanied by poor visibility, bad weather, and cause very heavy swells in the bay. It has been noticed that a light mist obscuring the horizon and small patches of fog covering the higher mountain peaks during periods of normal, or slightly higher barometric pressure indicate the approach of NE gales, which begin as soon as the barometric pressure begins to fall.

The season of fog in Udskaya Guba lasts throughout the spring and the first half of the summer. Beginning in the first half of July, fog in the bay is not quite as frequent and protracted.

Ice.—The rivers discharging into Udskaya Guba freeze in the latter half of October. Early in November the first shore ice appears, which gradually grows in thickness and seaward expanse, attaining its greatest development in the month of March and remaining in this state until the middle or the latter part of May. Usually the ice begins to break up during the latter part of May and is gradually carried out of the bay by the tidal currents. Often the bay is clear of ice by the middle of July, but after particularly severe winters the bay is icebound and remains inaccessible throughout the navigational season. In favorable years the bay may clear of ice in June.

Tides—Currents.—The MHW interval at the head of Udskaya Guba is 3 hours 29 minutes. The tides are semi-diurnal. At springs, the tidal rise varies from 6.1 to 7.3m. At neaps, the HHW rise is 4.2m and the LHW rise is about 1.5m. The highest water occurs on the third or fourth day following the new or the full moon.

The tidal wave advances into Udskaya Guba through the N entrance between the mainland and the W side of Ostrov Feklistova, and also through the S entrance between the mainland and the S side of this island. In the N entrance into the bay the flood current sets in a SW direction and attains a velocity of 2.5 to 3 knots at springs, while in the S entrance the flood current sets in a W direction and attains a velocity of 4 to 5 knots at springs. These two flood currents meet in the area between Ostrov Medvezhiy and Mys Tyl'skiy, about 20 miles farther W, and cause an extensive whirlpool in a counterclockwise direction, resulting from the flow of the flood current in a W direction N of Ostrov Medvezhiy, but in an E direction and a N direction, respectively,

S and E of this island.

The ebb currents have somewhat greater velocities and durations than those of the flood currents. The velocities of the tidal currents at springs are about twice as great as those at neaps.

6.35 Northwest side of Udskaya Guba.—Mys Madzhalinda (55°17'N., 136°07'E.) is steep-to, clear of dangers, and rises steeply to an elevation of 558m. A low, sandy beach lies at the mouth of a rivulet, about 1.5 miles W of Mys Madzhalinda.

A conspicuous flat wooded plateau extends about 3 miles SW from the low sandy beach. The plateau ascends slightly inland and faces the sea with grayish-brown cliffs, 45 to 60m high.

Mys Nosorog (55°10'N., 135°51'E.), 10 miles SW of Mys Madzhalinda, can be recognized by a conspicuous hump on its seaward side, which is conspicuous on NE and SW bearings.

Severo-Vostochnaya Gavan', a small bay 1.5 miles W of Mys Nosorog, offers shelter from offshore winds. Mys Peshchernyy, a small cliffy cape, identified by a grotto near its base, lies about 0.6 mile WSW of Mys Nosorog. A conspicuous white cliff, 2 miles S of the bay, forms a good landmark when approaching from the SW. It is conspicuous against the dark brown of the coast on either side.

Anchorage.—Anchorage can be obtained, in a depth of 24m, gravel, about 0.7 mile WSW of Mys Peshchernyy, or elsewhere in the bay according to the draft.

6.36 Mys Manorskiy (55°07'N., 135°42'E.), 4 miles SW of Mys Nosorog, is the termination of a mountain spur approaching the sea from the W, and is conspicuous by its height rising to an elevation of 570m. A short reef projects S from the extremity of the cape, and similar reefs project seaward in places from the peninsular projection formed by the seaward end of the mountain spur.

Mys Antykan, about 23 miles SW of Mys Manorskiy, consists of a small detached hill, sloping steeply seaward.

6.37 Head of Udskaya Guba.—The head of Udskaya Guba, between Mys Antykan and Mys Tyl'skiy, about 19 miles SE, is generally low and consists mostly of accumulations of sand and shingle. Mys Chumikan, about 9.5 miles SSE of Mys Antykan, lies on the E side of the mouth of Reka Uda. The settlement of Chumikan is situated principally on the W side of Mys Chumikan. The head of the bay is fringed by a drying coastal flat extending as far as 4 miles off the mouth of Reka Uda.

Mys Tyl'skiy (54°40'N., 135°38'E.) is the NW extremity of a conspicuous precipitous cape, with its seaward face 2.5 miles long in an WNW-ESE direction and rising to a height of 217m near the E extremity of the cape.

A drying reef borders the seaward face of the cape for 0.5 mile seaward. There are depths of 7.3m, shingle or occasionally sand, about 1.3 miles N of the cape, decreasing abruptly W of the cape. A light is shown from a 22m tower, at position 54°39.8'N, 135°38.0E, on Mys Tyl'skiy. The light is shown from late July to late October.

Tides—Currents.—Tidal currents attain a velocity of 2.5 to 3 knots at the anchorage.

Anchorage.—Vessels with cargo should anchor at a distance of not less than 8 or 9 miles from the coast. The best anchorage off the mouth of Reka Uda is about 9 miles offshore, in 7m, poor holding ground of rock, covered with a thin layer of sand and gravel, with Mys Antykan bearing 282°, the settlement of Chumikan bearing 217°, and Mys Tyl'skiy bearing 149°.

Caution.—Northeasterly winds, which occur here intermittently during any time of the year, occur up to 2 days at a time, and are particularly strong in the autumn. These winds are accompanied by foul weather and poor visibility during which navigation in the bay is dangerous. These winds also cause heavy sea and swell, rendering the anchorage unsafe. Often a light ENE breeze precedes the NE winds, which begin as soon as the barometric pressure begins to fall. Vessels anchored in the W part of Udskaya Guba at this time should seek shelter on the lee side of Ostrov Medvezhiy.

6.38 South side of Udskaya Guba.—Mys Al'skiy (54°35'N., 136°05'E.), the E entrance point of Toromskaya Guba, is formed by a detached thickly wooded hill, rising to a height of 244m from a low shore of sand and shingle. Drying rocks fringe the extremity of the point on all sides.

Mys Medvezhiy Odeyalo, about 5 miles ENE of Mys Al' skiy, is precipitous, and formed by a detached gently sloping thickly-wooded hill rising to a height of 244m near the coastline.

Ostrov Medvezhiy, a thickly-wooded island, lies with its NW end about 5 miles NNE of Mys Medvezhiy Odeyalo. The island rises to a height of 229m in its NW part and to 204m near its E end, which is connected to the rest of the island by a precipitous neck of land about 90m high.

The N shore of the island is almost steep-to and is free of dangers, with the exception of a few rocks lying close offshore. Rocks extend about 0.5 mile off the W side of the island. There are fairly even depths of 8.2 to 10m off the W half of the S side of the island. The E end of the island is fringed with generally shallow water on all sides and scattered detached shoals in places.

The channel separating Ostrov Medvezhiy from the mainland has an intricate fairway with least depths of 5.5m in its E part, and should not be attempted without local knowledge.

The coast S of the island, between Mys Medvezhiy Odeyalo and Mys Klin, about 7 miles ESE, is fringed by shallow water, and depths of 1.8 to 3.6m lie 0.5 mile offshore.

Tides—Currents.—Tidal currents in the vicinity of Ostrov Medvezhiy attain a velocity of 3 to 4 knots, the flood current setting around the island in a counterclockwise direction, and the ebb current, in a reverse direction.

Anchorage.—Anchorage may be obtained between the E end of Ostrov Medvezhiy and the mainland E, in depths of 5.5 to 14.6m, over an uneven bottom with good holding ground. The anchorage is protected from NE gales, but is not safe later in the year than the middle of September. Local knowledge is necessary.

Ostrova Sivuch'i Kamni consists of two detached groups of barren islets and rocks. The NW group (54°49'N., 136°17'E.), about 7 miles N of the NW extremity of Ostrov Medvezhiy, consists of a cone-shaped islet, 232m high. A group of low above-water rocks lies about 1.5 miles WNW of the islet.

The SE group consists of an islet about 2.5 miles SE of the cone-shaped islet. This islet is 0.5 mile long and 171m high. A

large pillar rock, rising sheerly from the sea to a height of 79m, lies 0.7 mile SW of this islet.

The islets and rocks of Ostrova Sivuch'i Kamni are fringed by short drying reefs, and the channel between the two groups has not been surveyed.

Caution.—Tidal currents N and S of Sivuch'i Kamni set W with the flood current and E with the ebb at a rate of 4 to 5 knots.

6.39 **Mys Mal Dugandzha** (54°41'N., 136°39'E.), the S entrance point of Udskaya Guba, rises to a height of 229m, is steep-to, and consists of dark slate conspicuously marked by bands of light-colored strata. Excellent anchorage can be taken, in depths of 9 to 16m, SW of Mys Mal Dugandzha during S winds.

Mys Klin (54°35'N., 136°23'E.), 10 miles SW of Mys Mal Dugandzha, is formed by the N spur of a mountain rising to a height of 518m, about 2.5 miles S of the cape. A conspicuous triangular white patch marks the NW part of the cape.

6.40 Zaliv Lyutsun, entered between Mys Mal Dugandzha and Mys Bol Dugandzha, about 7 miles ESE, has thickly wooded shores, is high at the entrance points, decreases in height within the entrance, and merges into low sandy shores at the head of the bay.

Depths of 12.8 to 18.3m, rocky bottom, are in the entrance, decreasing to 5.5m, mostly shingle, in the middle of the bay, then shoaling to the head of the bay, which dries for about 0.4 mile.

Tides—Currents.—The MHW interval in Zaliv Lyutsun is approximately 3 hours. The tides are semidiurnal. At springs, the maximum tidal rise is 6.1m. At neaps, the HHW rise is 3m and the LHW rise is 1.8m.

Near the entrance into the bay the tidal currents attain a velocity of 3.5 to 4 knots at springs, and 2 to 3 knots at neaps, decreasing gradually within the entrance. The flood current sweeps the shores in a counterclockwise direction, and the ebb current, in a reverse direction.

Anchorage.—Anchorage, sheltered from winds of the SE and SW quadrants, can be taken in suitable depths, but during S winds the bay is exposed to occasional strong squalls from the valley at its head. Anchorage during NE winds is dangerous due to the heavy swell which is raised. The tidal currents tend to place an anchored vessel broadside.

6.41 **Mys Bol Dugandzha** (54°38'N., 136°50'E.), 7 miles ESE of Mys Mal Dugandzha, rises to a pointed peak, 250m high, near its extremity. The peak falls steeply seaward, and contrasting with the round hills in the vicinity, is often visible when the coast below is obscured by fog.

The peninsula, of which Mys Bol Dugandzha is the NE extremity, rises to a conspicuous pointed peak 488m high about 5 miles SSW of the cape. The cape is steep-to, except for a small group of drying rocks, close under its cliffs.

Shantarskiye Ostrova

6.42 Shantarskiye Ostrova consists of four large islands, five small islands, and three islets. The large islands have a hilly, rather than a mountainous aspect due to the fairly gentle slopes of the mountains. The mountain slopes are covered with thick forest, and the valleys are covered with luxuriant grass. The small islands, also high, have steep cliffy shores and, as a rule, are covered with shrub. The rocky islets have pointed summits and are barren.

Depths between the islands are generally 20 to 45m. Navigation is dangerous due to the strong and irregular currents, sometimes attaining velocities of 5 to 7 knots. Steep rocks fringe the smaller islands and the headlands of the larger islands, and there are also other detached rocks.

Ostrov Sakharnaya Golova (54°58'N., 136°30'E.) has a cone-shaped hill, 302m near the E end of the island. The W part is formed by a flat-topped elevation rising steeply from the sea to a height of 183m, and is connected to the E part of the island by a somewhat lower isthmus. The island is considered to be steep-to, though only sparse soundings have been taken in the vicinity.

6.43 Ostrov Feklistova lies with **Mys Belyy** (55°06'N., 137°09'E.) at its NE extremity. Mys Belyy rises to a height of 354m near its extremity, and faces the sea with nearly vertical grayish-white cliffs. A white rock, about 4.5 miles SSW of Mys Belyy, is a very prominent landmark. Mys Krasnyy, about 11 miles SSW of Mys Belyy, consists of red cliffs and is conspicuous; the point is fringed by above-water rocks connected to its extremity by a short reef.

Mys Pokatyy, about 7.5 miles W of Mys Belyy, is formed by a rounded hill, about 274m high, sloping to the sea. The cape is fringed by rocks, which cover at HW. A wide river valley approaches the sea from the S, midway between the capes.

The coast from Mys Pokatyy to Mys Zapadnyy, about 13 miles SW, is steep-to and clear of dangers except for a reef projecting 0.3 mile seaward from the face of Mys Zapadnyy. A cape, about 2.5 miles S of Mys Zapadnyy, has a reef extending 0.5 mile S from it, and terminating about 0.3 mile offshore. A detached drying rock, marked by breakers during the upper half of the tide, lies near the extremity of the reef.

Tides—Currents.—The flood tidal currents set W, then SW, respectively, on the N and W coasts of Ostrov Feklistova, attaining velocities of about 4 knots at springs. The ebb currents set in the reverse direction.

The tidal currents attain a velocity of 4.5 to 5 knots in the vicinity of **Mys Vkhodnoy** (54°53'N., 136°44'E.). The flood current that sets in a SW direction along the W side of Ostrov Feklistova meets the flood current that sets in a W direction along the S side of the island, causing tide rips and fairly conspicuous eddies, which are not as pronounced and are located closer to the shore during the ebb.

6.44 Guba Lebyazh'ya, a bay indenting the S side of Ostrov Feklistova, is entered E of **Mys Arka** (54°54'N., 136°47'E.), located about 1 mile NE of Mys Vkhodnoy. Ostrovok Arka, an islet about 0.1 mile E of Mys Arka, has a natural tunnel through it and is connected to the cape by a drying ledge. A rocky patch, steep-to on its E side, extends 0.2 mile ESE of Ostrovok Arka.

Tides—Currents.—Tides in Guba Lebyazh'ya are semi-diurnal, the MHW interval being 3 hours 8 minutes. The tidal rise is up to 6.1m at springs and about 4.6m at neaps.

Depths—Limitations.—Depths in the entrance to Guba Leb-

yazh'ya, between the drying reef extending ESE from Ostrovok Arka and Ostrov Sukhotina, are 11 to 24m, but immediately within there is a ridge, which stretches nearly across the bay with depths of 7.8 to 11m. The bottom throughout is ooze.

Aspect.—Ostrov Sukhotina, a conspicuous thickly-wooded island rising to a height of 256m in its S end, lies about 5 miles E of Mys Arka. The cliffs of the islet are dark in color.

Anchorage.—Guba Lebyazh'ya is sheltered from N winds and affords the best anchorage in the W part of Shantarskiye Ostrova. The bay has three bights at its head, Reyd Yengel'ma, Bukhta Soboleva, and Bukhta Rosseta, named from W to E. Bukhta Yengel'ma is reported to afford the best protection.

6.45 Reyd Yengel'ma, entered between Mys Arka and Mys Krasnyy, about 2.5 miles NNE, has cliffy shores and a narrow sand and shingle beach at its head. Ostrovok Shilova lies about 1 mile N of Mys Arka. A detached rock lies a short distance off the NE end of the islet.

Banka Gaykovskogo, a shoal with a least depth of 2.7m in its central part, lies in the middle of and close within the entrance. The shoal has a width of about 0.5 mile.

The channel between the N side of the shoal and the N shore, about 0.5 mile N, has prevailing depths of 6.4 to 8.2m, and is the recommended entrance into the inner part of the bight.

The N shore of the bight is comparatively steep-to, but the head of the bight and that part of the W shore N of Ostrovok Shilova are fringed by shallow water with depths of 1.8m extending 0.3 mile offshore. Depths of less than 5.5m extend about 0.3 mile N of Ostrovok Shilova.

Anchorage.—Vessels with a suitable draft can obtain anchorage, in a depth of about 7.3m, good holding ground of sand, or sand and mud, about 0.6 mile N of the NE end of Ostrovok Shilova, with this point in range with Ostrovok Arka. This anchorage is partly sheltered from swell by Banka Gaykovskogo, the tidal currents being imperceptible.

Caution.—During strong NW or strong NE winds this anchorage is exposed to occasional strong gusts of wind blowing down the hills.

6.46 Bukhta Soboleva (54°56'N., 136°49'E.), the bight E of Mys Krasnyy, is exposed to violent gusts of wind from the river valley at the head of the bight during NW winds.

The depths at the entrance into the bight are about 10m, decreasing gradually to 5.5m, mud, about 0.5 mile off the head. Both entrance points are clear of dangers.

Bukhta Rosseta (54°56'N., 136°54'E.), the bight forming the NE end of Guba Lebyazh'ya, is open to SW winds and is also exposed to rather violent squalls from the valley at the head of the bight during NE winds, which occur here occasionally all year round. There are depths of 11 to 13m in the middle of the entrance, decreasing to depths of 5.5m about 0.5 mile within the entrance.

The coast from Guba Lebyazh'ya to the SE end of Ostrov Feklistova consists of sheer grayish-brown cliffs backed by coastal hills rising to heights of 241m. This coast is steep-to and clear of dangers.

Severnyy Proliv, the strait between Ostrov Feklistova and Ostrov Bol'shoy Shantar, is deep and clear of off-lying dangers. Navigation through the strait on a clear day presents no difficulties; however, in case of fog, the fairly even depths and uniform rocky bottom furnish no guidance.

Tides—Currents.—Tidal currents attain a velocity of 3.5 to 4 knots in the N half, and a velocity of 2.5 to 4.5 knots in the S half of the strait; the flood current setting in a SSW direction, and the ebb current in a reverse direction.

Ostrov Bol'shoy Shantar (55°00'N., 137°46'E.), the largest of Shantarskiye Ostrova, is hilly with the greatest elevations extending along the E side as an irregular mass of rounded and wooded summits. The shores are generally cliffy, sometimes precipitous, and bordered close offshore by numerous dangers, especially in the N part.

6.47 West side of Ostrov Bol'shoy Shantar.—Mys Severo-Zapadnyy (55°11'N., 137°33'E.), the NW extremity of Ostrov Bol'shoy Shantar, is a steep, cliffy cape of distinctive red color. The cape is steep-to and clear of dangers.

Tides—Currents.—Swift tidal currents in the vicinity of the cape cause pronounced eddies and numerous tide rips, which, even during moderate winds, are present in the vicinity of the cape.

From Mys Severo-Zapadnyy the high cliffs decrease in height toward Mys Gorbatyy, about 13 miles SSW. Mys Gorbatyy is rendered conspicuous by its convex slope. A pillar rock lies off the cape, and a similar rock lies about a mile N of the cape.

Mys Raduzhnyy (54°45'N., 137°13'E.), a rugged cape lying 16 miles SSW of Mys Gorbatyy, is the SW extremity of Ostrov Bol'shoy Shantar. The cape is clear of dangers and almost steep-to.

Ostrov Utichiy comprises two islets and a pillar rock, located on a common rocky base. The SW and larger islet, about 4.5 miles SSW of Mys Raduzhnyy, rises to a height of 183m in its N part. The smaller islet, about 0.5 mile NE of the larger islet, rises to a height of 106m. The pillar rock lies about 0.5 mile farther NE.

Tides—Currents.—Tidal currents, which cause pronounced whirlpools in the vicinity of Ostrov Utichiy, attain a velocity of 4 to 4.5 knots. The flood current sets in a WNW direction, and the ebb current in a reverse direction.

6.48 Ostrov Ptichiy (54°36'N., 137°05'E.), about 5.5 miles SW of Ostrov Utichiy, has the aspect of a smooth rounded hill, with its summit, 290m high, in the S part of the island. The island has high, cliffy shores, and the S side of the island is fringed by rocks.

The channel separating it from the mainland W is 6 miles wide and has depths of 22 to 24m in the fairway. It is free from dangers. Landing can be effected on a sandy beach on the NW side of the island.

Tides—Currents.—Tidal currents attain a velocity of 4 to 4.5 knots in the vicinity of the island at springs.

6.49 North side of Ostrov Bol'shoy Shantar.—The coast from Mys Severo-Zapadnyy to **Mys Severnyy** (55°12'N., 137°40'E.), about 4 miles ENE, changes in color from red to grayish-brown. Mys Severnyy, the N extremity of the island, is marked by a group of small pillar rocks and drying rocks scattered to 0.4 mile off its extremity. Considerable eddies caused by the tidal currents extend far seaward.

A light from which a radiobeacon transmits, is located on

Mys Severnyy. The light is shown from 1 June to 1 December. A fog signal sounds 117m NW of the light.

Tides—Currents.—Tidal currents off this coast attain a velocity of 2.5 to 3 knots; the flood current sets WNW, with the ebb current setting in a reverse direction.

6.50 Mys Bokovikova, about 11 miles ESE of Mys Severnyy, is conspicuous, and fringed by pillar rocks and islets. One of the islets, known as Kamen' Lev, or Lion, due to its shape, lies on the E side of the cape. The seaward sides of these islets are steep-to.

A beach of sand and shingle extends about 5 miles SE from a position about 3.5 miles SSE of Mys Bokovikova. Ozero Bol'shoye, a lake with brackish water of red tint, lies on the inner side of the beach. Vessels with local knowledge and a draft of 3m enter the lake at HW via a shallow channel.

Mys Severo-Vostochnyy (55°02'N., 138°15'E.), a rather flat-topped cape, consists of forbidding cliffs, which rise sheerly from the sea to heights over 300m on its N and S sides, but forms a slanting slope at its extremity.

The dark-brown color of the cliffs on the N and NE sides of the cape contrasts effectively with the gray and white colors of the cliffs on the E and S sides of the cape.

A reef projects about 0.3 mile N of the extremity of the cape.

Ostrov Prokof'yeva lies with its SW extremity 2 miles ENE of Mys Severo-Vostochnyy. The shores of the island are high and cliffy. The mountains attain their greatest elevations in the E and NE parts of the island, where they rise to heights exceeding 762m near the shoreline and face the sea with sheer gray cliffs resembling the ruins of a huge castle.

The shores of the island are steep-to and clear of dangers. A blunt spit of shingle projects S from the SW end of the island. The spit is steep-to. There is a hollow with a stream flowing through it on the NE end of the island.

Tides—Currents.—Tidal currents in this locality have a rate of 2 to 2.5 knots, the flood current setting W and the ebb E. Tidal currents set NW with the flood, and SE with the ebb, attaining a velocity of 3 to 3.5 knots, in the channel separating Ostrov Prokof'yeva from Ostrov Bol'shoy Shantar.

6.51 East and S sides of Ostrov Bol'shoy Shantar.—A small rocky headland, about 9 miles SW of Mys Severo-Vostochnyy, can be identified by a pillar rock, the only one in this vicinity, located a short distance off its extremity. A detached hill, with steep slopes, rises to a height of 259m within the headland.

Mys Kusova (54°47'N., 138°01'E.), the E point of a blunt rounded point, faces the sea with a steep-to, somewhat serrated slope. A reef, which dries about 4.9m, extends about 0.3 mile from the coast, 2.5 miles N of Mys Kusova, and short reefs project from the coast 2.3 miles and 4 miles SW, respectively, of Mys Kusova.

Ostrov Kusova, with its W end about 7.5 miles ESE of Mys Kusova, rises to a height of 644m and forms an excellent landmark. The shores of the island are high and cliffy. The island is steep-to.

Mys Filippa, the S extremity of Ostrov Bol'shoy Shantar, 13 miles SW of Mys Kusova, slopes steeply to the sea from a height of 183m. At the base of the cliffs is an accumulation of rocks and crags fringed by drying rocks.

Tides—Currents.—The tidal currents along the E coast of Ostrov Bol'shoy Shantar attain a velocity of 3 to 3.5 knots in the vicinity of Mys Kusova, but a velocity of 4.5 to 5 knots in the vicinity of Mys Filippa. The flood and the ebb currents set in a SW and NE direction, respectively.

6.52 Guba Yakshina, the bay indenting the SW side of Ostrov Bol'shoy Shantar, is entered between Mys Filippa and Mys Raduzhnyy, about 18 miles WNW.

Mys Olay, the extremity of a small, elevated, thickly wooded projection, about 8 miles NNW of Mys Filippa, separates two river valleys. Mys Olay is fringed by drying rocks, and a detached drying rock lies about 0.3 mile SSW of its extremity.

Mys Anaur, about 2.5 miles NW of Mys Olay, faces the bay with high, steep cliffs. A detached hill, 302m high, lies near its extremity. A partly drying reef extends 0.4 mile W of Mys Anaur.

Mys Topaznyy, on the W shore of the bay, about 6.5 miles NE of Mys Raduzhnyy, is rendered conspicuous by a small, cliffy islet, with a rounded summit, close off its extremity.

A bank, which dries, extends a considerable distance from the mouth of Reka Yakshina at the head of the bay.

Ice.—Guba Yakshina is frozen by December in average years. The ice breaks up in late May or early June, and finally disappears in July. The ice may reach a thickness of 3.8m.

Tides—Currents.—The MHW interval in Guba Yakshina is about 3 hours, the tidal rise being up to 4.9m at springs. The flood tidal current flows counterclockwise around Guba Yakshina, and the ebb in the opposite direction. The tidal currents attain a velocity of 3.5 to 4 knots near the entrance, but do not exceed 2 knots in the innermost part of the bay.

6.53 Severo-Vostochnyy Proliv, the strait between Ostrov Bol'shoy Shantar and Ostrov Malyy Shantar, should only be used by vessels with local knowledge.

Kamni Diomida, consisting of two detached serrated rocks, about 9.1m high, close together, and with several smaller rocks nearby, divides Severo-Vostochnyy Proliv into two passages. The fairway of both passages is deep, but a depth of 11m lies 0.1 mile N of a drying reef extending 1 mile NNE from Mys Uspeniya, the N point of Ostrov Malyy Shantar. The N side of Kamni Diomida appears to be steep-to. A vessel passing 0.5 mile N of the rocks observed no dangers.

Tides—Currents.—The tidal currents in Severo-Vostochnyy Proliv are swift, the flood current setting W and the ebb current, E. The flood current setting SW along the E side of Ostrov Bol'shoy Shantar combines with the flood current setting W from the Sea of Okhotsk and sets through the strait in a W direction, attaining a velocity of 7 to 7.5 knots, decreasing to 4.5 and 4 knots after passing the narrows.

Caution.—In misty weather the strait should not be attempted unless the extremity of Mys Filippa and Kamni Diomida are visible at the same time.

6.54 Ostrov Belichiy, an elevated, thickly wooded island, has generally high and cliffy shores, except for the narrow part of the island, which is low and sandy on both sides. A mountain rising to a height of 580m in the NE part of the island, and a mountain rising to a height of 311m in the SW part of the island, slope steeply toward the narrow part of the island.

Mys Severnyy (54°30'N., 137°55'E.), the N extremity of Ostrov Belichiy, is a vertical cliff, 183m high. A short drying reef extends NE from a pillar rock at the base of the cliff.

The coast between Mys Severnyy and Mys Vysokiy, about 2.5 miles SSW, has the aspect of a high wall. A short reef, drying in parts, extends E from Mys Vysokiy.

Ostrovok Severnyy, about 1 mile E of Mys Vysokiy, rises to a height of 108m, and has steep, cliffy shores on all sides. The channel between Mys Vysokiy and the islet has depths of 31m in the fairway and is clear of dangers.

Caution.—A dangerous wreck is located about 1 mile WNW of Mys Severnyy, in a depth of 3.2m.

Mys Krutoy (54°23'N., 137°49'E.), a sheer bluff, rises from the sea to a great height. A short reef extends E from its extremity. Ostrovok Sredniy, an islet about 0.7 mile SSE of Mys Krutoy, rises to a height of 94m. Partly drying reefs extend from the NE and SW ends of the islet. There are depths of 18.3m in the fairway separating Ostrovok Sredniy from Ostrov Belichiy.

Ostrovok Yuzhnyy (54°20'N., 137°47'E.), about 1 mile SSW of Ostrovok Sredniy, is a wooded islet, rising to a 137m hill in its S half. The N half of the islet is a flat-topped elevation, 125m high. A short reef, marked by two above-water rocks near its extremity, extends from the NE side of the islet. The remainder of the island is clear of dangers. The fairway between Ostrovok Yuzhnyy and Ostrov Belichiy has depths of about 33m.

Tides—Currents.—The flood current sets in generally S and W directions along the E coast of Ostrov Belichiy. The ebb current sets in the reverse directions. The currents attain velocities of 4 to 5 knots inside the islets, and 3.5 to 4 knots outside. The currents cause eddies and tide rips.

6.55 Mys Obryvistyy (54°29'N., 137°50'E.), the NW point of Ostrov Belichiy, is a precipitous, steep-to cape, rising to a height of 305m in its vicinity. The entire W coast of Ostrov Belichiy is generally steep-to, with fairly even depths of 18.3 to 25m about 0.8 mile offshore.

Ostrov Malyy Shantar consists of hills with smooth and thickly-wooded slopes. The island rises to a 286m summit in the middle part. The W side of the island has generally precipitous shores. Generally, the depths on the W side of Mys Uspeniya are uneven and this side of the cape should be avoided.

Mys Uspeniya (54°34'N., 137°38'E.), the N extremity of Ostrov Malyy Shantar, is the extremity of a peninsula which has generally low shores, except for a steep hill rising near its extremity. A reef, drying in parts, extends about 1 mile NNE from Mys Uspeniya to a fairly conspicuous pillar rock near the extremity. A depth of 11m lies about 0.1 mile N of the extremity of the reef.

Between Mys Uspeniya and Mys Severo-Vostochnyy, about 4.5 miles SSE, short reefs extend up to 0.5 mile seaward from the projecting capes. Mys Severo-Vostochnyy is formed by the steep cliffy slope of a coastal elevation, and a reef extends 0.4 mile SE from its extremity.

A depth of 14.6m lies about 2 miles N of Mys Gaykovskogo, the SE extremity of Ostrov Malyy Shantar.

6.56 Mys Gaykovskogo (54°23'N., 137°39'E.), on the W side of the narrows, is the extremity of a narrow elevated peninsula. The cape is marked by a group of pointed rocks; a partly-drying reef extends about 0.3 mile SE from its extremity. A partly drying reef extends about 0.2 mile E of the peninsula.

A detached pointed steep-to above-water rock, about 1 mile ESE of Mys Gaykovskogo, divides the narrows of the strait into an E and W channel. A reef, which projects about 0.2 mile W from the SW shore of Ostrov Belichiy, lies with its outer extremity about 0.4 mile E of the detached rock. The E and W channels have depths of 29m and 31m, respectively, in the fairways.

Bukhta Abrek, on the S side of Ostrov Malyy Shantar, is entered between Mys Gaykovskogo and Mys Yengel'ma, about 2 miles W. The latter cape consists of high, reddish-brown, steep cliffs, backed by slopes rising to heights of 185m. A pillar rock lies at the extremity of Mys Yengel'ma, and a high pillar rock lies close offshore, about 0.5 mile WNW of this cape.

Mys Vnutrenniy lies about 0.8 mile NE of Mys Yengel'ma, and marks the W entrance point of a recess extending NW, which dries in its inner half. The bay is surrounded by hills except at the low head of the recess.

The depths in the middle of the entrance to Bukhta Abrek are 26m, decreasing to depths of 14.6m extending E of Mys Vnutrenniy. The shores of this part of the bay are steep-to, the 10m curve being 0.1 to 0.2 mile offshore.

There are depths of about 5.5m at the entrance to the recess, and at a distance of 0.1 mile from the head of the bay E of the recess.

The S coast of Ostrov Malyy Shantar, from Bukhta Abrek to Mys Yugozapadnyy, its SW extremity, consists of steep grayish-brown cliffs.

Tides—Currents.—The MHW interval in Bukhta Abrek is 3 hours 25 minutes. The tides are semidiurnal. At springs, the maximum rise is 4.9m. At neaps, the HHW rise is 3.9m and the LHW rise is 1.8m. The highest water occurs on the third or fourth day following the new or the full moon.

The tidal currents, which are swift outside the bay, decrease within the bay to a velocity of 1 to 1.5 knots in the vicinity of the anchorage and are imperceptible at the head of the bay. The flood current sets in a SW direction and the ebb current in a NE direction.

Anchorage.—Anchorage, sheltered from all winds except strong winds from the S and SE, can be obtained in convenient depths anywhere in Bukhta Abrek. The best berth is about 0.8 mile ENE of Mys Yengel'ma, in a depth of about 22m, sand, mud, and gravel. Anchorage can also be taken about 0.4 mile E of Mys Vnutrenniy, in depths of 11 to 14.6m, good holding ground of mud and sand, or shingle.

6.57 Proliv Lindkhol'ma is the strait separating Ostrov Belichiy and Ostrov Malyy Shantar from the N end of Poluostrov Tugurskiy. The strait has a minimum width of 2 miles between Mys Yuzhnyy, the S extremity of Ostrov Belichiy and Mys Seneka, the NE extremity of Poluostrov Tugurskiy.

Proliv Lindgol'ma is deep and clear of dangers. Fairly even depths of 33 to 38m, shingle or occasional rock, prevail along the middle of the strait. Both shores are elevated and navigation through the strait on a clear day presents no difficulties, with the exception of the strong tidal currents.

Tides—Currents.—The MHW interval in the strait is 2

hours and 38 minutes. The tides are semidiurnal. At springs, the maximum tidal rise is 4.9m. At neaps, the HHW rise is 3.6m and the LHW rise is 1.5m.

The flood currents set W through Proliv Lindgol'ma and joins the strong current setting SSW from between Ostrov Belichiy and Ostrov Malyy Shantar, forming considerable eddies and whirlpools. The ebb current sets E and is more prolonged and stronger than the flood current. The strength of the current varies in different parts of the strait from 3.5 to 6 knots, being strongest off of Mys Seneka.

Anchorage.—Anchorage on the S side of Proliv Lindgol'ma, sheltered from winds from between SE and SW, may be obtained in a small bay 2 miles wide, immediately W of Mys Seneka, in a depth of 18m. Local knowledge is necessary.

Caution.—Proliv Lindgol'ma should not be attempted in fog or on misty days when visibility is poor. Vessels approaching the strait from W with unfavorable weather can anchor off the middle part of the W side of Ostrov Malyy Shantar, which affords protection from all E winds. Vessels headed for Udskaya Guba and approaching the strait from the E during NE or SE winds, which rapidly increase in force, are recommended to proceed N and around Shantarskiye Ostrova.

Tugurskiy Zaliv

6.58 Tugurskiy Zaliv, entered between Mys Seneka and Mys Bol'shoy Dugandzha, about 36 miles WNW, offers anchorage open to N winds in convenient depths. The E and S shores of the gulf are thickly wooded. The S part of the W shore is wooded, but farther N the hills are covered with scrub on the lower parts, with the peaks mostly treeless.

Ice.—Tugurskiy Zaliv is icebound by the end of October, or in some years by the middle of November. In the spring the ice begins to break up in May and, as a rule, the bay is clear of ice at a somewhat earlier date than Udskaya Guba or the sea in the vicinity of Shantarskiye Ostrova.

Tides—Currents.—The tidal rise at springs is 4.5 to 5.5m in the N part of Tugurskiy Zaliv and up to 6.4m in the S part of the gulf. The tidal currents attain velocities of up to 4 knots in the N part of the gulf, causing whirlpools and eddies, and attain velocities of 1.5 to 2 knots in the middle and S part of the gulf.

Depths—Limitations.—Depths at the entrance to the gulf are 18 to 37m, shoaling to less than 8.8m in the fairway about 10 miles from its head. The bottom nearly everywhere in the N half of the gulf is gravel, but there are one or two places where the bottom is rocky, and very rarely sand and mud. The bottom in the S part of the gulf is chiefly gravel. The entire head of the gulf is fringed by shallow water with depths of 3.6m or less extending across the gulf as far as 2.5 miles N of the peninsula at its head.

6.59 **Mys Seneka** (54°19'N., 137°44'E.), steep-to and clear of dangers, has sheer grayish-brown cliffs rising to a height of 152m. Numerous tide rips and eddies are formed in the vicinity of the cape.

The coast between Mys Seneka and Mys Bersen'yeva, about 12 miles W, is mostly steep and cliffy. Depths of 18 to 22m, rock or shingle, lie a distance of 0.5 mile off this coast, which is steep-to, except for short reefs projecting from the extremi-

Mys Bersen'yeva, distant 5 miles

Mys Otvesnyy, about 8 miles W of Mys Seneka, rises to a height of 226m and is conspicuous. A reef extends about 0.3 mile N of the cape.

Mys Temnyy, about 8 miles SW of Mys Bersen'yeva, faces the sea with dark cliffs, and two hills, similar in appearance, rise vertically from the coast and are conspicuous.

Mys Nosorog, a rocky point with grayish-brown cliffs lying about 7 miles farther SW, has a reef extending 0.3 mile W from its extremity. A high pillar rock lies close N of the reef. The pillar rock, in range with the seaward slope of the cape, resembles the horn on a unicorn's head.

Mys Krayniy (54°02'N., 137°14'E.), lying 6 miles SSE of Mys Nosorog, rises to a range of mountains, 354m high, E of the cape. A shoal, which dries 1.5m, extends 0.1 mile off the cape.

Anchorage.—Anchorage, with shelter from N winds and out of the strength of the tidal currents, can be obtained between Mys Nosorog and Mys Krayniy, or S of Mys Krayniy. Local knowledge is necessary.

6.60 The coast from Mys Bol'shoy Dugandzha (described with Zaliv Lyutsun) to Bukhta Mamga, about 15 miles S, faces the sea with grayish-brown cliffs and precipices 91 to 122m high. A low islet, composed of boulders and connected to the shore by a drying boulder ledge, lies close offshore, about 2 miles S of Mys Bol'shoy Dugandzha.

Mys Nikta (54°34'N., 136°54'E.) is the SE extremity of an elevated, cliffy peninsula. A cube-shaped rock at its extremity is connected to the peninsula by a narrow, bluff isthmus. From a distance on certain bearings the cube-shaped rock has the appearance of an islet lying a short distance off the extremity of the cape, but on the background of the coast this rock is indiscernible.

A very conspicuous pillar rock, about 9 miles S of Mys Nikta, lies 0.5 mile off a rocky peninsula, which rises to a height of 423m in its middle part. A drying ledge connects the pillar rock to the coast. The pillar rock is a good landmark in the approach to Bukhta Mamga.

Bukhta Mamga (54°23'N., 136°47'E.) is entered between a cape lying 2 miles SW of the conspicuous pillar rock and the N extremity of a cape, about 2 miles farther S. The recess in the N part of Bukhta Mamga dries and is encumbered with rocks.

There are depths of 5.5m in the entrance to the bay, shoaling rapidly W. About 0.5 mile outside the entrance there are depths of 9.1 to 11m.

A blunt, elevated cape, with a seaward face about 2 miles in length, is located with its NE point about 6 miles S of Bukhta Mamga. A reef, with a fairly large, pointed pillar rock at its extremity, extends about 0.5 mile E from the NE extremity of this cape.

Anchorage.—Anchorage, protected from W winds, can be taken, in a depth of 10m, sand and gravel, about 1 mile SE of the N entrance point of Bukhta Mamga.

6.61 Mys Bol'shoy Largangda (54°08'N., 136°48'E.), a high slightly projecting cape, is backed by a coastal elevation, 659m high. Mys Malyy Largangda, about 4 miles farther S, is the NE extremity of a blunt rectangular projection, and is rendered conspicuous by three large detached rocks at the foot of the elevation backing the cape.

The head of Tugurskiy Zaliv consists of a peninsula with high shores, which rises to heights of 250 to 280m about 1.5 miles inland. The shores are low and sandy near the mouths of the rivers on each side of the peninsula.

Zaliv Akademii

6.62 Zaliv Akademii is entered between Mys Seneka and **Mys Vrangelya** (54°17'N., 138°40'E.), about 33 miles E. Zaliv Akademii consists of the outer part, with Zaliv Konstantina, a rounded shallow bay on its W side, and Zaliv Nikolaya, entered on the E side, and Ul'banskiy Zaliv, which forms the inner part of the bay.

Mys Seneka was previously described with Tugurskiy Zaliv in paragraph 6.59. An extensive whirlpool exists about 7 miles SE of Mys Seneka.

Poluostrov Vrangelya, on the E side of Zaliv Akademii, terminates in Mys Mukhtelya and Mys Vrangelya, respectively, its N and W extremities, separated from each other by a narrow inlet. The peninsula is formed by the spurs of Gora Mukhtelya, a conspicuous mountain with a pointed summit, about 3 miles SSE of Mys Mukhtelya. Depths of 28 to 37m lie a distance of 0.5 mile offshore on all sides of Poluostrov Vrangelya, which is steep-to and clear of dangers.

Tides—Currents.—Tidal currents attain a velocity of 2 to 3 knots in the vicinity of the peninsula and form eddies and tide rips discernible from seaward.

6.63 Mys Mukhtelya (54°18'N., 138°43'E.) faces the sea with white cliffs of moderate height. A conspicuous cape, about 1.5 miles WSW of Mys Mukhtelya and N of the narrow inlet, has a steep, smoothly polished face slanting into the sea.

Mys Vrangelya, the E entrance point of Zaliv Akademii, lies about 3 miles WSW of Mys Mukhtelya, and is a spur of Gora Mukhtelya. The light gray color near the extremity of Mys Vrangelya renders it conspicuous on the darker background of the coast.

The W shore between Mys Seneka and Zaliv Konstantina, about 17 miles SW, is high and rocky. There are no dangers and deep water lies close to the shore.

The E shore between Mys Vrangelya and Mys Lamsdorfa, about 14 miles S, is high and cliffy in its N part, partly cliffy and precipitous in its middle part, and decreasing in height markedly. There are reddish-brown cliffs, about 30m high near Mys Lamsdorfa. This coast is free of dangers, except for a reef extending a short distance from the coast 5.5 miles N of Mys Lamsdorfa.

Zaliv Konstantina

6.64 Zaliv Konstantina lies on the W side of Zaliv Akademii. The bay, entered between **Mys Ingakan** (54°05'N., 137°28'E.) and Mys Borikagan, about 3 miles SSW, has low shores, and the greater part of the bay dries. The bay offers excellent protection to vessels not exceeding 5.5m in draft.

Mys Ingakan is the S extremity of a narrow peninsula. A hill, sloping steeply seaward, rises to a height of 213m about 0.5 mile NE of Mys Ingakan, and is conspicuous from seaward. A narrow sandy spit, about 3 to 6.1m high, extends 1.8 miles WSW from Mys Ingakan.

Mys Borikagan rises steeply to a fairly conspicuous, round, thickly wooded hill, 137m high. A narrow, sandy spit, about 3 to 6.1m high, extends 1.5 miles NNW from a position about 1.5 miles W of Mys Borikagan.

Tides—Currents.—The MHW interval in Zaliv Konstantina is 2 hours 55 minutes. The tides are semidiurnal. At springs, the maximum tidal rise is 3.6m. At neaps, the HHW rise is 3m, while the LHW rise is 1.5m. The tidal currents at the entrance into the bay attain a maximum velocity of 2 to 2.5 knots at springs, but are less within the entrance. The flood current sets in a NE direction, while the ebb current sets in a SSW direction.

Depths—Limitations.—Depths of less than 5.5m extend as far as 0.6 mile seaward of the N spit. A drying patch and a 5.5m depth lie about 0.4 mile SSE and 0.4 mile SSW, respectively, of the extremity of the N spit. The drying patch and the extremity of the N spit are comparatively steep-to. Depths of less than 5.5m extend about 0.8 mile seaward of the S spit.

The fairway between the two spits has a width of 0.5 mile, with depths of 7.3 to 9.1m between the detached depth off the extremity of the N spit and the shoal water extending off the S spit.

A confined area, with depths of 6.4 to 7.3m and fringed by drying flats, lies between lines extending about 1 mile NNW of the extremity of the N spit, and a point about 0.6 mile WSW of the spit, respectively.

Anchorage.—Anchorage can be taken, in a depth of about 8m, sand and mud, W of the SW end of the spit on the N side of the entrance to the bay, with Mys Borikagan bearing 150° and the SW end of the N spit bearing 090°.

Small vessels can obtain anchorage, in depths of 6.1 to 6.3m, sand and mud, about 0.3 mile NNW of the extremity of the N spit.

Directions.—When entering Zaliv Konstantina, a vessel should pass Mys Borikagan at a distance of 0.7 mile and then steer NW between the two spits.

Ul'banskiy Zaliv

6.65 Ul'banskiy Zaliv, forming the head of Zaliv Akademii, is entered between **Mys Ukurunru** (53°58'N., 137°51'E.) and Mys Tukurgu, about 27 miles E. Ul'banskiy Zaliv has generally high and rocky shores, except for its head, which is formed by a shoal recess. The bay is exposed to NE winds, and does not offer any safe anchorage.

Mys Ukurunru, the NE extremity of a narrow elevated projection, faces the sea with grayish-brown sheer cliffs. A pointed peak, 357m high, and Gora Glavnaya, a conspicuous mountain, 826m high, rise about 1.7 miles and 3 miles SW, respectively, of the extremity of the cape. Gora Glavnaya dominates conspicuously all nearby summits and forms an excellent landmark.

A barren pillar rock lies a short distance E of the extremity of the cape. There are depths of 24 to 27m, rock, about 0.5 mile off the cape, which has no off-lying dangers. Eddies and tide rips form off the point.

Mys Zarzhetskogo, on the W side of the bay, about 15 miles SW of Mys Ukurunru, is rendered fairly conspicuous on the background of the low sandy shore of a bight immediately S of the cape.

Kosa Betti, a narrow spit of sand and shingle extending from the shore about 7 miles farther SSW, separates the bay proper from the shoal recess at its head.

Mys Obryvistyy, a fairly conspicuous cape on the E side of the bay, about 14 miles SSW of **Mys Gaurovitsa** (53°55'N., 138°21'E.), is bordered NE by a low, sandy stretch, 2.5 miles in length and marked at its S end by an abrupt rise in height to 91m near the extremity of Mys Obryvistyy.

A hill, 174m high, lies close to the shore, about 22 miles WSW of Mys Obryvistyy. The low sandy shore at the head of the bay extends W of the hill.

Ice.—Ice usually disappears in middle or late June, but in unfavorable years, especially at the entrance to the bay, ice may render navigation impracticable before the middle of August.

Tides—Currents.—The tides in Zaliv Ul'banskiy are semidiurnal. At springs, the maximum tidal rise is 4.9m in the N part of the bay and 5.4m in the S part. At neaps, the HHW rise is about 3m and the LHW rise is about 1.8m.

The tidal currents attain a velocity of 1.5 to 2 knots in the N half, and 1 to 1.5 knots in the S half of the bay. The flood current sets in a general SW direction, and the ebb current in a reverse direction.

Zaliv Nikolaya

6.66 Zaliv Nikolaya, entered between **Mys Lamsdorfa** (54°03'N., 138°40'E.) and Mys Tukurgu, about 5 miles SSW, offers sheltered anchorage for large vessels, but with poor holding ground.

Mys Lamsdorfa, high and wooded, is almost steep-to on its W side, but depths of 5.5m lie about 0.5 mile S of the cape.

Mys Tukurgu (54°00'N., 138°35'E.) rises to a height of 183m close within the cape, and a reef extends 0.3 mile from the extremity of the cape having a depth of less than 2m. A detached patch, with a least depth of 6.8m and surrounded by depths of about 13m, lies 1.5 miles ENE of Mys Tukurgu.

Mys Grotte lies 2.2 miles S of Mys Tukurgu, the N point of Poluostrov Tokhareu. A sandy islet lies on a sand bank extending 1.3 miles SSE from Mys Grotte. Kosa Nerpich'ya, a sandy spit, lies with its S extremity 8.5 miles S of the islet.

Mys Nablyudeniy, a cliffy cape, about 14 miles SSW of the extremity of Kosa Nerpich'ya, rises to a hill, 183m high, within the cape. A yellow bluff, of moderate height, lies about 6.5 miles NNE of Mys Nablyudeniy. The shores N and S of the bluff are low and consist of sand and shingle.

Mys Nizkiy, about 9 miles S of Mys Lamsdorfa, is low and inconspicuous. Gora Chernaya, about 3 miles SE of Mys Nizkiy, is prominent due to its twin peaks and dark color, and is usually visible to a vessel off the entrance to the bay.

6.67 Mys Primetnyy (53°35'N., 138°31'E.), about 21 miles SSW of Mys Nizkiy, is a conspicuously high cape, contrasting with the long stretch of the low, sandy, intervening shore. The head of the bay, SW of Mys Primetnyy, is fringed by drying flats.

Winds—Weather.—Southeast winds prevail here during the summer, but alternating SW and NE winds prevail during the late summer and autumn. Blizzards begin to occur as early as the first part of October.

Zaliv Nikolaya is sheltered from fog, which occurs rather rarely within the bay.

Ice.—Ordinarily Zaliv Nikolaya is icebound by early November. The ice begins to break in May, and the bay is clear of ice by the middle of June.

Tides—Currents.—The MHW interval in Zaliv Nikolaya is 4 hours 50 minutes. The tides are semidiurnal. At springs, the maximum tidal rise is 5.4m. At neaps, the HHW rise is 3m, while the LHW rise is 2.4m.

Tidal currents in the entrance to the gulf set NNW and SSE, attaining a rate of 4 knots. Inside the gulf they have rates of 1 to 2.5 knots.

Depths—Limitations.—The depths in the middle of the entrance to Zaliv Nikolaya are 13 to 14.5m. A channel, with prevailing depths of 13 to 14.5m, extends along the inlet for nearly 23 miles within the entrance. As a rule, this channel favors the E side of the inlet, except immediately within the entrance, where depths of 10m extend 3 miles SW from the entrance of the drying lagoon, which extends N of the bay. An 8.2m depth lies 2 miles S of Mys Lamsdorfa.

The E side of the recess N of Mys Nizkiy is comparatively steep-to, with depths of 7.3m about 0.5 mile offshore.

Shoal water with depths of less than 10m, extends up to 1 mile offshore between Mys Tukurgu and the sand islet, about 3.5 miles SSE. A drying flat, its seaward side steep-to, extends 0.5 mile E and SE of the islet.

A 1.8m patch, about 1.7 miles SSE of the islet, is bordered by depths of less than 10m extending about 1 mile E, which narrows the channel to a width of 1.5 miles for a reach of 1.5 miles immediately N of Mys Nizkiy, which is steep-to.

The E side of the bay, for about 13 miles S of Mys Nizkiy, is comparatively steep-to, with the 10m curve about 0.3 to 0.5 mile offshore.

On the W side of the bay the 10m curve lies about 0.5 mile offshore for a distance of 6 miles N of the extremity of Kosa Nerpich'ya, then the 10m curve lies about 1 mile E of the extremity of Kosa Nerpich'ya, and extends to 3 miles offshore in the vicinity of the sand bluff, about 7.5 miles SW.

A detached 3.6m shoal, position doubtful, lies 4 miles ESE of the sand bluff.

Anchorage.—The bottom throughout Zaliv Nikolaya is shingle and the holding ground is not good. Vessels are advised not to anchor in the vicinity of Mys Grotte because of shoal water and uneven depths. It is also somewhat exposed here. The best anchorage is in depths of 9 to 14m, S and SE of Kosa

Nerpich'ya. Local knowledge is necessary.

Caution.—During foggy weather a vessel headed for Zaliv Nikolaya should make a landfall somewhere between Mys Vrangelya and Mys Lamsdorfa. The fog, as a rule, is considerably less along this section of the coast.

Ostrov Men'shikova and Zaliv Aleksandry

6.68 Ostrov Men'shikova (54°35'N., 139°15'E.) is a barren steep-to island, with depths of 50m close offshore. The island rises to its summit in the SW part of the island. Close off the NE end of the island are three pillar rocks. The N rock lies on a rocky above-water base.

Tides—Currents.—Tidal currents in the vicinity of Ostrov Men'shikova form numerous eddies, especially noticeable on the leeward side of the island. The flood current sets W and the ebb E at a velocity of 2 and 2.5 knots, respectively.

Caution.—Ostrov Men'shikova has been reported to lie 4 miles SSW of its charted position.

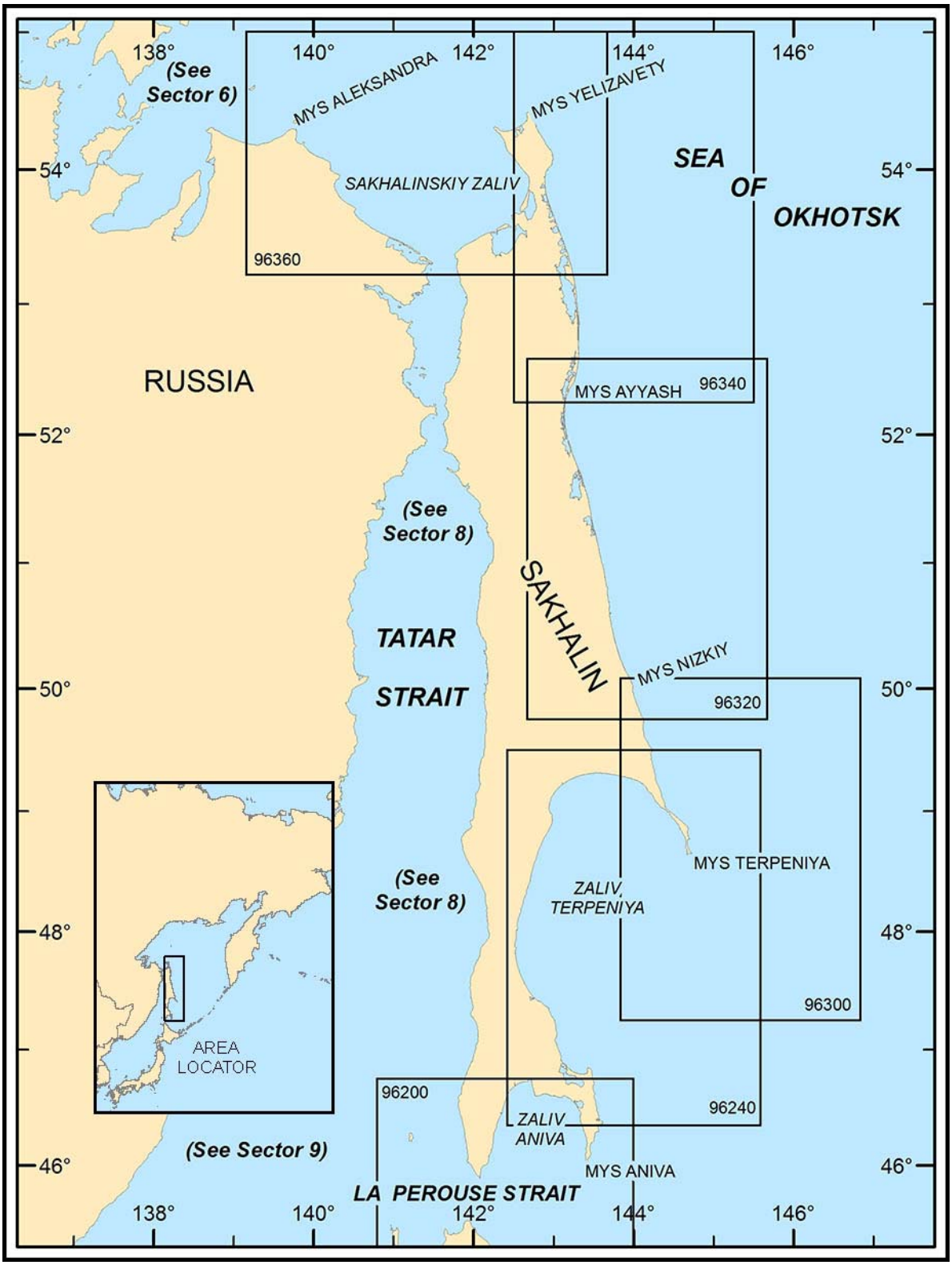
6.69 Zaliv Aleksandry (54°10'N., 139°10'E.), a totally open bight, is entered between Mys Mukhtelya, previously described in paragraph 6.63, and Mys Aleksandra, about 36 miles E.

Gora Bernardinskiy (54°08'N., 139°15'E.), about 2 miles inland and midway along the bight, is conical and forms a good landmark.

The W half of the bight is steep-to, with depths of 15 to 18m about 0.7 mile offshore, and has a low shore of sand and shingle contrasting with the elevated shore of the E half. A dense forest, skirted by a strip of grassy land on its seaward side, backs the W half of the bight. Ozero Mukhtelya is separated from the sea by a sand and shingle spit. It is a triangular shaped lake.

The E half of the bight faces the sea with high precipices, backed by mountains. The slopes of the mountains are covered with shrub, and with forest further inland. This shore, except for some scattered rocks close offshore, is steep-to.

Mys Aleksandra (54°17'N., 139°48'E.), the E entrance point of Zaliv Aleksandry, is also the W entrance point of Sakhalinskiy Zaliv and is described in paragraph 7.3.



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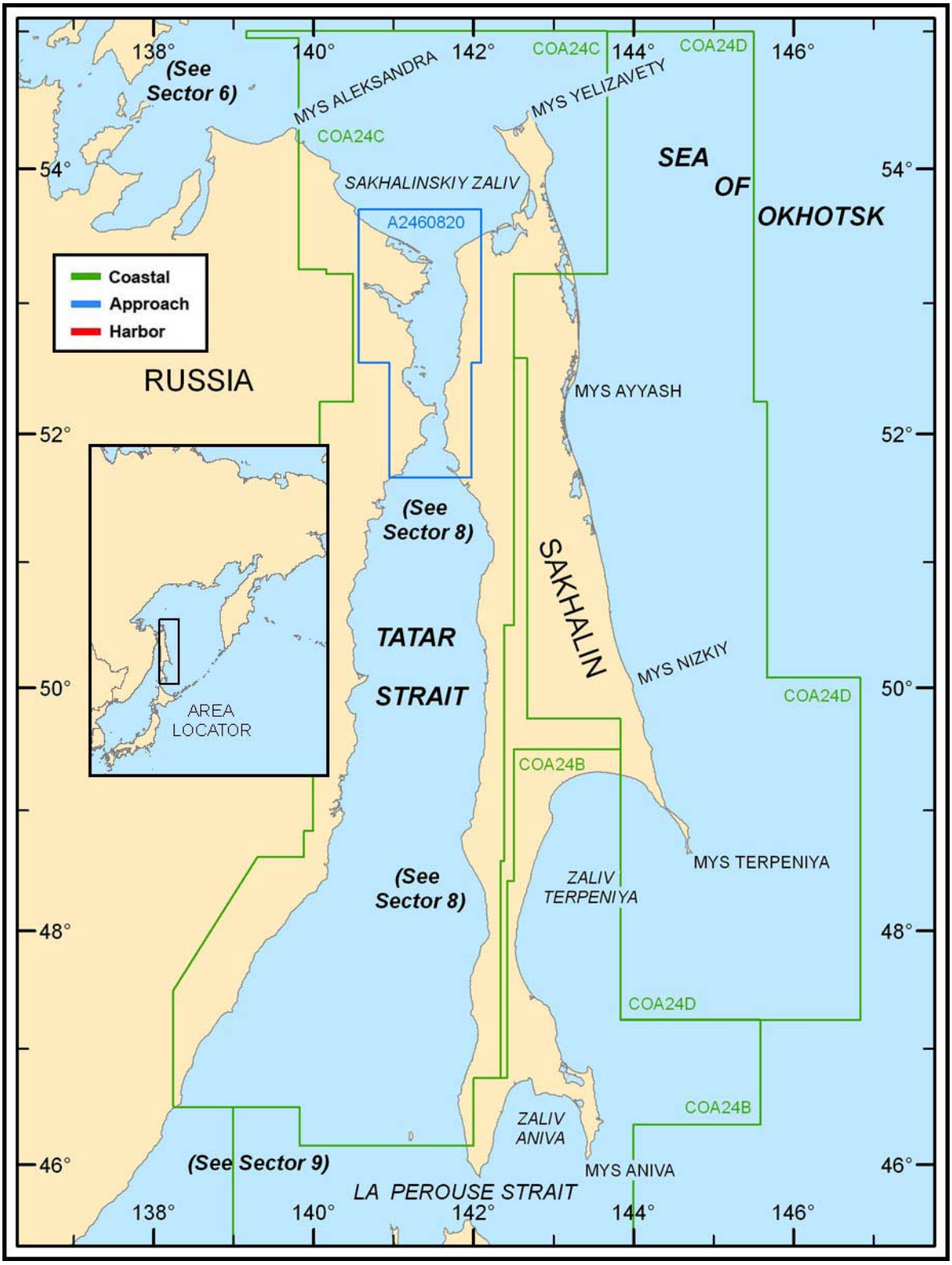
SECTOR 7 — CHART INFORMATION



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SECTOR 7 — DNC LIBRARY INFORMATION

SECTOR 7

SAKHALINSKIY ZALIV—MYS ALEKSANDRA TO MYS KRIL'ON

Plan.—This sector describes the E and W shores of Sakhalinskiy Zaliv, including the Amur River valley and its N approaches, and then the N, E, and SE coasts of Sakhalin. The general sequence is SE from Mys Aleksandra to the Amur River, then NE along the E shore from Mys Tamlevo to Mys Yelizavety, and finally S to Mys Kril'on at the S end of Sakhalin.

General Remarks

7.1 Winds—Weather.—Off the NW coast of Sakhalin during July, August, and September, the prevailing winds are from the SW, and N winds are rare. Extremely good weather is prevalent in August. Around the middle of September, N winds begin to predominate. By the beginning of October, the good weather is at an end. Winter lasts from October to March and the prevailing wind during this period is a cold northwesterly, which brings snow, although it occasionally comes from the NE.

Winds from the SSW through SE to E tend to bring thick fog and rain. Winds from the N, through W to SW tend to bring clear weather.

The S and N winds alternate off the E side of Sakhalin from April until the end of September, but from October until May the N winds are prevalent. The period of good weather prevails through the latter part of July and the first half of August. The months of June, July, August, and September are humid, and precipitation is heavy. The temperature is always relatively low, because of the effect of the cold currents.

The climate of Zaliv Terpeniya is severe, and snow remains on the ground in places until the end of June. Rains are protracted and fog is frequent. The S and SW winds, which prevail throughout the summer, cause a heavy swell, making communication with the shore difficult.

In winter, winds are predominantly from the NE and NW with considerable amounts of snow and sleet.

During the summer, SW and NE winds, occasionally interrupted by breezes from various directions, are prevalent. The NE winds are accompanied by dense fog, rains, and heavy swell, but with SW winds the weather is generally fair and the sea is calm. Periodically fair weather, accompanied by light airs and a very calm sea, lasts for several days. In the spring, during the period of melting snow, the freshets of the rivers cause considerable flooding.

The temperature begins to fall in September, and except for an occasional snowfall, good weather generally prevails. During the winter, which begins in October, NW winds alternate with NNE winds and a considerable amount of snow falls.

Ice.—Ice appears in the latter part of October or early November, and its presence considerably interferes with navigation and loading operations. By the middle of November, floes of ice carried in and out by the tidal currents prevent entering.

The outflow from the Amur River passes along the W coast of Sakhalin in a N direction, drives the ice from the shore, and keeps the E part of Sakhalinskiy Zaliv free from ice, except during strong N or NW winds, when this channel may be closed. During exceptionally unfavorable years, the W part of Sakhalinskiy Zaliv may be inaccessible to vessels during the whole navigational season of June through November.

The Amur River is usually ice-bound from the middle of November until the middle of May. It occasionally remains frozen until the end of May or early June, but ordinarily it is open to navigation from the middle of May.

In December fast ice begins to form along the shore on the NE side of Zaliv Terpeniya, and there are some ice floes drifting about in the vicinity of the mouth of the Poronay. These ice floes freeze together and develop an icefield, which by January is 0.9m thick. In March, the ice begins to break up, leaving a fringe of fast ice along the shore of the gulf. The amount of drift ice varies from year to year. At times, the N side of the gulf is packed with drift ice to a distance of 20 miles offshore. Occasionally the gulf may be clear of ice as early as May, but navigation is not safe until June. The gulf is clear of ice by the middle of June.

Caution.—Care should be taken by vessels navigating within the above-mentioned areas, especially during periods of limited visibility and at night.

The distances to which sea ice can be seen at night vary considerably with the visibility, phase and altitude of the moon, weather, size of drift ice, and the height of eye of the observer. The approximate visible distances under most conditions are as follows:

1. About 5 miles, or 7 miles for large ice floes, with the moon ahead in clear weather.
2. One to 2 miles with the moon astern in clear weather.
3. Up to about 100m on a dark night.
4. From 50 to 100m during a snowstorm.

Note.—Radar generally becomes unreliable during periods of moderate to heavy snow.

In the W part of the Sea of Okhotsk, along the E side of Sakhalin, ice begins to form in late November and to melt in mid-June. About the middle of March, fast ice will spread solidly over an area extending 20 to 30 miles offshore. The less solid ice extends as far as the middle of the Sea of Okhotsk. Winter navigation, N of the 49th parallel, is restricted to icebreakers.

During April and May, drift ice is sighted frequently. Unstable ice which spreads almost to the center of the sea, turns to drift ice and moves S, following the prevailing wind and ocean current, leaving the solid ice along the coastline. It has been reported that during May, ice 6.1 to 9.1m high forms close to the shore. Large growlers, in crushed ice groups, can be expected during this time, where safe navigation is available in the season. North of 50°N, the ice thickens with the latitude, up to 0.9m.

In Zaliv Aniva ice first appears in November, but in Bukhta Lososey the NW recess of the gulf, the ice appears late in October. Korsakov is ice-bound from January to the middle of March and is completely free of ice in April. Considerable

parts of Zaliv Aniva are covered with fast ice, but leads occur between the fast ice and the ice fields in the middle part of the gulf. The ice along the W shore of the gulf is the thickest, reaching 0.8m. With continuous E winds during April and May, drift ice enters from the E and accumulates along the W shore of the gulf, then drifts S toward Mys Kril'on. Fast ice never forms in the vicinity of Mys Kril'on, but the winter winds from the NE quadrant may bring considerable accumulations of drift ice to the vicinity of the cape. Zaliv Aniva becomes free of ice in May.

Sakhalinskiy Zaliv

7.2 Sakhalinskiy Zaliv, the N entrance to Amurskiy Liman, described beginning in paragraph 8.37, and is entered between Mys Aleksandra and Mys Marii, about 89 miles E.

Winds—Weather.—Fog is most frequent in Sakhalinskiy Zaliv from June through August, and the number of days with fog during this period constitutes 60 to 70 per cent of the total for the year. From June to about August 20, fog is comparatively light and affords a range of visibility of approximately 1 mile. After this date, however, and until the middle of September, fog is very dense, reducing the visibility to 90m or less.

During August in the vicinity of Mys Tamlevo, fog has continued for 5 days without lifting.

Tides—Currents.—The cold SE current on the W side of the gulf has a rate not exceeding 1 to 1.5 knots, but it is increased by the tidal current on the flood and decreased on the ebb. The warm N current on the E side of the gulf flows at a rate of 2 to 2.5 knots, increasing with the ebb tidal current and decreasing on the flood.

Sakhalinskiy Zaliv—West Shore

7.3 **Mys Aleksandra** (54°17'N., 139°47'E.), the W entrance point of Sakhalinskiy Zaliv, is the NE extremity of a rugged peninsula about 610m high, the seaward slopes of which are covered by stunted trees. The E side of the peninsula consists of a line of precipitous brown cliffs and contrasts considerably with the N part which is lower and gray.

Kekur Aleksandra, a high pinnacle rock, is located close off the extremity of Mys Aleksandra and is conspicuous from the NW and SE.

Ostrov Reyneke, located about 3 miles N of Mys Aleksandra with a clear channel between, is about 2 miles long E-W and forms a hump higher at the E end. A small stream discharges on the W side of the island and landing here is not difficult in small sheltered bays during S winds. The island is steep-to on all sides and there are depths of 30 to 35m close offshore.

The channel between Mys Aleksandra and Ostrov Reyneke is free from dangers.

Caution.—A local magnetic anomaly is reported in an area that extends approximately 8 miles NW of Ostrov Reyneke and Litke, 4 miles NW of Mys Litke.

Mys Mofeta, a conspicuous projection extending about 1 mile from the coast 6 miles SSE of Mys Aleksandra, faces the sea on all sides with steep brown cliffs of considerable height. A large sharp rock lies at the NE extremity of the point and rises nearly vertically from the sea with some low land between. Gora Mofeta, a broad-topped mountain resembling a wide cupola, rises above the surrounding terrain about 3 miles S of Mys Mofeta, and is easily identified from a considerable distance.

Mys Promezhutochnyy lies about 11 miles SE of Mys Mofeta. Kekur Villi, a prominent pillar rock, lies close off the point.

Mys Kupriyanova lies about 3.5 miles SE of Mys Promezhutochnyy. This point slopes steeply from a mountain which is over 300m high.

Mys Litke (53°56'N., 140°22'E.), lying 21 miles SE of Mys Mofeta and composed of gray cliffs backed by high land, is a large rounded point lying near the middle of the W shore of Sakhalinskiy Zaliv. The E extremity of the point slopes more gradually to the sea and is surrounded by numerous above and below-water rocks lying close offshore.

Ostrov Kovrizhka, an islet consisting of numerous boulders, lies about 0.3 mile E of Mys Litke and is connected to the point by a drying reef. A light is shown from Mys Litke.

Caution.—Vessels in this vicinity should not approach the coast within a depth of 9m.

A submarine cable extends seaward from the coast in the vicinity of the root of Petrovskaya Kosa and may best be seen on the chart.

The coast from Mys Litke gradually decreases in height until S of Mys Perovskogo, the shore becomes a sand and shingle beach with grass and dunes in places. It extends finally into Petrovskaya Kosa, a narrow sandy spit about 7 miles long with its SE extremity (53°27'N., 141°07'E.) marked close within by a fishing station.

Zaliv Schast'ya, entered between the SE extremity of Petrovskaya Kosa and the NW end of Ostrov Chkalov, a low, narrow, sand and shingle island about 0.5 mile SE, is a shallow and shoal encumbered bay lying within the above off-lying features and the mainland about 4 miles to the S. The entrance channel, with a least depth of 2.1m, is divided in the approaches by a long narrow shoal about 0.5 mile offshore with depths of 0.6 to 1.2m. Within the entrance the waters of the bay require local knowledge.

Anchorage.—It is reported that small local vessels with a draft not exceeding 30m can obtain anchorage in Zaliv Schast' ya, but the holding ground, consisting of sand, or sand and shingle.

North Approach to the Amur River

7.4 Farvater Nevel'skogo, the N channel to the mouth of the Amur River, leads from Sakhalinskiy Zaliv to a position about 4 miles E of the SE end of **Ostrov Baydukov** (53°18'N., 141°29'E.), and then SSW and SW through Amurskiy Liman to Mys Chagdbakh, the N entrance point of the Amur River. Having a total length of about 35 miles, the fairway, which is marked by lighted buoys, begins at North Bar NE of Ostrov Baydukov and carries a least depth of about 4.3m, subject to seasonal changes and dredging priorities.

The navigational season for Farvater Nevel'skogo generally begins about the first of June and ends about the middle of October, the channel buoys being lifted and relocated each year. Because of the severity of the winter, it is usually necessary to resurvey the fairway and therefore local knowledge is required.

Winds—Weather.—Fresh NE winds considerably increase

the depths in Farvater Nevels'kogo, while strong S winds have the opposite effect. Depths decrease quickly at the beginning of the ebb.

Fogs are most frequent in July and August and often of long duration, periods of up to five continuous days having been reported. Usually there is fog during this season for 6 hours daily, from 0400 to 1000.

Ice.—It commences to freeze in this area in October and the ice is of sufficient thickness in December for sleds to cross to Sakhalin. Navigation through Farvater Nevel'skogo should cease as soon as small quantities of ice appear as the floes will generally force a vessel onto the nearest sandbank, where the vessel will probably remain for the winter.

Tides—Currents.—The tidal rise on North Bar ranges from 0.6 to 1.5m depending on the diurnal effects involved. The tropical tides are characterized by a short duration of HW, while the LW, which may have small variations in level, lasts up to 12 hours at times. Tidal signals are shown from a station on the SE end of Ostrov Baydukov.

The tidal currents usually set N through North Road during the rising tide at a considerable rate, which at times may exceed 4 knots. The current on the falling tide is toward the S, but at a maximum rate of only 1.5 knots.

Aspect.—Gora Men'shikova, a conspicuous saddle-shaped hill, rises close within Mys Men'shikova about 1 mile S of Ostrov Baydukov. Gora Negda, a helmet-shaped hill with a bare summit, lies about 3 miles SW of Gora Men'shikova and when seen from a considerable distance to the N appears along with the latter as two separate islands.

An outer approach lighted buoy is moored about 10 miles N of the W end of Ostrov Baydukov.

Mys Men'shikova Light is mounted on a round stone tower. 19m high, painted white and black, but is extinguished.

Gora Alekseyeva, a three peaked mountain, rises about 9 miles SSW of Gora Men'shikova and is very prominent from North Road.

Pilotage.—Pilotage is compulsory. Vessels entering the Amur River estuary from the N can obtain a pilot from the station at the SE end of Ostrov Baydukov, providing the proper notice is given. Pilots board in the vicinity of the approach buoy.

Anchorage.—Vessels can obtain anchorage 5 miles N of the SE extremity of Ostrov Baydukov, but this anchorage is only sheltered from W winds, and the tidal currents are very strong. Vessels using this anchorage should take care to avoid the bank extending NE from Ostrov Baydukov.

Caution.—Danger Area No. 1, the limits of which are best seen on the chart, lies about 10 miles NE of Ostrov Baydukov and is dangerous due to mines.

Danger Area No. 4, the limits of which are best seen on the chart, lies NE of Ostrov Chkalov; this area is a former mined area which has been swept and is now considered safe for surface vessels only.

Anchoring and trawling are prohibited in the above danger areas.

The Amur River

7.5 The Amur River, having a total length of 3,000 miles, is the eleventh longest river in the world and the fourth longest in Siberia. From its mouth between **Mys Chagdbakh** (52°59'N., 141°08'E.) and Mys Pronge, about 8 miles SSE, the river is navigable for approximately 550 miles to the city of Khabarovsk and has least known channel depths of 6.9m to Nikolayevsk-na-Amure-na-Amure, then 6.7m for 20 miles to Mago, then 5.2m for 290 miles to Komsomol'sk, and finally 3.7m to Khabarovsk.

The Amur River has three periods of rising water which affect its general level and influences the depths on the outer bars. The first rise which is early spring is caused by ice shifts of short duration and is usually less than 0.9m. The second rise, which is caused by the melting of snow, occurs in late spring and may reach 3m. However, after this period the river begins to fall, usually reaching its lowest level in late July. The third rise occurs in autumn, and when caused by heavy rains, may reach 4.5m or higher, occasionally causing considerable flooding.

Caution.—Salmon traps, extending from the shore to the fairway, may be encountered in the approaches to the river.

Nikolayevsk-na-Amure (53°08'N., 140°44'E.)

World Port Index No. 60820

7.6 The port of **Nikolayevsk-na-Amure**, situated on the N bank of the Amur River, about 23 miles within its entrance, consists of a harbor basin protected by an island mole on its SW side and a small point of land known as Mys Kuegda, E of the entrance.

The port is open only during the summer months which are approximately 5.5 months long; the exact start and end of the season are announced by the Chief Manager of the port. The main cargo handled at the port includes timber, minerals, construction materials, coal, and containers.

The port is primarily used in the transshipment of cargo transferred from shallow draft vessels which have come down the Amur River from the inland ports of Komsomol'sk and Kharbarovsk. During the summer, the harbor is frequented by fishing vessels working the Amur River estuary and a considerable amount of fish is prepared for export.

Winds—Weather.—The prevailing winds are E or NE; this will cause fog and wave heights of up to 1.4m in the roads. During periods of S winds, the roads are sheltered by the high banks on the S side of the Amur River. Off the mouth of the Amur River, W winds sometimes attain great force, increasing the strength of the ebb tidal currents and at times bringing large quantities of drift ice from the upper reaches.

Ice.—The Amur River is usually icebound from the middle of November to the middle of May, the ice thickness averaging 0.9m. The navigation season is limited by the channels in Amurskiy Liman, the river usually being clear beforehand.

Tides—Currents.—The mean tidal range at Nikolakevsk is 1.5m. The tides are diurnal with a short duration of HW and a long period of LW. The river level is seasonal, being higher in the spring and fall and lower in mid-summer.

Depths—Limitations.—A marked dredged channel leads from the outer roads across a shoal lying on the N bank of the river leading to the harbor. Depths within this channel are maintained at 4 to 6.9m, with the width of the 4m depth being 80m. Vessels should keep a course as close as possible to the center of the channel.

Permission to use the channel must be requested from the Port State Control Inspection. Once granted, this permission is valid for only one hour and if the vessel is not ready to proceed when permission is granted it will be necessary to request permission again.

There are 17 berths for ocean-going vessels and river traffic, of which 14 berths are in the commercial port area. These berths consist of both alongside and mooring berths. There is a small berth (75m) on Pier N7 that has been damaged and is no longer in use. See the table titled **Nikolayevsk-na-Amure—Port Facilities** for berthing details.

Nikolayevsk-na-Amure—Port Facilities			
Berth	**Length**	**Depth**	**Remarks**
Pier N7			
No. 2	105m	1.3 to 2.2m	General cargo
No. 3	105m	1.5 to 2.0m	General cargo
No. 4	105m	2.1 to 2.8m	General cargo
No. 5	76m	3.3 to 5.3m	General cargo
No. 6	114m	2.7 to 5.2m	General cargo
No. 7	112m	2.7 to 5.2m	Containers
No. 8	132m	1.9 to 4.9mm	Timber
No. 9	132m	2.6 to 4.3m	Coal
No. 10	110m	1.1m	Coal
No. 12	60m	2.9 to 4.4m	Lay-up (no cargo)
Technical Pier	50m	1.0 to 4.8m	Amur River Shipping Company
Pier N5			
N5	70m	1.3 to 2.7m	Amur River Shipping Company
No. 11	70m	1.3 to 2.7m	Passengers
No. 12	160m	0.6 to 2.6m	For boats and small size cargo

Aspect.—Two lighted beacons, in line bearing 312°, lead into the harbor entrance.

Pilotage.—Pilotage is compulsory for the harbor area, the Reka Amur estuary, Tatarskiy Proliv, and Amurskiy Liman between 51°26'N and 53°30'N. Pilots are available 24 hours.

For small (less than 1,000 gt or draft less than 4.4m) vessels, or leisure craft, pilotage is not compulsory.

Vessels should request pilots from the Port Captain 24 hours prior to arrival. Vessels proceeding into the sea port are to establish communication with the harbormaster on VHF channel 14 and, when 2 miles prior to arriving at the boundary of the sea port, request confirmation of entry from the harbormaster on VHF channel 14 or 16.

Pilots will board in the following positions:

a. 53°07'23"N, 140°43'57"E.
b. 52°08'18"N, 141°34'12"E.
c. 53°21'36"N, 141°41'36"E.
d. At the anchorages off the seaport.

Contact Information.—See the table titled **Nikolayevsk-na-Amure—Contact Information.**

Nikolayevsk-na-Amure—Contact Information	
Port Radio	
Call sign	Nikolayevsk-na-Amure-Radio 1
VHF	VHF channel 1
Harbormaster	
Call sign	Nikolayevsk-na-Amure-Radio 5
VHF	VHF channel 14
Port Marine Superintendent	
Call sign	Nikolayevsk-na-Amure-Radio 2 (VHF)
	Nikolayevsk-na-Amure-Radio (RT)
VHF	VHF channels 9 and 16
RT frequency	2246 kHz
Port Authority	
Telephone	78-42135-22480
Facsimile	78-42135-22480

Anchorage.—Anchoring in the port area is permitted, but only with permission from the Port Duty Officer, who will inform the Port State Controller when such permission is granted. Anchoring is also possible in the outer roads, situated opposite the entrance to the harbor. Depths in the outer roads range from 8.6 to 29m in the W, sand and mud.

The Russian vessel and quarantine anchorage is bounded by lines joining the following positions:

a. 53°07'00"N, 140°41'48"E.
b. 53°07'12"N, 140°43'48"E.
c. 53°06'48"N, 140°43'48"E.
d. 53°06'48"N, 140°41'48"E.

The tanker anchorage is bounded by lines joining the following positions:

a. 53°07'12"N, 140°44'00"E.
b. 53°07'12"N, 140°45'00"E.
c. 53°06'48"N, 140°45'00"E.
d. 53°06'48"N, 140°44'00"E.

During strong winds from the W, anchoring in the roads is not recommended.

Caution.—The charts in the channel area should be used with caution and be considered as a guide only. The channels during the navigational season may be marked by buoys, lighted buoys, and beacons. Refer to the appropriate chart and applicable notice to mariners.

An underwater obstruction and a sunken barge are located 680m and 560m WSW of Mys Kuegda, respectively.

7.7 Mago (53°15'N., 140°13'E.), situated on the N side of the Pal'vo Channel, about 20 miles above Nikolayevsk-na-Amure, is a town which is the center of the lumber industry for the surrounding region. The port consists of six loading berths, four on the S bank and two on the N bank. The chief exports are logs and wood pulp.

Depths—Limitations.—There are depths of 6.7 to 23m in the channel between Nikolayevsk-na-Amure and Mago, but because of numerous shoal areas and the shifting nature of the channel, navigation can be difficult. There is reported to be a depth of 3.4m in the channel leading to these berths. This channel is closed to navigation between October and May. Night navigation is permitted, except during periods of low visibility; dense fog is most likely during August and September.

Six berths are available; four are situated on the S bank and two on the N bank of the river. Depths of 4 to 6.1m can be found alongside the berths. The maximum size vessels handled at this port are 114m in length and 6,996 dwt in size.

Aspect.—Seven pairs of range beacons mark the channel between Nikolayevsk-na-Amure and Mago, and white and red buoys mark the entrance of Pal'vo Channel, where it branches off from the Amur River. This part of the river is suitable for daylight navigation only.

Pilotage.—Pilotage is compulsory for Mago. For pilot boarding ground and regulations pertaining to navigation, see Nikolayevsk-na-Amure in paragraph 7.6.

Anchorage.—Vessels awaiting clearance or berth can take anchorage in the Amur River, in depths of 7 to 10m, mud, about 2 miles E of its junction with Pal'vo Channel.

Caution.—It was reported (2012) the port has been closed to all vessels due to siltation of the berths.

7.8 **Komsomol'sk** (50°33'N., 136°58'E.) is situated on the W bank of the Amur River, about 318 miles above Nikolayevsk-na-Amure. The port of Komsomol'sk primarily accommodates river boat and timber traffic, although it has been reached by some oceangoing vessels. The river's controlling depth is about 5.2m during most of the navigational season, with somewhat more in the spring and fall. There is 245 to 275m of wharfage with depths of about 5.5m alongside. A turning basin, with a radius of 156m, lies NE of the village of Komsomolsk. A breakwater extends from the S side of the harbor entrance to the basin. For information on pilotage, ice, tides, and seasonal conditions, see Nikolayevsk-na-Amure and the Amur River, in paragraph 7.6 and paragraph 7.5, respectively.

Khabarovsk (48°30'N., 135°10'E.) is situated on the E bank of the Amur River, about 210 miles above Komsomol'sk. The port of Khabarovsk is generally considered to be the river's center of navigation for ocean vessels. The controlling depth from Komsomol'sk is about 3.7m and vessels up to 110m in length, drawing less than this depth, are reported to have reached Khabarovsk. There is about 1,675m of wharfage at the port, with depths of 2 to 3.7m alongside. For information on pilotage, ice, tides, and seasonal conditions, see Nikolayevsk-na-Amure and the Amur River, in paragraph 7.6 and paragraph 7.5, respectively.

Above Khabarovsk the river is shoal and can only be navigated by boats. The limiting depth is about 1m in July with even less at very low river stage, but small river steamers with local knowledge can reach Sretensk, about 600 miles above Khabarovsk.

Sakhalinskiy Zaliv—East Side

7.9 **Mys Tamlevo** (53°22'N., 141°46'E.), a low, sandy, and inconspicuous cape forming the NE entrance point of Amurskiy Liman, is bordered by Banka Zotova, a large drying flat about 1.5 miles wide. There are temporary shacks on this shoal during summer, which are used by the local fisherman, and a boat channel lies between the bank and Sakhalin. Ostrov Banka Zotova, on which stands a beacon, lies on the W end of Banka Zotova and is very low. An islet, with a fish factory on it, is located at the E end of the bank, about 3.7 miles ENE of Ostrov Banka Zotova.

Banka Severnaya, which extends NW from Banka Zotova, lies up to 11 miles off the coast and has irregular depths of less than 1.8m. The SW side of this shoal is generally steep-to and must be approached with caution in foggy weather.

Sakhalinskiy Farvater, the N entrance channel to the Tatar Strait, leads SE along the SW side of Banka Severnaya in depths of 7 to 9m. The channel is 87 miles long and leads from the Sea of Okhotsk between shallow and extensive shoals in Amurskiy Liman to the Tatar Strait.

Caution.—The direction of the fairway is constantly changing and vessels using the channel should sound continuously. A dangerous wreck lies close NE of the entrance channel limits, in depths of less than 20m, in position 53°26'N, 141°34'E.

7.10 The coast which lies NE of Mys Tamlevo consists of low sandy beach lacking distinctive features and backed by gentle slopes of fairly distant hills thickly covered with woods. This entire section of the coast between Mys Tamlevo and Mys Chauno, about 20 miles NE, is comparatively densely populated and studded with small settlements and well equipped fisheries.

Zaliv Baykal, an extensive but shallow bay, is entered between **Mys Chauno** (53°33'N., 142°15'E.) and Mys Vkhodnoy, 11 miles NE. **Mys Vkhodnoy** (53°40'N., 142°29'E.), on the NW coast of Sakhalin, is the E entrance point of Zaliv Baykal, which is divided in its outer part by Ostrov Ush, a low and sandy island. Western Channel, leading into the bay between the W end of Ostrov Ush and the mainland, has a least charted depth 3.4m, but being unmarked and of a shifting nature, it can only be used with local knowledge and considerable caution. Eastern Channel is described with the Port of Moskal'vo.

Moskal'vo (53°34'N., 142°30'E.)

World Port Index No. 61060

7.11 The port of Moskal'vo, situated on the NW coast of Sakhalin in Zaliv Baykal, about 2 miles SE of the E extremity of Ostrov Ush, is the only port in the N part of Sakhalin suitable for ocean-going vessels. Moskal'vo is primarily engaged in the export of oil piped in from the Okha Oil Fields, but also can handle supplies and equipment for the drilling rigs in the area.

Winds—Weather.—The best months are June, July, and August when winds are not severe and fog is minimal. In autumn NW winds often reach hurricane force and are dangerous for vessels alongside the wharves.

Ice.—Ice appears in the latter part of October or early November and almost immediately interferes with navigation and loading operations. By the middle of November ice floes are

being carried in and out by the tidal currents and generally prevent approach to the port. Navigation usually ceases by late October and the port remains closed until early June.

Tides—Currents.—The mean tidal rise at Moskal'vo is 1.4m, but can reach a maximum of 2.2m. The tidal currents can attain a velocity of 3.4 knots at irregular times through a diurnal cycle.

Depths—Limitations.—The preferred approach is through the E entrance, marked by buoys, with a least depth of 7m on the outer alignment of the beacon range line. Local knowledge is necessary for navigating through the W channel where least depths of 3.4m occur over the bar. The bar is unmarked and prone to shifting.

Morskoy Terminal Nabil is situated nearly 2 miles E of the entrance to Proliv Aslanbekova and handles bulk and general cargo. There is a cargo berth, 162m in length, with depths of 5 to 7m alongside plus a passenger berth, 80m in length, also with depths of 5 to 7m alongside. A tanker berth, located 230m NE of the main quay, is 80m in length with a charted depth of 6.4m. The oil berth is connected to the coast by a trestle bridge, 150m in length. In has been reported (2014) that the oil berth and trestle had been destroyed.

Large vessels unable to enter the harbor have taken anchorage at the designated area approximately 0.3 mile S of lighted buoy No. 1 and loaded from barges, however, the area is untenable in strong NW winds.

Aspect.—Moskal'vo Lighted Buoy is moored in 11m, about 3.7 miles WNW of Mys Vkhodnoy. It has been reported to be radar conspicuous. The channel to Mys Skoblikova is marked by buoys.

Pilotage.—Pilotage is compulsory and vessels will be berthed both day and night if visibility is good enough. Pilot boarding position is in the vicinity of Moskal'vo Lighted Buoy No. 1 (53°40'42"N, 142°22'48"E).

Vessels should advise their ETA to the Port Marine Superintendent 24 hours before expected arrival at Moskal'vo Lighted Buoy No. 1, then confirm ETA and request pilotage at least 4 hours prior arrival at the pilot boarding position. The pilot service can be contacted on VHF channels 6 or 16, using call sign Lotsman.

Pilots board in position 53°40'56"N, 142°21'25"E.

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

1. Call sign: Moskal'vo Shel'f
2. VHF: VHF channels 16 and 67

The Port State Control Inspector can be contacted, as follows:

1. Call sign: Moskal'vo 93
2. VHF: VHF channels 13 and 16

Anchorage.—Anchorage can be obtained in Zaliv Baykal in Russian Regulated Area No. 357, bounded by lines joining the following positions:

a. 53°32'57"N, 142°28'50"E.
b. 53°33'28"N, 142°28'34"E.
c. 53°33'25"N, 142°28'20"E.
d. 53°34'07"N, 142°28'15"E.
e. 53°34'09"N, 142°28'26"E.
f. 53°33'00"N, 142°29'04"E.

Temporary anchorage can be taken, in a depth of 9m, 0.3 mile S of Moskal'vo Lighted Buoy, or 0.25 mile N of the same buoy, in a depth of 13m, sand.

7.12 Mys Priglubyy (53°41'N., 142°36'E.), the N entrance point of Zaliv Pomr', is the S extremity of a low sandy spit-like projection of the coast which is about 10 miles long and separates Zaliv Pomr' from Sakhalinskiy Zaliv. Zaliv Pomr, a fairly extensive but shoal bay is entered by a narrow channel with depths of 4 to 13m, commencing about 4 miles W of Mys Priglubyy; because of extensive shoaling and the intricate nature of this channel, local knowledge is necessary.

The coast about 11 miles N of Mys Priglubyy becomes more mountainous and rocky and is generally more steep-to.

Gora Espenberga (54°09'N., 142°29'E.), the most conspicuous mountain near the shores of Sakhalinskiy Zaliv, rises to a height of 520m and appears somewhat peaked from the SW.

Mys Marii (54°19'N., 142°16'E.), the NW extremity of Sakhalin and the E entrance point of Sakhalinskiy Zaliv, is marked by a light and is the outer end of a mountainous peninsula which slopes down to the coast in a series of steep precipices separated by broad terraces running parallel to the shore. The cape is fringed with drying reefs that extend up to 0.5 mile offshore.

Gora Gresa, 280m high, lies 1.2 miles SE of Mys Marii and slopes down to the coast in a series of precipices separated by broad terraces. This characteristic prevents any confusion between Mys Marii and other headlands.

Tides—Currents.—Tidal currents in the vicinity of Mys Marii attain a rate of 3 to 3.5 knots. The E current is stronger and of longer duration than the W current.

Caution.—Heavy seas are raised in the vicinity of Mys Marii during strong N and W winds.

Underwater obstructions are located 980m and 1,000m ESE of Mys Marii, with depths 1.9m and 6.7m, respectively.

Sakhalin—North Coast

7.13 Severnyy Zaliv, entered between Mys Marii and Mys Yelizavety, about 17 miles ENE, comprises the entire N coast of Sakhalin and provides shelter from strong S winds occasionally felt here in the summer. A low, sandy beach in the center of the bay rises to higher land at each of its entrance points. Two lakes back the sandy beach. The entrance to Zaliv Kuegda lies 6.7 miles SSW of Mys Yelzavety.

Ice.—Small ice floes generally remain until the end of June or early July, but in a particularly severe year the bay may be packed with ice even in late August. Strong N winds bring heavy amounts of ice into the bay during the season and vessels within should be prepared to leave before they are driven ashore.

Anchorage.—Anchorage can be taken off the entrance to Zaliv Kuegda, in 9 to 10m, sand and mud, good holding ground, about 0.5 mile offshore. Anchorage can be taken elsewhere in the bight, but not within 0.7 mile of the shore.

Sakhalin—East Coast

7.14 Mys Yelizavety (54°25'N., 142°42'E.), the N point of Sakhalin and the E entrance point of Severnyy Zaliv, is the extremity of a conspicuous and steep mountainous promontory which slopes somewhat in its N part, but with precipitous cliffs

on its E and W shores. A light is shown from Mys Yelizavety.

Winds—Weather.—Mys Yelizavety lies on a divisional line of two areas of perceptibly different temperatures of water and air. The warmer and colder areas appear to extend respectively W and E from the cape and it has been noted that when dense protracted fog completely envelopes the point, it is often clear not farther than 2 or 3 miles to the W.

The S and N winds alternate off the E side of Sakhalin from April until the end of September, but from October until May the N winds are prevalent.

Tides—Currents.—In the vicinity of Mys Yelizavety a constant current, consisting principally of comparatively warm waters of the Amur River, sets E at about 1.5 knots. This current is generally increased to 3 knots by the ebb and overcome by the flood.

7.15 Mys Levenshterna (54°05'N., 143°00'E.) about 23 miles SSE of Mys Yelizavety, is a rounded rugged point with sloping gray cliffs along its shoreline. The coast between Mys Yelizavety and Mys Levenshterna is high and craggy with numerous breaking rocks just offshore, but with generally deep water about 0.5 mile seaward, necessitating caution in fog, especially near Mys Levenshterna, where there are depths of 36m only 90m from danger.

Gora Tri Brata, a conspicuous mountain group composed of three peaks disposed in a N-S direction, lies with its highest elevation, 708m at the N end of the group, about 5 miles W of Mys Levenshterna.

The coast from Mys Levenshterna trends SW for about 9 miles gradually becoming less elevated and giving way to yellow sandy bluffs decreasing in height markedly towards the entrance of Zaliv Tropto. Farther to the S the shore is low and sandy, backed by sand hills, and indented by several lagoons occasionally used by boats. There are some fishing stations along this stretch of the coast which are usually situated near the mouths of the inlets.

7.16 Okha (53°34'N., 143°03'E.) (World Port Index No. 60860) which is served by Reyd Urkt, is situated on the shores of Zaliv Urkt on the E coast of Sakhalin. The buildings and tanks of the oil company are situated on the spit on the N side of the entrance to Zaliv Urkt and are connected to the oil fields at Okha by pipelines. Three submerged pipelines extend about 0.7 mile offshore into the roadstead and are marked at their seaward ends by mooring buoys.

Anchorage.—Anchorage may be taken with local knowledge off Reyd Urkt, in a depth of 22m, sand, with the S oil tank bearing 260°, distant 1.4 miles. A signal station is situated on the S end of the N spit to communicate with vessels in the roadstead.

Tidal currents at the anchorage are weak.

Anchorage is prohibited E of the town in the vicinity of the oil berths. The limits of the prohibited anchorage area are marked by two sets of range beacons situated on the N spit in line bearing 259° and 291°, respectively.

Caution.—A submarine cable extends seaward from a point on the coast about 5 miles S of Okha and may best be seen on the chart.

Gora Sakharnaya Golova, a conspicuous conical peak located about 3 miles SSW of the entrance to Zaliv Urkt, is about 96m high and forms a good mark in the approach to Okha.

The coast to the S of Reyd Urkt remains uniform and is generally backed by sand cliffs or dunes. Several lagoons with boat channels are joined to the sea by an occasional inlet cut through this part of the coast; the largest, Zaliv Pil'tun, extends about 30 miles within the beach spit to the town of Pil'tun.

7.17 Pil'tun (52°51'N., 143°18'E.), a small settlement situated close within the coastal spit, marks the inlet to Zaliv Pil'tun and also Reyd Pil'tun, an open roadstead to seaward where vessels occasionally take anchorage, in fair holding ground, about 3 or 4 miles seaward of a barrel buoy situated 1.5 miles offshore. The inlet, with depths of 2.4 to 2.7m over the bar, is used during the navigational season by boats proceeding to the fishing stations within; the light tower and settlement buildings nearly in line with the inlet are conspicuous from offshore. A radiobeacon is situated in the vicinity of the light.

The coast to the S of Pil'tun is low, unindented, and composed of sand and shingle. It trends S and then SSW for about 32 miles to Mys Ayyash (52°20'N., 143°12'E.) at the entrance to Zaliv Chayvo, and is generally backed by salt lakes and drying lagoons.

Gora Vaya, 357m high and located about 16 miles NW of Mys Ayyash, is fairly conspicuous and makes a good landmark on clear days.

Caution.—An area prohibited to anchoring, bottom fishing, dredging, or navigating with a slack anchor chain lies centered approximately 10 miles NE of Pil'tun Light. This area, restricted due to submarine pipelines, is designated Area No. 239. Pil'tunskiy leading beacons stand 12.9 miles NNE of Mys Ayyash and indicate the direction of the submarine pipeline.

7.18 Vityaz Marine Terminal (52°42'N., 143°33'E.) (World Port Index No. 60870) is located approximately 12 miles SE of Pil'tun and uses export tankers for delivery of oil from the Piltun-Astoskhoye Field. The terminal operates only during the ice-free season which generally runs from May 20 through December 20.

Tides—Currents.—The mean tidal range is 1.2m, with tidal currents being the predominate influence. The average spring tidal current is 1.75 knots, with the set and drift following the most prolonged wind direction at the time.

Depths—Limitations.—The terminal consists of the Floating Storage and Offloading (FSO) tanker Okha, 157,823 dwt, 274m in length, with a draft of 16m; it is moored to a Single Anchor Leg Mooring (SALM) buoy, in depths of 30m at LW. A soft mooring assembly, 57m in length, connects the FSO tanker with the SALM buoy. Tankers must be at least 20,000 dwt, but not larger than 200,000 dwt in size to be accommodated at the terminal.

Pilotage.—Pilotage is compulsory,; the Mooring Master serves as the pilot. The pilot boarding area is located E of the terminal in position 52°41'34"N, 143°39'04"E.

Regulations.—The initial Notice of ETA should be sent 7 days prior to arrival, followed by confirmations of ETA 72 hours, 48 hours, 24 hours, and 12 hours in advance. Any significant change in the ETA should be sent at any time. The Notice of ETA will need to contain up to 27 items of information his should be coordinated with the terminal at time of initial contact.

Tankers may be required to disconnect and proceed to a safe anchorage when sea heights exceed 3.5m, wind velocity exceeds Force 8, or if the currents in the area exceed 3 knots. Transfer operations will cease when sea heights exceed 3.5m.

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

1. Call sign: Molikpaq Radio
2. VHF: VHF channels 6, 11, and 16
3. RT Frequency: 2182 kHz
4. Telephone: 870-327-330-610 (INMARSAT B)
5. Facsimile: 870-327-330-614 (INMARSAT B)
6. Telex: 582-427-320-450 (INMARSAT C)

Anchorage.—The designated anchorage area lies within 4 miles of the pilot boarding position.

Caution.—A rock formation, with a height of 6.7m, in approximate position 52°31'N, 143°40'E should be given a wide clearance.

A shoal area, with a depth of 7.4m, is located in position 52°41'04"N, 143°26'31"E.

Another shoal area, with a depth of 15.4m, is located in position 52°40'25"N, 143°29'00"E.

7.19 Zaliv Chayvo (52°23'N., 143°10'E.)is connected to the sea by Proliv Kleye, a channel nearly 0.5 mile in width, but obstructed by a bar with a maximum depth of 2.1m. Within the bay the depths are generally shallow and numerous islands encumber the whole area. The settlement of Chayvo, with a fishing station and a small pier, is situated on the N spit just within the entrance.

It was reported that a radiobeacon was situated in the vicinity of the entrance to Zaliv Chayvo.

Anchorage.—Vessels with local knowledge can obtain anchorage off the entrance to Zaliv Chayvo, in about 14m, good holding ground. The bay freezes in the latter part of December and is generally clear late in May.

Anchorage Area No. 202 has been established NNE of Mys Ayyash and is bounded by lines joining the following positions:

a. 52°29'12"N, 143°19'42"E.
b. 52°31'18"N, 143°19'42"E.
c. 52°31'18"N, 143°25'36"E.
d. 52°29'12"N, 143°25'36"E.

Caution.—Vessels approaching Reyd Chayvo should take care to avoid a 3.6m shoal, the position of which is doubtful, charted about 10 miles SE of Mys Ayyash.

Drilling platform BERKUT has been placed in position 52°27'53"N, 143°38'58"E and is marked by a light equipped with racon. Vessels are prohibited to navigate within 540m of this platform.

Drilling platform ORLAN has been placed in position 52°24'42"N, 143°23'36"E and is marked by red and white lights, visible all around.

7.20 Zaliv Nyyskiy (51°58'N., 143°11'E.), 22 miles S of Zaliv Chayvo, is entered between Mys Komarova and Mys Age via Proliv Anuchina, the channel of which is obstructed by a bar with a depth of about 3.3m. The bay has general depths of 2.7 to 6.4m with the main channel running along the W side of Kosa Plastum, the S spit, for about 3 miles to the pier at Nyyvo. From Nyyvo, the channel continues to Reka Tym, which enters Zaliv Nyyskiy at its SW end.

Navigation over the bar is assisted by the Plastunskiy Leading Beacons whose placement are adjusted to reflect the alterations in the bottom topography. These placement adjustments are broadcast through coastal warnings.

Nyyvo radiobeacon (51°57'N., 143°08'E.) transmits from the mainland coast on the W side of Zaliv Nyyskiy.

Reka Tym, the largest river in Sakhalin, lies with its mouth at the S end of Zaliv Nyyskiy and has depths of 4.6 to 5.5m for about 9 miles.

The port of Nogliki, about 4 miles up Reka Tym, is buoyed during the navigational season. Vessels having drafts of up to 4m may be taken out with the aid of local pilots.

Gora Butakova, 335m high, is conspicuous in the approach to Zaliv Nyyskiy, and from the E is seen rising abruptly N of the entrance.

Tides—Currents.—Tidal currents in the entrance to Zaliv Nyyskiy have rates of 3 to 3.5 knots, the ebb being slightly stronger and more prolonged.

Anchorage.—Anchorage may be obtained off the entrance to Zaliv Nyyskiy, in a depth of 13m. The holding ground here is good. Local knowledge is necessary.

Caution.—A dangerous wreck submerged to only a depth of 0.4m is located 1.2 miles SSE of Mys Age. Another dangerous wreck submerged to a depth of 20m lies 3.4 miles NE of Mys Age.

7.21 Zaliv Nabil'skiy (51°44'N., 143°19'E.), entered 14.5 miles SSE of Zaliv Nyyskiy, is a shallow lagoon into which several rivers flow. It is entered via Proliv Aslanbekova, a narrow channel between two spits. Although there are depths of up to 7m in the channel, a bar at the entrance with a least depth of 0.9m controls the bay.

A conspicuous oil tank stands on the W shore of the entrance. An oil company settlement with several buildings and a small pier is situated nearby.

Anchorage.—Good anchorage, from May to August, can be taken in Reyd Nabil'skiy, in depths of 11 to 18m, sand. Local knowledge is necessary. Cargo is handled by lighters during the summer months, but after August the seas usually become too rough for operations.

7.22 The coast to the S of Zaliv Nabil'skiy becomes less indented and is backed, with the exception of Zaliv Lun'skiy, by wooded and sloping mountains about 8 miles inland. Several rivers enter the sea along this shore and generally small settlements are situated near their mouths.

Caution.—A submarine pipeline is being constructed in the area bounded by the following positions, with a completion date expected by the end of 2013:

a. 51°26'12"N, 143°27'06"E.
b. 51°27'36"N, 143°50'48"E.
c. 51°31'24"N, 143°48'48"E.
d. 51°31'36"N, 143°50'36"E.
e. 51°23'42"N, 143°54'54"E.
f. 51°23'30"N, 143°53'06"E.
g. 51°26'30"N, 143°51'18"E.
h. 51°25'12"N, 143°27'24"E.

A submerged manifold, placed in a depth of 76m, is located in position 51°27'07"N, 143°51'53"E. An area in which activi-

ties such as stopping, anchoring, or performing any kind of underwater operations are prohibited has been established within a 3-mile radius of the manifold, then extending to the coastline near position 51°25'N, 143°27'E.

7.23 Mys Delil'-de-lya-Kroyera (50°48'N., 143°41'E.), the N point of a coastal mountainous prominence which rises to 744m near its center, is a slightly projecting point which is not easily discernible from the entire prominence until fairly close in. The shore along this section of the coast from the point to Mys Ratmanova, about 9 miles to the S, is strewn with above and below-water rocks, which in some cases lie up to 1 mile offshore.

Mys Ratmanova, the S end of the above prominence, is also indiscernible from a distance, but when close in it can be seen as a slight projection with several off-lying rocks. Vessels proceeding along this section of the coast in fog should not navigate in depths of less than 27m.

South of Mys Ratmanova the coast is backed by mountainous spurs which parallel the shore at 3 to 4 miles and are covered with thick forest. Sloping toward the sea they terminate in grayish-yellow precipitous bluffs skirted on their seaward side by a low beach of variable width. Several rivers enter the sea along this part of the coast, but they can only be entered by boats.

Pogranichnoye (50°23'N., 143°47'E.), an offshore oil-loading terminal situated in the Okhotskoye More, is a subport of Korsakov (see paragraph 7.47).

Anchorage.—Anchorage may be taken ESE of Pogranichnoye in anchorage Area No. 203 (50°22'30"N., 143°49'30"E.), in depths of approximately 30m.

7.24 Mys Nizkiy (50°01'N., 144°00'E.), a rounded projection which is low and sandy, is located near the S extremity of a long sandy and ill-defined coast. A sandy shoal extends 0.5 mile SE from the cape and is usually marked by conspicuous breakers.

Ennai Gawa (Matsumura) flows E from a considerable distance inland and discharges into the sea about 2 miles SSW of Mys Nizkiy. It is a fairly wide river, but its mouth is shallow and impassable. Fishing villages are situated along the shore up to 4 miles S of the river entrance and a canning factory is situated near the town of Asase, about 2 miles to the S.

Regulations.—Two restricted areas lie in the vicinity of Mys Nizkiy. Area No. 363 lies close by the cape; Area No. 238, which serves as a roadstead oil-loading area, lies 17.6 miles NNW of this promontory. Anchoring, dragging anchor, fishing with bottom gear, trawling, dredging, and the use of explosives are prohibited in these areas.

Anchorage.—Vessels with local knowledge can take anchorage about 1 mile SE of the entrance of the Ennai Gawa, in a depth of 10m, good holding ground, and about 1 mile offshore near the Asase canning factory.

Caution.—Caution is necessary in the approach as a 5.4m detached shoal, the position of which is doubtful, lies about 0.5 mile S of the anchorage.

7.25 Gora Fureto, a conspicuous black mountain, rises to an elevation of 1,040m about 24 miles WSW of Mys Nizkiy and Rymnik. A sharp pointed peak rises to a height of 1,020m about 8 miles ESE of Gora Fureto.

The coast for 5 miles S of Mys Nizkiy consists of steep yellowish-brown cliffs, then becomes a sandy beach until Mys Funatomari.

Mys Funatomari (49°45'N., 144°08'E.), the seaward face of which is low and sandy, lies about 18 miles SSE of Mys Nizkiy, but is not easily identified. A black rock, 1m high, lies 0.7 mile S of the point. Coastal elevations of about 335m generally back the point, but a more conspicuous mountain of about 460m rises 4 miles to the SSW.

From approximately 2 miles S of Mys Funatomari the shore rises vertically from the sea in a conspicuous wall-like formation of light-brown cliffs which extends for about 6 miles before again dropping to a low sandy and swampy coastal region.

7.26 Mys Bellinsgauzena (49°30'N., 144°15'E.), 15 miles SSE of Mys Funatomari, is the most prominent feature on this part of the coast. It is precipitous on its E side, but has a treeless plateau near its S extremity. An oddly shaped black rock, discernible near the outer end of the cape from a distance of about 4 miles, appears from a distance like the entrance to a cave. A light is shown from the point.

The vertical cliffs on the SE side of Mys Bellinsgauzena and those extending for about 3 miles to the S of the cape are very conspicuous and can be seen for a considerable distance.

Winds—Weather.—There is comparatively little fog along this stretch of coast before the middle of June, but thick fog is frequent through the latter part of June and until September. Fog is more frequent with N or S winds, but after the middle of September there are continuous W winds and fog occurs rarely.

Tides—Currents.—The cold current from the NW part of the Sea of Okhotsk flows S along the E side of Sakhalin, approaching the coast closest in the vicinity of Mys Bellinsgauzena and apparently receding in a SE direction S of the cape. The flow of this current is often affected by the wind and may attain a velocity of 2.2 knots.

7.27 Mys Popova (49°03'N., 144°24'E.), a low point at the S end of the coastal range on the E side of Sakhalin lying about 27.5 miles S of Mys Bellinsgauzena, is backed by a treeless plateau which lies at the foot of the sloping mountains. A 351m peak rises 7 miles NNW of the point and is conspicuous.

Poluostrov Terpeniya, a long slender peninsula extending 29 miles SSE of Mys Popova, is joined to Sakhalin by a narrow sandy neck of land which is nearly severed by a small lagoon. The peninsula rises to a height of 206m near its center, with a flat wooded summit, but a sharp and conspicuous peak of 156m lies 1.7 miles SE. The latter peak is usually more readily identified than the former, especially when seen from the W. Several freshwater lakes are reported to exist within Polustrov Terpeniya. One of the largest lakes is located just W of Mys Povorotnyy, the NE extremity of the peninsula.

Mys Povorotnyy (48°51'N., 144°42'E.) is 35m high, steep, and thickly wooded. It is also fringed with rocks over which the sea usually breaks.

Skala Ronku (48°56'N., 144°36'E.), a detached sharp conical rock 17m high, lies close offshore, 6 miles NW of Mys Povorotnyy. It is prominent and is the only good landmark in the vicinity.

Skala Shiro, a prominent white rock, 11m high, lies on the

edge of the coastal reef, 1.7 miles NW of Skala Ronku.

A rock, with a least depth of 4.9m, lies 3.5 miles NW of Skala Shiro and 1.3 miles offshore. Another rock, with a depth of 7.3m, lies 1.8 miles farther NW and 1 mile offshore.

7.28 Mys Yoman (48°46'N., 144°42'E.) is 35m high, steep, and covered with shrubs. It is fringed with rocks over which the sea usually breaks.

When viewed from the N in thick weather, both Mys Yoman and Mys Povorotnyy may easily be mistaken for Mys Terpeniya, which they closely resemble.

Mys Terpeniya (48°38'N., 144°45'E.), the S extremity of Poluostrov Terpeniya, consists of a steep cliff rising at the end of a barren plateau with a height of about 34m. Although conspicuous from close in, the point is difficult to distinguish from the offing as the coast for about 10 miles to the N is low with occasional hills, most of which can confuse the observer as to the actual extremity. Skala Utinaya, a detached rocky islet, lies close E of the point and is conspicuous from the N and S. A light is shown on the NE extremity of Mys Terpeniya; a radiobeacon is situated at the light.

Caution.—Shoal ground extends about 11.5 miles SSW from Mys Terpeniya. A shoal, having a depth of 11.6m, lies 15 miles SSW of the same point. Ships are advised to give the point a wide berth.

An IMO-adopted Area to be Avoided has been established extending SE from Mys Terpeniya on Sakhalin. Vessels greater than 1,000 gt carrying oil or hazardous cargo should avoid transiting the area bounded by a line passing through Mys Davydov (48°48'N., 144°42'E.) and joining the following positions:

a. 21.8 miles bearing 100° from Terpeniya Light.
b. 40.5 miles bearing 126° from Terpeniya Light.
c. 41.6 miles bearing 146.7° from Terpeniya Light.
d. 20.2 miles bearing 208.5° from Terpeniya Light.
e. 12.0 miles bearing 307.5° from Terpeniya Light, then extending due E to the coast.

7.29 Ostrov Tyuleniy, a flat barren islet, 16m high, lies about 10 miles SSW of Mys Terpeniya and has a flagstaff and several small buildings on its NW side. Reef surrounds the islet in all directions and up to 1.5 miles to the NE where Kamen' Sivuchiy, a large rock, is located.

In addition to the reefs surrounding Ostrov Tyuleniy, a shoal area with a least known depth of 3.2m lies about 6 miles SSW of Mys Terpeniya. An obstruction lies NE of this area and several reefs are located between the shoal and Mys Georgiya to the N. A channel, with a least depth of 9.1m and available with local knowledge, lies between Kamen' Sivuchiy and the 3.2m shoal.

Caution.—A restricted area, the limits of which are shown on the chart, surrounds Mys Terpeniya and extends up to 40 miles SE of the point. This area should be avoided by vessels over 1,000 gt carrying oil or hazardous cargoes in the interest of conservation of unique wildlife as well as inadequate surveys.

Zaliv Terpeniya

7.30 Zaliv Terpeniya extends to the N and lies between Mys Terpeniya and Mys Soymonova, about 72 miles WSW. The gulf is open to the S; the bottom is partly rock and mud.

Winds—Weather.—Fog usually does not occur in Zaliv Terpeniya after September, but is very frequent in May, June, and July.

Ice.—The N shore of Zaliv Terpeniya experiences severe weather and fast ice begins to form in December. By January the ice is 0.9m thick and may extend up to 20 miles offshore. Break up begins in March, but drifting floes make navigation difficult until early June.

Caution.—Along the coasts of Zaliv Terpeniya fishing nets may extend seaward up to 10 miles. Approach to the anchorages and harbors should be made via the designated fairways.

7.31 Mys Georgiya (Entomo Misaki) (48°38'N., 144°40'E.), the SW extremity of Poluostrov Terpeniya, lies about 3 miles W of Mys Terpeniya but is lower and surrounded with rocks. The point is difficult to identify from a distance, but there is a prominent red cliff about 0.5 mile to the E which can be seen from the S. When viewed from the W, Mys Terpeniya can be seen rising above Mys Georgiya.

Mys Obshirnyy (Harato Misaki), about 4 miles NNW of Mys Georgiya, projects from the coast with a height of 16m before rising to a hill close to the N.

The W side of Poluostrov Terpeniya appears from the offing much as the E side, with the higher elevations near its center. A conspicuous red cliff can be seen closer in, about 5 miles N of Mys Obshirnyy, but generally the coast is sloping and rocky.

7.32 Mys Pyata (Chiga) (49°02'N., 144°20'E.), located on the E side of Zaliv Terpeniya at the end of Poluostrov Terpeniya, is the SW end of a wooded plateau and is conspicuous from the NW. The coast to the NW is sloping and rocky, but becomes a sheer cliff, rising from the sea for approximately 3 miles along the shore, commencing about 9 miles from the point. The land W of the cliffs gradually becomes lower and wooded with smooth sandy beaches. A reef, with a least depth of 3.6m, extends 1 mile SSE from the point.

Anchorage.—Vessels with local knowledge can take anchorage, in 9 to 13m, sand and rock, in the coastal bights on either side of Mys Pyata.

Ozero Nevskoye, a large brackish lake on the N shore of Zaliv Terpeniya, is entered through a long shallow channel about 5 miles W of the village of Promyslovaya. Although only small boats can enter the channel, the lake is a source of fresh water during the spring and after heavy rains.

7.33 Poronaysk (49°13'N., 143°08'E.) (World Port Index No. 60880), is a lighterage port in the roadstead at the mouth of the Reka Poronay, formerly known as Shikuka in the NW part of Zaliv Terpeniya. Poronaysk is considered to be the best port on the E coast of Sakhalin with main exports of timber, fish and skins. Poronay roadstead incorporates the designated timber-loading waters of Vladimorovo, Ozernoye, and Komrvo. The Vladimorovo area lies in position 49°16'N., 143°59'E. The Ozernoye roadstead lies 1.9 miles NNW of Cape Nizkiy. The Komrvo timber-loading location lies at the mouth of the Konga River. Mandatory regulations for the port of Poronaysk apply to each of the timber-loading locations.

Ice.—Poronay roadstead is generally closed by ice from late

December until early April, with considerable amounts of drift ice up to the middle of June. When proceeding to the roadstead, the lowlands near Ozero Nevskoye at the head of the bay contrast sharply with the mountains NW of the port and assist in the approach to the anchorage.

Tides—Currents.—The mean tidal rise at the port ranges from 0.2 to 0.3m.

Depths—Limitations.—The port lies on the W bank of the river and is entered over a shallow bar. The roadstead accepts vessels up to a draft of 6m, while the limitation is a 2m draft within the inner part of the harbor. It is best to check with the harbormaster for the latest details about draft limitations in the port. Piers and quays are reported also to lie farther up the river. Cargo operations are carried out at Berth No. 1.

Aspect.—Gora Betsukowashi, the highest mountain near this part of the coast rises to a height of 621m about 15 miles SW of Poronaysk and, with its three-peaked summit, is fairly conspicuous.

A light is shown from the W side of the mouth of Reka Poronay.

Two conspicuous masts stand about 2.5 miles SW of the river mouth.

Range lights, in line bearing 307°45', situated on the W side of the river entrance, lead over the bar to the harbor.

Pilotage.—No pilots are available.

Radar pilotage is provided upon request for entry and departure in conditions of low or limited visibilities. This service is available to vessels navigating within 24 miles of the coast radio station (BRLS).

Regulations.—Upon arrival at the river entrance, vessels should establish contact with the Port Director using VHF or radio.

All vessel movement within the harbor or lighterage area is controlled by the Port Dispatcher and Port Director.

Vessels enter and leave the sea port along fairway No. 1. When crossing the bar of Reka Poronay, navigators must take into account the presence of a steep sea on the bar, making sure all hatches, doors, and portholes are secured. Overtaking of vessels is not permitted when crossing the bar of Reka Poronay.

Foreign vessels enter the outer roadstead of the sea port along fairway No. 2.

Speed within the harbor is limited to 6 knots.

Towing of vessels is prohibited in the harbor when wave heights exceed 1.5m.

Contact Information.—The port contact information is given in the table titled **Poronaysk—Contact Information**.

Signals.—Navigational and hydrometeorological information is transmitted to vessels in the harbor area on VHF channel 16 upon vessel request and on deterioration in the weather conditions. Vessels at a berth or at anchorage are immediately notified of any storm warnings on VHF channel 16. Vessels are expected to acknowledge receipt of any such storm warnings.

Anchorage.—There are three designated anchorages, as follows:

1. Area No. 1—centered on position 49°12'42"N, 143°08'42"E.
2. Area No. 2—centered on position 49°12'18"N, 143°07'12"E.
3. Quarantine Anchorage—centered on position 49°12'06"N, 143°07'12"E.

Anchorage elsewhere is prohibited except, with the permission of the harbor authorities, in an emergency.

Caution.—Depths over the bar are continuously changing and no attempt should be made to cross it without local knowledge.

Three dangerous wrecks, partially submerged, are located 100m, 160m, and 260m N, NNE, and NE of Reka Poronaysk Light, respectively. Three other dangerous wrecks, also partially submerged, are located 320m NNE of Reka Poronaysk Light.

7.34 The coast W of Poronaysk continues low for about 10 miles, but is backed by higher land a few miles inland. Gora Vozvrashceniye (Skikuka), the highest peak in the vicinity, rises to a height of 1,332m about 22 miles WNW of Poronaysk, but is not often clearly visible.

Mys Polyakova, 9 miles SW of Poronaysk, is a rocky point at the mouth of Reka Gastello. There is a prominent red cliff near the river entrance.

Mys Goryanskiy (48°58'N., 142°59'E.) is a wooded point with a steep cliff close S of it, located about 8 miles S of Mys Polyakova. A light is shown from the point.

Poronaysk—Contact Information

	Port Authority	Port Controller	Central Port Radio Station	Port Dispatcher and Port Director	Port Dispatcher (Fish Factory)
Call sign	—	Poronaysk Radio 1	UPR	Poronaysk Radio 3 (RT) Poronaysk Radio 5 (VHF)	Poronaysk Radio 33
VHF	—	VHF channels 9 and 16	VHF channel 3	VHF channels 9, 14, and 16	VHF channel 11
Telephone	78-42431-41064	—	—	—	—
Facsimile	78-42431-50164	—	—	—	—
RT Frequency	—	—	—	2182 and 2720 kHz	—

Sakhalin—Southeast Coast

7.35 **Mys Soymonova** (48°56'N., 142°59'E.), a low sandy cape, is the W entrance point of Zaliv Terpeniya and the E projection of land immediately S of Poronaysk. Mys Soymonova lies about 2.5 miles S of Mys Goryanskiy, with a conspicuous hill, 129m high, located between. This hill, because of its rounded nature and higher land, is often mistaken for Mys Soymonova and is most prominent when viewed from the SE. The village of Novoye, with several fishing stations, lies about 2 miles S of Mys Nituy.

Gora Druzheskaya, a very conspicuous sharp-peaked mountain, rises about 9 mile WSW of Mys Soymonova and is the highest summit in this area.

Makarov (48°38'N., 142°47'E.) is situated on the SE coast of Sakhalin about 20 miles SSW of Mys Soymonova. The port, formerly known as Shiritori, is an open roadstead serviced by barge and tug facilities. The town, which is generally situated on the S side of Reka Makarova, can be identified by the position of Gora Makarova, a 710m, prominent, sharp, black peak about 3 miles NW. A 101m factory chimney on the N bank of the mouth of the river is also a good mark when closer in.

Depths—Limitations.—Vessels are required to approach Makarov in the designated danger-free fairway, oriented 290°30'-110°30', which may best be seen on the chart. The fairway is 1 mile wide.

Anchorage.—Anchorage, reported to be a poor holding ground of rock, may be taken, in 11 to 13m, SW of the river mouth. Vessels should not attempt to enter until their positions have been closely determined and verified by all available means.

Caution.—Caution is necessary by vessels anchored in the roadstead after sunset, as the land breezes are funneled through the valley of Reka Makarov and emerge as a very strong offshore wind lasting up to 6 hours.

7.36 The coast to the S of Makarov is generally sandy and of uniform depth until 11 miles to the SSW it becomes high and cliffy with huge piled up boulders at Mys Klokova (Higashi Horonaibo Misaki). The shore is backed closely by a mountainous interior along its entire length, gradually decreasing on the approach to Mys Dal'rimplya, about 19 miles from Makarov.

Gora Klokova, with a height of 865m, rises about 1.5 miles W of Mys Klokova and is a good mark from offshore, being the highest peak in the vicinity. This mountain and the ones nearby are covered with stunted pine trees, but from a distance appear barren.

7.37 **Reyd Vostochnyy** (48°17'N., 142°38'E.), previously known as Motodomari, is an open roadstead served by a small harbor. There are two gaps in the coastal reef off the town. The N and larger, with a width of about 0.2 mile, is the most used and leads to a small craft harbor within.

Aspect.—Gora Vostochnyy, 275m high, is located about 0.8 mile SW of the town and having a blunt summit rising above the lower hills, makes a good mark in the approach to the port.

Anchorage.—Anchorage with good holding ground can be taken about 1.3 miles E of the N entrance to Vostochnyy, in 15m, sand. Storm signals are shown at the town. The anchorage is untenable in strong E winds.

This anchorage port should not be confused with the port of Vostochnyy (42°44'N., 133°03'E.), which is described in paragraph 9.36.

Caution.—A submerged well lies 16 miles offshore, E of Reyd Vostochnyy, in position 48°15'N, 143°04'E.

7.38 The coast extending S from Vostochnyy is generally precipitous with shoal patches lying up to 1 mile offshore. About 10 miles S of Vostochnyy, the land backing the coast commences to rise rapidly, culminating in Gora Zhdanko (Tosso Yama), a steep mountain peak with a height of 682m. **Mys Tikhiy** (Chikaporo), a near vertical coastal cliff about 3 miles SSE of the above peak, is easily identified from seaward by its light yellow color. A white rock, 29m high, lies about 0.5 mile SW of the cliff.

Reyd Vzmar'ye (Shiraura) (47°52'N., 142°32'E.), situated close S of Mys Mulovskogo, is an open roadstead served by a small boat harbor. The approaches to the harbor are encumbered with reefs and shoals, but a channel, marked by a conical buoy, leads in from about 0.5 mile SW of the small boat harbor.

Anchorage.—Anchorage can be taken by small local vessels between the shoals about 1 mile offshore, in a depth of 11m, sand, in poor holding ground.

7.39 The coast to the S of Mys Mulovskogo is mostly smooth and sandy, generally sloping upward to the mountains about 5 miles inland. Reka Otasamu, a wide mountain river, enters the sea about 13 miles SSE of Mys Mulovskogo and is accessible to boats at half tide. The village of Firsovo is situated close N of the river entrance and has a post office.

Gora Otasamu, which rises to 924m about 8 miles W of the mouth of Reka Otasamu, is conspicuous from offshore because of its height and symmetrical shape.

Reyd Starodubskoye (47°25'N., 142°50'E.) consists of an open roadstead served by a small craft harbor protected by two breakwaters. The harbor is approached through an opening in the coastal reef, the navigation of which requires local knowledge. Vessels approaching the roadstead from the E can identify the approximate position of the port by the lowlands to the NW and the mountainous headlands to the SE.

Tides—Currents.—Tidal currents seldom exceed 0.5 knot. The roadstead is frozen in December. The ice begins to break up in April and the roadstead is entirely clear by June.

Anchorage.—Anchorage can be taken about 1 mile off the town, in a depth of 11m, sand, with fairly good holding, but it is available only in good weather or with offshore winds. The rest of the time it is rendered useless by heavy swell.

7.40 **Mys Senyavina** (Ochibu Misaki) (47°21'N., 142°56'E.), a grass-covered headland, 50m high, extends slightly from the coast about 6 miles SE of Starodubskoye. The coast for about 6 miles NW and 7 miles SE of the point is very foul and should not be approached, even by boats, except with local knowledge.

A mountainous ridge rises from about 3 miles WSW of Mys Senyavina and extends S along the coast for about 30 miles, culminating near its S end in two high peaks, the northern of which, known as Gora Shinosusuya, being 1,048m high is very conspicuous.

Mys Gimau (Higashi Konotoro Misaki), located about 14 miles SSE of Mys Senyavina, consists of steep cliffs dropping in most places nearly vertically to the sea. To the S of the point, the shore becomes more sloping with sandy beach in this vicinity, but the land backing the coast is rugged and mountainous with some on the highest elevations directly W of Mys Gimau.

7.41 Mys Tunaycha (Tonnai Misaki) (46°52'N., 143°09'E.), lying 17 miles SSE of Mys Gimau, is a conspicuous red cliffy cape which rises from the surrounding lowlands. It has a wooded summit that is more often clearly seen when the higher hills in the vicinity are obscured. The entire cape is fringed with reefs, parts of which dry, and shoals extend outward for about 0.8 mile from the shore especially in the NE direction. Ozero Tunaycha, one of the largest fresh water lakes on Sakhalin, is located within the shore S of Mys Tunaycha and is entered by a narrow channel, dry in parts, located immediately E of the cape. Although the water is generally brackish during the dry season, with the onset of heavy rains when there is a constant outward flow, the lake is nearly fresh. Ozero Izmenchivoye, a smaller lake, is located W of the cape and is connected to the sea by a narrow channel with a depth of 0.3m.

Zaliv Mordvinova (Tonnai Hakuchi), a bight in the coast between Mys Tunaycha and Mys Svobodynyy, about 12 miles E, is one of the best anchorages in the SE part of Sakhalin. The E side of the roadstead is mostly sandy, but it is fringed by rocks. The S shore of the roadstead is a sandy beach. There are several fishing villages, but they are inhabited only during the season. A radiobeacon is situated 4 miles SE of Mys Tunaycha.

Several conspicuous red cliffs rise about 0.3 mile SE of Mys Tunaycha and make a good mark when approaching this part of the coast. There is also a conspicuous chimney which stands N of the village of Okhotskoye (Tonnai), situated about 1 mile S of the cape.

Anchorage.—The best anchorage is situated about 1 mile E of Mys Tunaycha, in a depth of 13m, mud and sand. There is a small harbor for boats at Okhotskoye, which is entered about 0.6 mile SSE of the cape.

7.42 Mys Svobodnyy (Airo Misaki) (46°51'N., 143°26'E.), a steep, cliffy, and densely-wooded cape, is prominent to vessels approaching from the E. The point is surrounded by submerged rocks, covered with seaweed, which extend out for about 0.3 mile in the N and W directions. A conspicuous red landslide scar marks the NW side of the cape and a red hill, which forms a good mark from the E part of Zaliv Mordvinova, rises about 1.2 miles S of the cape. A light is shown on Mys Svobodnyy.

Tides—Currents.—Tidal currents in the anchorage set SE on the flood and N on the ebb, both at a rate of 0.3 knot.

Anchorage.—Good anchorage may be obtained 1.7 miles SW of Mys Svobodnyy and 0.6 mile offshore in a depth of 10m, fine sand. There are depths of 9 to 18m in the roadstead, shoaling gradually to 5m about 0.3 mile from the E shore, and 0.6 mile from the S shore. Fishing nets may be found in this vicinity.

Caution.—Vessels should not approach within 1 mile of Mys Svobodnyy.

7.43 The coast to the S of Mys Svobodnyy is only slightly indented and consists of steep cliffs with numerous rocks close offshore. A densely-wooded mountain range, the peaks of which are usually covered with snow as late as May, parallels the coast close inland.

Mys Zheleznyy (Oyakuchi Misaki), a slight projection of the coast about 9 miles SSE of Mys Svobodnyy, is thickly wooded and provides shelter for summer anchorage.

Gora Ayrup (Airo), rising to a height of 505m, is located about 1.7 miles W of Mys Zheleznyy. An unnamed peak, particularly conspicuous from the N, but not easily identified from the S, has a sharp triangular summit rising to a height of 490m about 0.5 mile SE of Gora Ayrup.

Mys Velikan, a slightly pointed projection of the coast about 5.5 miles S of Mys Zheleznyy, can be identified by a hill rising about 0.6 mile WSW of the point and a precipitous cliff with a flat summit about 0.5 mile NW. To the S of the point, the coast becomes more rocky with numerous drying patches up to 0.5 mile offshore and although the terrain backing the shore is still high, it becomes more rolling with deeper valleys between the peaks.

Mys Levenorna (46°24'N., 143°36'E.), the E point of Poluostrov Tonin-Anivskiy, lies about 15.5 miles S of Mys Velikan. It is also the SE extremity of a steep rocky promontory which is conspicuous from the N and S because of its sheer and vertical appearance at the seaward end. The point is backed by hills about 192m high before the terrain rises to the coastal chain.

Gora Mayachnaya, a conspicuous conical peak, rises to a height of 425m about 5 miles NW of Mys Levenorna and forms a good mark for vessels approaching Reyd Menaputsy, which provides a sheltered anchorage in W winds, lying W and within the point.

Ozero Ptich'ye, located within a narrow neck of land at the head of Reyd Menaputsy, is entered by a small and shallow channel which can be navigated by boats after heavy rains.

Tides—Currents.—Tidal currents off Mys Levenorna set ENE on the flood current at 0.5 knot and S on the ebb current at 0.8 knot.

Caution.—An area within which anchoring, fishing, and underwater explosions are prohibited, extends 15 miles NE of Mys Levenorna and may best be seen on the chart.

7.44 Mys Yevstafiya (46°18'N., 143°34'E.), located about 5 miles SW of Mys Levenorna, is a precipitous cliffy promontory, 50m high, covered with grass and connected to the mainland by a low isthmus. The point is inconspicuous except from a short distance offshore. The cape is surrounded by foul ground, much of which uncovers, and a rock with a height of 4.6m lies close off the E extremity. Reyd Yevstafiya, located in a bight SW of the cape, affords anchorage in W winds, but great care must be taken to avoid the shoal ground in its N part.

Mys Aniva (46°01'N., 143°25'E.), the S extremity of Poluostrov Tonin Anivskiy and the E entrance point of Zaliv Aniva, lies 17 miles SSW of Mys Yevstafiya. It is a conspicuous tapering headland, the extremity of which consists of steep bare cliffs and jagged summits. Close N of the cape is a saddle-backed depression, the S end of which is formed by a red hill. About 1 mile farther N is a prominent conical peak, 408m high.

Skala Gojo, a white rock close S of Mys Aniva and from which Mys Aniva Light is shown, is 14m high, with some smaller rocks close S of it. The rock shows up well from the W

or E. Herds of walruses frequent these rocks and the noise of their roaring can be heard from a distance of 2 to 3 miles. A radiobeacon is situated at the light.

Gora Sakharnaya, a sharp tree-covered peak attaining a height of 667m, rises about 4 miles N of Mys Aniva and is the highest and most prominent mountain on Poluostrov Tonin-Anivskiy. Another peak, lower but sharper, is located close S of Gora Sakharnaya and when viewed from this direction sometimes appears more prominent.

Caution.—An explosives dumping ground area, the limits of which are shown on the chart, lies about 33 miles E of Mys Aniva.

An IMO-adopted Traffic Separation Scheme is situated S of Mys Aniva and may best be seen on the chart.

Zaliv Aniva

7.45 The E shore of Zaliv Aniva, which in the vicinity of Mys Aniva is high and steep with numerous landslide scars, gradually loses the steepness of its seaward slope as it trends N for about 14 miles to Yuzhnoye. Mys Slyuda, a black rocky headland with waterfalls on each side, is located about 5 miles N of Mys Aniva and can be seen for some distance.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (VTS) system operates 24 hours in the N portion of Zaliv Aniva, including the waters around Korsakov and Prigorodnoye and their approaches. The operational zone of the VTS is bound by the following positions:

a. 46°37'30"N, 142°26'00"E.
b. 46°25'00"N, 142°30'00"E.
c. 46°25'00"N, 143°04'00"E.
d. 46°35'42"N, 143°04'00"E.

See figure titled **Zaliv Aniva—VTS Zone** for VTS area display and pilot pickup points for different vessels.

This system regulates traffic, establishes the order of navigation, and determines the sequence of entering and leaving. It also controls movements within the port area, records the locations of vessels at berths and at anchor, provides navigation information, and coordinates emergency actions.

The VTS Center is located in the town of Korsokov. The VTS Center will transmit information regarding meteorological forecasts and warnings, information on the latest condition of navigational aids, and any information regarding hindrances to the safe movement of vessels. These broadcasts are preceded by an announcement on VHF channel 16 and via AIS (automatic identification system). Vessels are required to acknowledge receipt of these broadcasts.

Vessels are required to request entry into or departure from the VTS area by facsimile or email to the VTS Center by 2000 of the previous day. Requests to the VTS should include the following information:

1. Vessel type, name, flag, call sign, and IMO identification number.
2. Owner or operator of the vessel.
3. Vessel loa, beam, and freeboard.
4. ETA or ETD.
5. Last port of call for inbound vessels.
6. Destination berth for inbound vessels.
7. Next port of call for outbound vessels.
8. Cargo type and amount.
9. Gross tonnage.

Inbound vessels must send a notice of ETA 1 hour prior to crossing the VTS boundary, followed by confirmation of the actual time of crossing this boundary. This notice must include the following information:

1. Vessel type, name, flag, call sign, and IMO identification number.
2. Maritime Mobile Service (MMSI) number.
3. Full name of agents representing the vessel.
4. Maximum draft at time of message transmission.
5. Last port of call.
6. Number of crew and passengers on board.
7. Type and amount of cargo, presence of any hazardous cargo, and if so, what the hazard class is.
8. Vessel position.
9. Vessel course and speed.
10. Any problems with vessel equipment or other limitations that could affect the safety of navigation.

Outbound vessels departing from the ports of Korsakov or Prigorodnoye must request permission to commence movement from the VTS Center and report the following information:

1. Vessel name and flag.
2. Full name of agents representing the vessel.
3. Maximum draft at time of message transmission.
4. Permission number assigned by Port State Control.
5. Type and amount of cargo.
6. Surname of pilot.

Outbound vessels departing from Korsakov or Prigorodnoye must request permission to discontinue their radio watch on VHF channel 74 when leaving the VTS area.

Outbound vessels departing from other ports or passing through the VTS area must contact the VTS Center on VHF channel 74 when crossing the VTS limit and report the following information:

1. Vessel type, name, and flag.
2. Position at time of crossing VTS limit.
3. Destination port or station.
4. All other information requested by the VTS.

Whenever a pilot is embarked or disembarked, the VTS Center must be notified.

All movement is prohibited in the VTS operational zone for vessels unable to maintain the required radio watch (see Signals), or if visibility is less than 0.5 mile, or if the vessel's radar is inoperable.

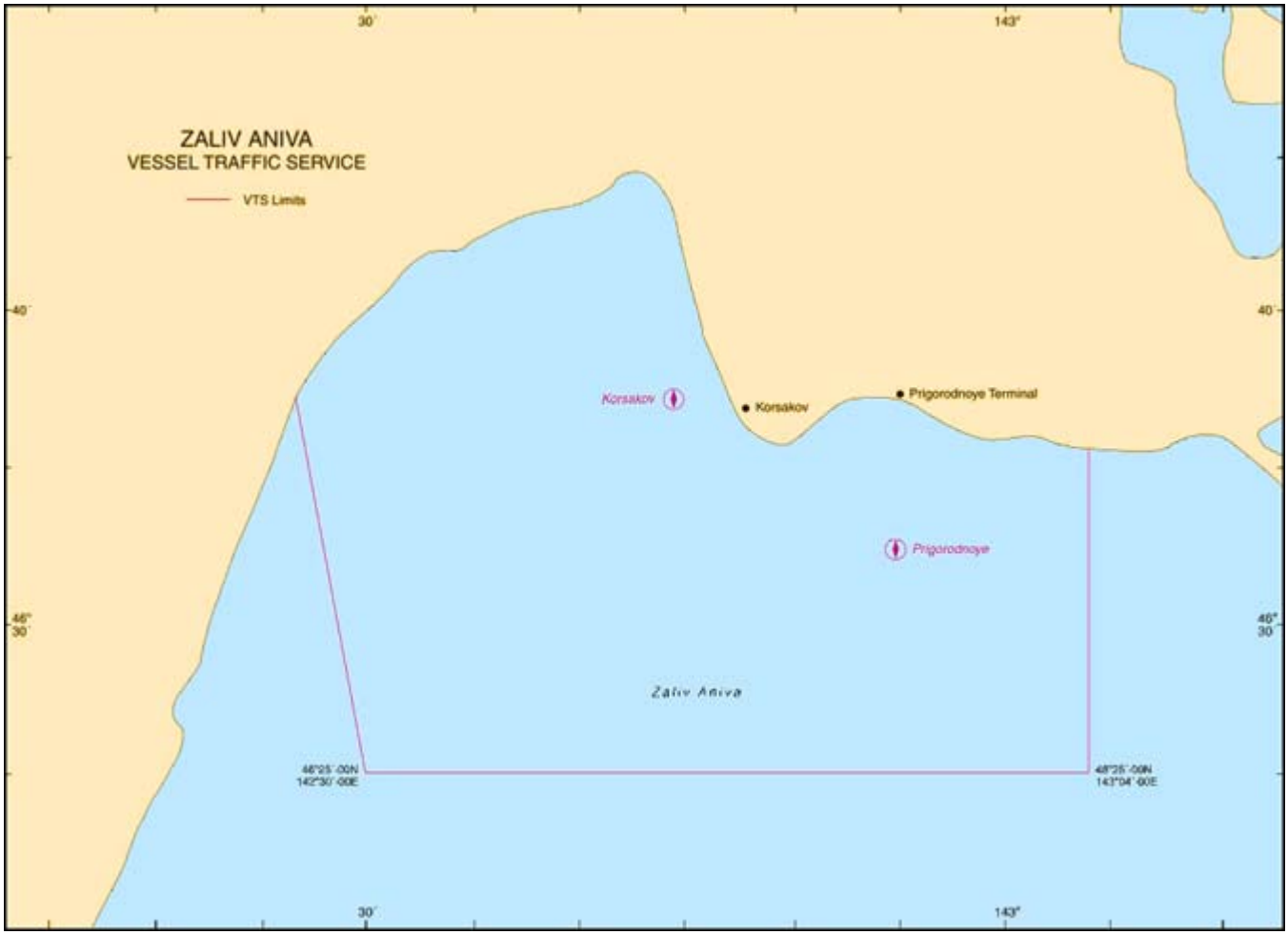
The overtaking of vessels while in the VTS operational zone is prohibited.

While underway in the VTS area, the ship's main engines must be ready to respond to any order and the anchors must be in a condition to be let go immediately at any time.

If visibility becomes 2 miles or less, pilotage of the vessel is mandatory, using VTS recommendations.

Any vessel intending to weigh anchor or depart a berth inside the VTS operational zone must request permission from the VTS Center at least 15 minutes prior to commencing the operation. The center will confirm the intended time or advise a new time for movement to which the vessel must adhere. This permission is valid for only 15 minutes.

Vessels participating in AIS (automatic identification system) are exempt from having to include their position in any re-



Zaliv Aniva—VTS Zone

ports to the VTS Center. Otherwise, reports will be made in degrees of latitude and longitude or in the following format:

1. Vessel position relative to Korsakovskiy Light or other aid to navigation or landmark requested by the VTS Center.
2. Bearing from navigational aid expressed in degrees (three digits).
3. Break sign (e.g. backslash symbol).
4. Distance from referenced aid or landmark expressed in nautical miles and tenths of nautical mile.

Vessels that have experienced a spillage of petroleum or other types of pollutants must immediately take steps to contain the spill and notify the VTS Center.

Vessels involved in a collision, allision, or grounding must immediately notify the VTS Center, including information on injured persons, vessel damage, and the amount and type of spillage, if any.

Vessels discovering any evidence of pollution of the marine environment, abnormalities in the operation or positioning of navigation aids, or any other items that would present a hazard to safe navigation should notify the VTS Center immediately.

Vessels in the VTS area not responding to calls from the VTS Center will be considered as being in distress and steps may be taken to provide assistance without the coordination of the master or ship's crew; the associated costs will be the responsibility of the vessel's owners.

Contact Information.—Communication with the VTS Center and a continuous listening watch is maintained on VHF channel 74, with VHF channel 67 used as backup) and VHF channel 16, as follows:

1. Call sign: Aniva Trafik
2. VHF: VHF channel 74 (working)
   VHF channel 16 (call and safety)
   VHF channel 67 (reserve)
3. Telephone: 78-42435-44440 (Senior Duty Officer)
   78-91474-27507 (Duty Operator)
   78-42435-44443 (VTS Center)

Note.—The Senior Duty Officer and Duty Operator numbers are operational 24 hours, while the VTS number is manned only between 0830 and 1730.

4. Facsimile: 78-42435-44440
5. E-mail: vts_sakh@skl.rosmorport.ru

7.46 Gora Tonobori (46°13'N., 143°27'E.), a conspicuous

Panoramic view of Korsakov

double-peaked mountain rising to a height of 536m, is located about 1 mile inland and is a good landmark from all directions. About 2.5 miles SW of the mountain is a remarkable outcrop of pure white marble that resembles an islet. From the N it has been mistaken for a ship, but from W it appears conical.

The coast to the N of Yuzhnoye, although still rugged, is considerably lower than the area to the S and is indented by the mouths of several shallow rivers. The shore for about 11 miles to the N, to the vicinity of Mys Moshiri, is bordered by numerous rocks and islets some of which reach heights of 37m.

Ozero Busse (46°31'N., 143°18'E.), the S of a group of lakes located in the NE part of Zaliv Aniva, is entered by a narrow shifting channel available only to small craft with local knowledge. The entrance can be identified by a conspicuous white rock resembling a house, which is located on the N side, and also by cable towers on either side of the opening.

The shore separating the lakes from Zaliv Aniva is low and tree-lined, with sandy beaches and offshore banks continuing until in the vicinity of Mys Chibisanskiy, where the higher land resumes. Reyd Chibisanskiy, an indentation of the coast about 1 mile E of the latter point, provides anchorage to small vessels with local knowledge.

At the head of the roadstead there is a small harbor protected by breakwaters and at the town of Ozerskiy, closer inland, there is a conspicuous tower. The harbor is home to the Ozerskiy Marine Terminal, used for the comprehensive servicing of fishing vessels. The terminal is open only from April 15 until October 15 and can be used as a shelter for small vessels during stormy weather. Vessels wishing to use the terminal must contact the harbormaster 1 hour before arrival on VHF channel 11.

The coast to the W of Mys Chibisanskiy consists of rugged hills and numerous indentations with above and below-water rocks located close to the shore. Gora Yunony, a rather sharp peak with an elevation of 464m, is located fairly close to the shore just within Mys Polevogo, about 6 miles WNW of Mys Chibisanskiy, and is very prominent.

Reyd Merey, an indentation in the coast about 9 miles W of Mys Chibisanskiy, provides anchorage for vessels with local knowledge proceeding to Korsakov. It provides good shelter in winter during N and W winds, but the depths are considerable and anchorage must be taken fairly close to the shore. Caution is required to avoid the submarine cables which land in the vicinity.

Mys Tomari Aniva (46°36'N., 142°46'E.) is the SW extremity of a reclaimed land area located under a wooded and cliffy tableland on top of which are several conspicuous radio towers. A light equipped with a radiobeacon is situated about 1 mile E of the point. A prominent hill, 95m high, rises 1.7 miles N of the point.

Caution.—A wreck with a depth of 34m lies 8.2 miles SSE of Mys Tomari Aniva.

A dangerous wreck, which dries, is located close NW of Mys Tomari Aniva in position 46°36'40"N, 142°45'48"E.

Caution should be exercised in Area No. 24A, located 11 miles SSE of Mys Tomari Aniva, as this is the point of convergence of Recommended Route No. 24 and Recommended Route No. 24A.

Korsakov (46°37'N., 142°46'E.)

World Port Index No. 60920

7.47 Korsakov, previously known as Otomari, lies 1 mile N of Mys Tomari Aniva, in Zaliv Aniva. It is the largest and best equipped port in the S half of Sakhalin. Korsakov is open for navigation all year; however, vessels will need icebreaker assistance during the winter season. The Ozerskiy Offshore Terminal is also part of Korsakov port but is a fishing terminal located about 17 miles E of Mys Tomari Aniva. See paragraph 7.46 for details.

Winds—Weather.—During the summer, SW winds generally prevail and bring good weather, but NE winds, which are less frequent, bring fog and rain. In winter the prevailing NW winds alternate with NNE winds and a considerable amount of snow falls. The port is protected from SE winds by Mys Tomari Aniva.

Fog is prevalent from June through August especially with light S or SE winds. In September the temperatures fall rapidly and the weather is usually clear.

Ice.—The port area does not freeze over completely. However, the appearance of drift ice can appear between early November and mid-December. From mid-January through March, only vessels with an ice classification of L-3 or above may enter the port. The port is ice-free by the end of April.

Tides—Currents.—During equatorial tides, springs rise

about 0.9m and neaps rise about 0.7m. The tropical spring rise reaches 1.2m and the tides at that time become diurnal. The flood current sets NNW and the ebb current sets SSE at a maximum rate of 0.5 knot.

Depths—Limitations.—The port is approached through Zaliv Aniva and Bukhta Losoey via the recommended track from Mys Kril'on.

Korsakov Light

Foreign vessels should use the recommended tracks that lead from the vicinity of the TSS schemes S of Mys Kril-on and Mys Aniva to one of the following three designated fairway channels:

Fairway No. 1—Position 46°24'42"N, 142°50'48"E. to position 46°31'12"N, 142°43'54"E., using course 323° inbound or 143° outbound, a distance of 8 miles.

Fairway No. 2—Position 46°24'48"N, 142°39'30"E, using course 025° inbound or 143° outbound, a distance of 7 miles.

Fairway No. 3—Position 46°31'12"N, 142°43'54"E. to position 46°35'30"N, 142°43'54"E., using course 000° inbound or 180° outbound, a distance of 4.5 miles.

The speed of vessels in fairways must not exceed 8 knots.

There are two piers, Northern Pier and Southern Pier, that are used for cargo handling. Northern Pier is the main berthing facility and is equipped with warehouses and cranes. Southern Pier together with Northern Pier forms breakwaters that protect the small Inner Harbor that accommodates small coasters. The Inner Harbor is further protected by two more breakwaters extending from shore, as well as a third floating breakwater between the ends of the two inner breakwaters. Depths within the inner harbor are between 2 and 4m. Inner Harbor has a commercial mole with 500m of berthing facilities on its N side and a conspicuous passenger terminal on the seaward end.

Berths are not sheltered from S or SW winds. When storm warnings are issued, berthing is suspended and vessels already alongside are ordered to depart and seek shelter or proceed to the outer roadstead.

Pier facilities are listed in the table titled **Korsakov—Berthing Facilities.**

Aspect.—The town, which is situated in a low area N of Mys Tomari Aniva, is marked by several tall chimneys and backed by hills on three sides. A smoke stack with black and white stripes and a blue tower with white and red strips are conspicuous.

Radio deviation ranges stand approximately in two areas, as follows:

1. Area No. 352 (46°33'N., 142°50'E.).
2. Area No. 195 (46°35'N., 142°26'E.).

Pilotage.—Pilotage is compulsory and is available between 0800 and 2300 daily. Pilots can be contacted on VHF channels 10 and 16.

Pilots board in position 46°37'31"N, 142°44'05"E.

Korsakov—Berthing Facilities			
Berth	**Length**	**Depth**	**Remarks**
Northern Pier			
2	135m	6.5m	Grain
3	135m	7.0m	Coal
4	135m	7.5m	General cargo
5	135m	8.6m	Dry cargo/containers
6	110m	7.0m	Oil products
7	150m	5.0-6.5m	Bunkering
8	119m	2.3-5.0m	Reserve
Southern Pier			
1	100m	7.5-8.5m	Coal
2	140m	7.5m	Coal
3	140m	6.5-7.5m	Timber products
4	140m	8.4m	Passengers
Okruzhnoe Oil Terminal			
—	165m	10.7m	Crude oil (Maximum loa of 165m, beam of 23m, and draft of 10m

Regulations.—Vessels should send their ETA 48 hours, 24 hours, and 4 hours prior to arrival. The primary ETA message should include the following information:

1. Date and time of arrival.
2. Vessel's name.
3. Flag.
4. Master's name.
5. Vessel type.
6. Port of registry including number.
7. Vessel call sign and IMO number.
8. Owner's name.
9. Gross and net tonnages.
10. Vessel loa and beam.
11. Maximum draft and expected draft on arrival.
12. Number of crew.
13. Number of passengers.
14. Cargo quantity on arrival.
15. Receiver of cargo.
16. Port of departure.
17. Any sickness on board and number of sick persons.
18. Any casualties that occurred during the voyage.

Vessels must obtain permission from the port authorities and request permission from the VTS Center to commence departure from the port. For the permission request to the VTS Cen-

Aerial view of Korsakov

ter, the following information must be transmitted:

1. Vessel name and flag.
2. Full name of agency representing vessel.
3. Maximum actual draft.
4. The permission number, obtained by Port State Control (PSC).
5. Cargo name and amount.
6. Surname of the pilot on board.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (VTS) system has been established for the local waters and approaches to the port. For further details, including regulations that must be followed, see Zaliv Aniva (paragraph 7.45)

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

1. Call sign: Korsakov Radio 2
2. VHF: VHF channels 14 and 16
3. Telephone: 7-8-42435-40432
4. Facsimile: 7-8-42435-40432
5. E-mail: hbmaster@sakhalin.ru
   korsakov@psc.pma.ru
   map-sakhalin@sakhalin.ru

Anchorage.—Anchorage can be taken off Korsakov in a depth of 11m, mud and sand, about 1.5 miles W of the breakwater. During severe winter weather, with strong NW winds, vessels may shift to Reyd Merey where there is good protection from the NW.

Specific anchorage areas for foreign vessels are designated, as follows:

1. Anchorage No. 371 contains four numbered areas, depths 12 to 20m, centered at positions specified below:
   a. Area No. 40—position 46°36'12"N, 142°43'06"E.
   b. Area No. 41—position 46°36'00"N, 142°42'36"E.

c. Area No. 43—position 46°35'42"N, 142°42'48"E.
d. Area No. 44—position 46°35'42"N, 142°42'12"E.

2. Anchorage Area No. 372, for foreign dry cargo vessels, depths 12 to 20m, bounded by lines joining the following positions:
a. 46°39'00"N, 142°29'00"E.
b. 46°41'00"N, 142°32'00"E.
c. 46°41'00"N, 142°35'00"E.
d. 46°39'00"N, 142°31'00"E.

3. Anchorage areas designated No. 1 to No. 26 are located in the N part of the Korsakov port area. Anchorage areas No. 1 and No. 2 are quarantine anchorages. Areas No. 16, 20, No. 21, and No. 22 are for tankers and large tonnage vessels. Areas No. 24, No. 25, and No. 26 are for owner-operated vessels on a schedule and passenger vessels. All other areas are for use as instructed by Port State Control (PSC). Eight of these areas are used for foreign vessels. The centers of the foreign vessel anchorages are given below:
a. Area No. 17—position 46°38'42"N, 142°44'48"E.
b. Area No. 18—position 46°38'15"N, 142°43'24"E.
c. Area No. 19—position 46°38'06"N, 142°42'54"E.
d. Area No. 20—position 46°38'00"N, 142°42'24"E.
e. Area No. 21—position 46°37'48"N, 142°41'54"E.
f. Area No. 24—position 46°37'45"N, 142°43'54"E.
g. Area No. 25—position 46°37'36"N, 142°43'24"E.
h. Area No. 26—position 46°37'30"N, 142°42'51"E.

All anchoring is to be carried out by agreement with the Port State Control (PSC).

Caution.—Two wrecks, partially visible, are located 0.5 and 0.7 miles NE, respectively of the mole situated close N of Northern Pier.

A submerged obstruction area, including concrete ruins and other various objects, at depths of 1.8 to 5m, lies within 0.5 mile E and NE of position 46°37'13"N, 142°45'13'E.

Two additional wrecks are situated close inside the inner harbor and close outside the harbor in the following locations:
a. 45°37'24"N, 142°45'53"E.—depth 0.1m
b. 45°37'26"N, 142°46'02"E.—depth 2.6m

7.48 Prigorodnoye (46°37'N., 142°54'E.) is an offshore oil and gas terminal located in the N part of Zaliv Aniva. This terminal is comprised of the LNG loading jetty and a Crude Oil Tanker Loading Unit (TLU) in position 46°34'42"N, 142°55'50"E.

Winds—Weather.—Weather is generally good with the terminal being sheltered from all directions except the W and SW.

This area experiences two primary weather seasons, summer and winter. The summer season extends from May through September when the strongest winds blow, primarily from the W. Delays in berthing can be experienced during this season due to the exposure of the terminal to W and SW winds. The winter season is cold, with temperatures generally below freezing and wind direction frequently being from the NW of NE.

During most of the year the wind force is usually Force 6 or less, except for the times when tropical storms are recurving N and NE and transitioning to larger extra-tropical storms. These can occur anytime in the spring through early winter (April through early December). The frequency of occurrence for these storms averages between three and four times per year. Operations at the terminal will be disrupted for at least 48 hours during the passage of one of these storms.

Ice.—Generally Zaliv Aniva is ice free throughout the year,; however, during the early spring months sea ice can drift into the area from the Sea of Okhotsk under the influence of E winds.

Tides—Currents.—The maximum tidal rise is 2.5m.

Depths—Limitations.—Liquefied natural gas (LNG) is exported from a jetty, 805m in length, with depths alongside of 16.5m at LW. The LNG terminal is capable of accommodating vessels up to 300m in length, having a maximum draft of 12m.

A crude oil tanker-loading unit (TLU) is located approximately 4.5 miles offshore with depths alongside of 30m at LW. The TLU can accommodate tankers up to 150,000 dwt, and a maximum draft of 17.5m.

Pilotage.—Pilotage is compulsory, except for the following two types of vessels:
1. Vessels less than 600 tons in size.
2. Vessels engaged in operations for servicing vessels situated in the harbor and approaches, otherwise known as vessels of the port fleet.

Vessels should contact the pilots on VHF channel 16, 69, or 73 as soon as possible in order to obtain information on berthing, weather, and pilot availability.

Pilots will board in position 46°32'37"N, 142°53'29"E.

Regulations.—An Offshore Security Zone defines the terminal limits and is bounded by the shoreline and lines joining the following positions:
a. East side—46°37'12"N, 142°56'00"E.
b. East side—46°35'12"N, 142°58'00"E.
c. East side—46°33'18"N, 142°58'00"E.
d. West side—46°33'18"N, 142°52'48"E.
e. West side—46°36'36"N, 142°52'48"E.
f. West side—46°37'36"N, 142°53'30"E.

Vessels must not enter the Offshore Security Zone without a pilot on board and tugs secured alongside.

Overtaking vessels in harbor not permitted.

Vessels shall maintain a continuous listening watch on VHF channel 16 at all times while in the Offshore Security Zone.

During the ice season, the terminal will advise boarding position for the ice pilot. The vessel's ETA will be reported for this position.

Vessels must first forward their ETA at least 72 hours prior to arrival and include the following information:
1. Vessel name, call sign, and IMO number.
2. Departure date and time from previous discharge port.
3. ETA and expected arrival draft.
4. Estimated quantity of cargo to load.
5. Estimated loading time.
6. Cargo quantity and slops on board.
7. Any known factors affecting vessel performance.
8. International Ship and Port Facility Security (ISPS) Code level adopted.
9. Condition of ballast regarding compliance with the Ballast Water Management plan.
10. Confirmation of compliance with winterization requirements.
11. Confirm that the vessel is receiving ice condition data.

If a vessel's ETA changes by more than 12 hours from what was reported in the initial message or if there are changes to items 3 or 4 above, a new message should be sent advising the

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terminal of the changes and include the vessel's name and call sign.

Vessels must subsequently update their initial reports to Prigorodnoye Terminal 48 hours and 24 hours prior to arrival.

The 48-hour ETA update shall include the following information:

1. Vessel name and call sign.
2. ETA and expected arrival draft.
3. Readiness for loading.
4. Confirmation that all deck and engine systems plus cargo handling equipment have been tested and are fully operational.
5. Confirmation that cargo tanks and lines are free of oxygen and fully inert.
6. Confirmation that there is no tank leakage.

If a vessel's ETA changes by more than 6 hours from what was reported in the 48-hour ETA update, but before the 24 hour ETA update is due, the 24-hour update should include the following information:

1. Vessel name and call sign.

2. Confirmation of ETA.
3. Send pratique message via agent.

If a vessel's ETA changes by more than 2 hours from what was reported in the 24-hour ETA update, before sending the 6 hour update, a new message should be sent advising the terminal of the changes and include the vessel's name and call sign.

The 6-hour update shall include the following information:

1. Vessel name and call sign.
2. Confirmation of ETA.
3. Confirmation that all overboard discharge valves are closed.

Upon departure from the terminal, vessels need to report the following information:

1. Vessel name and call sign.
2. Outstanding port log items (if any).
3. ETA at discharge port.

Contact with the terminal via VHF channel 69 should be made as soon as within range.

Vessel Traffic Service.—A mandatory Vessel Traffic Service (VTS) system has been established for the local waters and approaches to the port. For further details, including regulations that must be followed, see Zaliv Aniva (paragraph 7.45)

Contact Information.—The pilots (Marine Base) can be contacted as follows:

1. VHF: VHF channels 16, 69, and 73
2. Telephone: 78-4242-664008
   78-962-153-2033 (mobile)

The terminal dispatcher can be contacted, as follows:

1. Call sign: Prigorodnoye Control
2. VHF: VHF channels 16, 69, and 73
3. Telephone: 78-4242-664001

Anchorage.—There are four areas designated for vessels that are neither gas carriers nor tankers. These areas are centered at the following points, with depths between 28 and 42m, fine sand, mud and gravel:

a. 46°34'01"N, 142°51'15"E.
b. 46°33'02"N, 142°51'15"E.
c. 46°32'00"N, 142°56'24"E.
d. 46°32'00"N, 142°57'46"E.

For gas and oil carriers the following anchorages are available:

1. Anchorage No. 1 (Area No. 170), for gas carriers, is bounded lines joining by the following positions:
   a. 46°34'30"N, 142°50'30"E.
   b. 46°34'30"N, 142°52'00"E.
   c. 46°32'30"N, 142°52'00"E.
   d. 46°32'30"N, 142°52'30"E.
2. Anchorage No. 2 (Area No. 170A), for oil carriers, is bounded by lines joining the following positions:
   a. 46°32'30"N, 142°55'42"E.
   b. 46°32'30"N, 142°58'30"E.
   c. 46°31'30"N, 142°58'30"E.
   d. 46°31'30"N, 142°55'42"E.

Vessels anchor by direction of the VTS Operations Center (see paragraph 7.45).

Outside of the VTS Operational Zone, anchorage can be taken in Reyd Chibisanskiy (46°36'11"N., 143°07'57"E.), in 7m, sand. Local knowledge is required, however, because of the necessity of having to anchor so close to the shore for shelter from high winds from the W veering to the E.

Caution.—A wreck lies about 6 miles SSW of the crude oil tanker-loading unit (TLU) in a depth of 34m.

7.49 Bukhta Lososey (46°20'N., 142°50'E.), the bay at the NW corner of Zaliv Aniva, is divided on its N shore by an extensive marshy plain which is bordered on each side by mountainous terrain. The range on the W side is prominent and culminates in a 726m sharp, conspicuous peak, known as Gora Bobrik, rising about 16 miles NNW of the head of the bay. Reka Aniva, with a shallow shifting bar at its mouth, enters the bay on its W side about 11 miles NW of Mys Tomari Aniva.

Anchorage.—Anchorage can be taken off the river mouth, with shelter from NW and W winds, by vessels with local knowledge. The bottom is sand and mud.

Caution.—A stranded wreck lies in Bukhta Lososey, about 3 miles NE of Mys Tomari Aniva.

7.50 The W shore of Zaliv Aniva, from Reka Aniva to Reka Taranay, about 5.5 miles SSW, is generally low and sandy. Lighted beacons, in range bearing 349°48', mark the entrance to Reka Taranay. Farther to the S, the coast becomes higher and steeper with numerous sand and shingle beaches interspersed between the hills. Gora Taranay, rising to an elevation of 520m about 6.5 miles W of the mouth of the river of the same name, appears from the S prominent and pointed; from the E, it appears flat-topped, with a very conspicuous left shoulder.

Krillovo (Uryu) (46°27'N., 142°21'E.), a small fishing village at the mouth of a river with the same name, lies in a valley S of a group of hills closely bordering the coast. Gagyu San, the highest peak in the vicinity, rises to a height of 503m about 11 miles SW of Krillovo and is conspicuous because of its steep N and E sides. A deviation range, No. 195A, stands NE of the village in position 46°35'N, 142°27E.

7.51 Mys Benochi (46°07'N., 142°13'E.), a flat-topped rounded projection on which stand some trees, lies about 1.5 miles S of the village of Khvostovo and is fairly prominent from the N and the S. For about 10 miles N of the point, the coast consists of a succession of yellow cliffs, 15 to 131m high, with numerous rocks along the shore. To the S of the point, for about 5 miles, the shoreline is foul with reefs and shoals to a seaward distance of almost 1.5 miles.

Mys Anastasii (46°01'N., 142°11'E.), a flat, grassy projection fringed with rocky ledges, lies about 5.7 miles SSW of Mys Benochi. Kamen Tishiya, consisting of a group of three rocks, 5 to 29m high, is located about 0.2 mile SE of the point and is connected to the coast by a drying reef. It is very conspicuous when seen from the NE or SW.

Atlasovo, a small harbor protected by breakwaters, is situated close SW of Mys Anastasii. There is a village and facilities for docking fishing boats here.

Mys Kril'on (45°53'N., 142°05'E.), the S extremity of Sakhalin and the W entrance point of Zaliv Aniva, lies 9 miles SW of Mys Anastasii. It is a small peninsula connected to the mainland by a low isthmus. When first sighted by vessels approaching from the E or W, it appears as an islet, steep on its W side, but sloping gradually on its S and E sides. Steep-to reefs extend up to 0.5 mile S of the cape. Caution is necessary in thick weather.

Tide rips extend 1 mile S and 0.5 mile SE of the cape and

may extend further off the cape during strong winds.

A light stands on Mys Kril'on but the light has been extinguished.

Caution.—A former mine danger area, within which it is dangerous to anchor, fish, or carry out any underwater operations, lies about 20 miles NE of Mys Kril'on and may best be seen on the chart.

La Perouse Strait

7.52 La Perouse Strait (45°43'N., 142°00'E.), with a width of approximately 23 miles, separates Mys Kril'on, the S extremity of Sakhalin, from Soya Misaki, the N extremity of Hokkaido and joins Tatar Strait and the Sea of Japan with the Sea of Okhotsk.

A light is shown from Soya Misaki; a radiobeacon and a radar beacon are situated at the light.

Although easily navigated in good weather, the strait can be very difficult during periods of poor visibility and the utmost caution is recommended.

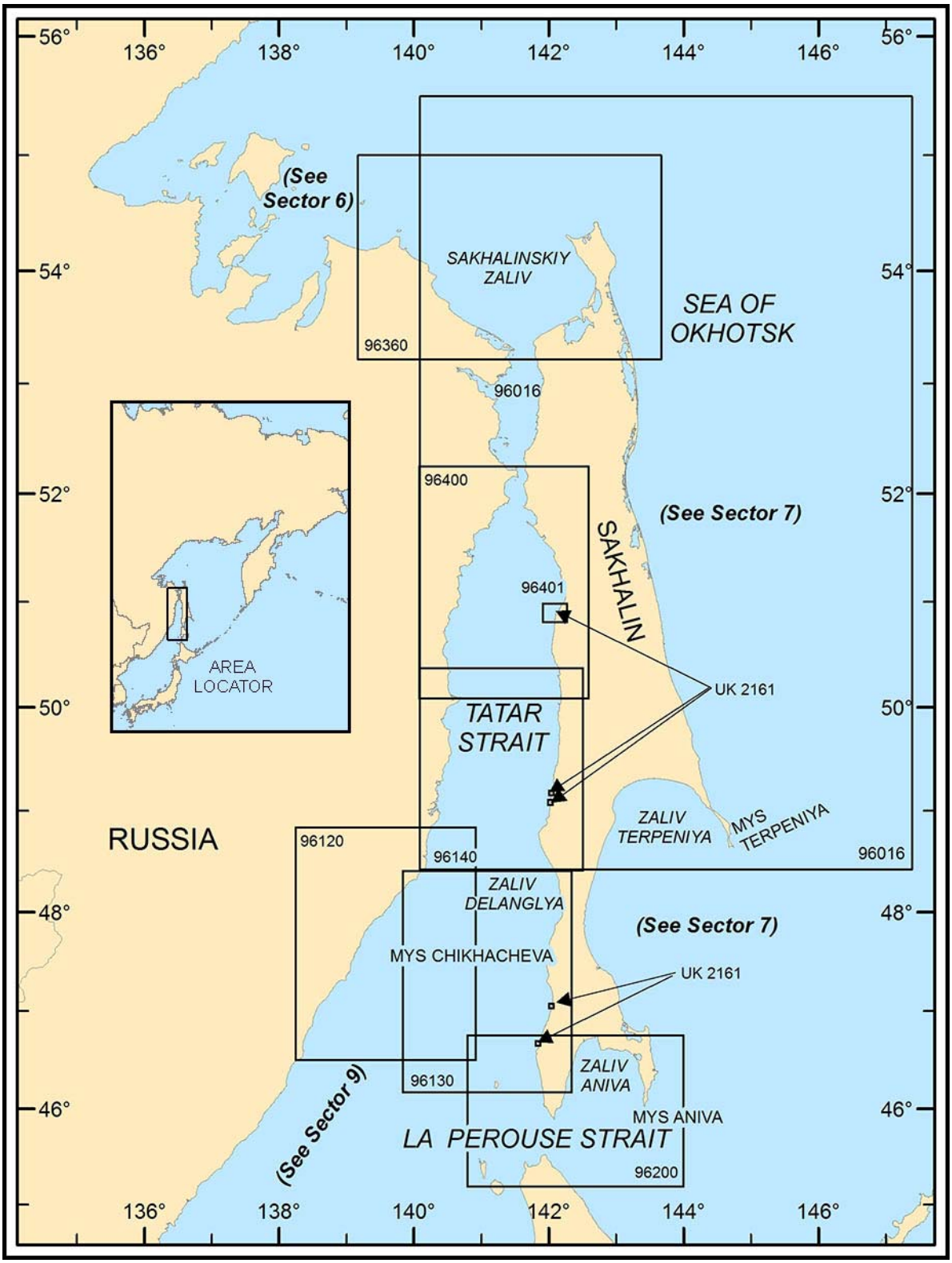
Skala Kamen' Opasnosti (45°48'N., 142°14'E.), a low isolated rock located close N of the center line of La Perouse Strait, constitutes the main danger to vessels transiting this area. Numerous obstructions and dangers surround the rock to a distance of 2 miles from its shores and it should be given a wide berth. A light is shown on Skala Kamen' Opasnosti; a radiobeacon is situated at the light.

A Traffic Separation Scheme, which may best be seen on the chart, is situated in the strait. The scheme has been established by the Russian government and is not IMO-adopted.

Winds—Weather.—From June to August, fogs develop frequently in the strait. In general, they are densest on the N side, especially in the vicinity of Mys Kril'on, but there is a gradual decrease in density to the E of this point. The fogs are primarily localized, seldom spreading over large areas for long periods, and generally being set about by the direction of the winds.

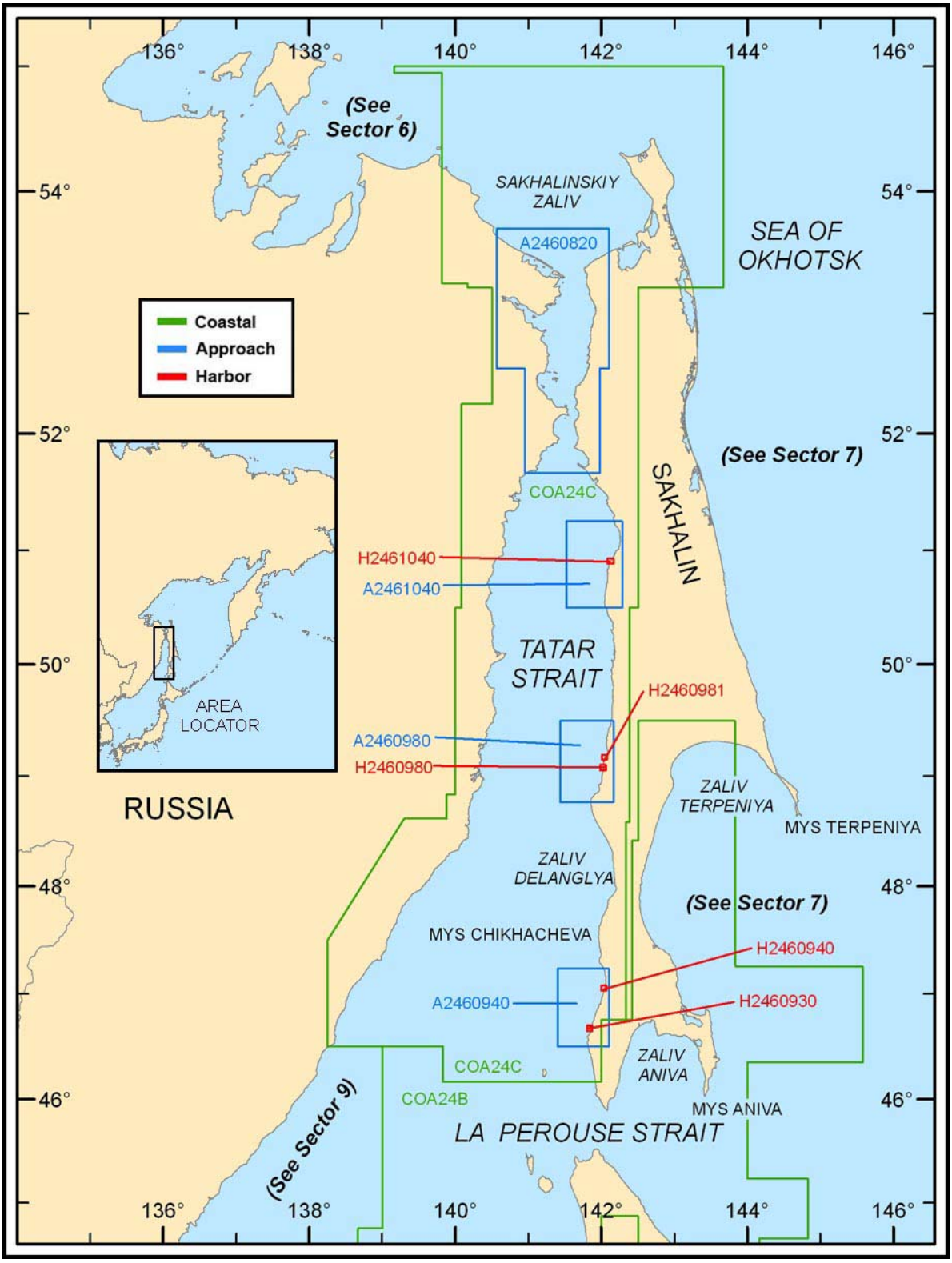
Tides—Currents.—The tidal currents are so involved in La Perouse Strait that considerable caution is necessary, especially in fog. The main current in summer is generally to the E, but in winter and spring little is known about the flow. The E and W tidal flows strengthen and weaken the main current and off Mys Kril'on have occasionally overcome it to produce a NW flow on the W side of the point and a SW flow on the E side. The resultant currents are considerably affected by the wind and at times tide rips and overfalls are formed.

Caution.—Depths between Mys Kril'on and Skala Kamen' Opasnosti may differ from those charted.



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 24 (Limited Distribution) disc within the README\GRAPHICS folder.

SECTOR 8 — DNC LIBRARY INFORMATION

SECTOR 8

TATAR STRAIT AND THE WEST COAST OF SAKHALIN

Plan.—This sector describes the W coast of Sakhalin, the N end of Tatar Strait, and the W side of the strait to Mys Peschanyy. The general sequence is N from Mys Kril'on to Proliv Nevel'skogo, N through Amurskiy Liman to the Amur River, and then S from Mys Sushcheva along the W shore to Mys Peschanyy.

General Remarks

8.1 Tatar Strait (Tatarskiy Strait) (48°45'N., 141°15'E.) separates Ostrov Sakhalin from the Russian mainland coast. The strait connects the Sea of Okhotsk to the N with the Sea of Japan to the S. The strait consists of a large gulf in the S part, becoming the narrows of Tatar Strait N of Bukhta Tabo (51°35'N., 141°27'E.). The narrows of Tatar Strait is approximately 393 miles long in a N-S direction, varying between 4.5 and 213 miles wide, and has depths of 3 to 20m. Vessels with depths of 6.1m may transit the strait in favorable conditions.

Winds—Weather.—In Amurskiy Liman, the prevailing winds are NW during the winter and S during the summer. Off the mouth of the Amur River, W winds sometime attain great force and increase the rate of the outgoing tidal currents. The S winds of summer are particularly strong in the afternoon, but usually drop to a calm at nightfall. During the winter, NW winds are frequent in the daytime, but drop at nightfall. NE winds usually last for several days and ordinarily are accompanied by snow and gloomy weather. At the spring equinox, NW to NE winds are prevalent, and there are often strong N gales.

The season of fog begins early in April and ends early in September. Particularly dense and protracted fog is prevalent throughout June and July. Winds from the NE bring the heaviest fog, but those from the SE usually are accompanied by clear weather.

In the narrows of Tatar Strait, the N flood current attains a velocity of 3 to 4 knots and at times as much as 5 knots off Mys Lazareva. To the N of Mys Lazareva, the N flood current decreases its rate of flow and attains a velocity of only 2 to 3 knots abreast Ostrov Khagemif. Between Ostrov Khagemif and Mys Dzhaore, the velocity of the flood current is only about 1 knot and is further slackened by the outflow of the Amur River.

During the winter, the prevailing winds are from the N half of the compass rose, principally from the NNW. Winds shift to the SE in March and S in the summer. From the middle of June to the middle of August is the rainy season, during which rain may fall continuously for about two weeks. Clear and warm weather with warm nights last from September until the middle of October, when the morning frosts set in and the days become hazy. Winter commences about the middle of November.

Commencing late in April and lasting until the middle of June is a period of dense protracted fog, which makes navigation both difficult and dangerous. Frequently, when fog prevails in the offing, the coastal bays are clear.

The coastal current trends S, but generally at less than 0.5 knot.

During July and August the prevailing winds are from the SE, and between September and May from the NW. Winds are from the SW during the spring, from S during the summer, from W during the autumn, and from NW during the winter. These winds are ordinarily accompanied by good weather, but N and SE winds during any season of the year are frequently accompanied by either rain or snow. Winds from the E invariably bring foul weather.

The rainy season lasts from the end of June to the end of July. Thick fog is particularly frequent and clear days are exceptionally rare during this period. During the summer, fog is frequent in the area, but often does not approach the coast within 3 miles. By the end of August or early in September the W winds become prevalent and the number of foggy days is markedly decreased.

January and February are the two coldest months during which the temperature occasionally is lower than -20°C, being at times as low as -34°C. Most frequent blizzards, on the average every ten days, occur between the end of November and the beginning of February. In March, the temperature often rises above freezing, but snow does not disappear until the latter part of April. During May and June the weather becomes progressively warmer.

At a distance of about 2 miles off this section of the coast a constant current sets in a S direction and attains a velocity of 1.2 knots.

Winds from the NE prevail through the winter, which lasts from November until April, and SE winds prevail through the summer. In the spring and autumn, E winds are prevalent. The period of heavy rainfalls lasts from July until November and attains its maximum in the month of October. Fog is frequent through June and July. The temperature attains its maximum in August and its minimum in January, but generally does not fall below -9°C.

A constant current flowing in a S direction parallels this coast, and at a distance of about 2.5 miles offshore attains a velocity of 1.2 knots. At about 20 miles offshore a NNE current of 0.5 knot has been observed in autumn and winter.

Amurskiy Liman is icebound ordinarily from the middle of November until the end of May. In most years the mouth of the Amur River is clear of ice by May, however, occasionally it clears as late as June. Drift ice from the Sea of Okhotsk may be present in the gulf even after June. Ordinarily, the ice breaks up in the N part of the gulf about a month earlier than it does in the S part, partly because the water discharged by the Amur River is comparatively warm, and partly because the S part of the gulf is narrow. It should be borne in mind, however, that strong N winds tend to pack the N approach with drift ice from the Sea of Okhotsk.

Although Amurskiy Liman is completely frozen over during the winter, cracks occur in the ice owing to the tidal currents. In the navigable channels the ice is about 0.9m thick. Over the bars it is about 1.5m thick.

Ice begins to form in Zaliv Chikhacheva early in November,

and the bay is completely frozen by the middle of December. The movements of drift ice are mainly dependent on the wind, and after or during NE winds the outer part and approaches to the bay may also be filled with ice. Breakup begins early in April, and usually the bay is entirely free from the middle of May. The ice here attains a maximum thickness of 0.9 to 1.2m.

Sludge ordinarily appears in the last week of November, and the roadsteads are completely icebound late in December. The ice field, which attains a maximum thickness of 1.3m, usually extends for at least 15 miles seaward. During calm weather, no movement of ice is apparent, but strong offshore winds, or winds along the coast, cause large cracks in the ice field, portions of which break off and are carried out to sea. Winds from the W tend to pack drift ice against the coast and often produce hummocks. Ordinarily, the ice begins to break up in the first half of March and the area is clear late in April.

Because of prevailing NW winds in winter, the state of the ice in the center of the strait is generally open and unpredictable. On the continental side this ice is more stable, extending as a field S to about 48°N. The ice is generally firmest from late January to the middle of February, and most abundant between the middle of February and the middle of March. Unhindered merchant shipping is generally possible from the middle of May to the beginning of November.

Bukhta Izyl'met'yeva is often frozen over in the middle of winter. The largest quantities of drift ice ordinarily accumulate between December and March. Occasionally, drift ice appears in Bukhta Izyl'met'yeva in the latter part of November.

It has been reported that in the winter drift ice occasionally reaches the shores of this bight, but seldom in sufficient quantity to obstruct navigation.

The field ice, which between the end of January and the end of March is about 0.4m thick, usually does not remain close to shore for longer than a day or two. Occasionally, drift ice brought here from the N combines with the field ice and temporarily completely blocks the harbors on this section of the coast.

Tatar Strait is entered between **Mys Kril'on** (45°53'N., 142°05'E.) and Mys Belkina, about 185 miles W. At the N end, Proliv Nevel'skogo and Amurskiy Liman connect it to Sakhalinskiy Zaliv, the Sea of Okhotsk, and the Amur River (see paragraph 7.5).

Caution.—Due to an earthquake which struck Sakhalin Island in 2007, authorities caution mariners that actual depths and dangers may differ from those charted.

Several restricted or dangerous areas lie within the waters described in this sector and may best be seen on the chart.

Mys Kril'on to Nevel'sk

8.2 **Mys Kril'on** (45°53'N., 142°05'E.), the S extremity of Sakhalin, is a small peninsula connected to the mainland by a low isthmus and has been fully described in paragraph 7.51. To the N of the cape the coast consists of sandy beach which is fringed by foul ground to a distance of nearly 1 mile offshore. Within are numerous hills reaching to heights of about 305m, which are broken by Reka Hishitoma, about 8 miles NNW of Mys Kril'on, before rising again to the main coastal chain. Mys Uno, located about 2 miles NNW of Reka Hishitoma, is a high cliffy and round-topped point that is connected to the mainland by an isthmus. Close NW of the point is a large rock about 28m high, and about 0.5 mile to the SW is a dangerous submerged rock with a depth of about 1.2m.

Mys Kuznetsova (46°03'N., 141°56'E.), a red flat cliffy projection covered with coarse grass, has a perpendicular rock on its outer end which is very conspicuous from the N or S. A light is shown from Mys Kuznetsova.

Anchorage.—Reyd Kusnetsova, N and within the point, has a red cliff near its head and provides anchorage off the town, in about 12m, rock, with Mys Kuznetsova bearing 180° to 202°. There are some guano-covered rocks near the S shore about 0.3 mile NE of the point.

8.3 Gora Inaho, with a conical summit, rises to a height of 457m about 4 miles E of Mys Kuznetsova and is the highest peak in the vicinity. Another peak, conspicuous because of its sharp conical appearance, rises to a height of 242m about 1 mile E of Mys Uno, and from a few miles offshore may appear higher than Gora Inaho.

Mys Vineis (46°07'N., 141°55'E.), a precipitous rocky flat-topped promontory, 77m high, is connected to the mainland by a narrow isthmus, and when viewed from a distance has the appearance of being a detached island.

Gora Kruglaya, an isolated dome-shaped hill, 255m high, is located about 1.5 miles SE of Mys Vineis and is very prominent from a distance because of its symmetrical shape and the dark color of the trees that cover it.

The coast to the N of Mys Vineis consists of sandy beaches fringed with rocks and is backed a short distance inland by steep grassy hills. A light (Pereput'ye) is shown on the coast about 15 miles N of Mys Kuznetsova in the vicinity of the village of Towada.

Gora Tokushi rises to a height of 444m about 7 miles NE of Mys Vineis and is conspicuous because of its height and conical appearance. Several other peaks to the N and S of this mountain, and only slightly lower, form a chain about 5 miles long and about the same distance inland.

8.4 **Mys Minami Nayoshi** (46°26'N., 141°51'E.), about 24 miles N of Mys Kuznetsova, appears from the W as an irregular cape, but from the N or S it looks pointed and is prominent. From the vicinity of Mys Kuznetsova, it may be mistaken for Mys Lopatina almost 10 miles farther N. Reka Minami Nayoshi (Chkalova), just S of the point, is blocked by a bar too shallow for vessels to cross, but there is a small craft basin at the village which is situated on the S side of the river mouth.

Mys Lopatina (46°36'N., 141°49'E.), a flat treeless tableland lying about 10 miles N of Mys Minami Nayoshi, is the W point of the S part of Sakhalin and when viewed from the N or S is very conspicuous. The village of Lopatina (Kenushi) is situated on the summit of this promontory. Foul ground extends about 0.3 mile W and 0.5 mile N of the cape, and a bank with a depth of 16m, near which overfalls occur, lies about 1.2 miles to the W. A light is shown from Mys Lopatina.

Mys Bozeanobcha lies about 3 miles S of Mys Lopatina and is very similar in appearance. Between these two capes is a small bay into the middle of which Reka Shiinai discharges. This is the largest river on the W coast of the S half of Sakhalin, but there is a bar across the mouth that can only be crossed by small craft at high water.

8.5 **Ostrov Moneron** (46°15'N., 141°14'E.), the only large island off the W coast of Sakhalin, lies about 30 miles WNW of Mys Kuznetsova and is rugged and mountainous with cliffy coasts. Gora Staritskogo, the summit of the island, rises to a height of 439m near its center and is conical at its peak. A light is shown on Mys Hinode, the E point of the island; a radiobeacon transmits from the lighthouse.

Rocky ledges, on which numerous rocks lie, extend up to 1 mile from most of the points of the island. Kamen' Oki, with a submerged reef close S, is a black, bare rock, 2m high, which lies about 1.2 miles NNE of the E extremity of Ostrov Moneron.

Anchorage.—The best anchorage is in Bukhta Iso, at the S end of Ostrov Moneron, over fine sand, in depths of 18 to 27m. This anchorage is exposed to S winds and lies within the prohibited area above.

Caution.—Depths of 18m and 25m have been reported to lie about 5 and 7.5 miles NNW, respectively, of the island.

The waters within 2 miles of the coast of Ostrov Moneron are restricted to navigation and should not be entered without the permission of the local authorities.

Submarine cables extend NE and SSE from the E side of the island and may best be seen on the chart.

An obstruction (purse seine gear) lies about 16 miles WSW of Ostrov Moneron.

An explosives dumping area, the limits of which are shown on the chart, lies about 42 miles WNW of Ostrov Moneron.

Nevel'sk (46°40'N., 141°52'E.)

World Port Index No. 60930

8.6 The fishing port of **Nevel'sk**, a small harbor previously known as Honto, is situated about 5 miles NNE of Mys Lopatina and has been dredged between the shore and a drying reef, known as Rif Naga, to form an open basin suitable for medium-sized vessels. Nevel'sk is the only port on the coast of Sakhalin which is not icebound in winter. It is usually ice-free during the entire year.

Winds—Weather.—The prevailing wind from March to October is from the E, while from October to February the prevailing wind is from the N to NE. Storms are frequent in the winter, with particularly heavy storms coming from the N and NW. Storms from the SW, W, and NW raise seas which make the anchorage dangerous. The period of heavy rainfalls lasts from July until November and attains its maximum precipitation in the month of October.

Fog, which is thickest during the night and morning, is most frequent in June or July. Duration varies from a few hours to 2 weeks.

The temperature attains its maximum in August and its minimum in January. The climate of Nevel'sk is comparatively mild.

Ice.—Ice persists from January to the middle of March. Drift ice from the N may be encountered and can form hummocks along the shore.

Tides—Currents.—Seaward of the harbor entrance, the current sets S to SE at a rate of 0.5 to 1.3 knots, and with N winds may increase to 2 knots.

The ebb current sets S and the flood current sets N, both at a rate of 0.3 knot. The tidal rise is less than 0.3m.

Depths—Limitations.—A depth of 5.6m lies on the range line close inside the entrance; vessels having a draft of more than 5.8m may not enter without the permission of the harbormaster.

The berthing facilities are protected by the N breakwater, situated on the S end of Rif Naga, and the S breakwater, extending from the N end of a reef about 0.3 mile to the S. There are seven wharves, oriented N to S along the E side of a roadstead formed between the mainland and Rif Naga, approximately 200m offshore. Depths alongside the wharves range from 5 to 6.5m. Vessels with drafts greater than 6.5m will be loaded or unloaded in the roadstead.

Fishery Port Harbor lies close E of Wharf No. 1. Yushnyy Kovsh (South Basin) is entered between Wharves No. 3 and No. 4. Severnyy Kovsh (North Basin) is entered through a narrow channel located close N of the signal station and has been built on reclaimed land approximately 1 mile N of the South Basin.

The N breakwater (46°40'N, 141°51'E) is reported (2014) as being ruined, with numerous areas of submerged obstructions and concrete masses along the former 0.75 mile length. It is expected that this breakwater will be rebuilt but the time frame to have it repaired is unknown.

The harbor is partially protected from S, W, and NW winds. With strong winds from the SW, it is dangerous to stay in port.

The port can accommodate vessels with drafts up to 5.5m, lengths up to 110m, and widths of not more than 15m.

Aspect.—A range indicates the approach to the harbor and may best be seen on the chart. A white refrigerator building, a yellow building with white horizontal stripes, a twin-peaked hill, with its summits rising to 194m and 164m, respectively, located about 3.5 miles NNE of the lighthouse on Mys Lopatina are conspicuous. A 74m hill, which is void of vegetation, except for its summit, rises a short distance N of the range lights and is easily identified.

A lighted buoy is moored on the S side of the entrance to the harbor and marks the N end of the shoals extending from the S reef.

Pilotage.—Pilotage is compulsory and is available 24 hours. Pilots should be requested 12 hours in advance of arrival from the harbormaster through the port radio station.

Pilots board in the following positions:

a. 46°39'26"N, 141°49'04"E.
b. 46°40'26"N, 141°49'47"E.

Contact Information.—The port may be contacted, as detailed in the table titled **Nevel'sk—Contact Information**:

Regulations.—Vessels are required to approach and leave Nevel'sk in a designated danger free fairway, which is entered about 12 miles WSW of the harbor and can be best seen on the chart. The authorities recommend that the fairway should not be entered until the vessel's position has been closely determined and verified by all available means.

Foreign vessels may be berthed only during daylight hours.

Permission for a vessel to commence movement must be requested from the harbor master on VHF channel 16 before the vessel starts to move. If movement delayed beyond 30 minutes after receiving permission, permission must be requested again.

Tug assistance is mandatory for vessels mooring that are

50m or more in length, 60m or more in length, or 1,000 gt or larger.

All vessels in the harbor must maintain a listening watch on VHF channels 11 and 16.

The signal station regulates all vessel movements within the port.

Anchorage.—Anchorage may be taken S of the leading line, in depths of 20m, sand, in an area bounded by lines joining the following positions:

a. 46°40'22"N, 141°50'14"E.
b. 46°40'22"N, 141°49'07"E.
c. 46°40'02"N, 141°49'07"E.
d. 46°40'10"N, 141°50'14"E.

Anchoring in the inner area, E of the area described above, is not advised due to the flat stone bottom, resulting in poor holding.

Caution is recommended as during W or SW winds the anchorage may become dangerous and vessels are advised to put to sea.

Nevel'sk—Contact Information	
Port	
Call sign	Nevel'sk Radio 1 (UFM2)
VHF	VHF channels 9 and 16
Port Controller/Dispatcher	
Call sign	Nevel'sk Radio 31
VHF	VHF channels 9 and 16
Port Authority	
Telephone	78-42436-255298

Caution.—From May through September, fishing nets extending 2 miles from the W shore of Sakhalin Island to the S of parallel 48°N. The area is marked by lighted buoys with radar reflectors and red and orange flags. In poor visibility, in order to avoid harming the net or catching them in the propellers, approaching the shore is not recommended.

Numerous rocks, obstructions, and several stranded wrecks, lie in the harbor entrance and at the N end of Rif Naga.

Nevel'sk to Kholmsk

8.7 The coast to the N of Nevel'sk consists of sand and pebble beach closely backed by wooded mountains trending in a NNE direction. Several coves indent this part of the coast and are useful for anchorage by small vessels seeking shelter in E winds. Reyd Yasnomorksiy, an open roadstead off the village of Yasnomorskiy (Ako), about 5.5 miles NNE of Nevel'sk, is partially protected by a rocky ledge that extends about 0.3 mile NW from its S entrance point. Small vessels can obtain anchorage a short distance within, in depths of 2.7 to 5.1m, sand, good holding ground.

Three pale yellow and barren rocks, located on the mountain slope about 0.2 mile N of the village of Ako, are discernible from a considerable distance and form a good mark from offshore.

The coast to the N of Reyd Yasnomorskiy becomes more rocky with less beach; the mountains backing the shore rise to elevations of nearly 610m. This entire section to and beyond Kholmsk, with the exception of Zavety Il'icha (Asanaj), about 2.5 miles NNE of Reyd Yasnomorskiy, is foul for a distance of 0.2 to 0.3 mile offshore. From Kalinino, about 7 miles NNE of Reyd Yasnomorskiy, the coast of Kholmsk is featured by a long and narrow strip of grassy tableland up to 61m high.

Kholmsk (47°03'N., 142°03'E.)

World Port Index No. 60940

8.8 The sea port of Kholmsk, formerly known as Maoka, consists of four small harbors along the W coast of Sakhalin, located from S to N, beginning with the Pravda Terminal in Bukhta Pravda and ending with the Yablochnoye Marine Terminal. The principal or commercial harbor, located at Kholmsk, handles general cargo, timber, metals, pipes, containers, and passenger traffic. The harbor to the N of the principal facility is used primarily by fishing boats; the one to the S is used only by small craft.

Winds—Weather.—The prevailing summer winds are from the NNE, but are interrupted by SE winds often causing heavy seas. Very strong N winds and heavy seas prevail during the winter. Fog is frequent in June and July.

The sea port does not provide shelter from the prevailing W and NW gales when ships should put to sea to avoid a heavy swell in the basin and the storm surge accompanying such gales.

Ice.—The freezing of the sea in the vicinity of Kholmsk begins about the middle of December. In the spring the harbor is completely free of ice by the last week of March. The field ice, which between the end of January and the end of March is about 0.3m thick, usually does not remain close offshore for longer than a day or two; occasionally, drift ice brought here from the N combines with the field ice and temporarily completely encumbers the harbor.

Tides—Currents.—During equatorial tides, neaps and springs both rise about 0.2m. During tropical tides, springs may rise to about 0.3m.

Depths—Limitations.—Vessels are required to approach and depart Kholmsk in a designated fairway which is entered about 11 miles WNW of the main harbor entrance and can best be seen on the chart.

The N breakwater extends 240m SW from shore while the S breakwater extends 312m NNW from shore, forming an entrance to the port 150m wide. The fairway between the breakwaters of the commercial harbor has depths of 10 to 11m; there are depths of 7.5 to 9.0m inside the breakwaters.

Pravda Terminal, located in Bukhta Pravda, has only one unnumbered berth along the quay wall of the basin and can only accommodate small fishing vessels for the unloading of fish products. Depths alongside this berth are 3.5m.

Yuzhnaya Gavan, the main harbor, is protected by two breakwaters and consists of an outer roadstead and an inner harbor. The main part of the harbor is in the SW portion, with an inner basin located in the E part of the harbor.

Eight berths are located in the SW portion of the harbor. The fish docks lie on the E side directly inland from the opening between the breakwaters. Berth No. 1 (passenger terminal), Berth

No. 2 (ro-ro berth), and Berth No. 8 are located just outside the mooring basin. Berth No. 4 is also a ro-ro terminal which accommodates ferries. The maximum size vessel accommodated in the harbor is 5,500 dwt and 130m in length, with a beam of 20m and a maximum draft of 6.7m.

Severnaya Gavan (47°04'N., 142°03'E.) previously known as Port Ukhodnyye, is a small fishing harbor located close N of Yuzhnaya Gavan (Kholmsk) and is also protected by breakwaters N and S of the harbor entrance. The approach to Severnaya Gavan is made from the WNW along a lighted range. A turning basin, with a radius of 100m, is located close inside the breakwaters.

Yablochnoye Marine Terminal, located 5.5 miles N of Severnaya Gavan, has four berths, all dedicated to the mooring of small fishing vessels engaged in the discharge of fish products.

Additional details of the berths at Yuzhnaya Gavan and Yablochnoye Marine Terminal can be found in the table titled **Kholmsk Sea Port—Berth Details.**

Aspect.—Gora Maoka, 350m high, about 1.5 miles S of the harbor entrance, and Gora Hontomari, 309m high, 0.4 mile SW of Gora Maoka, form a double-peaked landmark easily identified from the NW. There is a valley E of Gora Maoka which is completely devoid of vegetation and is quite prominent from some directions.

A light is shown from a prominent structure situated about 1.5 miles SSW of the main harbor entrance. A radiobeacon is situated at the light.

Kholmsk—Contact Information

	Harbormaster	Port Authority	Movements Control—Port Controller	Port Director and Port Dispatcher
Call sign	—	—	Kholmsk Radio 4	Kholmsk Radio 2
VHF	—	—	VHF channels 3, 14, and 16	VHF channel 9
Telephone	78-42433-50332	78-42433-66494	—	—
Facsimile	78-42433-50332	78-42433-52673	—	—
E-mail	drobin-kh@mail.ru	—	—	khmtp@sakhalin.ru

Kholmsk Sea Port—Berth Details

Berth	Length of berth	Depths alongside
Yuzhnaya Gavan		
No. 1	115.0m	9.0m
No. 2	97.5m	9.0m
No. 3	143.6m	9.0m
No. 4	124.1m	9.0m
No. 5	120.0m	9.0m
No. 6	120.0m	9.0m
No. 7	120.0m	9.0m
No. 8	135.0m	9.0m
Yablochnoye Marine Terminal		
No. 1	28.5m	1.5-2m
No. 2	200.0m	2.0m
No. 3	54.0m	0.9-1.5m
No. 4	242.7m	0.5-2.5m

A white monument, in the shape of an arch, stands on high ground close S of the main entrance range lights and forms a good mark in the approach. Three factory chimneys, also quite conspicuous, are situated on the SE side of the small craft basin S of the commercial harbor.

In addition to the port lights, the main range, in line bearing 137°48', is situated on the SE side of the commercial harbor and consists of two white beacons, with a black vertical stripe, surmounted by a triangle. The front beacon has been reported difficult to identify in daylight because of the telephone poles close by it, and must occasionally be sighted with the aid of surrounding landmarks.

A dangerous wreck lies 0.6 mile WNW of the main harbor entrance.

Range lights, situated E of the fishing harbor and in line bearing about 108°, lead into that harbor from the alignment of the main range.

Pilotage.—Pilots are available 24 hours and should be requested from the Port Dispatcher 2 hours prior to arrival at the pilot station.

Pilots will board in position 47°04'13"N, 142°01'08"E. In bad weather, vessels should follow the pilot boat.

Contact Information.—The port contact information is given in the table titled **Kholmsk—Contact Information**.

Regulations.—The vessel's ETA should be sent 48 hours and 24 hours prior to expected arrival and include the following information:

1. Vessel name.
2. ETA.
3. Vessel size.
4. Maximum draft.
5. Cargo quality.
6. Consignee.
7. Net tonnage.

All vessels should establish VHF contact when within range.

A continous listening watch should be maintained on VHF channel 16 when approaching the port, within the harbor, and alongside the berths.

All vessel movements within the port limits have to be approved by Movements Control.

For all vessels over 500 gt, berthing, departing, and shifting berths must be carried out with pilot assistance and the use of tugs.

Anchorage.—Six designated anchorages lie W of the main harbor, in depths of 20 to 40m, best seen on the chart.

There are eight additional designated anchorages, sand and stone, located N of this area in waters of the same depth with designations and center positions listed in the table titled **Kholmsk—Outer Anchorages**.

Kholmsk—Outer Anchorages	
Area	**Center Position**
7	47°04'24"N, 142°01'56"E
8	47°04'41"N, 142°02'00"E
9	47°04'34"N, 142°01'36"E
10	47°05'00"N, 142°02'21"E
11	47°04'58"N, 142°01'48"E
12	47°04'50"N, 142°01'28"E
13	47°05'12"N, 142°01'48"E
14	47°05'13"N, 142°01'24"E

Anchorage Area No. 1 and Anchorage Area No. 10 are intended for small vessels of less than 1,000 gt. Anchorage Area No. 6 is designated for vessels with hazardous cargo. Anchorage Area No. 12 and Anchorage Area No. 14 are intended for vessels greater than 5,000 gt, floating drill rigs, and for vessels carrying out ship-to-ship bunkering operations.

Anchoring, fishing, dredging, trawling, navigating with a trailing anchor, and underwater explosions are prohibited within a circular area, 0.6 mile in diameter, centered about 1.2 miles NW of the main harbor entrance.

Caution.—Vessels approaching the harbor should strictly hold to the range line as the alignment passes close NE of a shoal ground on the SW side.

Fishing nets sometimes lie in the approaches to the port and extend up to 0.8 mile seaward; the outer ends are marked by wooden buoys with red flags, some of which are lighted.

Rocky shoals exist inside the main harbor; some of these shoals may be marked by lighted buoys.

Kholmsk To Reyd Uglegorsk

8.9 The coast to the N of Kholmsk continues with a long narrow strip of grassy tableland to the vicinity of Mys Tokotan, about 8 miles from the port. Numerous fish nets are laid up to a distance of 1.8 miles offshore along this part of the coast; the outer ends are marked only by small wooden buoys with bits of cloth and caution is advised.

Bukhta Khorotomari is a small bay formed by a break in the coastal reef about 3.2 miles N of Kholmsk. A river discharges into the bay and the railroad bridge, which crosses the mouth, is prominent.

Reyd Yablochnyy (Randomari Hakychi) is an open roadstead situated abreast a slight indentation formed by a gap in the coastal reef immediately S of Mys Tukotan. Vessels can take anchorage in the roadstead, in a depth of 15m, fine sand, about 0.5 mile offshore. There is a small craft basin on the S shore of the roadstead.

To the N of Mys Tukotan the coast, which gradually changes to sandy beaches, trends in a NNW direction and is backed by coastal dunes and grassy moors fronting dense forest farther inland. The mountain ranges here recede farther from the coast, leaving low hills between.

Caution.—A spoil area, the limits of which are shown on the chart, lies about 14 miles W of Reyd Yablochnyy.

8.10 Mys Slepikovskogo (47°18'N., 141°57'E.), a sandy projection of the coast lying about 9 miles NNW of Mys Tukotan, is low, but still prominent because of its light-colored dunes. The light on the point can usually be easily identified and a triangular beacon about 25m high, situated at the mouth of Reka Kostroma, about 1 mile to the NNE, is also conspicuous.

The coast to the N of Mys Slepikovskogo trends more to the NNE, but remains low and sandy until, at Nitasu (Jintasu), about 4 miles from the cape, the aspect suddenly becomes entirely different. Here the mountain ranges slope right to the shore forming, for a distance of about 1.5 miles, a line of conspicuous red cliffs which are easily identified from the offing. From Nitasu, the shore is foul with drying reefs and rocks extending out for several hundred meters and approach requires local knowledge.

Reyd Chekhov (Noda Hakuchi) (47°26'N., 141°59'E.), situated off the head of a small shallow open bay, the roadstead of Chekhov is only available to small vessels with local knowledge.

Gora Hachiko, the summit of Mys Notasamu, a promontory about 1 mile NNW of Chekhov, is a black perpendicular cliff, 122m high, which is very conspicuous. From the S at a distance it shows a double-domed summit and appears first as an island. A light is shown from the S side of the entrance to Reka Chekhov.

Anchorage.—Anchorage can be taken about 0.5 mile W of the town of Chekhov and just outside the entrance to the bay described above, in about 12m, fine sand. The holding ground is not safe in W winds. Foul ground extends up to 0.2 mile off each entrance point of the bay. A small boat harbor is situated just within the entrance on the S side.

8.11 Mys Yablonovyy (Mys Yablokobyts) (Usu Misaki) (47°37'N., 141°58'E.), a black rounded cliff 41m high, rises about 1.5 miles inland to Gora Yablonovyy, a sharp tree-covered peak with an elevation of 442m. The cape is fairly prominent except from the W, but it can be identified from this direction by a waterfall on it. There is a large conspicuous house situated about 2 miles S of Mys Yablonovyy; a prominent chimney stands about 1 mile NE of the cape.

Between Reyd Chekhov and Mys Yablonovyy, about 11 miles S, the coastal hills trend close inland. The shore is fringed by reefs and foul ground, but there are sandy beaches situated in a few places where landing could be effected. Depths off this part of the coast generally decrease to the N and there are several off-lying banks.

Gora Shpanberg (Tomon), a conspicuous wooded mountain rising about 10 miles ESE of Mys Yablonovyy, has two peaks;

the S and highest is slightly conical and attains a height of 1,029m. From the SW, Gora Shpanberg appears ridged and precipitous, but from the NW it is rounded and sloping, generally towering above everything in its vicinity.

Gora Otasamu, a sharp and conspicuous peak rising to 924m about 17 miles E of Mys Yablonovyy, is a good mark from the NW and SW. Thickly covered with trees, the summit usually appears darker than the surrounding mountains, but will be obscured when in line with Gora Shpanberg.

Caution.—The depths NW of Mys Yablonovyy become very irregular, with off-lying banks of 14 to 18m lying up to 5 miles offshore. Vessels navigating in this area in thick weather should exercise caution.

8.12 Reyd Tomari (Tomarioru Hakuchi) (47°46'N., 142°03'E.), an open roadstead, is abreast a small bay at the head of which is the town of the same name. There is no protection from any but offshore winds, and the anchorage is unsafe with any other. The position of the roadstead may be identified by Gora Matsudake, 440m high, lying about 2.5 miles SE of the town and when to the S, by Mys Reichiruska, the S entrance point of the bay.

Ice.—Ice up to 0.9m thick may block the approaches between February and April.

Anchorage.—Anchorage can be taken by vessels about 1 mile WNW of Tomari, in depths of 14.5 to 18m, sand. Small vessels can take anchorage about 0.5 mile offshore, abreast the town, in a depth of 9m, fine sand.

There is a basin with a depth of about 1.8m situated within the entrance to Reka Tomari, on the N side of the town.

The coast between Tomari and Mys Staromayachnyy (Chirai Misaki), a precipitous 104m high point about 4.5 miles NNE, is mostly sandy and fringed by reef. From the latter point to Il'inskiy, about 9 miles NE, the coast consists of steep red cliffs, about 15m high, which form the seaward end of a low densely wooded plateau.

Reka Il'inskiy flows into a bight on the coast known as Zaliv Delanglya (Bukhta Il'inskiy), a bay easily identified from the SW by the position of Gora Sasa (Sasa Yama), a 284m high rounded three-peaked hill located about 3 miles inland.

Reyd Il'inskiy (47°59'N., 142°12'E.), an open roadstead, is situated off the mouth of Reka Il'inskiy in the E part of Zaliv Delanglya. There is a small boat harbor at Il'inskiy.

Anchorage.—Anchorage may be taken in good weather about 0.8 mile W of the town, in 11 to 12m, sand, good holding ground. The anchorage is untenable in bad weather or strong W winds.

8.13 The coast above Il'inskiy is sandy except at Mys Leont'yeva, a precipitous cape about 9 miles to the N, which is fairly easy to identify. Inland there is a grassy tableland which gradually rises to thickly wooded hills, most of which are good landmarks for vessels fairly close in. About 1.5 miles N of Mys Leont'yeva the shore becomes very foul, continuing so for about 2.5 miles farther N. Kamen Ebisu, a small rock about 1.5m high, lies in the middle of the foul area and about 0.2 mile offshore.

Mys Shternberga (48°15'N., 142°09'E.), a slightly projecting point, 44m high, lies about 7 miles N of Mys Leont'yeva. When viewed from the N or S it can be fairly easily identified, but from the W it is difficult to distinguish.

Caution.—A rocky 8.8m shoal lies about 2.5 miles offshore W of Mys Shternberga. Depths of less than 18.3m extend from this danger SE to the shore.

8.14 Gora Rukushi, rising about 10 miles ENE of Mys Shternberga, has several peaks, the highest being 281m with a cone-shaped appearance from the W. Gora Krasnogorsk (Chinnai), rising about 17 miles NE of Mys Shternberga, attains a height of 761m with a rounded summit.

The coast for about 4 miles N of Mys Shternberga is hilly, with occasional reddish-brown cliffs. Farther to the N the shore again becomes sandy and extends away from the mountains leaving a lowland area in which Ozero Aynskoye has been formed. This brackish lake is separated from the sea by a long range of sandy hillocks and has its only opening through a narrow channel commencing at Krasnogorsk (Chinnai), about 3 miles SSE of its S extremity. The shore N of Ozero Aynskoye continues low and sandy with some small lakes within, but about 12 miles NNW of the S entrance of the lake the land begins to rise again.

Gora Ebisu, rising to a height of 619m 12 miles ENE of the N extremity of Ozero Aynskoye, is a round-topped mountain which is rendered conspicuous by a bare patch on its W side visible from well offshore in clear weather.

8.15 Krasnogorsk (48°25'N., 142°05'E.), a subsidiary port of Shakhtersk (paragraph 8.19), is a small lighterage port servicing ocean-going vessels at the roads for handling timber products, scrap metal, and solid bulk cargo. Although the port roadstead remains open all year, the rivers freeze over in the winter, which makes cargo operation impossible from mid-October through May.

Depths—Limitations.—The roadstead accepts vessels with drafts as deep as 15m and an loa of up to 200m, while the inner harbor can only accommodate vessels with a draft no more than 2.6m. There are berths for handling barges located on the Ainskaya and Krasnogorsk river banks.

Pilotage.—There is no pilotage service in the port; however if pilotage becomes necessary, the port captain will act as the pilot.

Regulations.—Vessels must report their ETA to the State Director Inspectorate not less than 2 hours prior to arrival and also confirm maximum draft.

Any vessels inbound to the inner harbor must give the right-of-way to vessels exiting those same waters.

Towing is allowed but only for tow lengths not to exceed 30m.

All vessel movement in each of the harbors is controlled by the harbor masters for each harbor.

Signals.—Navigational and hydrometeorological information is transmitted to vessels in the harbor area on VHF channel 16 upon vessel request and on deterioration in the weather conditions. Vessels at a berth or at anchorage are immediately notified of any storm warnings on VHF channel 16. Vessels are expected to acknowledge receipt of any such storm warnings.

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

1. Call sign: Krasnogorsk Radio 1 (State Director Inspectorate)

		Krasnogorsk Radio 2 (Port Marine Superintendent)
2.	VHF:	VHF channels 14 and 16
3.	RT Frequency:	2182 and 2720 kHz
4.	Telephone:	78-42496-21835
5.	Facsimile:	78-42496-21835

Anchorage.—Four designated anchorages centered are situated at the following positions:

1. Anchorage No. 1—48°24'48"N, 142°03'48"E.
2. Anchorage No. 2—48°24'24"N, 142°03'42"E.
3. Anchorage No. 3—48°24'06"N, 142°03'54"E.
4. Anchorage No. 4—48°24'06"N, 142°04'18"E.

8.16 Mys Staritskogo (48°40'N., 141°53'E.), a steep cliff, 44m high, lies at the end of a ridge of mountains which reaches the coast about 18 miles NNW of Krasnogorsk. From the S it has the appearance of being a precipitous promontory and marks the N end of the extensive sandy beach extending from the vicinity of Mys Shternberga, about 27 miles SSE. To the NE of the point is a great mass of mountains which are generally similar in appearance, the lower parts being densely covered with trees and the summits sparse. Great boulders lie piled up all over these mountains and their towering side by side present a spectacular view.

The coast to the N of Mys Staritskogo is rocky with several drying patches close offshore. Mys Stukambis, about 4 miles from Mys Staritskogo, is a steep cliff about 97m high, which being the highest point on this section of the coast is quite conspicuous. There is a small waterfall on the S side of this point, which can be easily seen from that direction.

8.17 Mys Lamanon (48°47'N., 141°51'E.), about 2.3 miles N of Mys Stukambis, is a low but steep rocky cliff, 42m high, with a cave at its base. It is the W extremity of the mountainous promontory to the E and it can be identified easily from the SW and NW. A light is shown on Mys Lamanon and a radiobeacon transmits from the lighthouse.

Gora Krasnova, rising about 13 miles ESE of Mys Lamanon, attains a height of 1,094m and is the highest mountain in the vicinity. Its summit lies in an E-W direction and slopes gently to the W. The summit is shaped like a horse's back and can be seen from the S at a distance of 35 miles.

Gora Orlova (Ushiro), about 5.5 miles WNW of Gora Krasnova, rises to a height of 868m and has a conical summit which is very prominent. Gora Ichara, about 8 miles W of Gora Krasnova and nearly as high, rises to 1,023m with a shoulder to the NE. The summit is somewhat rounded from the NW but it appears sharp when seen from the SW.

The coast from Mys Lamanon trends to the NE and becomes rocky and foul. Rif Inava, about 4 miles NNE of the point, is a dangerous rocky reef extending about 1.3 miles W from Mys Orlova. There is a depth of 8.2m off the W edge of the reef, but the N and S sides are steep-to with depths of 4.1m and less.

Gora Izel'met'yeva, 685m high, lies 6.2 miles ENE of Mys Orlova. Its W slope is gentle, but from the SW it appears pointed and is very prominent.

Bukhta Izyl'met'yeva, located between Mys Orlova and Mys Izyl'met'yeva, about 5 miles NNE, is sheltered from all winds except those from N through W and is considered one of the best anchorages on the SW coast of Sakhalin. Vessels approach the anchorage with Gora Izel'met'yeva ahead bearing 087° and anchor when Mys Izyl'met'yeva bears 019°, in a depth of about 16m, good holding ground.

Mys Izyl'met'yeva (48°55'N., 141°58'E.), a precipitous cape 38m high, rises gradually to a low flat hill thickly covered with trees. When seen from the SW it is quite prominent but from the W it blends into the coast. A rocky spit extends about 0.8 mile NW from the cape.

Zaliv Shebunyy, the indentation to the N and within Mys Izyl'met'yeva, provides anchorage for small vessels with local knowledge. The bottom is in places rock and the holding ground is not good, making the anchorage dangerous in any W winds. To the N of the bay the coast is foul and rocky, except at Sobolevo (Tennai), where there is an opening in the coastal reef accessible to boats.

Reyd Uglegorsk (49°05'N., 142°02'E.)

World Port Index No. 60980

8.18 Uglegorsk Terminal, previously known as Esutoru, is a subsidiary port of Shakhtersk (paragraph 8.19). The terminal is an open roadstead situated on the S side of the mouth of Reka Uglegorka. The port is a lighterage port, open all year, handling imports of mineral oil and rice, as well as exports of fish, timber, wood pulp, and coal.

Winds—Weather.—From November through March the strong N winds prevail for 20 to 28 days in each month, rendering loading operations impossible.

From April until September, the S wind prevails for about 10 days in each month, but the sea is generally calm.

During the winter there are about 10 days a month of rain or snow.

During the winter SE and NE winds are accompanied by fog ordinarily extending for about 5 miles offshore. It has been reported that the height of the fog is 15 to 30m and does not interfere with the identification of the mountain landmarks. Vessels are advised not to approach Reyd Uglegorsk in thick weather, but to anchor temporarily in the offing until the fog has lifted.

Ice.—Usually Reyd Uglegorsk, except for an area close to the mouth of the Uglegorka, is icebound to a distance of about 1 mile offshore between the middle of December and the end of March, but as the ice does not exceed 0.3m in thickness, navigation is not closed; however, vessels entering the port during this time are required to have icebreaker assistance. Winds from the SW cause the ice to disperse.

Tides—Currents.—Spring tides rise about 0.8m and neap tides rise about 0.6m. The flood current sets N at a rate of 0.5 to 0.8 knot and the ebb current sets S at a similar rate.

Depths—Limitations.—The port consists of an outer roadstead and a N and S inner harbor.

The outer roadstead has seven designated anchorages, in depths of 12 to 18m, for loading and unloading by lighters. The inner harbors are enclosed; the N harbor lies 1 mile S of the entrance to the Reyd Uglegorsk and the S harbor is situated 2.2 miles S of the river mouth.

A total of nine berths, with depths of 1.8m to 2.8m alongside and a total berthing space of 1,400m, handle the lighters working larger vessels offshore in the outer roadstead. The maxi-

mum vessel size handled in the inner harbors is 60m in length, 12m in width, and a draft of 3m. Vessels larger than this are handled in the outer roads.

Aspect.—In addition to the conspicuous peaks E of Mys Lamanon, which are still visible off Uglegorsk on a clear day, the N end of the range of hills about 0.9 mile S of the mouth of Reka Uglegorka appears as the extremity of a conspicuous cape when seen from the offing. From closer in, a steel bridge crossing the canal about 0.6 mile SE of the mouth of Reka Uglegorka can easily be identified; a school building E of the lighted basin is also conspicuous.

A short jetty extends WSW from the N side of the river entrance. A broken jetty extends about 0.4 mile W and then about 230m SW from the S side of the river entrance.

A range, in line bearing about 159°, indicates the approach to the roadstead and may best be seen on the chart.

A light is shown from a structure standing about 0.5 mile NNE of the commercial basin; a radiobeacon is situated at the light.

Three radio towers, equipped with obstruction lights, are situated about 0.5 mile S of the town and in clear weather form a good mark in the approach.

Pilotage.—Pilots are not available.

Regulations.—Vessels should send an ETA to the port 24 hours before arrival to the port. Vessels should request permission to enter the port, including the outer roadstead, from the Marine Superintendent. Weather information is broadcast daily at 1900 on VHF channel 9.

Vessels are required to approach and leave Uglegorsk Terminal in a designated danger free fairway which can best be seen on the chart. The fairway is entered about 12 miles WNW of the roadstead. The authorities recommend that the fairway should not be entered until the vessel's position has been closely determined and verified by all available means.

Any vessels inbound to the inner harbor must give the right-of-way to vessels exiting those same waters.

Towing is allowed but only for tow lengths not to exceed 30m.

All vessel movement in each of the harbors is controlled by the harbor masters for each harbor.

Signals.—Navigational and hydrometeorological information is transmitted to vessels in the harbor area on VHF channel 16 upon vessel request and on deterioration in the weather conditions. Vessels at a berth or at anchorage are immediately notified of any storm warnings on VHF channel 16. Vessels are expected to acknowledge receipt of any such storm warnings.

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

1. Call sign: Uglegorsk Radio
2. VHF: VHF channel 16
3. Telephone: 78-42432-21701
   78-42432-21762
4. Facsimile: 78-42432-21701
   78-42432-21762

The Marine Superintendent can be contacted, as follows:

1. Call sign: Uglegorsk Radio 1 (RT)
2. RT Frequency: 2720 kHz
3. Call sign: Uglegorsk Radio 3 (VHF)
4. VHF: VHF channels 9 and 16

The State Director Inspectorate (IGN) can be contacted, as follows:

1. Call sign: Uglegorsk Radio 2 (RT)
2. RT Frequency: 2720 kHz
3. Call sign: Uglegorsk Radio 5 (VHF)
4. VHF: VHF channel 14

Anchorage.—Seven designated anchorages centered are located at the following positions:

1. Anchorage No. 1—49°05'38"N, 142°00'36"E.
2. Anchorage No. 2—49°05'18"N, 142°00'50"E.
3. Anchorage No. 3—49°05'12"N, 142°00'17"E.
4. Anchorage No. 4—49°04'55"N, 142°00'00"E.
5. Anchorage No. 5—49°04'48"N, 142°00'30"E.
6. Anchorage No. 7—49°05'39"N, 142°00'07"E.
7. Anchorage No. 8—49°05'19"N, 141°59'31"E.

Caution.—A submarine cable extends seaward from a point on the coast about 0.7 miles S of the commercial basin.

A restricted area, the limits of which are shown on the chart, lies in the vicinity of the submarine cable and extends up to about 5 miles offshore. Anchoring, trawling, dredging, conducting submarine explosions, or sailing with a slack anchor or chain are prohibited within the area.

A ruined mole is in vicinity of the S harbor (49°03'24"N, 142°01'35"E.), with four stranded wrecks close by, depths unknown; several submerged obstructions and a rock, all at depths of less than 4m, also are located close by.

Another stranded wreck, depth unknown, is located farther N along the coast close off Mys Chekhova at 49°04'40"N, 142°01'52"E.

Shakhtersk

8.19 Shakhtersk (Portovyy Punkt Shakhtersk) (49°10'N., 142°04'E.) is situated at the head of Zaliv Gavrilova, between Mys Gavrilova and Mys Nizmennyy, about 6 miles N of Uglegorsk. The waters of the sea port comprise a roadstead, an inner harbor and three maritime terminals: Boshnyakovo (paragraph 8.22), situated S of the mouth of Reka Avgustovka; Uglegorsk (paragraph 8.18), situated southwards of Reka Uglegorka; and Krasnogorsk (paragraph 8.15), situated in the area of the mouths of Reka Krasnogorka and Reka Aynskaya. Shakhtersk itself is an outer roads lighterage area and an inner roads harbor for small craft.

Ice.—The port is reported to be open all year but is usually surrounded by ice from January through the middle of March. During this time the use of icebreakers is required for entry and exit.

Depths—Limitations.—There is a least depth of 10m in the approach to the anchorage, but numerous shoal patches lie in Zaliv Gavrilova and must be avoided. Depths of less than 5.5m extend up to 1.5 miles N of Mys Gavrilova and constitute the greatest danger in the approach to the port. A 7.6m shoal and an 8.8m shoal lie in the middle of Zaliv Gavrilova, about 0.7 mile and 1.2 miles NNW, respectively, of the entrance to the basin.

The principal cargo handled at the port is coal. For cargo-handling operations in the lighterage area in the outer roads, the vessels own cargo-handling gear is used. The inner roads contain four berths, with total quayage of 280m, capable of accommodating vessels up to 55m in length, 10m in width, and a maximum draft of 3.5m.

Aspect.—Mys Gavrilova, a low bluff about 39m high, is located about 1.2 miles SW of Shakhtersk and is conspicuous when seen from the N or S. Mys Gavrilova Light is shown from a white octagonal tower with a red band, 10m high, 0.5 mile NE of the point. The land backing the point is generally low, not rising until about 5 miles within, and thus contrasts considerably with coastal ranges N and S of the area. The buildings of an airfield about 1.7 miles NNE of the harbor basin and a group of oil tanks about 0.7 mile S all serve to identify the port.

Range lights situated close E of the basin at Shaktersk, when in line bearing about 120°, lead to the roadstead.

A lighted buoy moored about 0.6 mile W of the basin marks a wreck with a depth of 2.4m. A lighted buoy moored about 1.7 miles N of Mys Gavilova marks the limit of shoals extending N from that point.

Pilotage.—Pilotage is compulsory. Pilots board in position 49°10'18"N, 142°02'00"E.

Regulations.—Vessels are required to approach and leave Shakhtersk in a designated danger-free fairway, which is entered about 12 miles WSW of the harbor basin and can best be seen on the chart. The authorities recommended that the fairway should not be entered until the vessel's position has been closely determined and verified by all available means. The inner designated danger free fairway, which is indicated on the chart, is for the use of vessels plying between Uglegorsk and Shakhtersk and may only be used with the permission of the port authorities.

Any vessels inbound to any of the inner harbors of the seaport complex must give the right-of-way to vessels exiting those same waters.

Towing is allowed but only for tow lengths not to exceed 30m.

All vessel movement in each of the harbors is controlled by the harbor masters for each harbor.

Vessels should report their ETA 24 hours prior to arrival and request permission to enter the port from the Port Marine Superintendent.

Contact Information.—The Port Marine Superintendent can be contacted, as follows:

1. Call sign: Shakhtersk Radio 5
2. VHF: VHF channels 13 and16
3. RT Frequency: 2720 kHz

The Marine Administration can be contacted, as follows:

1. Call sign: Korabl
2. VHF: VHF channel 9

Signals.—Navigational and hydrometeorological information is transmitted to vessels in the harbor area on VHF channel 16 upon vessel request and on deterioration in the weather conditions. Vessels at a berth or at anchorage are immediately notified of any storm warnings on VHF channel 16. Vessels are expected to acknowledge receipt of any such storm warnings.

Anchorage.—Four designated anchorages are located at the following positions:

1. Anchorage No. 1—49°11'00"N, 142°01'18"E.
2. Anchorage No. 2—49°10'37"N, 142°02'30"E.
3. Anchorage No. 3—49°10'20"N, 142°02'30"E.
4. Anchorage No. 4—49°10'00"N, 142°02'00"E.

Caution.—A stranded wreck lies about 1.5 miles WSW of the breakwater. The roadstead is exposed to W winds.

Shakhtersk to Reyd Aleksandrovskiy

8.20 Mys Nizmenyy (49°11'N., 142°04'E.), a low and generally flat cape, lies about 1.7 miles N of Shakhtersk. It is the S entrance point of Zaliv Lesovskogo, an indentation in the coast which provides anchorage for small vessels in good weather. The bottom is in many places rock and caution is necessary.A light is shown from a white octagonal masonry tower on the point.

Mys Tikhonovicha, the N entrance point of Bukhta Lesovskogo, 3.5 miles N of Mys Nizmenyy, is dark in color and falls vertically to the sea, but is thickly wooded. Gora Sergiyevskaya, rising to a height of 461m about 1.5 miles NE of the above point, appears sharp-peaked from the N. There is a pointed hill, 375m high, a little over 0.5 mile NW of Gora Sergiyevskaya.

Mys Baranova (Toriga Saki) (49°21'N., 142°04'E.), 8.7 miles N of Mys Nizmenyy, is a steep, black, treeless point, 57m high, and is very prominent from the S.

Mys Zhukovskogo (Nayoshi Saki) (49°26'N., 142°06'E.), 4.5 miles N of Mys Baranova, is a steep bluff, 94m high, and is the S entrance point of Reyd Lesogorsk.

8.21 Reyd Zhukovskogo (Nayoshi Byochi) (49°27'N., 142°08'E.) (World Port Index No. 60990), formerly known as Nayoshi, is a bight in the coast between Mys Zhukovskogo and Mys Furutsu, about 3.5 miles NNE. The roadstead is exposed to all winds from the W and during such times landing and cargo handling are difficult or impossible. The port is closed from November to March.

Reka Lesogorsk, the mouth of which is conspicuous, is located at the head of the roadstead, but is generally too shallow for boats. Gora Zhukovskogo (Nayoshi Taki), with a flat top, rises to a height of 549m about 2.5 miles SE of the river mouth and is quite prominent. Gora Matsue (Matsue Yama), rising to 553m about 2 miles ESE of Mys Furutsu, is the highest peak in the group of mountains immediately NE of Reyd Zhukovskogo and forms a good mark in the approach.

Gora Akahage, lying 1.5 miles SSW of Gora Matsue, is a bare reddish-brown hill, 207m high, appearing isolated, with a prominent red cliff on its S side.

Anchorage.—The best anchorage is 0.8 mile offshore, with the mouth of Reka Lesogorsk in line with Gora Akahage, bearing about 113°, in a depth of 13m, mud, with good holding ground. At other places the bottom is sand over rock, poor holding ground. Vessels proceeding to the anchorage must avoid the shoal N of the anchorage, where depths of 4.6m, rock, extend up to 0.8 mile offshore.

The coast extending N from Mys Furutsu consists mostly of narrow sandy beach occasionally marked by broken cliffs formed by the mountains sloping down to the coast. A densely-wooded mountain range, about 5 to 8 miles inland, trends N from abreast Mys Furutsu gradually approaching the sea until at Mys Balkina, about 28 miles to the N, it is only 1 mile from the coast.

8.22 Boshnyakova (49°39'N., 142°09'E.), located approximately 2.6 miles S of Mys Baklanova, is a subsidiary port of Shakhtersk (paragraph 8.19). Boshnyakova is a small commercial port from which coal and timber is exported and general cargo is handled. It is also been designated a marine terminal.

Depths—Limitations.—The roadstead accepts vessels with drafts only up to 2m. Controlling depths in the harbor entrance vary between 1.3m and 2.4m. The port consists of an outer roadstead in which vessels discharge and transship cargo via lighters to the shore through an inner harbor protected by moles.

Aspect.—Boshnyakovo Light (49°38'19"N, 142°09'12"E.), is mounted on an 8-sided concrete tower with red bands, 17m in height.

An administration building, three stories high and light gray in color, stands in the port. A black chimney, 40m high, forms part of the building.

Pilotage.—Pilotage is compulsory.

Regulations.—Any vessels inbound to the inner harbor must give the right-of-way to vessels exiting those same waters.

Towing is allowed but only for tow lengths not to exceed 30m.

All vessel movement in each of the harbors is controlled by the harbor masters for each harbor.

Signals.—Navigational and hydrometeorological information is transmitted to vessels in the harbor area on VHF channel 16 upon vessel request and on deterioration in the weather conditions. Vessels at a berth or at anchorage are immediately notified of any storm warnings on VHF channel 16. Vessels are expected to acknowledge receipt of any such storm warnings.

Contact Information.—The port can be contacted via VHF channel 16 then switching to VHF channel 9 for working with call sign of Boshnyakovo Radio1.

Anchorage.—Six designated anchorages are located between 0.7 and 1.6 miles W and NW of Boshnyakovo Light, as follows:

1. Anchorage No. 1—49°38'56"N, 142°08'10"E.
2. Anchorage No. 2—49°38'18"N, 142°08'10"E.
3. Anchorage No. 3—49°38'45"N, 142°07'30"E.
4. Anchorage No. 4—49°38'15"N, 142°07'30"E.
5. Anchorage No. 5—49°38'50"N, 142°07'00"E.
6. Anchorage No. 6—49°38'10"N, 142°07'00"E.

Mys Polevogo (Kitasoya Misaki) (49°46'N., 142°10'E.), a steep black point located about 18 miles N of Mys Furutsu, is about 67m high and, with a chain of rocks extending N from the cape, forms a natural breakwater which produces a refuge for boats in strong S winds.

Gora Rusa (Gora Soya) (Soya Take), about 4.5 miles ESE of Mys Polevogo, is a sharp prominent peak 1,011m high and is the highest mountain in the above range.

8.23 Mys Belkina (Tisine Misaki) (49°57'N., 142°08'E.), a steep black rocky point, 48m high, and lying about 11 miles N of Mys Polevogo, is topped by a flat treeless plateau and is conspicuous from a distance. The point is the center of a mountainous mass which is the N extremity of the inland range that has reached the sea in this vicinity.

Mys Vozdvisheniya (Chikunai Misaki), the S end of the above promontory, lies about 4.5 miles S of Mys Balkina and is a steep brown rocky cliff, with a conspicuous isolated black rock located close W of it. This rock is very conspicuous when viewed from the N or S. Mys Korsakova, the N end of this area, lies about 4.5 miles N of Mys Belkina and is the rocky extremity of a small flat and treeless peninsula which is connected to the mainland by a low isthmus.

Gora Orkunay (Yokunai Yama), a conspicuous peak, 996m high, rises about 4 miles E of Mys Vozdvisheniya and is especially prominent from the W. An isolated sharp peak, about 834m high, is located about 2.5 miles to the S.

Gora Vozdvisheniya, a double-peaked mountain, rises to a height of 862m about 3.5 miles ESE of Mys Balkina. There is a lower, but similar double-peak about 1 mile to the SW, and several smaller peaks to the NW.

The coast to the N of Mys Korsakova is lower than to the S, but with a succession of rounded hills behind a steep and bluff shore. Skaly Volnolom, two small islets located about 0.8 mile N of Mys Korsakov, are white in color, which usually enables them to be seen at night. No attempt should be made to pass between these islets and the mainland as the area is shoal and rocky.

8.24 Mys Kitousi (50°13'N., 142°10'E.), a small point with a few rocks off it, has some cliffs on its N side. Within the point, about 1.7 miles to the SE, the land rises to a remarkable, barren and steep conical peak about 828m high. Known as Gora Kitousi, the sharp peak forms an excellent landmark in clear weather.

Mys Mosiya, a prominent bluff located about 5 miles NNW of Mys Kitousi, is covered at its top by shrubs and has, on the outer face, the conspicuous entrance to a cave. From the SW, the point shows three peaks in line, rendering it easy to identify.

Ostrov Ptichiy, a saddle-shaped barren islet, 45m high, lies close offshore, about 1.2 miles SSE of Mys Mosiya and forms an excellent landmark for identifying this part of the coast when Gora Kitousi is hidden by clouds.

Bukhta Kazakevicha, lying on the N side of Mys Mosiya, is bordered by precipitous cliffs leading to steep hills all around the bay. The shores are shelving and encumbered with rocks, above and below-water; it is inadvisable for vessels to approach the shore within 1 mile except with local knowledge.

Bukhta Mosiya, forming the S part of Bukhta Kazakevicha, is sheltered from SW.

Anchorage.—Anchorage has been obtained, in a depth of 18m, 0.9 mile from the village of Komsomol'skoe, with Mys Mosiya bearing 180°.

Komsomol'skoe village lies 2 miles NNE of Mys Mosiya on both banks of Reka Nanay.

Gora Torubaru, 686m high, is located about 6 miles NNE of Mys Mosiya, and being cone-shaped and devoid of vegetation while the other mountains in this vicinity are densely wooded, is prominent from the offing. Another mountain, 624m high, rises sharply about 2 miles NNW of Gora Torubaru and, when viewed from the S, has a rounded summit, but from the W shows as a pointed peak which in foggy weather can be easily mistaken for Gora Kitousi.

Depths of 14.5m lie about 6 miles NW and 4 miles NNW of Mys Mosiya.

Caution.—An explosive dumping area 2 miles in diameter, the limits of which are shown on the chart, lies about 30 miles W of Mys Mosiya.

8.25 Mys Furugel'ma (50°31'N., 142°03'E.), a long rounded point 13.5 miles NNW of Mys Mosiya, consists of steep cliffs fringed by rocks, above and below-water. In addi-

tion to these rocks, numerous reefs extend up to 0.5 mile off the point and are generally steep-to on the seaward edge.

Kamen Martynova, or Martin Rock, located close off Mys Kruglyy, about 2 miles SSE of Mys Furugel'ma, forms a conspicuous mark as it is surmounted by a white pyramidal framework beacon easily identified by vessels a few miles offshore.

Gora Lysukha, located about 3 miles E of Mys Furugel'ma, rises to a height of 701m and when viewed from the W is very conspicuous with the appearance of a truncated cone.

Reyd Agnevo (50°34'N., 142°03'E.) (World Port Index No. 61010), an open roadstead, is situated off the mouth of Reka Agnevo, about 3 miles N of Mys Furugel'ma, and provides protection from only E winds. Reyd Agnevo affords anchorage to moderate-sized vessels off the mouth of the river abreast a sandy beach, in 9 to 11m. The bottom is rock covered with a thin layer of sand and silt. Local knowledge is necessary. There is a 135m pier situated about 0.2 mile S of the river mouth.

Mys Rogatyy, about 13 miles N of Mys Furugel'ma, is high and steep and can be identified by the houses in Oktyabr'skiy, on its S side, which are fairly prominent.

8.26 Mys Khodzhi (50°49'N., 142°05'E.), lying 5 miles N of Mys Rogatyy, is a steep barren headland about 137m high. From N and S it appears long and flat. A very steep cliff forms its W side. The point is prominent from SW from a distance of 15 miles. The cape is fringed by rocks, above and below-water, and Rif Khodzi, with numerous rocky heads, lies about 0.5 mile to the NW. Depths of less than 5.5m lie up to 0.5 mile to the NW. Depths of less than 5.5m lie up to 0.5 mile W of Mys Khodzhi. The shoal is steep-to on its S and NW sides and is marked by a lighted buoy on its W side. Vessels should not approach within 1 mile of Mys Khodzai.

Reyd Makar'yevskiy (Due) (50°50'N., 142°05'E.), a subsidiary port of Aleksandrovsk-Sakhalinskiy, is situated on the N side of Mys Khodzhi and is protected from SW winds by Rif Khodzhi. The shore consists of sharp pointed hillocks, backed about 2 miles within by the intermediate coastal range. The roadstead can be identified by Mys Khodzhi and the termination of the above range at Mys Zhonkiyer, a cone-shaped point about 4.5 miles to the NNE.

The village of Due, situated about 1 mile NE of Mys Khodzhi, is a timber and coaling center. A ruined pier, 210m long, extends from the shore opposite the village; a stranded wreck lies close W of the ruins. Another wreck, with depths of less than 10m over it, lies 0.4 mile WNW of the mouth of the Due River. Vessels are loaded and discharged by lighters at the roadstead.

The roadstead, with depths of 8 to 18m, should be approached and departed by transiting the danger-free fairway as indicated in the directions for Reyd Aleksandrovskiy. The authorities recommend that the fairway should not be entered until the vessel's position has been closely determined and verified by all available means.

Anchorage.—Anchorage by large vessels can be taken at the E end of the above fairway, about 1.5 miles N of Mys Khodzhi, in a depth of 11m, mud. Farther in the bottom becomes rocky and within the 10m curve it is in many places strewn with boulders. Vessels should be ready to weigh anchor on short notice if winds increase from the NW.

Vessels with drafts of 5 to 6m anchoring closer in should take caution to avoid a dangerous wreck sunk about 0.4 mile W of the pier head. Small vessels can anchor opposite the pier at Due, with Mys Khodzhi bearing between 195° and 200°, in a depth of 6.5m. Anchoring in depths of less than 5.5m is not recommended.

8.27 Mys Zhonkiyer (50°53'N., 142°06'E.), a prominent headland, 177m high, lying about 4.2 miles NNE of Mys Khodzhi, slopes down on its W side to a cone-shaped hill near its seaward extremity. The N side of this headland is steep and cliffy, with numerous boulders piled in various stages. It is bordered by a rocky reef extending about 0.3 mile offshore in a N and NE direction, which terminates in Kamen' Burun, two drying rocks marked by breakers at high water.

Skaly Tri Brata, three similar and conical rocks, lie on the above reef about 0.2 mile NNE of Mys Zhonkiyer. A lighted beacon is shown on the N rock forming a conspicuous landmark. A lighted buoy marks the N limit of the above reef.

A light is shown from a structure on the headland. A radiobeacon is situated at the structure.

Aleksandrovsk–Sakhalinskiy (Alexandsrovsk-Sakhalinskiy) (50°54'N., 142°08'E.)

World Port Index No. 61040

8.28 Reyd Alexandrovskiy, the roadstead for the city of Aleksandrovsk-Sakhalinskiy, is situated on the NE side of Mys Zhonkiyer and the S part of Zaliv Aleksandrovskiy. The roadstead is open to all winds except from the E and S, and is not considered to be a good place for sheltering in stormy weather. The port handles general cargo, bulk and timber cargo, ore concentrates and packaged goods.

Winds—Weather.—During July and August,the prevailing winds are from the SE; between September and May they are from the NW. Winds from the SW during the spring, S during the summer, W during the autumn, and NW during the winter are ordinarily accompanied by fine weather, but N and SE winds during any season of the year are frequently accompany by either rain or snow. Winds from the E invariably bring foul weather.

January and February are the two coldest months, during which the temperature occasionally is lower than -15°C, being at times as low as -40°C. August is the warmest month of the year, with the temperature rising to 30°C, but during thick foggy weather, and also at night, it is generally cool.

During the summer fog is frequent in the area, but often does not approach the coast within 3 miles.

The most frequent blizzards, on the average every ten days, occur between the end of November and the beginning of February. The average fall of snow is about 0.6m, but heavy drifting is a problem.

Ice.—The port is usually closed by ice between November and April; however the harbor master will determine the actual date of closing and opening based on the appearance of fast ice.

Sludge ordinarily appears in the last week of November, and the roadstead is completely icebound late in December. The ice field, which attains a maximum thickness of 1.4m, usually extends for at least 15 miles seaward. Strong offshore winds

cause large cracks in the ice field, portions of which break off and are carried out to sea. West winds tend to pack drift ice against the coast and often produce hummocks.

Ordinarily, the ice begins to break up in the first half of March and the roadstead is clear late in April.

Tides—Currents.—The tides at Reyd Aleksandrovskiy are semidiurnal. The mean spring range is 1.9m and the mean neap range is about 0.8m. The highest rise usually does not exceed 2.4m.

Tidal currents set N on the flood tide, at a rate of 1 to 2 knots, and S with the ebb tide, at a rate of 0.7 to 1 knot. The flood current usually runs longer than the ebb current.

Depths—Limitations.—The port is comprised of the roadstead for cargo to be loaded and discharged by lighters and the Inner Basin, which is used by small vessels involved in the servicing and provisioning of the vessels in the roadstead.

The Inner Basin can accommodate vessels up to 40m in length and with a maximum draft of 2m. The roadstead will accept vessels up to 50,000 gt, where cargo is loaded and discharged by lighters.

Depths in the approaches are deep, with 20m lying about 2 miles offshore in the vicinity of the port. The least depth in the approach to the anchorage area is 9.1m, but a 6.4m shoal lies about 0.8 mile N of the anchorage and should be avoided, especially in periods of swell.

Information on the actual depths of the waters and at the berths of the sea port, and also on the maximum permissible draft of vessels in the waters and at the berths of the sea port is brought to the attention of mariners by the harbor master of the sea port annually and when these change.

Aspect.—In addition to Mys Zhonkiyer and the light structure on it, Skaly Tri Brata serve as an excellent mark in the final approach to the port. The distinction of the higher land S of Mys Zhonkiyer with the lower, more densely-wooded land to the NE, is also prominent and useful.

Pilotage.—No pilots available for this port, but see Regulations.

Regulations.—Although no pilotage services are available at this port, the following procedures must be followed by vessels arriving and departing, which is allowed only during daylight hours.

1. The Port Marine Superintendent must be contacted 1 hour prior to arrival on VHF channel 14; the message should include the following:
   a. Precise time of approach.
   b. Purpose of visit.
   c. Request for permission to anchor.
2. A continuous listening watch should be maintained on VHF channels 14 and 16.
3. When departing, vessels should request permission from the State Director Inspectorate (IGN) 24 hours prior to departure.

Other regulations for the port are, as follows:

1. Vessels operating within the Inner Basin of the sea port must proceed at bare steerageway.
2. The Inner Basin cannot be entered if the wave heights exceed 1.5m.
3. One-way vessel traffic operates in all sea port waters.
4. Towing is prohibited in all the port waters if wave heights exceed 1.5m.

Signals.—Navigational and hydrometeorological information is transmitted to vessels present in the sea port on VHF channels 14 and 16, daily at 1700.

Urgent navigational information and storm warnings are transmitted for vessels situated at sea port berths immediately on VHF channels 14 and 16.

Aleksandrovsk–Sakhalinskiy (Alexandsrovsk-Sakhalinskiy)—Contact Information

	Port Authority	Port Radio	Port Marine Superintendent	State Director Inspectorate (IGN)
Call sign	—	Alexandrovsk–Sakhalinskiy-Radio 1 (VHF)	Alexandrovsk–Sakhalinskiy-Radio 2 (VHF)	Alexandrovsk–Sakhalinskiy-Radio 5
	—	Alexandrovsk–Sakhalinskiy-Radio (RT)	Alexandrovsk–Sakhalinskiy-Radio (RT)	
VHF	—	VHF channel 1	VHF channels 14 and 16	VHF channels 14 and 16
RT Frequency	—	2182 kHz	2720 kHz	—
Telephone	78-42434-71224	—	—	—
Facsimile	78-42434-43024	—	—	—

Note.—The Port Marine Superintendent and the State Director Inspectorate are operational only during the navigational period between 0900 and 1800.

Contact Information.—The port contact information is given in the table titled **Aleksandrovsk–Sakhalinskiy (Alexandsrovsk-Sakhalinskiy)—Contact Information**.

Anchorage.—Vessels can take anchorage between 0.9 mile NNE and 1.1 miles N of Mys Zhonkiyer, in depths of 11 to 14m, sand and stones, poor holding ground.

Small vessels can anchor 0.5 mile NNW of the entrance to the basin, in 8m, sand, where secure anchorage may be found during the strong S winds of summer.

Five designated anchorage positions are located, as follows:

1. No. 1—50°54'36"N, 142°06'45"E.
2. No. 2—50°54'41"N, 142°07'05"E.
3. No. 3—50°54'47"N, 142°07'36"E.
4. No. 4—50°54'55"N, 142°06'49"E.
5. No. 5 (Quarantine)—50°54'59"N, 142°07'16"E.

Caution.—Caution should be exercised by large vessels so as not to approach the lighted buoy N of Mys Zhonkiyer within 0.5 mile, where depths of less than 6m lie.

Vessels should be cautious with regards to the local magnetic anomaly in this area.

Reyd Aleksandrovskiy to Proliv Nevel'skogo

8.29 Zaliv Aleksandrovskiy, an indentation in the coast between Mys Zhonkiyer and Mys Tangi, about 20 miles NNE, is fringed along its shores by numerous rocks. Although the depths off the shore bank deepen fairly rapidly, the bottom is mostly rock, providing poor holding ground; during NW and W winds anchorage is dangerous.

Polovinka, a fishing village with a prominent pier, is situated about 3 miles NE of Mys Zhonkiyer. The anchorage is 1 mile W of the pier, in 11m, fair holding ground.

Mgachi (51°04'N., 142°16'E.), a town about 3 miles farther NE, has a coal pier, 170m in length.

Pilotage.—No pilots available for Mgachi.

Regulations.—Vessels should contact the Port Marine Superintendent at Aleksandrovsk-Sakhalinskiy 1 hour prior to arrival on VHF channel 14, giving a precise time of approach, the purpose of the visit, and a request for permission to enter or anchor at Mgachi.

Vessels should maintain a continuous listening watch on VHF channels 14 and 16.

When departing Mgachi, vessels must request permission from the State Director Inspectorate (IGN) at Aleksandrovsk-Sakhalinskiy, one day prior to departure.

Contact Information.—See table titled **Aleksandrovsk–Sakhalinskiy (Alexandsrovsk-Sakhalinskiy)—Contact Information** in paragraph 8.28 for contact details.

The port of Mgachi can be contacted, as follows:

1. Call sign: Mgachi-Radio 1 (VHF)
   Mgachi-Radio 2 (RT)
2. VHF: VHF channel 14
3. RT Frequency: 2720 kHz

Several other towns with small piers are situated to the N of Mgachi, but are available only to small craft.

Caution.—A buoy moored about 0.5 mile SW of the pier head marks a 4.6m shoal.

8.30 **Mys Tangi** (Mys Gangi) (51°14'N., 142°11'E.) is a prominent point lying about 9 miles NNW of Mgachi. A small stream lies N of the point. Tangi (Gangi) town is situated on the sandy beach S of the river mouth. There are two piers, each 45m long, at Tangi.

Mys Khoe (Mys Khoy) (51°16'N., 142°10'E.), located nearly 3 miles NNW of Mys Tangi, is fairly high, densely wooded, and prominent. A rock, 7m high, lies about 0.5 mile NW of the point and there are numerous sunken rocks in the vicinity. Vessels with local knowledge can take anchorage, protected from SE winds, off the town of Khoe, about 2 miles NNW of the point, where there is a barge pier.

Mys Uandi, a moderately high rocky cape, lies about 10 miles NNW of Mys Khoe and about 2 miles NNW of Mys Boshnyak. The latter point can easily be identified by Kamen' Boshnyak, a white pillar rock about 12m high and 0.3 mile offshore. Numerous sunken rocks surround these points and several areas of shoaling have been reported up to 5 miles W and S of this section of the coast. A shoal patch, having a depth of 4.5m, is charted about 1.5 miles SW of Mys Uandi.

The coast to the N of Mys Uandi gradually descends until merging into sandy beach in the vicinity of Mys Voronina, the S entrance point of Zaliv Viakhtu, about 13 miles to the NW. The mountains E of Mys Uandi continue N while the coast trends more NW with the intervening land becoming lower and more swampy as the distance between the shore and the coastal range increases.

Between Zaliv Viakhtu and Mys Tyk, about 12 miles NW, the coast is bordered with dunes generally lacking distinctive features, except in a position about 5 miles NW of the bay, where there are several sand hills marked by landslide scars having conspicuous reddish-brown patches. See paragraph 8.36 for a description of the coast N of Mys Tyk.

Tatar Strait—North Part—Proliv Nevel'skogo—Amurskiy Liman

8.31 The N part of Tatar Strait, generally considered to be that area lying N of 51°40'N, connects the waters of the S part of the strait with Sakhalinskiy Zaliv and consists mainly of Proliv Nevel'skogo in the S and Sakhalinskiy Farvater, leading through Amurskiy Liman, in the N.

Proliv Nevel'skogo is generally considered to be those waters S of **Mys Lazareva** (52°14'N., 141°32'E.). The waters N of Mys Lazareva connecting with Sakhalinskiy Zaliv are known as Amurskiy Liman.

Proliv Nevel'skogo and Amurskiy Liman are encumbered with shoals which dry or nearly dry and which are formed by the discharge of the Amur River. In the vicinity of Mys Lazareva, Proliv Nevel'skogo is reduced to a width of about 4 miles.

Southern Channel, branching off from Sakhalinskiy Farvater at approximately 52°31'N, 141°26'E, leads along the W shore and forms the S approach to the Amur River (see paragraph 7.5).

Winds—Weather.—The primary obstacle to navigation during the navigational season is fog. As a rule fog occurs early in April, becoming particularly thick and continuous in June and July, but ceasing about the beginning of September. Proliv Nevel'skogo suffers from dense fog with SE winds, while Amurskiy Liman is more affected by NE winds. Generally, one area is clear while the other is fogbound.

Ice.—Because of the confining limits of the N part of Tatar Strait, ice is a particular problem. Generally this section of the strait commences to freeze in November and is closed to navigation by heavy ice from December to about the middle of April. Drift ice is still a problem in May and usually navigation cannot be resumed until June.

Depths—Limitations.—The least known controlling depth through the main channel of the northern part of Tatar Strait is 3.7m. The depths vary considerably with the seasons as the tides combine with the flow of the Amur River (see paragraph 7.5) to produce considerable rises, and drafts to 6.1m have

been reported taken through at favorable times.

Southern Channel has a least charted depth of 2.7m and vessels with drafts greater than 3.6m usually must use Farvater Nevel'skogo (see paragraph 7.4), the N approach to the Amur River.

During the navigational season, the channels in the narrow part of Tatar Strait are marked by lighted buoys. The buoys are lifted each fall and replaced in the spring after the channel has been resurveyed, and are not necessarily at or near their original positions.

Vessels using the N part of Tatar Strait should exercise extreme caution because the charts are from old and imperfect surveys. The buoys are generally shifted each season, and the depths and channels are changed somewhat by the severity of the winters.

Pilotage.—Pilotage is compulsory for the N part of Tatar Strait and for the Amur River. Vessels requiring a pilot should notify the pilot station at Aleksandrovsk-Sakhalinskiy at least 5 days in advance. Pilots will board at Reyd Aleksandrovskiy or at the pilot vessel cruising in the vicinity of 51°44'N, 141°22'E. Pilots may also board and disembark in the vicinity of the No. 4 Lighted Buoy (51°55'N., 141°26'E.).

Caution.—Because of the low and inconspicuous land and the considerable shoaling off Mys Tyk, on the E side of the entrance to Proliv Nevel'skogo, it is much safer, especially in poor visibility, to approach position 51°41'N, 141°22'E from the SW instead of the SE.

There are also several restricted and prohibited areas SW of Mys Tyk which are permanently or temporarily dangerous to navigation and on which up to date information should be obtained before passing in or near.

Proliv Nevel'skogo—West Shore

8.32 Mys Sushcheva (51°41'N., 141°07'E.), the SW entrance point of Proliv Nevel'skogo, is the middle point of a three-point headland about 1.5 miles wide; it is steep and bold. The entire promontory, of which Mys Yuzhnyy and Mys Severnyy are the SW and NE extremities, respectively, is heavily wooded, but the central part can be easily identified because it is covered with guano and appears white. The entire headland is backed by a steep hill, 274m high, the E slope of which terminates on its seaward side in a precipice conspicuous from the S.

The coast NE of Mys Sushcheva is generally high and cliffy, with numerous points intervening. A considerable amount of shoaling lies offshore, especially in the N part, but vessels with local knowledge could find anchorage, secure from W winds, in Bukhta Sushcheva N of Mys Severnyy.

8.33 Mys Nevel'skogo (51°57'N., 141°26'E.), the NE extremity of a large prominent headland, lies nearly 3 miles NNE of Mys Yekateriny, its S and higher extremity. This entire promontory consists of steep rugged cliffs, up to 40m high and reddish-colored in the vicinity of Mys Yekateriny. The promontory gradually becomes lower in height about half way to Mys Nevel'skogo.

Gora Shapka Nevel'skogo, a round-topped peak rising to a height of 275m about 3 miles WNW of Mys Nevel'skogo, is conspicuous from the S and E. A meteorological station has been reported on Mys Yekateriny.

Bukhta Nevel'skogo, a large indentation in the W shore of Proliv Nevel'skogo, is shoal throughout its entire length, with the E edge of these banks being generally steep-to. Banka Nevel'skogo, with depths of less than 0.6m, lies in the SE part of the bay, abreast of the channel, and can be dangerous, especially when the tidal flow, which attains a velocity of 3 to 4 knots, sets down on it. Mys Murav'yeva, the N entrance point of Bukhta Nevel'skogo, is a moderately high point projecting SE with steep white slopes. Ostrov Popova, a flat rocky islet covered with grass, lies about 2 miles SW of the point.

8.34 Mys Lazareva (52°14'N., 141°32'E.), the NE extremity of a small peninsula extending N from the mainland, lies about 5 miles N of Mys Murav'yeva and has a small detached hill on it from which the land gradually rises in a saddleback formation to a conspicuous 154m multi-peaked hill about 0.5 mile SW. The SE shore of the peninsula is steep and rocky; the town of Lazarev is situated about 1 mile within. Mys Lazareve Light is shown from the 20 May to 20 November. A radiobeacon transmits from the light.

Mys Sredniy, about 2 miles SSE of Mys Lazareva, is the E extremity of the hilly headland of which Mys Lazareva and Mys Murav'yeva form the N and S extremities. A vehicular underwater tunnel, approached by a short stone causeway at each end, is reported to extend between Mys Sredniy and Mys Pogobi, about 3 miles ENE.

Caution.—Anchorage is prohibited between Mys Lazareva and Mys Sredniy, and E to Sakhalin, due to the presence of numerous cables, pipelines, and underwater facilities.

Lazarev (52°14'N., 141°31'E.)

World Port Index No. 61045

8.35 Lazarev, situated on the N side of the peninsula of Mys Lazareva, is a lighterage port with vessels being serviced by barges and small craft from two anchorages outside the harbor to six berths within the area encompassed on its W and N side by a breakwater extending out to, and slightly beyond Ostrov Ogbi. The piers within are sheltered from all winds except those from the NE, and the harbor serves as the main seaport for the Amurskiy Liman area and the ferry crossing point to Pogibi on Sakhalin Island.

Winds—Weather.—Winds are predominantly W or NW from October to March, and SE to E from May to August. Gales occasionally occur in October and November during the onset of winter and may last for several days.

As a rule, fog occurs early in April, becoming particularly thick and continuous during June and July, but then ceasing about the beginning of September. Winds from the NE generally bring heavy fog, although it probably will occur in any E wind.

Ice.—The port of Lazarev and the nearby strait begin to freeze in November and are closed to normal navigation by heavy ice from December to about the middle of April. Drift ice is still heavy in May and usually safe navigation cannot be resumed until June.

Tides—Currents.—The normal spring rise is 2.2m; at neaps it is 1.6m. The Amur River affects the depths in Amurskiy Liman during its flood stages and such information must

be obtained from the local officials.

Flood currents set to the N and ebbs to the S. Maximum current rate usually does not exceed 4 knots.

Depths—Limitations.—The least depth in the channel approaching Lazarev is 5.8m. The harbor, although originally dredged to 6m, is subject to siltation.

Six berths are available within the harbor. Berth No. 6, an oil pier, with depths of 4.3m to 7m at its head, is the first pier encountered upon entry into the harbor area. Farther W from the oil pier is the main pier, consisting of Berth No. 1 through Berth No. 4, with depths of 1 to 2.4m alongside; general cargo, logs, timber, and coal are handled here. Berth No. 5, a small pier close W of the main pier, extends a short distance N from shore and is used mostly for small fishing vessels.

Vessels up to 120m in length, 14m in width, and a with maximum draft of 6.5m have been handled at the port.

Cargo vessels normally load and discharge into barges at an anchorage outside the harbor.

Pilotage.—Pilotage is compulsory for all foreign vessels. Pilots should be requested at least 2 hours prior to arrival.

Regulations.—Vessels should report to the Senior Port Captain, on VHF channel 14 or via their agents, the following information:

1. Vessel's IMO number.
2. Name and address of agents.
3. Status of vessel's navigation equipment.

For tankers, the following information should also be reported to the Senior Port Captain:

1. Amount of ballast on board.
2. Any presence of non-degassed cargo tanks.

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

1.	Call sign:	Lazarev Radio 1
		Lazarev Radio 17
2.	VHF:	VHF channels 14 and 16
3.	Telephone:	78-42135-43144
		78-42135-43145
4.	Facsimile:	78-42135-43144
		78-42135-43145

Anchorage.—Anchorage for awaiting cargo operations is available off Lazarev at the discretion of the pilot. Two specified anchorage areas for working cargo have their center positions at the following points:

a. 52°14'30"N, 141°31'21"E.
b. 52°14'48"N, 141°31'30"E.

A vessels is considered "arrived" at the port when entering one of these two anchorages.

Caution.—Lighted buoys mark the channel through Proliv Nevel'skogo. The buoys are removed each fall and replaced in the spring when the channel is clear. Because the channel is likely to shift somewhat during the winter, the buoys may not be laid in their previous positions.

A stranded wreck, Panamanian registered MANGO I, is conspicuous, lying on her side off Mys Lazareva, a short distance E of the harbor entrance.

Proliv Nevel'skogo—East Shore

8.36 Mys Tyk (51°45'N., 141°41'E.), the E entrance point of Proliv Nevel'skogo, is low, sandy, and inconspicuous. Shoaling, with depths of less than 1.8m, extends over 10 miles WNW of the point and vessels are cautioned against attempting to approach this part of the coast.

To the N of Mys Tyk the shore is indented by Zaliv Tyk, a bay encumbered by numerous shoals, the N point of which is Mys Lakh. The shore here remains low, but has become more marshy with numerous salt lakes and creeks and is bordered by a large drying sand bank.

Mys Uangi, about 21 miles N of Mys Tyk, is a sandy projection with some fairly precipitous sandy hills in the vicinity. It is backed by marshy tundra and fringed by shoal water for about 2 miles to the WNW.

Mys Pogobi (52°13'N., 141°39'E.), a low sandy cape, can be identified at a distance by several buildings close inshore and a conspicuous landslide scar about 1 mile to the SE. Several dark-colored oil tanks are situated near the cape and a watch tower stands about 0.5 mile NE.

Amurskiy Liman—West Shore

8.37 Mys Tkhadgou (52°15'N., 141°21'E.), a low wooded point backed by several high hills, lies 7 miles WNW of Mys Lazareva and can be easily identified by a conspicuous landslip between it and Mys Ukhtomskogo, about 0.7 mile to the NW. When viewed from the NNE, Gora Ukhtomskogo, a prominent 506m high conical peak nearly 4 miles inland, appears to back the above scar.

Ostrova Chomy, two islands, are located about 2 miles off the mouth of Reka Chomy in the SW part of Amurskiy Liman. The E island, Ostrov Bol'shoye Chomy, is cliffy on its SE side and conspicuous from that direction. Both lie on the edge of a drying mud flat; the shore within is low and marshy with hills a short distance inland.

Ostrova Khagemif (52°28'N., 141°22'E.), a group of eight densely-wooded islets centered about 15 miles NW of Mys Lazareva, attain a maximum elevation of 85m near the center of Ostrov Pilyamif, the largest islet. The latter island and Ostrov Chastye, about 2 miles N, form a good mark from most directions, but the rest of the islets are low and not easily seen from a distance.

Mys Uarke (52°31'N., 141°13'E.), with a flat-topped hill on it, lies W of the N group of Ostrova Khagemif and is more prominent from the NE than from the SE. The coast N of the point is low and in places marshy with the land rising slowly about 3 miles within.

8.38 Mys Dzhaore (52°40'N., 141°17'E.), the E extremity of a high and precipitous ridge extending ESE from Gora Dzhaore, is thickly wooded and can be identified by a clear cut through the trees near its seaward extremity. The semaphore tower is prominent and can be identified from a considerable distance.

Standard Russian tidal signals are shown from the signal mast on Mys Dzhaore. The signal station is also equipped with radio and connected to Mys Pronge and Nikolayevsk-na-Amure by telephone.

Gora Dzhaore, 383m high, rises with its summit about 5 miles WNW of Mys Dzhaore. Gora Markram, a twin-peaked 1,027m high mountain located about 17 miles NW of Mys Dzhaore, can clearly be seen in good weather, when N of its line

of bearing with Gora Dzhaore.

Anchorage.—Vessels with local knowledge can take anchorage, protected from W and S winds, in a depth of 5m, a short distance N of Mys Dzhaore.

The coast to the N of Mys Dhzaore is a succession of low points in a general indentation to the W. Southern Channel follows the trend of the coast fairly closely and carries its least depths in this vicinity.

Ostrov Uyuzyut, a small rocky islet about 16m high, lies on the coastal bank on the W side of the channel about 3 miles SW of Mys Pronge. This islet is covered with birch trees and has several buildings on the S side.

8.39 **Mys Pronge** (52°52'N., 141°15'E.), the NE extremity of a low peninsula projecting from the coast, is the S entrance point of the Amur River and lies 12.5 miles N of Mys Dzhaore. The town of Alekseyevka, with several white buildings, is situated on the E side of the peninsula.

Standard Russian tidal signals are shown from a mast near the extremity of Mys Pronge. The signal station is also equipped with telephone and is connected with Mys Dzhaore and Nikolayevsk-na-Amure. A radio station at Mys Pronge has been reported to be transmitting tidal information every hour on 2250 kHz. Msy Prong Light is shown from a red octagonal stone tower. The light is shown from 25 May to 15 November.

Caution.—The fairway channels in this area are subject to siltation and there may be less water than charted. Information on the Amur River can be found beginning in paragraph 7.5.

Amurskiy Liman—East Shore

8.40 The coast N of **Mys Pogobi** (52°13'N., 141°39'E.) continues low and marshy with numerous sand hills and salt lakes forming open tundra for about 10 miles to the E. Extensive shoaling lies off this part of the estuary, forcing the fairway of Sakhalinsky Farvater to run nearly up the center of Amurskiy Liman until approaching its N end. There are numerous sandy points and spits, with small fishing villages between, situated along this sector of the coast. Local knowledge would be required to make any approach to the shore.

Mys Khalezova (53°10'N., 141°50'E.), low and sandy, is notable only in the fact that N from here the shore becomes relatively steep-to, with the main fairway approaching within 1 mile of the coast. Several settlements and numerous fishing villages lie N of the point.

Mys Tamlevo (53°22'N., 141°46'E.) lies about 13 miles WNW of Mys Khalezova and is described along with the E coast of Sakhalinskiy Zaliv in paragraph 7.9.

Tatar Strait—Mys Sushcheva to Zaliv Chikhacheva

8.41 **Mys Sushcheva** (51°41'N., 141°07'E.), previously described as the SW entrance point to the N part of Tatar Strait in paragraph 8.30, is also the N entrance point of Bukhta Tabo, an indentation in the coast extending about 15 miles SW to Mys Kastri. Protected on the N side by Gora Vorob'yeva and several other hills, the latter bay provides some protection from the NW winds in winter and occasionally provides anchorage for vessels with local knowledge.

Mys Kastri (Davydova), the N entrance point of Zaliv Chikhacheva, is rock-fringed and steep, being backed closely by Gora Kastri, a 257m rounded and wooded summit marked by a beacon. The NW side of the hill slopes gradually downward and flattens out about 1 mile inland.

A twin-peaked mountain rises to a height of 365m about 2 miles N of Mys Kastri and forms a good mark from the E.

De Kastri (Zaliv Chikhacheva) (51°28'N., 140°47'E.)

World Port Index No. 60810

8.42 Zaliv Chikhacheva, entered between Mys Kastri and Mys Kloster-Kamp (Orlova), about 4 miles to the S, serves as the anchorage area for the port of De Kastri, situated in Bukhta Somon at the W end of the bay. Formerly a military station, the harbor is primarily engaged in the export of timber and petroleum products and is a first port of entry only for vessels which have been granted prior permission to enter.

Winds—Weather.—The NW winds, which are prevalent during the winter, are accompanied by almost continuous fog and rather high humidity. A considerable amount of rain falls during the summer, but the fog becomes less frequent after the beginning of September. During the navigational season, ordinarily from early May until late in November, October is the month with the finest weather.

Ice.—Ice begins to form in Zaliv Chikhacheva early in November, and the bay is completely frozen by the middle of December. The ice begins to break up early in April, and usually the bay is entirely free of ice by the third week in May. The ice here attains a maximum thickness of about 1.2m.

The movement of the drift ice is mainly dependent on the wind; after or during NE winds the outer part of the bay may be filled with drift ice.

The offshore facilities are designed for oil and gas export in icy conditions.

Tides—Currents.—The tides in Zaliv Chikhacheva are semidiurnal and are fairly regular, with diurnal inequalities hardly perceptible. The spring rise is nearly 2.3m and the neap rise is about 1.8m. The mean sea level is about 1.2m above the chart datum. The flood and the ebb current set in a NE and a SW direction, respectively; the ebb current attains velocities of 2 to 4 knots within the bay.

Depths—Limitations.—The approach channel to the port is approximately 1,100m long and 50m in width, with a maximum draft allowed at HW of 7.5m.

Tankers up to 110,000 dwt, 200m in length, and with a maximum draft of 13m load Sakhalin crude from the single point mooring (SPM) located in position 51°28'20"N, 140°51'13"E. Other petroleum products are loaded by ship-to-ship (STS) transfer at an anchorage nearby; the maximum draft allowable for this operation is about 10.5m. A tanker berth and platform are situated in position 51°28'48"N, 140°52'24"E, in the N entrance of Zaliv Chikhacheva.

A pier for loading timber products and general cargo at De Kastri is located about 600m S of Mys Spaseniya. This pier is 180m long and has berths for two vessels on its W side, with depths of 8 to 10m alongside. The channel leading to the pier has a reported depth of 6.7m.

Aspect.—In addition to Mys Kastri and Gora Kastri, previously described in paragraph 8.41, the most useful mark in the approach to the bay is Gora Arbat, a conspicuous bare-topped summit rising to a height of 547m, about 5 miles W of Mys Kloster-Kamp (Mys Orlova).

Mys Kloster-Kamp, the E extremity of an L-shaped peninsula, is joined to the mainland by a low narrow isthmus not visible from a few miles off. A light is shown from a tower with a dwelling at Mys Kloster-Kamp. A radiobeacon is situated at the light. The top of the light structure on the point is often visible in fog when the land below is completely enveloped, and under these conditions vessels can approach to within a few miles of the coast until the entrance of the bay can be identified.

Seal Rock, a white pinnacle, 9m high, which from the offing appears as a sail, is located about 0.3 mile E of Mys Kloster-Kamp and forms a good mark in clear weather.

Within the bay, Ostrov Bazal'tovyy, Ostrov Observatoriya and Ostrov Ustrichnyy form good marks for vessels approaching the anchorage.

Range lights, situated on the shore W of De Kastri, lead into the bay between Banka Vostok an Mys Rikova.

Two lighted beacons situated on or near Mys Mongal in the W part of the bay lead to the loading anchorage WNW of Ostrov Ustrichnyy. A group of tanks is situated NW of the same point; several other structures are situated in the vicinity.

Pilotage.—Pilotage is compulsory for all vessels entering the port and navigating through Amurskiy Liman, and are available only between the hours of 0800 and 2200. Pilots can be ordered via agents or directly to the pilots 24 hours prior to arrival with confirmation sent 4 hours prior to arrival.

Pilots will board in one of three places, as follows:

1. Off Mys Orlova Light (51°25'30"N, 140°53'00"E).
2. In Anchorage Area 175, located about 4.25 miles ESE of the port.
3. For tankers—in Area No. 2 (51°27'08"N, 140°55'15"E).

Regulations.—All vessels must maintain a listening watch on VHF channel 16.

The vessel's ETA should be forwarded to the agents or the Port Captain 48 hours, 24 hours, and 4 hours prior to arrival.

Vessels in the roadstead or at the pier should request pilots at least 2 hours in advance of vessel movement.

Vessels must request permission to depart from the Port Control Office 12 hours in advance. Vessels in port for less than 12 hours must make this request 6 hours in advance.

No movement of vessels is permitted within the harbor when visibility is less than 0.5 mile and wind speed of Force 7 (15m/second). For vessels proceeding to the SBM, movement is allowed until wind speeds approach Force 8 (17m/second).

Upon receiving a forecast of an increase in the wind speed to more than Force 7, vessels at the sea port berths (except for those lying at the SBM) must be ready to depart from the sea port immediately when requested by the harbormaster.

Vessels at the SBM will need to depart the area when a forecast of winds reaching Force 10 (25m/second) or sea heights in excess of 3.5m is received.

Contact Information.—See the table titled **De Kastri—Contact Information** for details.

De Kastri—Contact Information

	Call sign	VHF	Telephone	Facsimile
Pilots	—	VHF channels 8 and 16	—	—
Port Control	Dekastri-5	VHF channels 12 and 16	—	—
Port Authority	—	—	78-42151-56772	78-42151-56772
			78-42151-57487	78-42151-57487
Port Marine Superintendent	—	VHF channel 9	—	—
Agents (Inflot)	—	VHF channel 10	—	—
Roadstead Marine Superintendent (Bereg)	—	VHF channel 6	—	—

Anchorage.—Designated anchorages located in the outer roads and the harbor are described below:

1. Lightering Anchorage (Area No. 15A), bounded by lines joining the following positions:
   a. 51°28'34"N, 140°52'19"E.
   b. 51°28'52"N, 140°52'10"E.
   c. 51°28'58"N, 140°52'39"E.
   d. 51°28'40"N, 140°52'49"E.

The anchoring of vessels in area No. 15A is not permitted when the following conditions exist:

(a) Wind speeds greater that Force 6 (12.4m/second).
(b) Wave heights exceeding 1m.
(c) Tidal currents approaching 0.9 knot (0.45m/second)
(d) Visibility less than 700m.

2. Large Tanker Anchorage—Outer Roads (Northern Area No. 171A), bounded by lines joining the following positions:
   a. 51°29'48"N, 140°54'18"E.
   b. 51°29'48"N, 140°55'00"E.
   c. 51°29'00"N, 140°55'00"E.
   d. 51°29'00"N, 140°54'18"E.

Bunkering permitted at this anchorage unless wind speeds exceed Force 5 (10m/second).

3. Large Tanker Anchorage—Outer Roads (Southern Area No. 171B), bounded by lines joining the following positions:
   a. 51°26'56"N, 140°54'18"E.

b. 51°26'56"N, 140°55'00"E.
c. 51°26'32"N, 140°55'00"E.
d. 51°26'32"N, 140°54'18"E.

Bunkering permitted at this anchorage unless wind speeds exceed Force 5 (10m/second).

4. Dry Cargo and Quarantine Anchorage—Inner Roads (Area No. 174), bounded by lines joining the following positions:

a. 51°26'32"N, 140°48'12"E.
b. 51°26'32"N, 140°49'24"E.
c. 51°25'53"N, 140°49'24"E.
d. 51°25'53"N, 140°48'12"E.

Caution.—A submarine pipeline extends 1.3 miles SE from shore from a position about 2 miles WSW of Mys Davydova. In order to protect the pipeline, Restricted Area No. 69A has been established; the area is bounded by lines joining the following positions:

a. 51°29'27"N, 140°50'19"E.
b. 51°29'06"N, 140°50'29"E.
c. 51°28'44"N, 140°51'07"E.
d. 51°28'34"N, 140°52'19"E.
e. 51°28'52"N, 140°52'10"E.
f. 51°28'58"N, 140°52'39"E.
g. 51°29'10"N, 140°51'37"E.

Banka Vostok, a rocky shoal with a depth of less than 0.2m, lies in the middle of the entrance to Zaliv Chikhacheva and is the primary danger in the approach. It is marked on its E side by a buoy and on its N, W, and S sides by spar buoys moored 0.1 to 0.3 mile from the edge of the reef.

Mys Rikova, about 1.2 miles NW of Mys Kloster-Kamp, slopes at its NW extremity and extends another 0.2 mile NW as a submerged reef. A buoy moored about 0.3 mile NW of the point marks the outer end of the danger.

Ostrov Ustrichnyy, about 1 mile WNW of Mys Rikova, is bordered by a reef which extends about 0.4 mile N of the island and is marked at its N extremity by two buoys.

Ostrov Observatoriya, about 1.5 mile NW of Ostrov Ustrichnyy, is surrounded by a reef and marked by a buoy on its SW side.

Banka Skala, with a depth of less than 1.8m, lies about 0.7 mile W of the W extremity of Ostrov Observatoriya and is marked on its S side by a lighted buoy.

The buoys in Zaliv Chikhacheva are removed each winter and replaced in the spring. Their positions, even during the navigational season, should not be entirely relied upon.

Tatar Strait—Zaliv Chikhacheva to Sovetskaya Gavan

8.43 Mys Sobornyy (51°22'N., 140°51'E.), a steep cliffy point conspicuous from the offing and lying about 3.5 miles S of Mys Kloster-Kamp, can be identified by a pillar rock which resembles a tower and dominates the surrounding cliffs. A white triangular pyramidal-shaped beacon, surmounted by a pole, stands on the point. When viewed from N or S, the point appears as an islet.

The coast trends SW from Mys Sobornyy, turning W at Mys Nakatova and forming an open bay between the latter and Mys Opasnosti, about 6 miles SSW. The shore is generally high and cliffy and bordered by numerous above and below-water rocks. Vessels should not proceed into depths of less than 9.1m, especially along the N shore.

Bukha Mosolova, entered between Mys Opasnosti and a point about 2.5 miles SW, has high steep shores except at its head, where the broad mouth of Reka Duy enters. The N entrance point can be identified by Ostrova Dugu, two small but conspicuous islets, which lie on a dangerous sunken ledge extending about 1 mile to the SSE. Ostrov Konstantina, the N islet, is 61m high and has a white pyramidal framework beacon on its E side.

Kamen' Kleopatri, a very conspicuous pillar rock, 25m high, lies in a position about 2.2 miles WSW of Mys Opasnosti and about 0.1 mile offshore. Another small rock lies nearby.

Anchorage.—Vessels can take anchorage in Bukhta Mosolova, with protection from NW winds, SE of Kamen Cleopatra and about 0.8 mile N of the S entrance point, in depths of 9 to 11m, fine sand and good holding ground. Reka Duy, with a bar at its mouth having a depth of about 0.9m, can be ascended by boats for about 2.5 miles at HW.

Gora Svetlaya, about 4 miles SW of Mys Opasnosti, rises to a height of 309m and is thickly wooded with pine trees, the green color of which, in contrast to the dark background of the surrounding peaks, renders this mountain easy to identify.

Bukhta Krestovaya, a narrow and shoal inlet 1 mile in length, is entered between steep cliffs about 8 miles S of Bukhta Mosolova. There are some sunken rocks off the S entrance point and the inner portion of the bay is foul, but boats can enter at HW and find good shelter from all winds and the sea.

Anchorage can also be taken by vessels, in a depth of 20m, about 0.8 mile off the entrance to the inlet. Anchorage should not be attempted in strong E winds.

8.44 **Mys To** (51°02'N., 140°41'E.), a rounded point about 5 miles S of Bukhta Krestovaya, slopes seaward between the coastal cliffs N and S. It is marked with a red patch on its seaward face, and a wide waterfall on the S side renders it conspicuous from that direction.

Mys Khoy, located about 5 miles SSW of Mys To, is a steep round cliff with a ledge extending off Mys Sivuchiy, its NE extremity. Two conspicuous pillar rocks, the inner one being 35m high and the outer only 3m high, lie on the above ledge and aid in the identification of the cape.

Gora Khoy, rising to a height of 564m about 7 miles W of Mys Khoy, forms a good mark, especially from the S, when it appears conical. Another peak, 430m high, rises about 2.5 miles NW of Mys Khoy and is also conspicuous.

Anchorage.—Vessels with local knowledge can take anchorage protected from W winds in the S part of the bight between Mys To and Mys Khoy.

8.45 **Mys Solov'yeva** (50°50'N., 140°32'E.), located about 9.5 miles SSW of Mys Khoy, is the termination of the steep seaward slope of a twin-peaked 550m mountain located close to the W. About 1 mile to the S of Mys Solov'yeva is a conspicuous cliffy point with a sharp black summit, 83m high. Several large black rocks lie off these points and several more lie close off the coast about 4 miles SW.

Gora Stolovaya, rising to a height of 916m about 7 miles WNW of Mys Solov'yeva, is the N and highest end of a long ridge trending about 5 miles to the S. It is the highest peak in

the coastal range and a good mark in clear weather.

Bukhta Sizimin (50°43'N., 140°27'E.), a small open bight about 1 mile across, is situated between Mys Nitusi, a flat-topped cliffy point to the N, and a lower rock-strewn point to the S. Reka Sizimin empties at the head of the bay and can be entered by boats at HW. A conspicuous hill, with white streaks discernible in clear weather from about 7 miles offshore, is located close S of the river entrance.

Anchorage.—Anchorage can be taken during good weather in the outer part of Bukhta Sizimin, with depths of 11 to 14m, fair holding ground, about 0.7 mile E of the head of the bay.

The anchorage should be cleared on any sign of increasing E winds.

8.46 The coast to the S of Bukhta Sizimin continues as rugged and rocky, with isolated cliffs. A long bight is formed between Mys Murashko and Mys Mednyy, about 10 miles further S. The SW shore of this bight is bordered by numerous sunken rocks. The coast is backed by many mountains most of which are about 7 miles inland.

Mys Ivanova (50°20'N., 140°32'E.), a high point covered with trees, is precipitous on its E extremity. From N or S the point appears triangular. There are two below-water rocks close off the point.

Gora Topazovaya, an isolated conical peak rising to a height of 677m about 5 miles WNW of Mys Ivanova, forms the most conspicuous landmark in this vicinity and is useful from offshore in identifying the area.

8.47 **Mys Syurkum** (50°06'N., 140°42'E.), 97m high and lying about 16 miles SSE of Mys Ivanova, is the NE extremity of an elevated peninsula extending 7 miles E from the coastline. From its center it gradually slopes seaward and from N or S appears as four hills, which when seen from a distance have the appearance of an island with four summits. The point may be identified by a pinnacle rock, 9m high, lying about 90m off its N extremity. A light is shown on Mys Syurkum.

Reyd Syurkum and Bukhta Starka, situated on the N side of the above peninsula about 6 miles WNW of Mys Syurkum, are the roadstead and bay area for the coastal town of Syurkum.

Anchorage.—Anchorage may be obtained in Reyd Syurkum, which is open N and E, a distance of 1 mile W of Mys Syurkum to 1.5 miles N of the entrance to Bukhta Starka. The holding ground is poor, consisting of rock and shingle, and local knowledge is necessary. Vessels should not anchor abreast of the entrance to Bukhta Starka.

Bukhta Starka, a triangular brackish lagoon, is separated from the sea by a sandspit which has a length of 3.5 miles and a width of 90m. The entrance channel, about 90m wide between the W extremity of the above sandspit and the mainland, is fronted by a bar with a maximum depth of 2.7m, but with depths of 3.7m to 5.5m inside.

Caution.—An explosives dumping area is situated 24 miles NE of Mys Syurkum. Navigation is restricted for certain vessels between Mys Ivanova and Mys Syurkum. Numerous danger and restricted areas also exist S of Mys Syurkum.

Reyd Aukan, a small bight in the coast about 17 miles SW of Mys Syurkum, provides good temporary anchorage during offshore winds. There are heights of over 500m within 2 miles N and 3 miles S of the anchorage area and considerable protection is also afforded from NE and SSE winds. The land is low in the vicinity of the mouth of Reka Aukan, at the head of the roadstead, but elsewhere the shores are precipitous.

8.48 **Mys Bychiy** (49°48'N., 140°32'E.), about 7.5 miles SE of Mys Aukan, is the NE extremity of a high and broad headland. The point is bold, precipitous, and steep-to. The land in the vicinity of the cape is thickly wooded and the shore on the N side consists of numerous cliffs rising steeply from the sea. There are depths of 36m close offshore.

Skala Sangach, a very conspicuous square white rock about 33m high, is located 4 miles WNW of Mys Bychiy and forms a good landmark from the NE.

Mys Boena, located about 11 miles S of Mys Bychiy, is conspicuous. It is formed by the seaward slope of a fairly high hill which appears white because of numerous birch trees. The surrounding hills are rugged and intersected by narrow ravines, but along the coast are many sheer cliffs of red color. About 6 miles N of the point the coast becomes very precipitous, and with the mountains being close to the shore, makes a sheer descent to the sea producing a strikingly conspicuous appearance.

Bukhta Chumy-Dua, formed between Mys Boena and Mys Yuma, about 5 miles SSE, is a small cove indented in the coast close SW of a red granite projection.

Anchorage.—Vessels with local knowledge can take anchorage protected from all but SE winds, near the head of the cove, in depths of 11 to 13m.

The coast between Mys Yuma and Mys Datta, about 12 miles SSW, is bold and generally steep-to except at Mys Namshuka, where depths of 8.6m extend nearly 1 mile offshore. Several waterfalls empty into the sea along this stretch of the coast, most originating in the numerous ravines of the coastal range.

Caution.—Two unlit mooring buoys are charted 20 miles ESE of Mys Bychiy.

A marine farm located between Mys Aukun and Mys Bychly is bounded by the lines joining the following positions:

a. 49°51'42"N, 140°24'24"E.
b. 49°52'30"N, 140°28'24"E.
c. 49°49'36"N, 140°30'48"E.
d. 49°48'36"N, 140°26'54"E.

8.49 **Mys Datta** (49°18'N., 140°26'E.), a precipitous headland, the slopes of which are thickly covered with grass, juts sharply to the SE and forms a conspicuous landmark. Farther inland the terrain becomes more wooded and the coastal chain attains a maximum height of 451m in a conspicuous rounded summit about 6 miles WNW of the point.

A light shown on Mys Datta stands on a round metal tower with a concrete base, 12m in height. A radiobeacon transmits from the lighthouse.

Bukhta Datta, with a low and marshy shore on its NW side, is formed by Mys Datta and Mys Sadika about 2.5 miles to the SW. The bay is entered at its head by Reka Tumnin, the mouth of which is fronted by a bar with depths of 1.2 to 2.2m. Within the entrance, the river has a lagoon-like estuary about 1 mile wide and the channel deepens to about 7m for approximately 2 miles.

Anchorage.—Anchorage can be taken by vessels with local knowledge, in depths of 8 to 10m, fine sand, about 0.8 mile

SW of Mys Datta. There is good protection here from N and SW winds, but the bay is open to the E and SE.

Caution.—Two obstructions, consisting of sunken buoys, lie about 13 miles E of Mys Datta.

An area restricted from anchoring, fishing, any underwater operations is located nearly 6 miles E of Mys Ditta within a 1.5-mile radius of 49°16'00"N, 140°34'00"E.

8.50 Bukhta Storozh, about 4 miles SW of Mys Datta, is entered between Mys Ekche and Mys Storozh, about 1 mile to the W. Vessels with a draft of not more than 6m can take anchorage, protected from all but S and E winds, in a position just inside the entrance, in depths of 7 to 8m, fine sand. Small vessels can anchor farther in just off the NE shore and be protected from all but S winds.

Mys Dyuanko (49°12'N., 140°21'E.), a narrow rocky projection extending N from the coast, can be identified by Ostrov Dyuanko, which lies at the NE extremity of the point and connected to the mainland by a drying reef. From the N or S the islet appears as a cone-shaped pinnacle rock, but from the E or W it is flat-topped and oblong with a large rock lying close N.

A submerged rock, with a depth of 7.8m, lies a little over 1 mile NNE of Mys Dyuanko and is surrounded by depths of 12 to 14m.

Anchorage.—Good anchorage may be obtained, in depths of 9 to 10m, fine sand, about 0.5 mile NW of Mys Dyuanko in the outer part of Bukhta Silant'yeva. Caution is necessary on entering to avoid the submerged rock N of Mys Dyuanko.

The coast to the S of Mys Dyuanko is indented by several small bays and trends S for about 6 miles to Mys Burnyy. Mys Toki and Mys Aya, two fairly prominent capes, lie in the middle of this part of the coast and Ostrov Toki, a flat-topped islet, 19m high, lies close off the N part.

Mys Krasnyy Partizan (48°59'N., 140°23'E.), a conspicuous black bluff, about 43m high, lies 7 miles SSE of Mys Burnyy with Bukhta Vanina and Sovetskaya Gavan between. The point is fringed by submerged and pinnacle rocks to a distance of about 0.1 mile. A light is shown from a tower adjoining a house on the point; a radiobeacon is situated at the tower.

Caution.—An area dangerous due to mines lies off this section of coastline. The limits of this area have been revised and reduced by minesweeping, and may be best seen on the chart. This area is considered safe for surface navigation only.

8.51 **Mys Mayachnya** (49°00'N., 140°18'E.), marks the S entrance to Bukhta Mayachnaya. The E and W sides of the bay are steep, with forest covering the W coast, but the S shore is flat. Bukhta Mayachnaya can be used for limited cargo handling and small vessel operations.

Depths and Limitations.—Depths within the bay range from 10m to 14m with mud, sand, and stone making up the bottom characteristics.

Aspect.—Bukhta Mayachnaya is protected by breakwaters. The N breakwater is 110m in length with a lighted beacon marking the seaward extremity.

There is a cargo pier, 250m in length, extending SSW from the N breakwater, with depths of 6.9m alongside. A stone embankment is situated about 560m S of this pier. There is a floating pier, 8m in width, along the N side of the pier.

Another pier, for much smaller vessels, is located on the W side of the bay. This pier is 92m in length, and 14m in width, except for the final 15m where it widens to 30m. Depths alongside this pier are 2.8m to 4m.

Mys Krasnyy Partizan Light

Caution.—Bukhta Mayachnaya contains numerous reefs and underwater hazards within 200m of the coastline with depths of only about 2m at the outward extremity of these hazards. High seas will be generated within the bay during periods of NE winds, making mooring operations quite dangerous.

Sovetskaya Gavan' (48°58'N., 140°17'E.)

World Port Index No. 60795

8.52 Sovetskaya Gavan', the largest naval base in the Tatar Strait area, is entered between Mys Milyutina, the SE extremity of Poluostrov Men'shikova, and Mys Putyatina (49°01'N.,140°21'E), about 1.5 miles SE. It consists of the port divisions of Bukhta Okocha, Bukhta Kurikshi, Bukhta Severnaya, Bukhta Zapadnaya, and Bukhta Vanina. The first four are under the direct control of the Russian Navy and are not generally open to foreign vessels.

Bukhta Vanina, about 3 miles NW of the entrance to Sovetskaya Gavan' is the commercial port for the area and can normally be used by foreign vessels that have been granted permission to enter. The latter harbor is described separately after the description of the naval port.

Winds—Weather.—During the winter, the prevailing winds are from the N half of the compass rose, principally from the NW. Winds from the S begin late in March.

The middle of June to the middle of August is the rainy season, during which rain may fall continuously for about 2 weeks. Clear and warm weather with warm nights lasts from September until the middle of October, when the morning frosts set in and the days become foggy. Winter commences about the middle of November.

Commencing late in April and lasting until the middle of June is a period of dense protracted fog, which renders navigation both difficult and dangerous. Frequently, when fog prevails in the offing, Sovetskaya Gavan' and its entrance are clear of fog.

Ice.—Ordinarily, ice appears during the first week in November, and the arms of Sovetskaya Gavan' are completely frozen by the last week of December. Vessels can approach the pier only with the assistance of an ice breaker. Vessels requiring icebreaker assistance will meet at a Convoy Meeting Point (CMP) where they will be taken into the harbor in convoys. Notification of restrictions on ice navigation and the location

of the CMP are broadcast on the Internet at: (http://www.ampvanino.ru) no later than 14 days before the proposed date of introduction of restrictions to ice navigation and the location of the CMP. Requests for an icebreaker assistance are to be transmitted 72 and 24 hours before expected arrival at the CMP. Vessels will proceed to the CMP under VTS direction. The time and sequence for vessels to proceed through the ice, and also the number of vessels to be escorted simultaneously is determined by the harbormaster at 1000 and is also broadcast on the Internet at: (http://www.ampvanino.ru).

Depending on the severity of the winter, the ice is from 0.9 to 1.8m thick. The ice begins to break in the last week of March, but the arms are not entirely free until the middle of May.

The dock area is enclosed with a compressed air piping system which mixes layers of water thus preventing freezing in winter. Ice breakers open the channels to the sea when vessels are expected.

Tides—Currents.—The spring rise is about 0.6m and the neap rise is 0.2m. The tidal currents in Sovetskaya Gavan' are generally weak, except near the mouths of rivers, where the flood currents sometimes attain a velocity of 1 knot.

Depths—Limitations.—Depths in the approach to Sovetskaya Gavan' are deep. The entrance channel has depths of 20 to 30m; the inner anchorage at Zaliv Khadzhi has general depths of 13 to 19m.

Bukhta Yugo-Zapadnaya, the southernmost arm of Sovetskaya Gavan', is indented by several bays. Quays and piers located in some of them. The following is a list of the most significant bays:

1. **Sovetskaya Gavan** (**Egge**)—This is the main harbor area; it contains a wharf, 450m in length, with three berths of 150m lengths and depths of 9.5m alongside.
2. **Bukhta Okocha**—Two quays and a T-shaped pier. The longest berth is 183m in length with depths alongside of 9.8m.
3. **Bukhta Kuryshak**—One quay, with a length of 190m and a depth alongside of 6.1m. This bay also contains a ship repair yard and timber handling facility.
4. **Bukhta Lososina**—One berth, with a crane for handling timber, lumber, and general cargo.
5. **Bukhta Zapadnaya**—No berthing facilities here but this bay is completely sheltered from wind and sea.
6. **Bukhta Severnaya**—Two main quays in the N part of this bay, along with several smaller more minor quays elsewhere.

Aspect.—Vessels proceeding from the S or E will sight Mys Krasnyy Partizan and its light before the lower points to the N. Gora Sovetskaya, rising to 561m about 8 miles SW of the point, is also a good mark especially from the SE. When the light on Mys Milyutina is identified the entrance can be made for, but caution is necessary in fog.

Pilotage.—Pilotage is compulsory and available between 0800 and 1900. Vessels requiring pilotage outside of these hours must contact Vanino VTS on VHF channel 14.

The request for pilotage must be submitted 48 hours in advance and confirmation made 4 hours before arrival at the pilot boarding station. Vessels in the roadstead or berthed at the port should request pilotage at least 2 hours in advance.

Pilots board within 400m of position 49°02'00"N, 140°19'57"E or, if the weather is bad, in the inner roadstead.

Regulations.—Vessels should forward their ETA 48 hours, 24 hours, and 4 hours in advance of arrival to the Port Captain on VHF channel 12. Vessels must also request permission to enter port from the Port Captain on VHF channel 12 no later than 30 minutes before arrival.

Sovetskaya Gavan' is approached through a Traffic Separation Scheme which is not IMO adopted. Mariners are advised that Rule 10 of the International Regulations for Preventing Collisions at Sea (1972) apply. Recommended tracks are shown on the chart.

The maximum speed within the harbor is 9 knots. Passing is prohibited in the water area of Sovetskaya Gsvan.

Vessels must maintain a radio watch on VHF channels 12 and 16 while in the roadstead.

Since Sovetskaya Gavan' is a naval base generally closed to foreign vessels, it is necessary to have definite permission to enter before approaching the entrance. The harbor is patrolled and guarded by submarine nets. Vessels in difficulty seeking shelter or repairs should make for Bukhta Vanino and not attempt Sovetskaya Gavan'.

Vessel Traffic Service.—See paragraph 8.53 (Bukhta Vanino) for details.

Contact Information.—The Port Captain and Inspectorate of State Director can be contacted, as follows:

1.	Call sign:	Sovetskaya Gavan' Radio 5
2.	VHF:	VHF channels 12 and 16
3.	Telephone:	78-42138-40749
		78-42138-45383

Anchorage.—Vessels granted permission to enter Sovetskaya Gavan' usually take anchorage in Zaliv Khadzhi (Yugozapadnaya) at the SW part of the harbor. Depths of 13 to 18m are available and the bottom is mud with good holding ground.

Large deep-draft vessels can take anchorage about 0.4 mile WSW of Ostrov Ustritsa, in depths of 22 to 24m, mud.

Caution.—It was reported (2008) that there is a dangerous wreck with masts showing close off Mys Truzhenik.

Bukhta Vanino (49°05'N., 140°17'E.)

World Port Index No. 60800

8.53 Bukhta Vanino (Bukhta Vanina), the commercial port, for Sovetskaya Gavan' area, maintains its own harbormaster and pilots, but is under secondary control of the Russian Navy. Vanino is located in a natural deep-water bay. It is considered one of the ten largest ports in Russia and is the largest in the Khabaraovsk region. Vanino handles both import and export cargo, including general cargo, containers, metal products, and timber products, as well as coal and petroleum products. The bay is approximately 5 miles in length and remains navigable all year.

Vanino Commercial Seaport Home Page

http://www.vcsp.ru

Winds—Weather.—For information on winds, weather, tides, and landmarks, see Sovetskaya Gavan' in paragraph 8.52.

Ice.—Ice can normally be expected to appear during the

months of January through March but there is little effect on navigation within the bay. The port is kept clear by a compressed air system.

Depths—Limitations.—Vanino is approached through a fairway, 1 mile in width, from position 49°05'30"N, 140°38'36"E. There is an outer and inner channel.

The inner channel is considered to be the area in Muchka Bay between the line connecting Cape Severny and Cape Yuzhny and the line connecting Pier No. 1 and Pier No. 3. Depths within the inner channel are 13 to 15m; the outer channel has depths of 15 to 18m.

A rocky shoal, with a depth of 9.1m, lies about 0.4 mile NE of Mys Kapaycha with lesser depths within.

The harbor fronts the town of Vanino, with additional berths close NW of Mys Severnyy. A coal terminal lies close N of Mys Muchukey-Dua.

Vanino port facilities are divided into Trans-shipment Terminal No. 1 and Trans-shipment Terminal No. 2. Terminal No. 1 is made up of eight berths and two piers, with a berth on the N and S side of each pier. Terminal No. 2 is made up of six berths, a ferry complex that includes two berths on either side of a finger pier, and an oil terminal that includes three berths. Details of the actively working piers and berths can be found in the table titled **Vanino—Berthing Facilities**.

Vanino—Berthing Facilities

Berth	Maximum length	Depth alongside	Remarks
Trans-shipment Terminal No. 1			
No. 5	106.5m	9.55m	Coal
No. 6	106.5m	9.75m	Coal
No. 7	211m	11.3m	Container terminal, ferrous materials, and general cargo
No. 8	66m	11.0m	Bulk cargo
No. 9	150m	9.2m	Steel products and timber
No. 10	200m	9.55m	Aluminum products
No. 11	150m	9.55m	Aluminum products and scrap metal
No. 12	200m	9.55m	Aluminum products and fertilizers
Pier No. 1			
N side	140m	—	Port craft
S side	140m	—	Port craft
Pier No. 3			
N side	149m	8.7 to 11.5m	Breakbulk, reefer, and general cargo
S side	147m	8.7 to 11.0m	Breakbulk, reefer, and general cargo
Trans-shipment Terminal No. 2			
No. 15	150m	9.2m	Timber products
No. 16	150m	9.2m	Timber products
No. 17	150m	9.7m	Timber products
No. 18	120m	9.0m	Bulk cargo
No. 19	175m	11.0m	Timber products
No. 20	175m	11.3m	Bulk and general cargo, steel, and timber products
Ferry complex			
No. 14	122m	8.5m	Passengers and rail ferries
No. 14A	80m	8.5m	Passengers and rail ferries
Oil Terminal			
West	58m	—	Crude and oil products
North	80m	—	Crude and oil products
East	24m	—	Crude and oil products

Aspect.—Range lights, in line bearing 081°-261°, lead into the inner roadstead and are shown from three light towers and a dam in Vanino.

A lighted buoy, equipped with a radar reflector, is moored about 2.5 miles E of Mys Veselyy.

Pilotage.—Pilotage is compulsory for all foreign vessels.

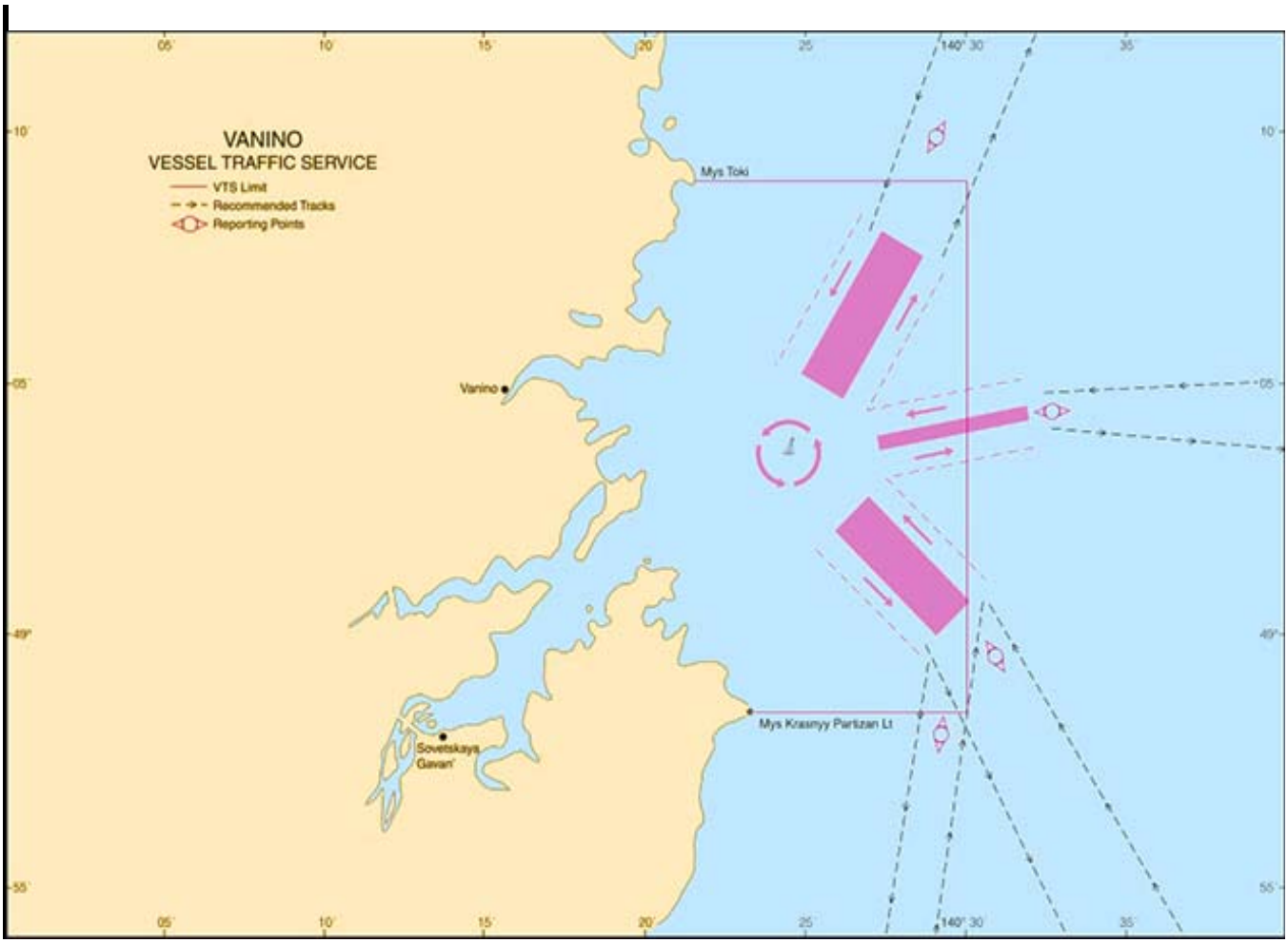
Pilots should be requested through the agents and confirmed at least 2 hours prior to arrival through the Port Controller on VHF channel 9.

The Vanino vessel traffic service (VTS) will advise details of the pilot's ETA on VHF channel 14.

Pilots will board in either of the two following positions:

1. Within 400m of position 49°05'03"N, 140°18'54"E.
2. In the regulated Anchorage Area 177B which is 1 mile ENE of Mys Burnyy.

In the case of adverse weather conditions, the pilot boarding area may also be changed to any other position by agreement between the pilot and the vessel.



Vanino VTS

Regulations.—The vessel's ETA should be sent to the port 72 hours, 48 hours, 24 hours, and 4 hours prior to arrival and should include the following information:

1. Vessel call sign and IMO Number.
2. Port of registry.
3. LOA, beam, and dwt.
4. Draft, fore and aft.
5. Type and quantity of cargo, including hold number.
6. Name of cargo consignee(s).
7. Agent and shipowner, including their addresses.
8. Condition of vessel equipment, listing defects.
9. Fuel, water, and stores requirements.
10. For tankers—quality of ballast water.
11. Number and nationality of crew
12. Last port of call.
13. Health conditions of all personnel on board.
14. Any services required in port.

Permission must be granted by the Port Traffic Control Center for vessels to enter or depart the port or to do any maneuvering within the port area.

Mooring or unmooring in the port is not allowed if wind speeds exceed Force 6.

Towing of any large capacity vessels is not allowed if wind speeds exceed Force 5.

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

1. Call sign: Vanino Radio 6
2. VHF: VHF channels 1, 16, and 27
3. Telephone: 78-42137-77799
4. Facsimile: 78-42137-77575

5. E-mail: market@vcsp.ru

The Port Controller can be contacted, as follows:

1. Call sign: Vanino Radio 2
2. VHF: VHF channel 9

Vessel Traffic Service.—A Vessel Traffic Service (VTS) in operation for the waters of Vanino port, and the waters off Sovetskaya Gavan' Port, between a N limit along the parallel of Mys Toki (49°09'00"N, 140°21'42"E.), and a S limit of the parallel of Mys Krasnyy Partizan light (48°58'34"N, 140°23'10"E.), both W of 140°30'E.

Participation in the VTS is compulsory for all vessels. The VTS can be contacted, as follows:

1. Call sign: Vanino Traffic
2. VHF: VHF channels 11, 14, 16, and 68
3. Telephone: 78-42137-77594
4. Facsimile: 78-42137-77594
5. E-mail: cuds@rmpvan.sdtc.ru

All vessels entering and leaving the ports of Vanino and Sovetskaya Gavan' and those vessels using the TSS for transit passage and crossing the boundaries of the VTS area must establish communication with Vanino Traffic on VHF channel 14 when approaching the reporting points (see graphic titled **Vanino VTS**), providing the following information:

1. Name and type of vessel.
2. IMO number.
3. Length overall.
4. Maximum draft.
5. Nationality.
6. Port of departure.
7. Type and quantity of cargo.

If a vessel has not established contact with the VTS before reaching the VTS limits, entry into the VTS area is prohibited.

Vessels within the VTS must maintain a continuous listening watch on VHF channels 14 and 16.

Vessels departing Zaliv Sovetskaya Gavan and the port of Vanino must send a departure report to Vanino Traffic on VHF channel 14 at least 30 minutes before departing the berth or anchorage.

Vessels must again report to Vanino Traffic when getting underway and include:

1. Time of getting underway.
2. Departure berth or anchorage.

A final report must be sent to Vanino Traffic on VHF channel 14 when leaving the VTS area, stating the vessel's name and port of destination.

Anchorage.—Seven designated anchorages are located N of the range line leading into the inner harbor; seven designated anchorages are located S of the range line. All anchorages have depths of 13 to 15m, sand. The center positions of these anchorages are listed in the table titled **Vanino—Anchorages**.

Vessels will be assigned an anchorage position from the Port Traffic Control Center on VHF channel 14.

Vanino—Anchorages		
Area	**Position**	**Remarks**
North of the range line		
No. 1	49°05'21"N 140°17'18"E	Anchorage only allowed for a short time
No. 3	49°05'18"N 140°17'33"E	Anchorage only allowed for a short time
No. 5	49°05'19"N 140°18'31"E	—
No. 7	49°05'14"N 140°19'16"E	—
No. 9	49°05'11"N 140°19'42"E	—
No. 11	49°05'27"N 140°19'33"E	—
No. 13	49°05'24"N 140°19'59"E	—
South of the range line		
No. 2	49°04'53"N 140°17'54"E	—
No. 4	49°04'51"N 140°18'19"E	—
No. 6	49°04'44"N 140°19'02"E	—
No. 6A	49°04'35"N 140°19'27"E	—
No. 8	49°04'28"N 140°18'55"E	—
No. 10	49°04'39"N 140°19'56"E	Tankers, dangerous cargo, and infectious diseases
No. 12	49°04'22"N 140°19'47"E	Tankers, dangerous cargo, and infectious diseases

Caution.—A wreck, with depth of 60m, is located 11.2 miles E of Mys Toki.

There are numerous restricted and danger areas in the approach to Bukhta Vanino. Vessels should consult the North Pacific Planning Guide before proceeding into this area.

Sovetskaya Gavan' to Mys Peschanny

8.54 The coast to the S of Mys Krasnyy Partizan is steep and mountainous with numerous rocks bordering the shore. Mys Kekurnyy, conspicuous and located about 3.5 miles SSW of the above point, is formed by the steep seaward slope to Go-

ra Kekurnaya rising close W of the cape. About 1 mile SW of Mys Kekurnyy the coast becomes steep-to and nearly inaccessible with high cliffs that are closely backed by mountains, attaining heights of 500m or more.

Caution.—Several prohibited and dangerous areas exist between Mys Krasnyy Partizan and Mys Peschanyy. Vessels navigating near this area should consult Pub. 120, Sailing Directions (Planning Guide) Pacific Ocean and Southeast Asia for details.

8.55 Mys Mapatsa (48°49'N., 140°15'E.), located about 12 miles SW of Mys Krasnyy Partizan, is a sloping projection marked with a fishing station near its extremity. The coast on either side of the point is sheer and steep-to, and Gora Okhrovaya, a 192m hill about 2 miles to the SSW, terminates at its seaward slope in a precipitous landslide.

Mys Gydzhu, a cliffy point about 5 miles SSW of Mys Mapatsa, has several rocks close off which lie a steep-to shoal extending about 1 mile to the E. The coast between this point and Bukhta Innokentiya, about 8 miles S, presents a wall-like formation of steep cliffs backed by numerous coastal hills and mountains farther inland.

8.56 Bukhta Innokentiya (48°36'N., 140°11'E.), a small cove, has a depth of about 7.9m in its center.

Anchorage.—Local vessels find good anchorage, in a depth of about 7m, with shelter from all W winds in the NE part of Bukhta Innokentiya. The N entrance point of this bay gives added protection.

The cove is protected from all but E winds. Entrance is difficult due to off-lying prohibited areas. A light is shown from the S entrance point of the bay.

Caution.—A local magnetic anomaly is located in the vicinity of the coast between Bukhta Innokentiya and Mys Mapatsa.

It was reported (2008) that there is a stranded vessel at the head of Bukhta Innokenitiya,

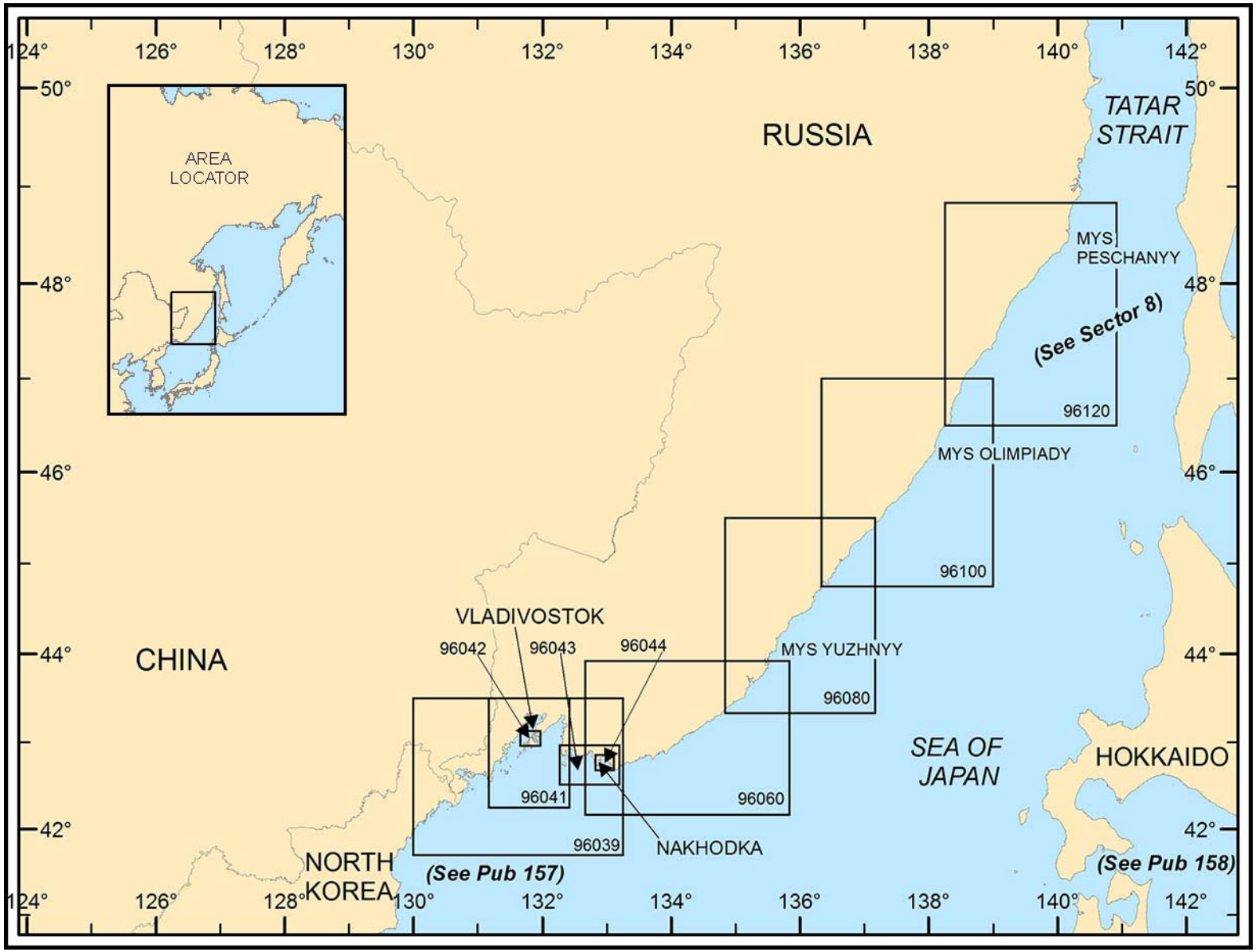
8.57 Gora Puchi, a conspicuous craggy peak with a height of 597m, rises about 4.5 miles WNW of the entrance of Bukhta Innokentiya and from offshore has the appearance of a triangular cliff.

Bukhta Andreya (48°33'N., 140°11'E.), lying 3 miles S of Bukhta Innokentiya, is bordered on its N side by conspicuous terraced land and, on its S side just above Mys Travyanoy, by a sheer cliff. The bay has depths of 13m at its entrance and 9m at its center. The bay shoals rapidly in its W part terminating in a sandy beach which is interrupted on its SW side by the mouth of Reka Koppi. The settlement of Koppi, with a large fishing station, is situated on the S shore of the river entrance and is quite conspicuous.

Anchorage.—Small vessels with local knowledge can take anchorage protected from all W winds, in a depth of 7.3m, sand and shingle, about 0.5 mile E of the mouth of Reka Koppi. The bar of the river ordinarily has about 1.8m and can usually be crossed by boats. Strong E winds cause the bar to shift and reduce in depth and caution is recommended.

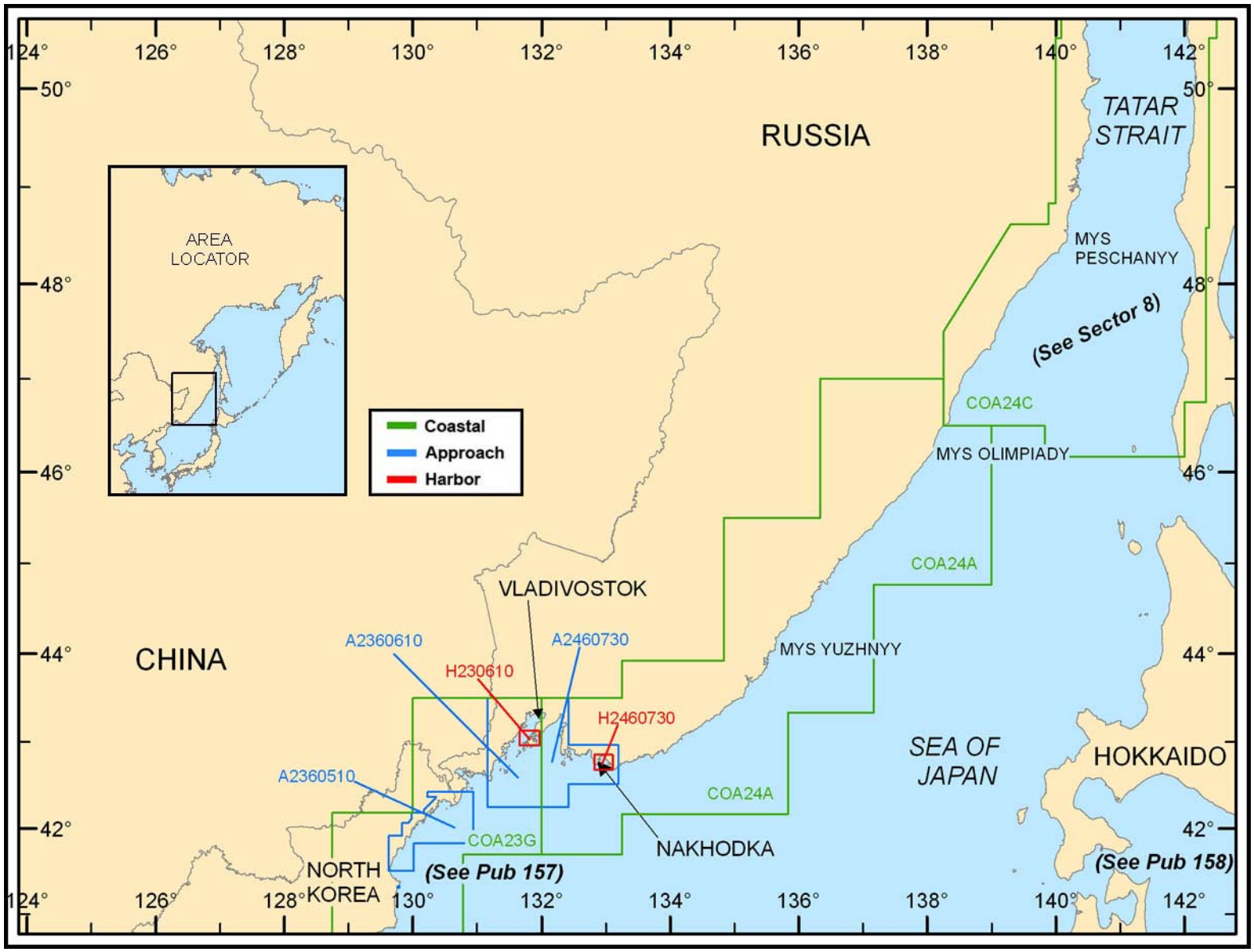
The coast from Bukhta Andreya to Mys Peschanyy, described in paragraph 9.2, about 6 miles to the S, is steep and cliffy with several large rocks close offshore, but about 1 mile inland the land flattens out to a plain for about 2 miles before rising again.

Caution.—It was reported (2008) that there is a stranded vessel on the right side of Reka Koppi, about 600m inland of the river mouth. Another stranded vessel was reported to lie about 0.5 mile S of the mouth of the Reka Koppi.



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

SECTOR **9** — CHART INFORMATION



Additional DNC library coverage may be found in NGA DNC 23 and 24 (Limited Distribution) disc within the README\GRAPHICS folder.

SECTOR 9 — DNC LIBRARY INFORMATION

SECTOR 9

EAST COAST OF RUSSIA—MYS PESCHANYY TO KOREA

Plan.—This sector describes the E coast of Russia in sequence SW from Mys Peschanyy, in the SW part of the Tatar Strait, to the N border of Korea.

General Remarks

9.1 Winds—Weather.—During the winter the prevailing winds are from the N half of the compass rose, principally from the NW. Winds from the S begin late in March. From the middle of June to the middle of August is the rainy season, during which rain may fall continuously for about two weeks. Clear and warm weather with warm nights lasts from September until the middle of October, when the morning frosts set in and the days become foggy. Winter commences about the middle of November.

Commencing late in April and lasting until the middle of June is a period of dense protracted fog, which renders navigation both difficult and dangerous. Frequently, when fog prevails in the offing, the shoreline is clear.

The general set of the current is S or SW at 0.2 to 0.5 knot.

Winds from the S and SW prevail during the summer. April, May, and September are months of variable winds, and October is a month of light breezes. Fresh N and NW winds are common during the winter, but calms are rare.

The season of fog begins in March and lasts until September. Fog is particularly frequent from May to August, occasionally reducing the visibility to about 0.1 mile.

Winds from the NW prevail from November to the end of January and are accompanied by high barometric pressure and low humidity. Winds from the SE, at times interrupted by variable winds or calms, prevail during the summer and are accompanied by high humidity.

Snow falls intermittently between September and May, covering the ground with a layer of precipitation 0.3 to 0.6m in depth.

The season of fog commences in the latter part of March and lasts until the middle of July. The fog is thickest at night and frequently clears during the day.

The general set of the current is SW at 0.2 to 0.8 knot.

Winds from the N prevail from the beginning of September to the end of March, and SE winds prevail for the balance of the year. The mean annual velocity, as well as the mean monthly velocity of the wind is, on the average, about 2.5 knot. Winds with a velocity of 20 knots or greater are, on the average, about 1 day a month. Typhoons do not reach the Vladivostok area, but in the autumn, when they occur in the Sea of Japan, their W semicircle winds are felt in Vladivostok, changing from E through N to NW.

The season of fog lasts from April to July, the last being the foggiest month of the year, with an average of 15 days of dense fog and 8 days of light fog. There is a total of about 50 days of dense fog with drizzle, and 25 days of light fog on the hills. Although, almost constant at night in these months, the fog usually disperses between 1000 and 1600.

The months between October and March have an average of about 2 days of fog each month.

The general set of the current is SW to S to SE at 0.2 to 0.8 knot.

Considerable amounts of drift ice may be encountered N of Mys 'Zolotoy between the months of January and April, and navigation is generally restricted to reinforced vessels.

In late December drift ice appears, generally increasing until March with fields up to 30 miles offshore. Fairly heavy ice may be encountered close inshore and within the coves along the coast from January to mid-April.

Between the months of January and March, inclusive, drift ice may be encountered up to 10 miles offshore. Unfavorable wind conditions may occasionally jam ice into the bays, but N winds quickly break it up and navigation is unrestricted even by non-ice strengthened vessels.

That part of Zaliv Ussuriyskiy N of Vladivostok begins to freeze toward the end of December, and by the middle of January is covered by solid ice 0.6 to 0.8m thick. To the S of Vladivostok the ice is frequently broken up by the action of the wind and sea and undergoes continual change. During severe winters, ice up to 0.1m thick may extend across the entrance of the bay between Ostrov Askol'd and Arkhipelag Yevgenii, but icebreakers keep the shipping lanes open between Nakhodka and Vladivostok.

Caution.—Several dangerous, restricted, or Russian regulated areas lie in the waters described within this sector, the limits of which may best be seen on the chart.

Mys Peschanyy to Mys Belkina

9.2 Mys Peschanyy (48°27'N., 140°11'E.), the E extremity of a low, broad sandspit, projects from the coast between two steep cliffs. Two small lakes lie within the sand spit. A light is shown from a tower on the point and a radiobeacon is situated at the tower.

Gora Petra, a conspicuous table-topped mountain 379m high, rises about 2 miles W of the point and forms a good mark from the offing. A 613m mountain rises about 3 miles W of Gora Petra.

Mys Uspeniya, the steep-sloped seaward termination of a mountainous spur, is located about 9 miles SW of Mys Peschanyy and is backed about 2.5 miles to the W by the conspicuous sharp-peaked summit of Gora Dubovaya, rising to a height of 472m. High trees give the point a dome-shaped appearance.

About 3 miles N of Mys Uspeniya and 1 mile inland is a sharp-pointed triangular cliff, 371m high, which forms an excellent mark from seaward, especially from the N and S.

The coast to the SW of Mys Uspeniya is low-lying with beaches of sand and pebbles. The mountains range inland for some distance from the coast and attain elevations of 800 to 900m. At Mys Icha, about 8 miles SW of Mys Uspeniya, the mountains again rise near the coast and the shore becomes more foul with numerous above and below-water rocks.

Bukhta Adzhimi, a small, shallow, open bight about 10 miles SW of Mys Icha, is entered between Mys Vstrechnyy, a low point marked by a white triangular beacon, and a point 0.7 mile NNE. Numerous rocks lie up to 0.2 mile off the entrance points, and rocks with depths of about 4.3m lie in the fairway. Only small vessels can enter and obtain shelter from W winds.

9.3 Mys Krestovozdvizhenskiy (47°58'N., 139°32'E.), a densely-wooded point lying about 29 miles SW of Mys Uspeniya, is the termination of a narrow moderately-high ridge extending in an E direction with numerous fringing rocks. A light is shown from a framework tower on the point. A framework beacon, 13m high, stands about 0.2 mile WSW of the point.

Gora Krestovozdvizhenskiy, an isolated hill, is conspicuous, 213m high, and rises about 1 mile W of the point.

Bukhta Grossevichi, on the N side of Mys Krestovozdvizhenskiy, is a small bight completely exposed to the E. Anchorage may be obtained by large vessels with the beacon on Mys Krestovozdvizhenskiy bearing 225°, distant 1 mile, in a depth of 10m, or closer in with the same beacon bearing 215°, about 0.5 mile from the point, in depths of 9 to 10m.

Gora Dzhari, 116m high, dark, wooded and round, is located on the shore of the bay about 1 mile NNW of Mys Krestovozdvizhenskiy and forms a good mark for entering. A rocky spit marked in the navigational season at its outer end by a red spar buoy, extends about 0.7 mile offshore, approximately 1.5 miles NE of the same point. Caution is necessary in thick weather as Gora Krestovozdvizhenskiy is reported to be easily mistaken for Gora Dzhari.

The coast, which extends SW from Mys Krestovozdvizhenskiy, is generally low and sandy with some rocks close offshore. The hills backing the shore are fairly low and sloping and there are no good anchorages for vessels from here to Mys Zolotoy. Several shallow rivers enter the sea along this part of the coast, but most are accessible only by small craft.

Bukhta Nel'ma, a small bay located about 24 miles SW of Mys Krestovozdvizhenskiy, is formed by two high steep entrance points with sandy shelving shore between. Reka Nel'ma, with its mouth in the NW part of the bay, is fronted by a bar with a depth of 1.8m. Inside the river widens and increases its depth to about 3.7m. It can be ascended for about 1 mile by vessels able to cross the bar.

Mys Ptichiy, a cliffy point about 8 miles SSW of Bukhta Nel'ma, is bordered by numerous rocks and shoals. Gora Skalistaya, an isolated mountain, 508m high, rises close within a coastal precipice 1 mile SW of Mys Ptichiy and forms a good mark from the offing.

Reka Luda, which is entered about 4 miles SSW of Mys Ptichiy, is a shallow river fronted by a bar with a depth of 0.6m. Depths of 5.5m and less extend up to 0.3 mile offshore in the vicinity of the entrance, gradually shelving seaward.

Anchorage.—Anchorage can be taken in the bay by small vessels with local knowledge, in a depth of 7m, sand, about 0.4 mile SW of the N entrance point. Vessels approaching this anchorage should give the W side of the bay a prudent berth.

Vessels with local knowledge can take anchorage off the entrance in good weather, about 0.5 mile S of Mys Luda, in depths of 11 to 13m, sand.

The coast to the S of Reka Luda becomes higher and more rocky altering to the SW at Mys Tumannyy, a steep prominent cape about 3.5 miles from the river. From the latter point to Mys Zolotoy, about 6 miles to the SW, the coast is formed by the steep SE side of an elevated ridge which reaches its summit at Gora Olen'ya, a 502m conspicuous peak, rising about 3.5 miles N of Mys Zolotoy.

9.4 Mys Zolotoy (47°19'N., 139°00'E.), a conspicuous high steep cliff, is the E extremity of an elevated peninsula projecting about 2 miles SE from the general trend of the coast. Mys Syufren, sheer and higher than Mys Zolotoy, is the S extremity of the above peninsula and is bordered by reefs and rocks extending up to 0.5 mile offshore between the two points. A light is shown from a tower on Mys Zolotoy; a radiobeacon is situated at the light.

The entire cape can be identified by the termination of the cliffs W of Mys Syufren, the light structure on Mys Zolotoy, and the proximity of Gora Olen'ya, about 3.5 miles to the N.

Bukhta Syufren, an open bight on the W side of Mys Syufren, is penetrated at its head by Reka Ademi, a narrow shallow river with several huts near its mouth. The W shore of the bay is sloping and wooded, while the E shore is bluff and rocky. Depths of 7.3m and less extend up to 0.4 mile off the W shore, but only 0.1 mile off the E part of the N shore. A 9m shoal lies about 1.7 miles SW of the river mouth.

Anchorage.—Anchorage, protected from NW through NE winds, can be taken in Bukhta Syufren about 0.5 mile S of the mouth of Reka Ademi, in depths of 9 to 11m, sand. The anchorage should be vacated on any indication of increasing S or E winds.

Reka Samarga, a swift river which discharges about 8 miles SW of Bukhta Syufren, has a depth of about 1.8m over the constantly shifting outer bar and is used frequently for rafting timber to the lumber mills at Nazarovka. There is a strong stream from the river which attains a rate of 6 knots. The roadstead off the entrance is completely open and its use is dependent on the weather. The slightest swell causes the river bar to break heavily, interrupting operations and causing discomfort at the anchorage.

9.5 Mys Gladkiy (47°09'N., 138°43'E.), a low point with some huts on it, is located about 16 miles SW of Mys Zolotoy and contains the mouth of Reka Yedinka. The land backing this part of the coast is mountainous, rising to 813m about 6 miles W of the point. Another prominent peak, with a height of 686m, rises about 1.5 miles E of the above-mentioned mountain and the two together form a good mark from offshore.

The coast to the SW of Mys Gladkiy is low and swampy with sandy spits paralleling the shore and forming shallow bays within. Reka Toropygina, a narrow stream discharging about 16 miles SSW of Mys Gladkiy, is entered between two high bluffs forming the outer points of a slight coastal indentation. The mouth of the river is low and sandy with a coastal bar of about 0.9m fronting the entrance, but with depths of 5.5m about 0.3 mile offshore.

Anchorage.—Anchorage can be taken by vessels, during offshore winds, about 0.6 mile off the entrance of Reka Toropygina, in depths of 12 to 13m, sand and stone. The anchorage is not safe in any winds from the E.

9.6 Mys Gilyak, the S point of a line of steep cliffs extending 4 miles from Reka Toropygina, is bordered by rock and stone. Numerous rivers and streams enter the sea to the S of the point and occasionally a fishing village is situated at the mouth.

About 7 miles SSW of Mys Gilyak, in the coastal cliff, is a cave which is very prominent from seaward, as is a cairn of stones on a nearby hill resembling a pedestal from a distance.

Bukhta Plitnyak, a cove located about 12 miles SSW of Mys Gilyak and 9 miles N of Mys Sosunova, has shores which are low and marshy, with a sandy beach at it head where Reka Plitnyak discharges. A reef extends about 90m off Mys Plitnyak, the N entrance point, and the mouth of the river at the head of the cove is obstructed by a bar with a depth of 0.3m.

Anchorage.—Anchorage can be taken in good weather by vessels with local knowledge about 0.2 mile SE of Mys Plitnyak, in a depth of 13m, sand. Caution is necessary as the depths shoal rapidly inshore of the anchorage.

The coast to the S of Bukhta Plitnyak becomes almost immediately steep and cliffy with the mountains close within the shore. Gora Kants, rising to 597m about 3 miles SSW of the town of the same name, has a sharp summit and is conspicuous from seaward. It is the N peak in the range extending from Mys Sosunova.

Mys Baklaniy, high and precipitous, is located about 6 miles S of Bukhta Plitnyak and is bordered by numerous rocks. Gora Baturina, 464m high, rises about 2 miles WSW of the point and has a somewhat rounded summit.

9.7 **Mys Sosunova** (46°32'N., 138°21'E.), a hilly and bluff cape lying about 3.8 miles S of Mys Baklaniy, extends at its NE end into a narrow wedge of moderate height. A light is exhibited on Mys Sosunova; a radiobeacon transmits from the lighthouse.

Caution.—Two dangerous underwater obstructions, depths unknown, are located 400 and 460m W of Mys Sosunova.

9.8 Reka Svetlaya discharges through a rocky outlet about 0.1 mile wide, which is obstructed by a bar with depths of less than 1.8m. The settlement of Svetlaya, with buildings on both banks of river just within the entrance, can be identified by the radio towers in its N part. A small port area fronting the settlement of Svetlaya has been designated to be Sector No. 4 of Morskoy Port Ol'ga. Ol'ga Port is located further S along the coast (see paragraph 9.22).

Two sets of range beacons situated within the river lead over the bar and between the entrance spits to the channel within.

A reef extends 0.2 mile E from the point. Vessels should give the reef a berth of at least 0.3 mile.

Regulations.—All vessels awaiting entry into the port area must wait in one of the two anchorage area described below. Entry into the port area is only allowed during daylight hours, plus all other restrictions described for entering or departing Reka Svetlaya.

Vessels are not permitted to enter or depart Reka Svetlaya whenever the following conditions exist:

1. Wind speeds of Force 4 and greater.
2. Wave heights of 1m or more on the shoal at the Reka Svetlaya bar.
3. Whenever the speed of the currents within Reka Svetlaya exceed 2 knots.
4. Visibility is less than 600m.

Anchorage.—Anchorage, with protection from NE or SW winds, can be obtained by small vessels on either side of the previously-described reef or, in depths of 11 to 15m, NE of the mouth of the river in Russian Regulated Area No. 350, which is bounded lines joining the following positions:

a. 46°32'51"N, 138°20'53"E.
b. 46°32'51"N, 138°21'09"E.
c. 46°32'34"N, 138°21'09"E.
d. 46°32'34"N, 138°20'53"E.

Anchorage is also available in Russian Regulated Area No. 353 in an area bounded by lines joining the following positions:

a. 46°31'02"N, 138°20'15"E.
b. 46°31'02"N, 138°22'12"E.
c. 46°29'45"N, 138°21'12"E.
d. 46°29'45"N, 138°19'15"E.

9.9 Gora Veselaya, 478m high, and Gora Ploskaya, 523m high, both fairly conspicuous, are located about 3 miles and 7 miles WSW, respectively, of Mys Sosunova. A high unnamed peak of 950m rises about 11 miles WSW of the same point and is a good mark in clear weather.

The coast from Mys Sosunova to Mys Olimpiady, about 20 miles SSW, is high and rocky with numerous hills closely backing the shore. Gora Karpaty, 849m high, with a bare conspicuous summit, rises about 9 miles NW of Mys Olimpiady and is the best landmark along this section of the coast. A white wooden beacon, 13m high, stands on the NE extremity of Mys Olimpiady.

Anchorage.—Anchorage, sheltered from S and W winds, can be taken about 1 mile N of Mys Olimpiady, in depths of 11 to 12m, sand. Caution is necessary as a 4.6m rocky shoal, the position of which is doubtful, lies about 1 mile N of the anchorage.

9.10 Mys Maksimova, a rounded rock-fringed point, is located 13 miles SW of Mys Olimpiady. Reka Kkhutsin discharges to the sea about 2 miles N of Mys Maksimova. It is fronted by a bar with depths of 0.9 to 1.2m, but the bar shifts after heavy rains that sometime inundate the low surrounding area.

Anchorage.—Anchorage, tenable only during W winds, can be taken off the mouth of Reka Kkhutsin, clear of and SW of the coastal reef which lies in this area. The town of Kkhutsin lies about 2 miles W of the entrance to the S branch of the river, but boats usually can only cross the bar when the sea is calm.

The coast to the SW of Mys Maksimova again becomes cliffy and precipitous with the mountains rising close inland. Reefs and rocks with beds of kelp border the shore nearly to Mys Belkina, 18 miles SW, and there are no good anchorages in the vicinity.

Gora Grebenchataya, rising to 381m about 7 miles SW of Mys Maksimova, is located only 0.5 mile inland and is quite conspicuous. Gora Tri Brata, located about 4 miles WSW of Gora Grebenchataya, rises to a height of 742m and shows three peaks of almost equal elevation when viewed from the S.

Mys Belkina to Zaliv Ol'gi

9.11 Mys Belkina (45°49'N., 137°41'E.), considered to be the SW entrance point of the Tatar Strait, is a high cliffy cape prominent to the NE and is closely backed by high land. The cape is an excellent landmark because it is the N termination of a long line of cliffs extending about 10 miles to the SW. A light is shown from Mys Belkina and a radiobeacon transmits from the lighthouse.

Reka Amgu, discharging through a low sandy strip about 1 mile NNW of Mys Belkina, is fronted by a bar with a depth of 0.3m and can be entered only by boats with local knowledge.

Anchorage.—Anchorage, sheltered from winds from NW through N to S, can be taken about 0.8 mile NE of the river mouth, in depths of 7 to 10m, sand. The town of Amgu lies on the N side of the entrance to the river.

The coast to the SW of Mys Belkina presents an almost continuous line of cliffs backed by high land close within. The shore is bordered by reef and rocks which lie up to 0.5 mile seaward in places and generally preclude landing or anchoring for the next 30 miles.

Mys Arka, a conspicuous cliffy point about 3 miles SW of Mys Belkina, is the seaward end of a mountainous spur which terminates in an arch-shaped erosion that forms a good mark from offshore.

Mys Aleksandra, a slightly projecting point about 13 miles SW of Mys Belkina, lies immediately S of a low river valley which is quite discernible from seaward because of the cliffy coasts to the NE and SW.

Gora Tumannaya, which rises to 801m about 4 miles W of Mys Aleksandra, is located only 1.5 miles inland and forms a good mark from offshore.

Mys Bol'sheva, a cape located about 12 miles SW of Mys Aleksandra, is formed by a slight projection comprising three separate hills. On a clear day the mouth of Reka Kolumbe, which discharges about 2 miles N of the cape, can be identified by a fairly conspicuous dark pillar rock which lies in a position 0.5 mile NE of the river entrance and resembles a monument.

Anchorage.—The town of Kolumbe, situated on the N and higher bank of the river, has several warehouses, and vessels with local knowledge can anchor E of the entrance in good weather.

9.12 Bukhta Takema (45°27'N., 137°12'E.), a bight in the coast located between Mys Dal'niy to the NE and Mys Vidnyy to the SW, is completely exposed to the SE and is useful only in calms or moderate offshore winds. Reka Kema, which discharges at the head of the bay, flows through a wide valley and into a delta before entering the sea. It is navigable only by small craft.

Anchorage.—Anchorage can be obtained 1 mile SE of the mouth of Reka Kema, in a depth of 7m.

Mys Shantsa (Mys Mayachnyy) (45°23'N., 137°09'E.), a conspicuously elevated cape lying about 6 miles SW of Bukhta Takema, is covered with vegetation near its summit and from the offing has the appearance of a fairly high plateau with a precipice on the seaward end. The cape is the seaward termination of a coastal range which rises to Gora Uzlovaya, a mountain having an elevation of 909m, about 8 miles to the WNW. A light is exhibited on Mys Shantsa.

The coast to the SW of Mys Shantsa consists of broken low cliffs backed by numerous hills between which several streams and rivers flow to the sea. The shore is fringed by rocks which lie in some places nearly 0.5 mile seaward of the cliffs, but in the lower areas there is an occasional fishing settlement which can be approached by boats on calm days.

9.13 Mys Nadezhdy, about 11 miles SW of Mys Shantsa, is a slightly projecting cape which is relatively inconspicuous, but a line of cliffs about 2 miles farther SW can more easily be identified from seaward.

Gora Tygrovaya, rising to 818m, and Gora Ostraya, rising to 787m, are two fairly conspicuous peaks which are located about 5 miles W and 5 miles NNE, respectively, of Mys Nadezhdy.

Bukhta Tavayza, a small bight which slightly indents the coast about 9 miles SW of Mys Nadezhdy, is entered between Mys Tavayza, high and cliffy, and another cliffy point about 1.5 miles NNE. Both entrance points, and a blunt projection between, are fringed with rocks to about 135m offshore, but the beach in the vicinity of Tavayza, in the S part of the bight, is clear and sandy. A beacon stands on Mys Tavayza.

Anchorage.—Anchorage during calms or moderate offshore winds can be taken for a short period of time, in a depth of about 12m, sand, about 0.5 mile ESE of the shore near the middle of the bight.

Caution.—Magnetic variation of 9°W to 12°W was reported (1971) along a line extending from Bukhta Tavayza to a position about 1.8 miles N of Mys Yegorova. The line lies up to 3.5 miles offshore.

9.14 Mys Mosolova (45°06'N., 136°46'E.), a cliffy cape of considerable height, lies about 23 miles SW of Mys Shantsa. It is formed by the seaward termination of a series of terraces on the E slope of Gora Abrek, a ridged mountain rising to a height of 626m a little over 1 mile W of the cape. Mys Mosolova and Gora Abrek are very conspicuous and can be discerned from a considerable distance offshore.

Bukhta Terney (Bukhta Serebryanka), a small oval and shallow bay, about 6 miles SW of Mys Mosolova, is entered between two cliffy and precipitous capes, namely Mys Pervenets to the NE and Mys Strashnyy to the SW. The entrance, which is about 0.5 mile wide, has a bar with depths of less than 1.5m which can only be crossed during good weather by boats with local knowledge. A light is exhibited on Mys Strashnyy.

Anchorage.—Anchorage during calms or moderate offshore winds can be taken, in depths of 9 to 10m, 0.3 mile ESE of the river mouth. There is no shelter here from NE winds which cause a very heavy sea.

9.15 Gora Stolovaya, a conspicuous peak rising to a height of 952m, lies about 8 miles N of Mys Strashnyy; it makes a good mark when approaching Bukhta Terney from the S.

A slatted white rectangular beacon, 13m high, is erected on the NE extremity of Mys Pervenets.

The coast from Mys Strashnyy to Mys Severnyy, about 6 miles SW, is cliffy and fissured and consists mostly of boulders and shingle at the shoreline. Gora Sakharnaya Golova, a sharp peaked mountain resembling a pointed cone, rises to 743m

about 5 miles WSW of Mys Strashnyy and forms an excellent mark from seaward.

Bukhta Koumbe, a shallow oval-shaped bight, indents the coast between Mys Severnyy and Mys Blagodatnyy, a bold cliffy point about 1.5 miles SSW. Depths in the entrance are 18 to 20m, decreasing very gradually to the W shore, which is clear of dangers and steep-to. A dangerous reef, detached and awash, lies up to 0.5 mile SSE of Mys Severnyy and must be avoided by vessels entering the bay. This shoal is steep-to on its seaward side and the sea breaks on it during a swell, but during calms and at HW this danger may be indiscernible.

Anchorage.—Anchorage during calms or moderate offshore winds can be taken, in 16 to 18m, sand, in Bukhta Koumbe midway between Mys Blagodatnyy and the detached reef off Mys Severnyy.

Gora Verolyud, rising to 1,160m about 8 miles WNW of Mys Blagodatnyy, has a conspicuous saddle-shaped summit, and being one of the highest mountains on this part of the coast makes a good mark in clear weather from a considerable distance offshore.

9.16 Mys Yegorova (44°47'N., 136°27'E.), a precipitous cape, 75m high, is the SE extremity of a rugged peninsula which extends about 3 miles seaward from the main coast. The outer limits of the cape are surrounded by rocks and its shores are generally cliffy. A light is shown from Mys Yegorova; a radiobeacon transmits from the lighthouse.

Zaliv Rynda, entered between Mys Yegorova and Mys Yakubovskogo, about 5 miles SW, is divided by Mys Astasheva, a cliffy promontory, into two bays, Bukhta Dzhigit and Bukhta Plastun. A light is shown from Mys Yakubovskogo.

The shores of Bukhta Dzhigit are bluff, rocky, and nearly steep-to, except at its head where Reka Yevdukhz discharges through a broad marshy valley into an area of sandbanks and bars. The bay affords good shelter, except from SE winds, and vessels may obtain anchorage, in 11m, sand, about 0.6 mile from its head off either the E or W shore, depending on the weather. Klyuchi, a fishing town of considerable size, is situated on the S branch of Reka Yevdukhz.

Anchorage.—Three designated anchorages for general anchorage and quarantine, in depths of 6.2 to 26m, sand, are located within Zaliv Rynda and Bukhta Dzhigit, as follows:

1. Russian Regulated Area No. 174B—bounded by lines joining the following positions:
   a. 44°45.07'N, 136°21.0'E.
   b. 44°46.00'N, 136°21.5'E.
   c. 44°46.00'N, 136°21.3'E.
   d. 44°46.07'N, 136°21.0'E.
2. Russian Regulated Area No. 174C—bounded by lines joining the following positions:
   a. 44°46.0'N, 136°21.5'E.
   b. 44°46.9'N, 136°21.8'E.
   c. 44°47.2'N, 136°22.5'E.
   d. 44°46.0'N, 136°22.3'E.
3. Russian Regulated Area No. 174D—bounded by lines joining the following positions:
   a. 44°46.25'N, 136°23.80'E.
   b. 44°47.20'N, 136°22.51'E.
   c. 44°47.46'N, 136°33.30'E.
   d. 44°46.57'N, 136°24.50'E.

Bukhta Plastun, the shores of which are high and rocky, affords good shelter, except from the E, to vessels with local knowledge. The entrance to the bay is prominent, as on each side are pinnacle rocks, high and isolated, one off the N entrance point being very conspicuous.

Two designated anchorage areas, in depths of 17m, sand, are located with their center positions, as follows:

a. 44°44'42"N, 136°19'30"E.
b. 44°44'18"N, 136°19'30"E.

Gora Sredniy Plastun, a conspicuous conical peak, rises to 550m about 5 miles NW of Mys Yakubovskogo and forms a good mark for making Zaliv Rynda.

The coast to the SW of Mys Yakubovskogo is formed by a row of high cliffs which extend for about 5 miles before ending in a prominent red precipice, the summit of which is marked by a conspicuous crevice. Farther to the S, the elevations drop markedly to low cliffy formations at Mys Rassypnoy, the N entrance point of Bukhta Ozera, a small bay with a narrow entrance requiring local knowledge. Kekur Naklonnyy, a pillar rock located close to the coast about 2 miles S of Mys Rassypnoy, forms a good mark for vessels in the vicinity. Several other rocks lie close offshore E of Mys Yelagina.

9.17 Mys Groznyy (44°32'N., 136°11'E.), formed by the seaward end of a coastal mountainous spur, terminates at the cape in a barren precipitous cliff rising steeply from the sea. A comb-shaped ridge of cliffs midway along the seaward slope of the cape forms a good mark conspicuous from NE and SW.

The coast to the SW of Mys Groznyy is much higher than that immediately to the N and generally consists of rows of sparsely covered cliffs, continuous until Mys Signal'nyy, the N entrance point of Zaliv Oprichnik.

Zaliv Oprichnik, about 9 miles WSW of Mys Groznyy, is entered between Mys Signal'nyy, from which a light is shown, and Mys Rifovyy, about 1.5 miles WSW. Both entrance points are high and rugged, but the shores of the bay are low-lying, and covered with grass, except the N side which is elevated and wooded.

Anchorage.—Anchorage during calms or SW winds may be taken off the town of Kamenka by small vessels with local knowledge, in depths of 9 to 11m, sand, about 0.3 mile W of Mys Signal'nyy. The depths in the bay are fairly steep-to, there being about 3.7m close to the N shore. Small craft can moor at the town.

Mys Brinra (44°20'N., 135°50'E.) a cliffy cape located about 10 miles SW of Mys Signal'nyy, is formed by the NE extremity of Gora Brinera and terminates in a conspicuous twin-peaked cliff which appears from a distance as a sharp pointed island. To the N of the cape, and about 135m offshore, are two columnar rocks, 6 to 9m high, known locally as Dva Pal'tsa, meaning Two Finger Rocks. They are conspicuous from the SE, but from N the dark background of the cliffs prevents them from being easily identified. A light is shown from Mys Brinera.

9.18 Bukhta Rudnaya (Bukhta Tetyukhe) (44°21'N., 135°50'E.), entered between Mys Brinera and a blunt point about 1.5 miles to the N, is completely exposed to the E, but offers protection from offshore winds. The depths at the entrance are about 18m, but the bottom shelves rapidly toward the

shores. There are depths of 7 to 8m in the central part of the bay.

The small port of Rudnaya Pristan, situated on the N shore of Bukhta Rudnaya, serves the mining industry in the area. A wooden barge pier, with depths of 2 to 4m at its head, is situated on the N side of Bukhta Radnaya. The pier is not easily visible, but does have a flagstaff and a horseshoe-shaped house on it.

Anchorage.—Anchorage can be taken during calms or offshore winds in the middle of the entrance to Bukhta Rudnaya, in a depth of 17m, sand, with Mys Brinera bearing 198°, distant 0.5 mile. Local knowledge is necessary. Vessels anchoring in this bay should have engines on standby and should not anchor within a line joining the entrance points of the bay. There is no shelter from the E winds which are prevalent from April to October, and during winter NE winds may bring snowstorms and untenable conditions to the anchorage.

The coast from Mys Brinera trends SSW for about 5 miles to a high cliffy unnamed cape which has bare red rocks in places. The coast then trends SW about 9 miles, with precipitous cliffs and rocky shores, to Bukhta Zerkal'naya, a fairly large bight completely open to the E. The N and S entrance points of the bight are formed by high capes generally bordered by reefs and rocks, but the head of the bay is low and sandy, being intersected by Reka Lafule, a shallow river used for rafting timber.

Good anchorage, protected from offshore winds, is reported to be available in Bukhta Zerkal'naya, in depths of 13 to 15m, sand, about 0.5 mile SE of the mouth of Reka Lafule.

Two designated anchorage areas, in depths of 17m, sand, are located with their center positions, as follows:

a. 44°21'12"N, 135°50'24"E.
b. 44°21'30"N, 135°50'42"E.

Caution.—A dangerous wreck lies in the entrance to the bay, in depths of 15m, in position 44°21'31"N, 135°50'49"E.

9.19 Mys Yuzhnyy (44°02'N., 135°38'E.) is the SE extremity of a 1.5 mile long peninsula which terminates in two steep, barren, and yellow cliffs of similar height. From the N, the point appears as two points. It forms an excellent landmark especially from the N and E, but from the S may not be identifiable until fairly close in. A light is shown from Mys Yuzhnyy.

Banka Yuzhnaya, a circular shoal about 0.5 mile in diameter and having a least depth of 2.4m, lies about 0.7 mile S of Mys Yuzhnyy. The seaward edge of the shoal is steep-to and a short distance off there are depths of 20m.

The coast from Mys Yuzhnyy trends WSW and then S for about 9 miles to Mys Balyuzek. The mountains along this part of the coast recede inland and the hills located close to the shore attain only moderate heights. Numerous small valleys fissure the shore where they terminate in sandy beaches separated from one another by cliffy areas.

Mys Balyuzek, the S extremity of Poluostrov Balyuzeka, is a smooth undulated peninsula connected to the mainland by a low isthmus, the central part of which is nearly cut by a lagoon. The E side of the peninsula, which attains a height of 106m, is bordered by rocks and foul ground up to 0.5 mile offshore. A light is shown from a tower on Mys Balyuzk.

9.20 Zaliv Vladimira (43°54'N., 135°31'E.), the entrance of which lies between Mys Balyuzek and Mys Vatovskogo, about 1.2 miles to the S, indents the coast in a protected kidney-shaped formation which provides excellent anchorage sheltered from nearly all winds. The gulf is divided into two main bays, namely Bukhta Severnaya in the N, and Bukhta Yuzhnaya in the S, the two being separated on the W side by a cliffy knob-headed projection known as Poluostrov Rudanovskogo. When the gulf is approached from ENE, a conspicuous cone-shaped peak, 470m high, can be seen rising between the entrance points and over the latter peninsula.

Bukhta Yuzhnaya, entered between the W side of Mys Vatovskogo and Poluostrov Rudanovskogo, has general depths of 16 to 22m within, but the entrance channel, marked by buoys, is narrowed to 0.2 mile by a shoal with depths of less than 5.5m on the E side.

Anchorage.—Anchorage protected from S and E winds, which prevail in summer, can be taken, in 13 to 18m, sand, off the E shore of the bay.

Caution.—The offshore area, charted about 3 miles E of the coast between Banka Yuzhnaya and Mys Nizmenyy is a formerly mined area which has been swept and is considered safe for surface navigation.

Two marine farms are located in Zaliv Vladimira; they should be avoided and are bounded by lines joining the following positions:

1. The NW part of Zaliv Vladimira:
   a. 43°56'13"N, 135°27'39"E.
   b. 43°56'08"N, 135°28'10"E.
   c. 43°55'06"N, 135°28'43"E.
   d. 43°54'40"N, 135°27'58"E.
   e. 43°54'58"N, 135°27'44"E.
2. The S part of Zaliv Vladimira:
   a. 43°54'35"N, 135°28'59"E.
   b. 43°54'52"N, 135°28'40"E.
   c. 43°54'32"N, 135°28'04"E.
   d. 43°54'08"N, 135°28'23"E.

Another marine farm located in Bukhta Severnaya should also be avoided and is bounded by lines joining the following positions:

a. 42°56'00"N, 131°24'58"E.
b. 42°56'29"N, 131°24'29"E.
c. 42°56'29"N, 131°24'36"E.
d. 42°56'26"N, 131°25'03"E.
e. 42°56'14"N, 131°25'12"E.
f. 42°56'07"N, 131°25'12"E.
g. 42°56'00"N, 131°24'58"E.

9.21 Bukhta Severnaya, formed by the N recess of the gulf, is entered between the W side of Mys Balyuzek and Poluostrov Rudanovskogo and has general depths of 16 to 27m. Veselyy Yar, situated on the N shore at the head of the bay, is a small village in which is situated a chemical plant, reported to be lighted at night, and serving as a conspicuous mark on the dark shores of the bay.

Anchorage.—Anchorage, protected from NE and NW winds which attain strength in the winter, can be taken off the N shore of Bukhta Severnaya, in depths of 16 to 22m, sand. There is a pier at Veselyy Yar, although cargo is handled at the anchorage. Broken ice may be encountered between the middle of December through the end of February.

Two designated anchorage areas, as follows:

1. Bukhta Severnaya Anchorage—bounded by lines joining the following positions:
   a. 43°56.7'N, 135°28.3'E.
   b. 43°56.7'N, 135°29.0'E.
   c. 43°56.0'N, 135°29.8'E.
   d. 43°55.8'N, 135°29.2'E.
2. Bukhta Yuzhnaya Anchorage—bounded by lines joining the following positions:
   a. 43°52.7'N, 135°28.7'E.
   b. 43°52.7'N, 135°29.2'E.
   c. 43°53.2'N, 135°30.0'E.
   d. 43°53.4'N, 135°29.6'E.

Caution.—Zaliv Vladimira has been reported to be a naval area closed to foreign vessels and no attempt should be made to enter the bay without permission from the proper authorities.

An ammunition dumping area, the limits of which are shown on the chart, lies about 16 miles E of Mys Sobora.

The coast to the S of Mys Vatovskogo is composed of a conspicuous wall-like formation of gray, barren cliffs of considerable height. Mys Chetyrekh Skal, four large columnar rocks, with several smaller ones between them, extends 325m from the coastline, about 4 miles S of Mys Vatovskogo, and forms an excellent landmark from N or S.

Mys Sobora, the extremity of a small promontory about 9 miles SSW of Mys Vatovskogo, can be identified by a red cliff which from a distance appears as a cathedral. A light is shown from Mys Sobora. Mys Skalistyy, about 4 miles SW of Mys Sobora, is 253m high and precipitous.

Mys Shkota (43°41'N., 135°18'E.) is located about 4 miles SW of Mys Skalistyy.

Ostrov Chikhacheva lies about 0.4 mile S of Mys Shkota and rises to a height of 117m. A reef extends about 0.3 mile N from the islet. A light is shown from a tower with a dwelling on the S side of the islet.

9.22 Ol'ga Port (43°44'N., 135°17'E.), a small lumber port, is situated at the head of **Zaliv Ol'gi** (43°43'N, 135°15'E.). Zaliv Ol'gi lies between Ostrov Chikhacheva on the E side and Mys Manevskogo about 4 miles to the SW. The W side of the bay consists of hills up to 300m high, covered with trees and bushes. The E side of the bay consists of a high peninsula with steep shores.

The area is important for the mining of copper, zinc, manganese, and lead.

Winds—Weather.—Winds from the NW prevail from November through the end of January and are accompanied by high barometric pressure and low humidity. Winds from the SE, at times interrupted by variable winds or calms, prevail during the summer and are accompanied by high humidity. Snow falls intermittently between September and May, covering the ground with a layer 0.3 to 0.6m deep.

The season of fog commences in the latter part of March and lasts until the middle of July. The fog is thickest at night and frequently clears during the day.

Ice.—The N part of the bay, except off the mouth of Reka Avvakuma, is frozen from December to February. The S part of the bay is only occasionally covered with a thin layer of ice. Gavan' Tikhaya Pristan' is frozen from the middle of November until the middle of April, an average period of 160 days, the ice being 0.6m thick.

Tides—Currents.—The mean tidal range at Ol'ga is about 0.6m. The tidal currents are imperceptible, except in the inner channel where they occasionally are swift and treacherous. The ebb current causes an eddy off Mys Sakena.

Depths—Limitations.—Depths in the entrance to Zaliv Ol'gi are deep, with the exception of Banka Petrova which has only 1.5m, and lies about 0.6 mile E of Mys Mramornyy. This bank, which is marked by a lighted buoy, breaks occasionally. This buoy is reportedly removed in the winter and can not be relied upon.

The upper part of the bay has general depths of 11 to 20m, but is shoal on its W side off the mouth of Reka Avvakuma.

The channel connecting Zaliv Ol'gi with Gavan' Tikhaya Pristan' has a reported depth of 7.5m. Within the inner harbor there are general depths of 6.5 to 10m, but the E section is shoal with less than 1.8m.

Ol'ga port facilities, consisting of a 122m long floating pier and lumber storage areas, are situated on the N side of the W end of the channel to Gavan' Tikhaya Pristan', and with a depth of 7.5m alongside, can accommodate vessels of about 5,000 dwt.

Aspect.—In addition to the light on Ostrov Chikhacheva, the island itself forms an excellent mark. Gora Sakena, the SW peak of a lofty peninsula extending to the NE, rises to a height of 575m about 1.5 miles N of Ostrov Chikhacheva and forms a good landmark in clear weather.

Ostrov Bezymyannyy, 11m high, lies on the W side of the fairway about 1 mile NNW of Banka Petrova and is steep-to on its E side.

Kamni Dra Brata, two rocks above-water, lie at the head of the bay and are conspicuous.

The coast N of Mys Manevskogo is cliffy with large marble cuts at Mys Mramornyy, 1.5 miles to the N. This stretch of shore is very conspicuous when approaching from the E. Vessels approaching from the S will also sight Chernyy Vodopad, meaning "black waterfall," a black vertical stripe in the cliff SW of Mys Manevskogo that appears from a distance as a cascade.

Regulations.—Zaliv Ol'gi is a port of entry only for vessels granted prior permission to enter. No pilots are reported available. Vessels are required to board a local official in the vicinity of the entrance to the bay. This official may act as a pilot.

Anchorage.—The best anchorage available for vessels allowed to enter is near the head of Zaliv Ol'gi, in a depth of 20m, mud, with Mys Sakena bearing about 163° and Mys Chudinova bearing 057°. Although, strong NW and W squalls develop above the valley of Reka Avvakuma during the autumn, the height of the E shore takes the strength out of them, so that vessels can ride securely at this anchorage.

Caution.—It has been reported that silting takes place annually from the discharge of Reka Avvakuma in the NW corner of the bay.

Zaliv Ol'gi to Zaliv Nakhodka

9.23 The coast from Mys Manevskogo, the W entrance point of Zaliv Ol'gi, trends generally SSW for about 8 miles to Mys Nizmennyy, with Bukhta Tamokhedza and Mys Kekurnyy, a gray cliffy point, between. Numerous rocks lie scattered along this part of the shore, which is generally high,

and the elevations increase to the S from the only low land at the head of Bukhta Tamokhedza.

Gora Piramidal'naya, a pyramid-shaped mountain rising to 627m about 3 miles W of the head of Bukhta Tamokhedza, is most conspicuous when viewed from the E and forms a good mark for vessels approaching Zaliv Ol'gi from that direction.

Mys Nizmennyy (43°30'N., 135°09'E.), the SE extremity of a blunt peninsula, is formed by a nearly level lowland area which terminates in a precipitous face about 49m high. Being the only stretch of lowland along this part of coast, the cape is conspicuous because of the mountains rising on either side and can usually be identified in clear weather from a considerable distance offshore. A light is shown from Mys Nizmennyy and a radiobeacon transmits from the lighthouse.

Although Mys Nizmennyy is generally steep-to, a shoal patch, with depths of 3m and less, extends about 0.6 mile offshore 1 mile WSW of the point.

Gora Rassypnaya, the highest mountain in this vicinity, rises to a height of 710m about 4 miles W of Mys Nizmennyy and 2 miles inland. The S slope of the mountain descends directly to the coast and the summit, which is marked with white patches, forms a useful mark from offshore.

Caution.—An ammunition dumping area, the limits of which are shown on the chart, lies about 15 miles E of Mys Nizmennyy.

9.24 Bukhta Yevstafiya, a small bay located about 7 miles SW of Mys Nizmennyy, is entered between Mys Kudrina, a fairly low cape forming the E entrance point, and Mys Nakhval'nogo, a cliffy headland about 1.5 miles SW. Depths in the entrance average about 22m, gradually decreasing to 7m about 0.2 mile from the W shore, but the N part of the bay is foul with rocks and should be avoided.

Anchorage.—Anchorage, sheltered from offshore winds, can be taken by small vessels in the W part of Bukhta Yestafiya, in depths of 7 to 9m, sand. Vessels should put to sea on any indication of E winds, which can drive a heavy sea directly into the bay.

The coast from Mys Nakhval'nogo trends SW with numerous conspicuous cliffs along the shore and many mountains within. In clear weather the entire area is dominated by the conspicuous double peak of Gora Lysaya rising to 784m about 9 miles W of Mys Nakhval'nogo.

Skala Piramidal'naya, a conspicuous series of pyramid-shaped cliffs, light-red in color, rise to a height of 329m about 2.5 miles SW of Mys Nakhval'nogo and are the highest cliffs along this stretch of the coast.

Skala Ostraya, a cliff with a pointed summit and a yellow pillar rock near its base, is located about 2 miles SW of Skala Piramidal'naya, but is only conspicuous from the SE.

Bol'shaya Osyp', a conspicuous light-colored landslide scar, 98m high, and the only one of its kind on this coast, is located about 7 miles SW of Mys Nakhval'nogo and forms an excellent mark for vessels running close offshore.

Skala Pestraya, located about 2 miles SW of Bol'shaya Osyp', is striped and conspicuous because of a large patch W of it that has the appearance of being whitewashed.

Bukhta Moryak-Rybolov (Bukhta Pfusang), lying about 10 miles SW of Mys Nakhval'nogo, is a small bay entered between two elevated capes.

The surrounding land is high and barren with the exception of the low marshy land at the mouth of Reka Petropavlovka (Reka Tatunga).

Anchorage.—Temporary anchorage can be taken during calms or offshore winds, in depths of 7 to 9m, about 0.3 mile S of the mouth of the river.

9.25 **Mys Dal'niy** (43°18'N., 134°47'E.), the extremity of a dark conical headland, is the termination of a mountain range which reaches a height of 480m nearly 3 miles to the NNW. A high pointed rock, the shape of which resembles a shark's fin, lies close S of the cape and is conspicuous from the E. Another rock, with a depth of less than 2m, lies 2.3 miles NNE of Mys Dal'niy and about 0.5 mile offshore. A light is shown from Mys Dal'niy.

Mys Gorbatyy, a rugged cliffy cape located about 3 miles W of Mys Dal'niy, is the N entrance point of Bukhta Milogradovka and can be identified by a light-colored arch-shaped vein of stratum near its base which resembles a cave.

Bukhta Milogradovka, an open bight entered between Mys Gorbatyy and Mys Milogradovo, can easily be identified by the three colored vertical stripes on the seaward face of the latter cape. The two outer stripes are narrow, yellow, and high. The middle stripe is broad, white, and lower than the other two.

Reka Milogradovo, discharging at the head of the bay, has a narrow entrance with a sharp bend and depths of less than 0.6m on the bar. Within the entrance there is a fresh water lagoon, but the river is difficult of access, even for boats, due to numerous rocks and strong currents.

9.26 **Mys Krasnaya Skala** (43°14'N., 134°36'E.), a conspicuous bluff with red and yellow cliffs, rises almost precipitously from the beach to a height of 388m. The summit consists of a near vertical notch which can be plainly seen from either the NE or SW.

The coast from Mys Krasnaya Skala trends NW for 1 mile and then SW again, forming a small bight which can be identified by Peschannaya Osyp', a very conspicuous landslide scar near its W end. The continuation of the coast extending SW, backed by a coastal range attaining heights of 579m about 2.5 miles inland, and with a considerable amount of vegetation on the slopes, produces a green hue.

Bukhta Chernoruch'ye (Bukhta Taukhu), a cove indenting the coast about 8 miles SW of Mys Krasnaya Skala, is entered between Mys Zavalishina, the N entrance point, and Mys Khitrovo, about 1 mile SW. The shores are steep and rocky in the outer part of the cove, but near its head there is a sandy beach forming the seaward edge of a valley which is conspicuous from the WSW. A heavy surf is usually present along the shores of this cove and landing is very difficult.

Gora Ostraya, a sharp-pointed conspicuous peak, rises to a height of 357m about 2.5 miles NE of Mys Khitrovo and forms a good mark on this part of the coast.

Anchorage.—Local vessels anchor in Bukhta Chernoruch'ye during offshore winds, in a depth of 9m, about 0.5 mile off Mys Khitrovo.

9.27 Bukhta Valentina, a small bay located about 14 miles SW of Mys Krasnaya Skala, is entered between Mys Orlova, a precipitous double cliff of red granite, and Mys Silina, about

1.5 miles SW. From the S the bay can be identified by the rounded summit of Gora Golova rising to 844m about 3 miles NW of Mys Orlova.

Anchorage.—Since Bukhta Valentina is completely open to the SW; it is only available for anchorage in calms or offshore winds and should only be used as a temporary anchorage. The best berth is in a depth of 9 to 11m about 0.3 mile N of Mys Silina. There is a large fishing station at Valentin near the head of the bay, but no supplies are available.

The coast from Mys Silina trends NW for about 1 mile and then SW again to Mys Krasnyy and Bukhta Kit. The shore of this indentation is generally hilly with numerous rocks lying a short distance off, the exception being Bukhta Kit, which is lower and somewhat sandy.

9.28 Ostrov Opasnyy (43°02'N., 134°12'E.), located about 0.5 mile off Mys Kit with foul ground between, is a rocky islet about 0.3 mile across. A reef surrounds the islet except on its SE side and it is difficult of access.

The coast from Mys Kit continues SW and is cliffy with the elevations rising to 531m at a conspicuous coastal peak about 2.5 miles WSW of Mys Tumannyy. Farther SW the precipitous coast is marked by numerous yellow landslide scars and large rocks lying close offshore; only a short stretch of coast immediately N of Mys Stolbovoy, about 14 miles SW of Mys Kit, is low and sloping.

Mys Olarovskogo (42°52'N., 133°55'E.), a group of cliffy precipitous capes with pointed summits, is the S extremity of a curved peninsula extending about 2 miles SW from the coast. Large fragments of rocks fringe these capes on all sides and close approach is not recommended.

Caution.—An disused ammunition dumping area, the limits of which are shown on the chart, lies about 12 miles SE of Mys Olarovskogo.

9.29 Bukhta Sokolovskaya, entered between Mys Ovsyankina, the W extremity of Mys Olarovskogo and Ostrov Petrova, about 4 miles to the W, is fairly deep but totally exposed to the S. The NW and N shores of the bay are hilly, but the E shore is high and sheer with numerous rocks and fissures. There is a large fishing station at Sokolovka.

Bukhta Preobrazheniye (42°53'N., 133°55'E.), a narrow inlet entered about 1.5 miles N of Mys Ovsyankina, is about 0.2 mile wide at its entrance, but shoal water reduces the navigable width to 45m between the 10m curves.

Ostrov Orekhova, a rocky islet 61m high, is located about 0.2 mile off the entrance to Bukhta Preobrazheniye and can be identified by the light structure on it. The channel between Ostrov Orekhova and the mainland E has a least depth of 4.3m in the fairway. The channel is about 0.2 mile wide, but is narrowed by reefs extending 100m from each side.

Aspect.—A mountain, 969m high, about 6.5 miles NW of Mys Ovsyankina, is the highest peak in this area and provides a good mark from the S.

The coast from Bukhta Sokolovskaya trends SW with intermittent cliffs and numerous rocks close offshore. Ostrov Petrova, 102m high, and Ostrov Beltsova, smaller and lower, about 0.5 mile NE, lie close off the mainland about 4 miles W of Mys Olarovskogo and are connected to the shore by reef. The coast is backed by a mountainous ridge extending nearly N and S, terminating in a broad peninsula the seaward extremity of which is Mys Ostrovnoy.

Anchorage.—Good anchorage can be taken near the head of Bukhta Sokolovskaya, in depths of 10 to 15m, sand and mud. The best anchorage is with the E extremity of Ostrov Orekhova in line with Mys Ovsyankina, bearing 166°, in depths of 10 to 12m.

Anchorage can also be taken by small vessels about 0.2 mile within Bukhta Preobrazheniye, where there are depths of 9 to 11m, soft mud. The entrance is reported to be marked by lighted buoys.

9.30 Mys Ostrovnoy (42°48'N., 133°43'E.), the S extremity of a broad and hilly peninsula, terminates in two cliffy capes with a small cove between. Two small islets, locally known as Ostrovok Zamok, lie close together a short distance off the SW extremity of Mys Ostrovnoy and form a good mark from the SE. A light is shown from Mys Ostrovnoy.

Traffic Separation Scheme.—An IMO-adopted Traffic Separation Scheme lies off Mys Ostrovnoy. It is for the use of vessels approaching Zaliv Nakhodka and can best be seen on the chart.

Caution.—Foreign flag ships are restricted in use of the inshore traffic zones.

9.31 Bukhta Kiyevka, a large open bay totally exposed to the S, is entered between Mys Ostrovnoy and Mys Sutkovogo, a rocky precipitous cape located about 5 miles WNW. The W shore is steep and rugged, but the NE side is sandy and sloping with several barren islets located close off and bordered by rocks.

Banka Sudzukhe, a detached shoal with a least depth of 6.9m, lies in a position about 2 miles NW of the SW extremity of Mys Ostrovnoy and constitutes the primary danger to vessels entering near the E shore.

Reka Kiyevka, divided into two branches at the head of Bukhta Kiveyka, has its W and wider entrance about 1 mile NE of Mys Sutkovogo and contains depths of 0.9 to 3.7m across its mouth. Two islets, lying close together, are located close E of the W entrance point of the river, which is 27m high.

Anchorage.—Small vessels with local knowledge can take anchorage in calms or offshore winds about 0.3 mile SE of the river mouth, in depths of 9 to 11m, sand and mud. There are several fishing stations on the shores of the bay.

Bukhta Melkovodnaya, a small bay entered between Mys Sutkovogo and Mys Razgradskogo, a rocky cape about 1.2 miles SW, is divided at its entrance by Ostrov Khalerbe, a small islet. A reef extending from the N side of Ostrov Khalerbe to the head of the bay divides the bay into two parts, the W of which is deeper and wider.

Anchorage.—Small vessels with local knowledge can take anchorage, in depths of 7 to 9m, sand and mud, in the center of the W portion, but caution is necessary as dangerous squalls occur in summer.

9.32 Mys Obrucheva (42°49'N., 133°33'E.), a high pointed cape tapering in a SW direction, is fringed at its extremity by numerous rocks extending a short distance offshore.

Bukhta Uspeniya, indenting the coast in a NW direction for about 1.5 miles, is entered between Mys Obrucheva and Mys

Yakimova, about 1 mile WSW. The entrance of the bay is fairly deep, but Banka Uspeniya, with a least depth of 6.8m, lies in the W part, about 0.7 mile SE of Mys Yakimova. The N and E shores are steep-to with depths of 9m within 0.2 mile of the beach, but the W shore is rather sloping and somewhat shoal.

Anchorage.—Small vessels with local knowledge can take anchorage during calms or N winds, in a depth of about 8m, mud, in the cove which occupies the NW part of Bukhta Uspeniya. The S and SE winds which prevail here in summer send a heavy surf into the bay and render it at this time impracticable for anchorage.

The coast from Mys Yakimova trends WSW with light gray cliffs forming a series of slightly projecting points alternating with small coves. Ostrov Prizma, a conspicuous barren conical islet, about 21m high, lies close offshore about 3 miles WSW of Mys Yakimova and 0.5 mile E of the entrance to Bukhta Sambovay. From Mys Korevo, the W entrance point of Bukhta Sambovay, the coast becomes more cliffy and forms a wall-like formation for several miles.

9.33 Mys Sysoyeva (42°46'N., 133°21'E.), a precipitous and cliffy cape, is formed by the W slope of Gora Sysoyeva, a mountain rising within the cape to 320m. The cape is conspicuous from seaward and a pillar rock, rising from the cliffs about 1.5 miles to the E, also forms an excellent mark from offshore.

The coast from Mys Sysoyeva recedes into Bukhta Krakovka, and then extends about 3 miles W to Mys Ovseyenko. The shores of the bay are generally high and rocky with the exception of the W part where Reka Yazgou enters through an area of sandy beaches.

From Mys Ovseyenko the coast trends W for about 2 miles and then SW for 3 miles to Mys Bugristyy. A light is exhibited from Mys Bugristyy. Within these points a group of rocky islets known as Skala Kreyser lie scattered up to about 1 mile offshore, with the highest, at 40m, having the appearance of a brig under sail. The probability of uncharted submerged rocks exists in this vicinity and vessels are cautioned to give the area a wide berth.

Caution.—Navigation is prohibited within 3 miles of Skala Kreyser.

Bukhta Spokoynaya, about 1 mile WSW of Mys Bugristyy, is entered between Mys Zelenyy and Mys Lisuchenko, about 1.5 miles SW. High bare mountains close inland on all sides of the bay render the entrance rather inconspicuous from seaward, but Gora Pamyatnik, with a summit in the shape of a conspicuous column, rises to a height of 258m about 1.5 miles NW of Mys Zelenyy and forms a good mark from offshore.

The coast from Mys Lisuchenko trends W for about 2 miles to Mys Granitnyy with facings of red or gray granite along the cliffy shore. A twin-peaked hill resembling donkey ears backs Mys Lisuchenko, and Gora Zamok, a conspicuous castle-shaped hill, rises to 224m about 1.5 miles WNW of Mys Granitnyy.

Zaliv Nakhodka

9.34 Zaliv Nakhodka, formerly called Zaliv Amerika, is entered between **Mys Povorotnyy** (42°40'N., 133°03'E.) and Mys Likhacheva about 9 miles WNW. It consists of several

Gora Zamok

bays under the administrative control of the Nakhodka port authorities. The W and E shores of Zaliv Nakhodka are hilly and indented, but the head of the bay consists of a broad belt of sand. The entire area is open to the S and winds from that direction cause a considerable swell in the main portion of the bay, however, there is extensive shelter available in the nearly coastal indentations and numerous port facilities have been established here.

In addition to the designated anchorages in the main bay, there are two ports and an oil terminal. These are the port of Nakhodka in Bukhta Nakhodka; the port of Vostochnyy in **Bukhta Vrangela** (42°45'N., 133°04'E.); and the Chadaudzha oil terminal in **Bukhta Novitskogo** (42°46'N., 132°53'E.).

Ice.—Zaliv Nakhodka becomes covered with brash ice and sometimes sheet ice during the winter months, but N winds and traffic usually break it up and force it out to sea.

Aspect.—Mys Povorotnyy, the E entrance point, is 61m high near its seaward extremity with a face of gray rugged rock. Within the cape the land slopes with a grassy surface before rising again to the bluffs NW that form the shore for about 3 miles to Mys Krylova. A light is shown from Mys Povorotnyy and a radiobeacon is situated at the light.

Mys Likhacheva, the W entrance point, is a lofty dark point with a serrated summit which has bands of dark and light-colored strata on its S side. A light is shown from the point.

Gora Chernyy Kust, the highest mountain in the vicinity of Zaliv Nakhodka, rises to a height of 1,009m about 12 miles NNE of Mys Povorotnyy, and with a somewhat flattened summit, provides a good mark in good weather.

Gora Arseniya, a sharp-peaked mountain on the E side of Zaliv Nakhodka, rising to a height of 429m about 7.5 miles N of Mys Povorotnyy is an excellent mark, especially from SW.

Gora Sestra and Gora Brat rise, respectively, on the E side of, and 2 miles above the entrance to Reka Patizanskaya, at the head of Zaliv Nakhodka. The first, with a height of 318m, is somewhat rounded, but the latter has a peaked summit rising to 233m. Both are steep on their W sides, but slope more gradually to the E. Being readily distinguished from the other hills in the area, these two summits are good marks when entering the bay.

Gora Popova, which is prominent, rises to a height of 160m about 1 mile NE of Mys Likhacheva, on the W side of Zaliv Nakhodka. The slopes of this hill are covered with brush and a radio mast stands about 0.3 mile NE.

There is a conspicuous white building situated on Mys Krylova on the E side of the bay.

Pilotage.—Pilotage is compulsory for all vessels and available 24 hours.

Regulations.—An IMO-adopted Traffic Separation Scheme lies in the approaches to Zaliv Nakhodka and may best be seen on the chart. All vessels are required to use the Traffic Separation Scheme.

A two-way traffic route is in effect in Lane Nos. 1, 2, and 7. Vessels must keep to the right of the traffic separation zone. One-way traffic is in effect in Lane Nos. 3, 5, and 6; the direction of the movement is determined by the Vessel Traffic Control Center (VTCC).

Lighted Buoy No. 2 is moored at the intersection of Fairways No. 2, 3, and 7. Vessels should leave Lighted Buoy No. 2 (42°46'N., 133°01'E.) or its location, to port; the buoy may be withdrawn for the winter season.

Speed is restricted, as follows.

1. Vessels with a length of less than 50m—12 knots.
2. Length of 50 to 150m—10 knots.
3. Length more than 150m—8 knots.

Passing of vessels in traffic lanes is prohibited. Vessels traveling outside the traffic lanes when entering a lane must yield to the vessel already in the lane. The navigation rules apply to vessels in crossing lanes and on crossing courses outside the traffic lanes, unless the Vessel Traffic Control Center (VTCC) states otherwise. Vessels must keep constant radio watch while underway on a VHF radio channel indicated by the VTCC, and while at anchor on VHF channel 16. If a vessel's VHF fails, the vessel must leave the traffic lane and anchor, taking measures to communicate with the VTCC. The following serve as signals:

1. In day time—Flag R (Romeo).
2. At night—Light signal R (.-.).

Vessel Traffic Service.—A Vessel Traffic Control Center (VTCC) operates in Zaliv Nakhodka. This is a radar control center, operating at all times, which monitors all vessels underway or at anchor in the area. The VTCC operates an IMO-approved Vessel Traffic Service (VTS) that provides an information service, a traffic organization service, and a navigational assistance service. The VTS in Zaliv Nakhodka is an integrated part of Zaliv Petra Velikogo VTS and comprises Sector 2 of that VTS. (See paragraph 9.41)

The VTS operates 24 hours N of a line from Mys Likhacheva (42°44'06"N, 132°51'00"E.) extending ESE to Mys Povorotnyy (42°40'28"N., 133°02'16"E.), and includes the harbors of Nakhodka and Vostochnyy.

Participation in the VTS is mandatory for the following vessels:

1. All vessels greater than 20m in length.
2. All foreign vessels.
3. All vessels carrying dangerous cargo.
4. All oil tankers.
5. All vessels carrying 12 or more passengers.

The VTS can be contacted, as follows:

1. Call sign: Nakhodka Traffic
2. VHF: VHF channels 13 and 16
3. Telephone: 78-4236-661373
4. Facsimile: 78-4236-661366
5. E-mail: vts.nhdk@vrangel.ru

All vessels required to participate in the VTS Area of Control must contact Nakhodka Traffic on VHF channel 13, giving the information listed in the accompanying table titled **Zaliv Nakhodka—Required VTS Entry/Departure Report Information**, as follows:

1. Entering vessels—Upon entering the VTS Area of Control.
2. Departing vessels—Not less than 15 minutes before departing the berth or anchorage.

All vessels underway within the VTS area of control should maintain a continuous listening watch on VHF Channel 13.

All vessels at anchor within the VTS area of control should maintain a continuous listening watch on VHF Channel 16.

All vessels within the VTS area of control that wish to cease monitoring VHF or to change the VHF channel being used must first obtain permission from the VTS.

Zaliv Nakhodka—Required VTS Entry/Departure Report Information

Item	Type	Description	Entry Report	Departure Report
A	Ship	Vessel name, call sign, or ship station identity and flag	X	X
C	Position	A 4-digit group giving latitude in degrees and minutes suffixed with N (north) or S (south) and a 5-digit group giving longitude in degrees and minutes suffixed with E (east) or W (west)	X[1]	
D		True bearing (first 3 digits) and distance (state distance) in nautical miles from a clearly identified landmark (state landmark)		
E	True course	A 3-digit group	X	
F	Vessel speed in knots and tenths of knots	A 3-digit group	X	
I	Destination and ETA	Specify destination port name and give ETA using a 6-digit group giving day of month (first 2 digits), hours and minutes (last 4 digits). If time zone used is not UTC, then specify time zone used		X

Zaliv Nakhodka—Required VTS Entry/Departure Report Information				
Item	**Type**	**Description**	**Entry Report**	**Departure Report**
O	Maximum present static draft in meters	A 4-digit group giving meters and centimeters		X
P	Cargo on board	Identify cargo including brief details of any dangerous cargoes as well as any harmful substances and gasses that could endanger persons or the environment		X
T	Vessel's representative and/or owner	Details of name and particulars of ships representative and/or owner for provision of information		X
W	Vessel size and type	Details of length, breadth, tonnage, and type of vessel		X
X	Miscellaneous	Port Clearance Number		X
X[1] Either format may be used.				

Anchorage.—Anchorage areas in the N part of Zaliv Nakhodka are designated No. 1(166), No. 2(167), No. 3(305), No. 4(309), No. 5(306), No. 6(307), No. 7(302), No. 8(303), No. 9(304), and No. 10(308); they can best be seen on the chart.

The NE portion of Anchorage Area No. 9 has been designated as an area for tankers and is bounded by lines joining the following positions:

a. 42°45'34"N, 133°00'45"E.
b. 42°45'11"N, 133°01'47"E.
c. 42°44'39"N, 133°01'05"E.
d. 42°45'09"N, 133°00'04"E.
e. 42°45'34"N, 133°00'45"E.

Anchorage assignments will be made by the VTS. It is reported that the holding ground is very poor and dragging occurs with strong offshore winds in the N anchorage areas, and with freshets from Reka Partizanskaya in the NE corner of the bay.

Caution.—Measured distances are indicated on the chart and marked by several beacons in the vicinity of Mys Povorotnyy.

Several restricted areas lie in the approach to Zaliv Nakhodka and can best be seen on the chart.

A wreck lies in Anchorage Area No. 10(308) in position 42°45'12"N, 132°55'24"E.

Three dangerous submerged obstructions lie close N of Mys Krylova in the following positions:

a. 42°43'10"N, 133°00'24"E.
b. 42°43'14"N, 133°00'28"E.
c. 42°43'06"N, 133°00'38"E.

The primary danger in Zaliv Nakhodka is Banka Kreyser which lies with a least depth of 3.1m, about 4.5 miles NNW of Mys Krylova. The bank is marked by lighted buoys. Vessels proceeding into the bay are cautioned to avoid passing within 0.5 mile of its position.

Anchorage and fishing (trawling) are prohibited in several areas in the approach to Zaliv Nakhodka. Vessels should take care not to anchor in or proceed through these areas with anchors or any other gear in the water. Numerous fishing vessels are reported to work the areas off Zaliv Nakhodka and caution is necessary especially in reduced visibility.

Nakhodka (42°49'N., 132°54'E.)

World Port Index No. 60730

9.35 Bukhta Nakhodka, located in the NW part of Zaliv Nakhodka, is entered between Mys Astaf'yeva and Mys Shefnera about 1 mile NNW. The bay contains the main harbor facilities for the port of Nakhodka and both the E and W shores are extensively quayed to accommodate ocean-going vessels. Nakhodka, which is a first port of entry for vessels which have been granted permission to enter, is also in control of the facilties at Bukhta Novitskogo and Bukhta Vrangelya.

Nakhodka Home Page

http://www.ncsp.ru

Winds—Weather.—Winds from the N predominate strongly from October to March, but generally the wind is from the S in the summer. In April and May SE winds exceed all others, although the wind might come from any quarter. Gales occur on the average of 3 to 5 days per month in winter, seldom in summer, although a S gale is dangerous to shipping. Snow can be expected anytime between the end of November and the beginning of April.

Fog is most frequent in Zaliv Nakhodka during the months of June and July. Dense fog, which may last from 2 hours to 3 days, forms mostly at night or early morning, but during daylight hours sometimes lifts to form a low layer of cloud. Winds from the E through S to SW generally predominate during fog.

Ice.—Zaliv Nakhodka becomes covered with brash ice and sometimes sheet ice during the winter months, but N winds and traffic usually break it up and force it out to sea. Bukhta Nakhodka is generally frozen from January to March, but icebreakers keep the berthing areas clear.

Tides—Currents.—The tidal rise in Bukhta Nakhodka is about 0.7m under normal conditions; however, strong S winds may raise the water level by 1.2m or more.

Generally, the current is not felt in Zaliv Nakhodka below Ostrov Lisiy, however, the flow from Reka Partizanskaya causes a current of 1.5 to 3.5 knots with a considerable amount of muddy water in the upper part of the bay after heavy rains.

Depths—Limitations.—Depths in the approaches to Nakhodka are deep. The entrance channel (Channel No. 5) immediately N of Mys Astaf'yeva, leading to the Commercial Port in Bukhta Nakhodka, is reported to have depths of 10 to13m. The Commercial Port is divided into nine berths around Mys Astaf'yeva upon entry into Bukhta Nakhodka, with 21 berths in the Main Port Area and seven berths in the South Port Area. Eight ship repair berths in the Nakhodka Ship Repair Yard can accommodate vessels of 81 to 215m in length, with drafts of 2.5 to 6.5m.

See the table titled **Nakhodka—Cargo Berthing Facilities** for details.

Nakhodka—Cargo Berthing Facilities				
Berth	**Max LOA**	**Depth alongside**	**Maximum draft**	**Remarks**
Main Port				
No. 1	150m	11.5m	7.8m	General cargo
No. 2	150m	11.5m	9.5m	General cargo, grain, and bulk liquids
No. 3	150m	11.5m	9.5m	General cargo
No. 4	150m	11.5m	9.4m	General cargo
No. 5	150m	11.5m	9.5m	General cargo
No. 6	150m	11.5m	9.1m	General cargo and metal products
No. 7	150m	11.5m	9.4m	General cargo and metal products
No. 8	150m	11.5m	—	General cargo and metal products
No. 9	180m	11.5m	11.0m	Bulk coal, ferrochrome, ferroslags
No. 10	180m	11.5m	11.0m	Bulk coal, ferrochrome, ferroslags
No. 11	150m	10.0m	—	Passenger terminal
No. 12	175m	10.0m	—	Passenger terminal
Nos. 13-21	—	—	—	Fishing piers
Mys Astaf'yeva Area Berths				
No. 25	174m	—	11.0m	Logs
No. 26	170m	—	11.0m	Logs
No. 27	165m	—	11.0m	Logs
No. 28	197m	—	9.4m	Steel, cast iron, timber, cardboard, paper, pulp, and chemicals
No. 29	194m	—	9.8m	Steel, cast iron, timber, cardboard, paper, pulp, and chemicals
No. 30	160m	—	9.8m	Steel, cast iron, timber, cardboard, paper, pulp, and chemicals
No. 31	179m	—	9.3m	Steel, cast iron, timber, cardboard, paper, pulp, and chemicals
No. 32	146m	—	7.8m	Steel, cast iron, timber, cardboard, paper, pulp, and chemicals
No. 33	191m	—	5.4m	Port vessels
South Port Area				
Promtek Berth	92m	—	5.1m	General and bulk cargo
Geizer	126m	—	4.0m	General and bulk cargo
Geoport	137m	—	5.4m	General and bulk cargo
Gridrostroi	22m	—	2.2m	General cargo
Dalmorgridrostroi (Mys Shelkhera)	42m	—	4.0m	General cargo
Dalmormontazh	41m	—	5.6m	Floating berth
Dalmoronvitch	70m	—	6.5m	Floating berth

Chadaudzha Oil Terminal, a jetty with six berths available, is located in Bukhta Novitskogo, on the E side of Skala Bakhireva. Tankers will moor stern-to for Berth No. 5 and Berth No. 6. The terminal is approached through Channel No. 5 on a bearing of 269°18'. See the table titled **Chadaudzha—Oil Terminal Facilities** for additional details.

Aspect.—The main range lights, in line bearing 000°, are shown on the N shore of Zaliv Nakhodka, with the front light exhibited from a white building with a black vertical stripe and the rear light from a white tower with a black vertical stripe. Nakhodka radiobeacon is situated at the front range light.

An approach lighted buoy is moored 12 miles S of Nakhodka radiobeacon and marks the center of a roundabout at the N end of the traffic separation scheme.

Lighted Buoy No. 1 is moored 8 miles S of Nakhodka radiobeacon and marks the approach to the designated fairways in the bay which may best be seen on the chart.

Mys Nepristupnyy is located about 4 miles SE of Nakhodka radiobeacon at the E side of the bay. A light is shown from the point and a radiobeacon is situated at the light.

Bukhta Nakhodka range lights, in line bearing 267°54', are shown from two towers on the W side of the bay and lead through the channel close N of Mys Astaf'yeva.

Bukhta Novitskogo range lights, in line bearing 269°18', are shown, when required, from two white square towers on the W shore of the bay. Numerous oil tanks are situated on the hillsides in the vicinity of these lights.

Pilotage.—Pilotage is compulsory for all foreign vessels, Russian vessels greater than 500 gt, and all tankers and other vessels carrying dangerous cargo within the inner harbor area and in Fairway 3, Fairway 5, Fairway 6A, and the W part of Fairway 6. Pilots are available at any time day or night.

Pilots will board at the following positions:

a. 42°42'53"N, 132°57'40"E
b. 42°48'01"N, 132°56'27"E.
c. 42°45'50"N, 132°56'27"E.

Pilots are also provided for the oil terminal in Bukhta Novitskogo.

Contact Information.—Port and oil terminal contact information can be found in the table titled **Nakhodka—Contact Information**.

Regulations.—Vessels greater than 200m in length may not be moored or unmoored if wind velocity is Force 5 or greater and if visibility is less than 0.4 mile.

Chadaudzha—Oil Terminal Facilities

Berth	Max LOA	Depth alongside	Maximum Draft	Maximum Beam	Maximum size	Remarks
No. 1	230m	13.0m	12.5m	40m	50,000 dwt	Gas and fuel oil
No. 2	250m	13.0m	11.5m	40m	50,000 dwt	Gas and fuel oil
No. 3	116m	7.2m	7.2m	30m	8,000 dwt	Gas, fuel oil, gasoline, naptha, and jet fuel
No. 4	116m	7.2m	7.2m	30m	8,000 dwt	Gas, fuel oil, gasoline, naptha, and jet fuel
No. 5	76m	7.2m	7.2m	—	—	Small bunker vessels
No. 6	76m	—	7.2m	—	—	Small bunker vessels

Nakhodka—Contact Information

	VHF channel	Call sign	Telephone	Facsimile	E-mail
Nakhodka					
Pilots	16	Pilots 1	—	—	—
Port Authority	—	—	78-42366-47968	78-42366-41806 78-42366-47968	odm@nhk.infosys.ru
Radio Station	2, 7, and 16	Nakhodka Radio 1	—	—	—
Commercial Port (Dispatchers Office)	16 and 68	Nakhodka Radio 2 and 14	—	—	—
Oil Commercial Port	33	Nakhodka Radio 2 and 7	—	—	—
Fishing Port	37	Nakhodka Radio 37	—	—	—
Bukhta Novitskogo Oil Terminal					
Pilots	16 and 34	Pilot 1	—	—	—
Harbormaster	—	—	78-42366-24668	78-42366-99530	fcap@ampn.ru

Nakhodka—Contact Information					
	VHF channel	Call sign	Telephone	Facsimile	E-mail
Port Dispatcher/ Controller	33	Novitskiy 2	—	—	—
Fleet Affairs Dispatcher	33	Novitskiy 7	—	—	—
Navigation Office	34	Novitskiy 10	—	—	—
Working Tugs	33 and 34	—	—	—	—

Vessel Traffic Service.—The port of Nakhodka is located within the VTS established within Zaliv Nakhodka; all vessels must be aware of the requirements placed upon them by this VTS (see paragraph 9.33). This VTS is also an integrated part of the Zaliv Petra Velikogo VTS and comprises Sector 2 of that VTS. (See paragraph 9.41)

Anchorage.—Anchorage areas for the Commercial Port are in the W and N part of Zaliv Nakhodka and are designated No. 1(166), No. 2(167), No. 3(305), and No. 5(306). Anchorage areas for the Chadaudzha Oil Terminal are situated E of Skala Bakhireva and are designated No. 4(309) and No. 10(308). All of these areas can best be seen on the chart.

Caution.—A bunkering area is bounded by lines joining the following positions:

a. 42°48'24"N, 132°55'12"E.
b. 42°48'24"N, 132°55'30"E.
c. 42°48'12"N, 132°55'30"E.
d. 42°48'12"N, 132°55'12"E.

Anchoring is prohibited on either side of a submarine pipeline that crosses Bukhta Nakhodka between Berth No. 1 (N side) and Berth No. 33 (S side).

A wreck is located in anchorage area No. 10(308) at position 42°45'12"N, 132°55'24"E.

Several hazards located in the S port area (extreme SE portion of Bukhta Nakhodka) are, as follows:

1. A stranded wreck (barge) located in position 42°47'07"N, 132°52'10"E.
2. Submerged obstruction, depth of 4.4m, in position 42°47'09"N, 132°52'04"E.
3. Submerged obstruction (pontoons), depth of 4m, in vicinity of position 42°47'27.3"N, 132°52'40.4"E
4. Submerged obstruction, depth of 4m, in position 42°47'28"N, 132°52'41"E
5. Submerged obstruction, depth 11.2m, in position 42°47'28"N, 132°52'41"E.

Vostochnyy (42°44'N., 133°04'E.)

World Port Index No. 60725

9.36 Vostochnyy is a major commercial port situated at the S end of Bukhta Vrangelya.

Ice.—Zaliv Nakhodka becomes covered with brash ice and sometimes sheet ice during the winter months, but N winds and traffic usually break it up and force it out to sea. Bukhta Vrangelya freezes only at its head, where the ice lasts from mid-December to the end of March.

Depths—Limitations.—The entrance channel (Fairway No. 3) is marked by two lighted buoys, leads ESE into the port, and is best seen on the chart. Natural depths in the fairway are 22m.

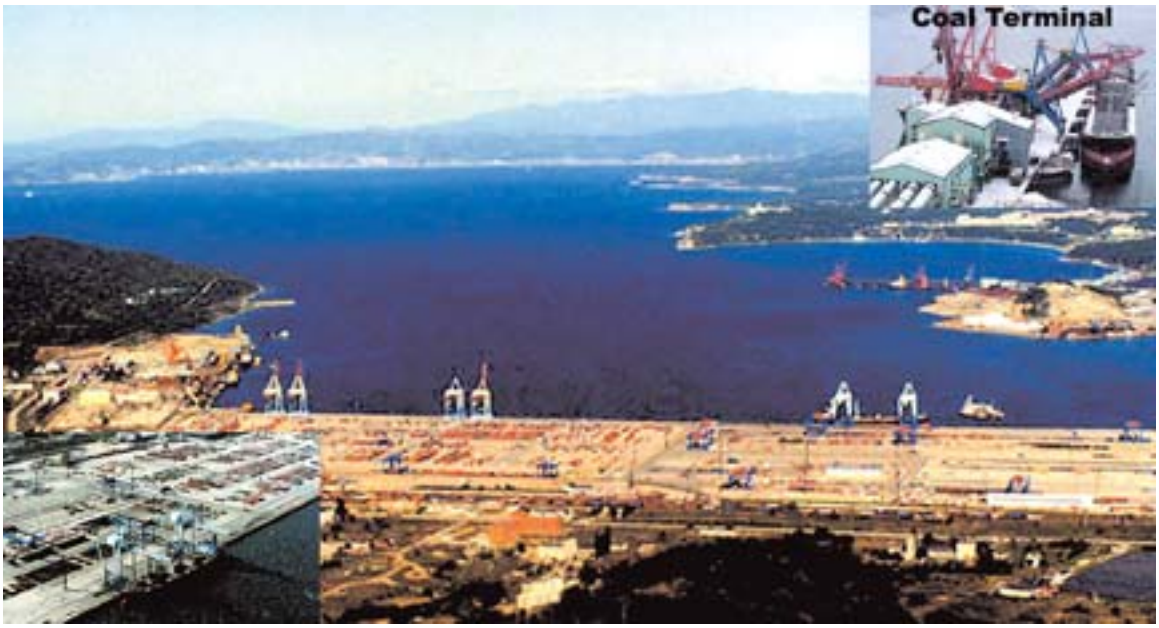
A wharf is located on the SW shore of Vostochnyy; several berths are available. Another wharf at right angles to it along the SE shore has two berths of the Vostochnaya International Container Terminal. Details of the nine berths along these wharves are in the table titled **Vostochnyy—Berth Information**.

Maly Port is located on the W bank of Reka Khmylovka and has five berths,

A coal terminal, with two berths on either side of a mole, extends WSW from the shore close W of Reka Khmylovka. Berth No. 49 is on the S side of the mole; Berth No. 50 is on the N side.

Vostochnyy—Berth Information			
Berth	Length	Depth alongside	Cargo
Southwest shore of Vostochnyy			
No. 5	300m	13.0m	Domestic containers, cars, metals, and general cargo.
No. 6	312m	13.0m	Domestic containers, cars, metals, and general cargo.
No. 7	265m	11.5m	International containers, and general cargo.
No. 8	408m	11.5m	International containers, and general cargo.
No. 9	60m	11.5m	Oil and chemicals.
No. 10	215m	11.5m	Fertilizer in bulk.
No. 11	190m	11.5m	Timber, metal, and general cargo.

Vostochnyy—Berth Information			
Berth	**Length**	**Depth alongside**	**Cargo**
No. 12	190m	11.5m	Timber, metal, general, and bulk cargo.
No. 13	210m	13.0m	Bulk cargo.
No. 14	210m	13.0m	Bulk cargo.
Maly Port			
No. 31	150m	6.0m	Timber.
No. 33	101m	8.25m	Sawn timber, metal, and general cargo.
No. 34	125m	8.25m	Sawn timber, metal, and general cargo.
No. 35	126m	8.25m	Sawn timber, metal, and general cargo.
No. 39	206m	8.25m	Oil and bulk methanol. Berth can accommodate vessels up to 12,000 dwt in size, 180m in length, and a maximum draft of 7.6m.
Coal Terminal			
No. 49	381m	16.5m	Coal. Vessels are limited to a width of 43m.
No. 50	381m	16.5m	Coal. Vessels are limited to a width of 43m.



Vostochnyy Harbor

An oil and gas terminal situated on the NE shore of Bukhta Vrangelya has 500m of berthing space, with depths alongside of 12m, and can accommodate tankers up to 100,000 dwt.

Kozmino Oil Terminal (42°43'N., 133°01'E.) is the terminal for the East Siberia-Pacific Ocean (ESPO) oil pipeline. The terminal is located in Bukhta Kozmino which is approximately 3 miles SSW of Bukhta Vrangelya.

Two approach channels lead to the terminal; one from the W and one from the NW. The terminal area is ice-free all year round, but there may be the presence of ice floes in the approaches during the late winter months.

Two berths at the terminal are located on either side of a jetty that is at right angles to a mole extending NE from the shore. Berth No. 1 is on the NE side (outboard) side of the jetty; Berth No. 2 is on the SW side. Both berths have a length of 441m and depths alongside of 21m. Tankers are restricted to an loa of

Kozmino Oil Terminal

275m and a maximum draft of 18m.

The Vostochnyy Roadstead Transshipment Area, located at the S end of Anchorage Area No. 5, is centered on position 42°46'21"N, 132°57'53"E. A mooring buoy has been placed at the S end of the transshipment area in position 42°46'12"N, 132°57'58"E.

Aspect.—The port is entered along a range line of two beacons (unlighted), in line bearing 117°, passing close S of a 1.3m patch N of the port area.

Mys Krasnyy range lights, in line bearing 050°, lead through the fairway to the Kozmino Bay Oil Terminal.

Pilotage.—Pilotage is compulsory. The request for pilots should be made via agent 24 hours prior to arrival and reconfirmed 2 hours prior arrival. Note additional ETA reporting requirements listed in the Regulations paragraph below. Departing vessels must request a pilot 2 hours before departure.

Pilots for Port Vostochnyy will board in the following positions:.

Pilots will board

a. 42°42'53"N, 132°57'40"E.
b. 42°45'43"N, 133°01'25"E.
c. 42°44'59"N, 132°57'36"E.
d. 42°43'23"N, 132°58'52"E.

Regulations.—Vessels should advise ETA 10 days prior arrival, then confirm 72 hours, 24 hours, and 4 hours prior arrival. The initial ETA message must include the following information:

1. Vessel call sign and IMO identification number.
2. Port of registry.
3. Vessel's loa, beam, and draft.
4. Agent's name and address.
5. Purpose of visit.
6. Condition of vessel's equipment affecting safety and maneuvering characteristics.

The vessel's speed should not exceed 12 knots while proceeding through the main fairway and 6 knots when approaching Bukhta Vrangelya.

Vessels should contact the harbormaster no less than 30 minutes before arrival at the inner roads to obtain permission to enter port.

Vessels alongside shall be connected to the landline phone network or maintain a continuous watch on VHF channel 14.

Contact Information.—Pilot, harbormaster, and container terminal contact information is given in the table titled **Vostochnyy—Contact Information**.

Vessel Traffic Service.—The port of Vostochnyy is located within the VTS that has been established within Zaliv Nakhodka and all vessels must be aware of the requirements placed upon them by this VTS (see paragraph 9.33). This VTS is also an integrated part of the Zaliv Petra Velikogo VTS and comprises Sector 2 of that VTS. (See paragraph 9.41)

Anchorage.—Three designated anchorage areas in Bukhta Vrangelya have their center positions, as follows:

a. N1—position 42°44'30"N, 133°04'06"E.
b. N2—position 42°45'00"N, 133°03'42"E.
c. N3—position 42°45'27"N, 133°03'28"E.

Anchorage assignments will be made by the VTS.

However, only Russian vessels with Russian crew can anchor at these positions. All other vessels have to anchor in five areas designated in the outer roads. These areas are designated No. 5(306), No. 6(307), No. 7(302), No. 8(303), and No. 9(304) and are best seen on the chart.

The NE portion of Anchorage Area No. 9(304) has been designated as an area for tankers and is bounded by lines joining the following positions:

a. 42°45'34"N, 133°00'45"E.
b. 42°45'11"N, 133°01'47"E.
c. 42°44'39"N, 133°01'05"E.
d. 42°45'09"N, 133°00'04"E.
e. 42°45'34"N, 133°00'45"E.

Vostochnyy—Contact Information

	Pilots	Harbormaster	Vostochnaya Container Terminal
Call sign	Vostochnyy Pilot	Vostochnyy 5	—
VHF	VHF channels 14 and 15	VHF channel 14	—
Telephone	78-4236-660028	78-4236-660762 78-4236-660290	7-4236-665305
Facsimile	78-4236-660028	78-4236-660762 78-4236-660290	7-4236-665550
Telex	—	64-353754 VOLNA RU	—

Vostochnyy—Contact Information			
	Pilots	Harbormaster	Vostochnaya Container Terminal
E-mail	—	captain@nhk.infosys.ru	vics@vics.ru
Web site	—	http://www.vpnet.ru	http://www.vics.ru

Caution.—Several submerged obstructions are located in Bukhta Kozmino, as follows:

a. 42°42'56"N, 133°00'33"E.—depth of 9m.
b. 42°43'11"N, 133°03'22"E.—depth of 19.1m.
c. 42°42'57"N, 133°00'52"E.—depth of 11.5m.

Zaliv Nakhodka to Zaliv Strelok

9.37 The coast from Mys Likhacheva trends NNW for about 7.5 miles to Mys Podosenova, the E entrance point of Zaliv Vostok. Mys Passeka, located a little over 2 miles NW of Mys Likhacheva, rises steeply from the sea and is topped by several jagged summits. The red patches marking its weathered cliffs are discernible from a distance and the numerous peaks within provide a good mark from the offing.

Zaliv Vostok, entered between Mys Podosenova and Mys Peshchurova, about 3 miles W, is a moderately deep bay with high steep shores that become low and marshy on both sides of its head. A precipitous point, 30m high, lies midway on the N shore with lowlands on either side and forms a good mark when entering from the SE. Open to the S, the bay breaks heavily on its W shore during the prevailing SE winds of summer and does not afford good anchorage except in the coves on the W shore.

Bukhta Gaydamak (42°52'N., 132°42'E.), in the SW part of Zaliv Vostok, affords anchorage, in depths of 9 to 11m, mud and sand, about 0.5 mile from the head of the bay. There is a fishing settlement and a boat yard in Bukhta Gaydamachik, at the SW bight of Bukhta Gaydamak.

A vessel entering Bukhta Gaydamak should stay in midchannel, and if bound for Bukhta Gaydamachik, should round the spit closely.

The coast from Mys Peshchurova trends W in a long sandy bight for about 4 miles to Mys De-Livrona.

Caution.—Mys De-Livrona, which is cliffy and precipitous, is reported to resemble Mys Peshchurova and caution is necessary, especially in periods of poor visibility.

A wreck, with a depth of 15m, is reported to lie in an approximate position 2.5 miles ESE of Mys De-Livrona.

Three mooring buoys are moored about 18 miles S of Mys De-Livrona.

9.38 Mys Gembacheva (42°50'N., 132°34'E.), the SW extremity of a cliffy and indented headland about 1.5 miles W of Mys De-Livrona, is bordered by ledge all around and is marked by numerous pillar rocks extending up to 0.2 mile offshore.

Ostrov Trambetskogo, an islet formed by a huge granite rock about 12m high, lies about 1.5 miles W of Mys Gembacheva and can be identified by its pillar appearance and nearly vertical sides. It is fringed by a narrow gravel beach in all directions and a rocky shoal, part of which dries, extends about 0.2 mile N.

Ostrov Trambetskogo from SW

Zaliv Strelok

9.39 Zaliv Strelok, open between Mys Gembacheva and Mys Maydela, about 10 miles W, is divided nearly in half by Ostrov Putyatina, a fairly large island.

The E side of the bay is entered between Ostrov Trambetskogo and the SE extremity of Ostrov Putyatina. The shore of the E part of the bay is also indented by several smaller bights and coves. There are several restricted areas within the bay and entrance by commercial vessels is reported to be prohibited. Five white buoys are moored across the entrance.

At the W side of Zaliv Strelok, Mys Filisova, a promontory 72m high, lies about 1.5 miles NE of Mys Maydela. A rocky ledge, with a least depth of 5.5m, extends ESE from Mys Filisova and merges into a reef with depths of 3.7m, which extends about 0.3 mile W from Mys Fel'kerzama, the W extremity of Ostrov Putyatina. A buoy marks the outer edge of the reef.

Mys Nizkiy is located about 1.5 miles N of Mys Filisova. A reef extends about 0.3 mile seaward from the point and is marked by a buoy.

Bukhta Razboynik, on the W side of Zaliv Strelok, is entered N of Mys Nizkiy. Bukhta Abrek, at the head of Zaliv Strelok, is entered between Mys Abrek, about 2.2 miles NE of Mys Nizkiy, and Mys Yunshi, about 1 mile E.

Ostrov Putyatina is hilly. Gora Startseva, 359m high, rises 1 mile S of the N extremity of the island and is the summit of the hilly range in the interior.

Mys Razvozova, the SE extremity of the island, is fringed with rocks. Banka Bonsdorfa, with a depth of 8.6m, lies about 0.7 mile ENE of the point.

Mys Schulepuikova, the SW extremity of the island, lies about 1 mile SW of Mys Razvozova. A small islet, 12m high, lies close SW of the point.

Pyat' Pal'tsev, meaning "five fingers reef," extends 0.8 mile SSE from the S end of the island and is marked by a lighted buoy. The islets forming it are dark and prominent.

The W coast of the island is cliffy and in the middle of this coast there is a peninsula separating two bays. Mys Fel'kerzama, the W extremity of the island, is located at the N end of this peninsula. Bukhta Nazimova is the bay lying NE of this point. A brick works, a plywood factory, and a canning plant are reported to be situated on the shore of the bay.

Pyat' Pal'tsev from S

Anchorage.—The NW part of Zaliv Strelok, being sheltered and having convenient depths, mostly mud, affords calm anchorage during the summer months for vessels of all sizes. During the autumn and winter, the prevailing N and NW winds blow from the mountains in gusts, occasionally so strong as to render the anchorages in this part of the bay very uncomfortable and, in some cases, insecure. The E part of Zaliv Strelok is rough throughout the summer.

During the summer months, Bukhta Nazimova, which is sheltered from S winds, affords excellent anchorage, in a depth of 15m, mud, about 0.8 mile NNE of Mys Fel'kerzama, in depths of 11 to 13m, mud, in a position 12 miles NE of Mys Fel'kerzama. This anchorage is exposed to the winds described in the preceding paragraph. To the S of this anchorage the bottom, sticky mud, shelves regularly toward the shore.

Bukhta Razboynik affords anchorage to small local vessels which can anchor, in depths of 6 to 8m, sand and shell, near the entrance of the inner part of the bay.

Anchorage in Bukhta Abrek may be obtained, in depths of 9 to 24m as far N as the middle of the bay. The bottom is mostly mud, but is rocky toward the head of the bay. This anchorage is totally exposed to the S and is impracticable except during calms or during the autumnal N winds.

Caution.—Areas within which anchoring is prohibited lie within Zaliv Strelok and the approaches and may best be seen on the chart.

A marine farm has been established in the S part of Zaliv Strelok and is bounded by lines joining the following positions:

a. 42°51'06"N, 132°27'08"E.
b. 42°50'24"N, 132°26'20"E.
c. 42°49'25"N, 132°26'54"E.
d. 42°48'41"N, 132°27'52"E.
e. 42°49'02"N, 132°28'24"E.
f. 42°51'06"N, 132°27'08"E.

9.40 Ostrov Askol'd (42°45'N., 132°20'E.), a horseshoe-shaped island separated from the mainland by Proliv Askol'd, is hilly and precipitous with three distinct peaks. The E and inner sides of the island are intersected by numerous ravines and gullies thickly covered with forest bush and grass, and contrast sharply with the bare summits of the main ridge.

Bukhta Nayezdnik, located on the S side of Ostrov Askol'd, is entered between the high precipitous capes of Mys Yelagina to the SE and Mys Kosheleva, a high precipitous point 1.2 miles to the NW. A light is exhibited on Mys Yelagina and a radiobeacon is situated at the lighthouse. Scattered partly drying rocks, occasionally marked by breakers, extend up to 0.2 mile S of the latter point, but otherwise entrance is not difficult and good anchorage, in sand and mud, can be taken during N winds near the head of the bay. Caution is necessary as winds from the SW through SE cause a heavy swell in the anchorage, and also in winter force drift ice into the bay which may endanger a vessel within.

Mys Stupenchatyy is the N extremity of the island and consists of numerous rocks grouped to resemble a staircase.

Proliv Askol'd, leading between the N extremity of Ostrov Askol'd and the SW extremity of Ostrov Putyatina, is a deep strait divided in its center by Ostrova Unkovskogo, a barren rugged islet, 43m high, surrounded by rocks, on a steep-to shoal. Kamen' Baklaniy, the N rock, is separated from the main group by a narrow channel requiring local knowledge, but the main channel of the strait lies between Ostrova Unkovskogo and Ostrov Askol'd.

Caution.—A submarine cable extends across Proliv Askol'd between Ostrov Askol'd and the mainland and may best be seen on the chart. Anchoring, fishing and underwater operations are prohibited within 0.3 mile of this cable.

Anchoring is prohibited due to the presence of cables in an area 0.5 mile wide extending from a position 0.5 mile S of Mys Maydela, S then SE for 11 miles through Proliv Askol'd, then E for 17 miles to join the prohibited area in the approaches to Zaliv Nakhodka.

Zaliv Petra Velikogo

9.41 Zaliv Petra Velikogo (Peter the Great Gulf) is entered between Ostrov Askol'd and **Mys Gamova** (42°34'N., 131°13'E.), about 50 miles WSW. This gulf includes the area extending 50 miles NNE from the entrance.

A Traffic Separation Scheme consisting of several portions has been established in the approaches to Zaliv Petra Velikogo and Vladivostok as shown on the chart.

Vessel Traffic Service.—A Vessel Traffic Service (VTS) has been established in Zaliv Petra Velikogo and is in effect at all times, providing an information service, a traffic organization service, and a navigational assistance service.

This VTS area covers the entire water area of Zaliv Petra Velikogo as well as the adjacent territorial waters of the Russian Federation plus the Zaliv Nakhodka VTS and Vladivostok VTS areas.

The VTS is comprised of the following six sectors:

1. **Sector 1A (Vladivostok Traffic—VHF channel 71)**.—Includes the area within the territorial sea border of the Russian Federation and the boundaries of Sector 1B, Sector 3, Sector 4, and Sector 5.
2. **Sector 1B (Nakhodka Traffic—VHF channel 9)**.—Includes the area within the territorial sea border of the Russian Federation and the boundaries of Sector 1A and Sector 2.

Note.—Sector 1 is divided between Sector 1A and Sector 1B along the meridian of 132°28'E.

3. Sector 2 (Nakhodka Traffic—VHF channel 13).—Includes the waters of Zaliv Nakhodka N of a line from Mys Likhacheva (42°44'01"N, 132°50'54"E.) extending ESE to Mys Povorotnyy (42°40'21"N., 133°02'21"E.).
4. **Sector 3 (Vladivostok Traffic—VHF channel 67)**.—Includes the harbor waters of Vladivostok port along with its approaches.
5. **Sector 4 (Vladivostok Traffic—VHF channel 71)**.—Includes the waters of Slavyanka port along with its approaches.
6. Sector 5 (Vladivostok Traffic—VHF channel 71).—

Zaliv Petra Velikogo VTS

Includes the waters of Zaliv Pos'yeta N of a line from Mys Suslova (42°30'54"N., 130°51'53"E.) to Mys Gamova (42°33'23"N., 131°13'04"E.).

See figure titled **Zaliv Petra Velikogo VTS** for a detailed display of the sector boundaries of the VTS.

The following vessels must participate in the VTS:

1. All vessels longer than 20m in length.
2. All foreign vessels.
3. All vessels carrying dangerous cargo.
4. All oil tankers.
5. All vessels carrying 12 or more passengers.

1. Entering and Departing Vessels:

a. Contact Vladivostok Traffic on VHF channel 71 upon crossing the territorial sea border of the Russian Federation arriving from or departing to Sector 1A.

b. Contact Nakhodka Traffic on VHF channel 9 upon crossing the territorial sea border of the Russian Federation arriving from or departing to Sector 1B.

2. Movement Reports—Made whenever vessel is crossing any Sector boundary or when ceasing or restarting movement using the following VHF channels:

a. VHF channels 9 and 71—upon crossing the boundary between Sector 1A and Sector 1B.

b. VHF channels 9 and 13—upon crossing the boundary between Sector 1B and Sector 2.

c. VHF channels 67 and 71—upon crossing the boundary between Sector 1A and Sector 3.

d. VHF channel 71—upon crossing the boundary between Sector 3 and Sector 4.

e. VHF channel 71—upon crossing the boundary between Sector 1A, Sector 4, and Sector 5.

All vessels must contact either Vladivostok Traffic or Nakhodka Traffic, giving the information listed in the accompanying table titled **Zaliv Petra Velikogo—Required VTS Entry/Exit/Movement Report Information**, as follows:

Zaliv Petra Velikogo—Required VTS Entry/Exit/Movement Report Information

Item	Type	Description	Entry/Exit Report	Movement Report
A	Ship	Vessel name, call sign, or ship station identity and flag	X	X

Zaliv Petra Velikogo—Required VTS Entry/Exit/Movement Report Information				
Item	**Type**	**Description**	**Entry/Exit Report**	**Movement Report**
C	Position	A 4-digit group giving latitude in degrees and minutes suffixed with N (north) or S (south) and a 5-digit group giving longitude in degrees and minutes suffixed with E (east) or W (west)	X[1]	X[1]
D		True bearing (first 3 digits) and distance (state distance) in nautical miles from a clearly identified landmark (state landmark)		
I	Destination and ETA	Specify destination port name and give ETA using a 6-digit group, giving day of month (first 2 digits), then hours and minutes (last 4 digits). If time zone used is not UTC, then specify time zone used	X	X
X[1] Either format may be used.				

Incident Reports are to be made to the VTS of the Sector in which the incident is occurring, using the VHF channel appropriate for that sector as identified earlier. An incident is whenever vessel is involved in a collision, running aground, committing or detecting sea pollution.

All vessels must report any event that may be a threat to the safety of navigation plus any other information requested by the VTS. These reports are to be made to the VTS of the Sector in which the event is occurring or from which a request is made.

Vessels should be listening, at all times, to the VHF channel assigned to the Sector in which they are located.

Onboard AIS equipment should be in operation at all times when vessel is within any one of the VTS sectors.

See paragraph 9.33 and paragraph 9.52 for further details.

9.42 Poluostrov Murav'yev-Amurskiy (43°10'N., 132°00'E.) and Arkhipelag Yevgenii, a chain of islands and islets extending 18 miles SW of the peninsula, divide the gulf into two parts.

The bay W of the peninsula is Amurskiy Zaliv and that E of it is Ussuriyskiy Zaliv. The harbor of Vladivostok is located at the SW end of the peninsula.

Caution.—A large portion of Zaliv Petra Velikogo is prohibited to navigation or anchorage; there are numerous exercise and regulated areas in the N parts of the gulf that are under the direct control of the naval authorities at Vladivostok.

During the fishing season, numerous fishing craft towing nets may be encountered in the approaches to the gulf.

Ussuriyskiy Zaliv

9.43 Mys Sysoyeva (42°51'N., 132°19'E.), located about 1.2 miles W of Mys Maydela, the W entrance point of Zaliv Strelok, marked by a light; is the E entrance point of Ussuriyskiy Zaliv. It is a precipitous headland formed at the seaward end of a narrow elevated peninsula. When approached from the SW during periods of low fog, but with a clear sky, the summits of Ostrov Askol'd and Mys Sysoyeva will often stand out, with even the guano-covered rocks off Mys Pal'chatyy being seen at times. A light is shown from Mys Sysoyeva.

Gora Bol'shoy Iosif, rising to a height of 536m about 7 miles NNE of Mys Sysoyeva, is also a good mark when the air is clear.

The coast from Mys Sysoyeva trends NW across a bight for 1.8 miles to Mys Veselkina, a precipitous cape with a large granite rock known as Kekur Shitau, located about 0.1 mile off its shore. From the latter point the coast trends N with numerous fringing rocks and several indenting coves, Bukhta Bezymyannaya being the largest with a N shore of gray cliffs.

Caution.—A marine farm has been established in Bukhta Bezymyannaya and is bounded by lines joining the following positions:

a. 42°54'33"N, 132°17'46"E. (coast)
b. 42°54'36"N, 132°17'21"E.
c. 42°54'57"N, 132°17'18"E.
d. 42°54'49"N, 132°16'31"E.
e. 42°53'18"N, 132°17'10"E.
f. 42°53'03"N, 132°17'48"E.
g. 42°53'14"N, 132°18'08"E.
h. 42°53'22"N, 132°18'15"E.
i. 42°53'38"N, 132°18'07"E. (coast)

Mys Kom-Pikho-Sakho, located about 4.5 miles NNW of Mys Sysoyeva, is the S extremity of a narrow peninsula projecting from the coast in a general SW direction and is devoid of vegetation. The point consists principally of sand and clay, the pink color of which contrasts sharply with the gray cliffs of the main coastline.

Kamen' Priglubyy, two groups of rocks located on a reef lying 0.2 to 0.8 mile off Mys Kom-Pikho-Sakho, are low and dangerous, being awash or nearly awash at LW. A lighted buoy is moored during the navigational season close W of this reef.

Mys Polosatik, about 8.5 miles N of Mys Sysoyeva, is a cliffy precipitous cape forming the S extremity of a tongue-shaped promontory extending from the coast in a general SW direction for about 0.5 mile. The point is rocky, steep, and composed of red granite cliffs. Bukhta Pol'yapol'skogo, within the point, affords excellent protection for small craft; anchorage can be taken, in depths of 3 to 5m, in the middle of the cove over a bottom of sand and mud.

9.44 Mys Sedlovidnyy (43°05'N., 132°18'E.), a bare pre-

cipitous saddle-shaped cape of gray color, is the N extremity of a narrow cliffy elbow-shaped promontory which extends about 1 mile W from the general trend of the coast. When seen from offshore and especially from the S, the entire promontory has the appearance of a detached island and forms an excellent mark from seaward.

A reef, terminating in a group of above-water rocks, extends about 0.8 mile NNE from Mys Sedlovidnyy and is marked, during the navigational season, by a lighted buoy moored about 1 mile N of the point and 0.2 mile NNW of the above rocks.

Mys Palets, a promontory consisting of bare gray cliffs, lies with its N extremity about 2.7 miles NNE of Mys Sedlovidnyy. Kamen' Aleut, a rock which dries, lies about 0.7 mile SW of Mys Palets and is separated from the coast by a channel having depths of 6.9 to 7.4m.

Bukhta Andreyeva, a broad bay entered between Kamen' Aleut and the rocks off Mys Sedlovidnyy, provides good anchorage sheltered from S and E winds, in depths of 7 to 12m, sand, about 0.7 mile E of the latter rocks. Caution is necessary on entering as the W part of the bay is shoal with depths of 6.4 to 7.3m and the shores are fringed by reef. Landing generally requires local knowledge, but there are wooden piers suitable for small craft near the fishery in the E part of the bay.

Mys Krasnyy, about 2.8 miles N of Mys Palets with several coves between, terminates in a bare precipitous cliff resembling the ram of an ancient ship. Because of several bands of strata, the cape is conspicuous and provides a good mark when approaching Bukhta Sukhodol.

Bukhta Sukhodol, entered between Mys Krasnyy and Mys Azar'yeva, about 2.5 miles N, is a fairly large bay somewhat shallower in its center than around the perimeter. Vessels entering can do so on Gora Sukhodol, a conspicuous 356m peak rising about 2 miles E of the head of the bay, but during fog. caution is necessary to avoid confusing the entrance points with each other.

Anchorage.—The best anchorage in Bukhta Sukhodol can be obtained, in depths of 9 to 11m, sand and mud, in the S part of the bay about 0.5 mile offshore. Good shelter from S winds and some shelter from N winds is afforded here. The bay is sheltered from SE winds by a mountain range on this side, and there is remarkably little fog as compared with the other bays of Ussuriyskiy Zaliv.

9.45 **Mys Telyakovskogo** (43°13'N., 132°19'E.), the N cape of the NE headland of Ussuriyskiy Zaliv, is located about 1 mile NW of Mys Azar'yeva and contains a small bay known as Bukhta Telyakovskogo.

Bukhta Muravinaya (Bukhta Maytun'), a broad bay entered between Mys Telyakovskogo and Mys Manchzhur, about 3 miles W, is generally elevated on its W side, but sloping otherwise with the exception of the cliffs N of the E entrance point. The head of the bay is formed by a low marshy plain subject to inundations during the spring freshets.

Gora Ostryak, a cone-shaped mountain rising to 363m about 1.3 miles NNW of Mys Manchzhur, is quite conspicuous and forms a good mark for vessels approaching Bukhta Muravinaya.

Mys Gellera, in the NW part of the bay, is also conspicuous as its cliffs stand out from the lowlands to the N.

Anchorage.—During N winds, anchorage can be taken in the W part of Bukhta Muravinaya, off Mys Tavayza, in depths of 7 to 9m, mud. Small craft can proceed to Shkotovo, in the NE part of the bay, where facilities are available in Reka Ilistaya.

Caution.—Anchorage within the bay during strong S winds is dangerous.

9.46 The coast from Mys Manchzhur trends SW along the S side of Poloustrov Murav'yev-Amurskiy and is generally precipitous except for the sandy beaches at the heads of the several bights.

Mys Engel'ma (43°12'N., 132°10'E.), the extremity of a narrow cliffy peninsula extending about 0.3 mile SE from the coastline, forms a good mark especially from the NE or SW. A reef projects about 90m from all sides of the point and numerous submerged rocks lie in the vicinity.

Anchorage.—Temporary anchorage during the autumnal N and NW winds can be taken by small vessels, in a depth of about 7.3m, sand, in the bight immediately N of Mys Engel' ma. The shore is generally rock, but it is somewhat protected from the S swell by the above point.

Bukhta Shamora, an open bight located about 2.5 miles SW of Mys Engel'ma, is entered between Mys Krutoy and Mys Zelenyy, the latter with a conspicuous pillar rock about 0.5 mile SW. The entire bight is fringed by shallow water and only small vessels with local knowledge should attempt it.

Anchorage.—Larger vessels can take anchorage during N winds outside the entrance, in a depth of 8.2m, sand, ESE of the W entrance point.

9.47 The coast from Mys Zelenyy trends SW for about 3 miles to Mys Trekh Kamney, a blunt projection with three pillar rocks extending 410m SE of it, and then 7 miles SSW to Mys Basargina (43°03'N., 131°58'E.), the NE entrance point of Vladivostok. The pilot boarding area lies close E of Mys Basargina and may be seen on the chart.

The S part of this coast is indented, cliffy, and in many places steep-to with numerous bordering rocks and reefs, but to the N of Mys Trekh Kamney the shore is lower, straight, and bordered by a shelving reef.

Caution.—A dangerous wreck is reported (1931) to lie about 4.3 miles ENE of Mys Basargina and lies on the W perimeter of the charted area prohibited to fishing and anchoring. This prohibited area intersects the charted area prohibited to anchoring, bottom fishing, submarine and dredging work, bottom trawling, submarine explosions, and sailing with slack anchor or chain.

Off-lying Islands and Banks

9.48 Banka Zulr, an isolated bank with a depth of 32m, lies in the entrance to the gulf about 19 miles WSW of Ostrov Askol'd.

Ostrova Rimskogo-Korsakova (42°41'N., 131°28'E.) is a group of six islands centered about 11 miles SW of the S end of Arkhipelag Yevgenii.

Ostrov Bol'shoy Pelis (42°39'N., 131°28'E.), the S island of the Ostrova Rimskogo-Korsakova group, lies 11 miles ENE of Mys Gamova. It is comparatively narrow and irregular, being about 2 miles in length with a low isthmus in its center and sev-

Ostrova Rimskogo-Korsakova from SW

eral pillar rocks off the S extremities. These pillar rocks are often visible when the island itself is obscured by fog. When seen from the S and E, it forms an excellent mark in clear weather and is easily identified since it is the highest island in the group. A light is exhibited on the N summit of Ostrov Bol'shoy Pelis.

Ostrov Matveyeva, located about 1 mile W of Ostrov Bol' shoy Pelis, with a pillar rock between, is triangular in shape with its summit near the center. Several pillar rocks extend up to 1 mile NW of the island and are marked by a buoy. The W islands, Ostrov Durnovo, Ostrov Gil'debrandta and Ostrov De-Livrona, are small and cliffy with steep-to shores. Two white triangular beacons situated on Ostrov De-Livrona, when in line bearing 342°, lead over Banka De-Livrona and Banka Durnovo, two shallow banks marked by spar buoys and situated between the islands.

Kamen' Yelizarov, about 0.8 mile W of Ostrov De-Livrona, are two flat-topped rocks nearly awash and usually marked by breakers. Being steep-to and surrounded by deep water, they should be considered dangerous and are marked by a lighted buoy on the W side.

Ostrov Stenina, the N island of Ostrova Rimskogo-Korsakova, is covered with forest and generally hilly rising to a height of 162m near its center. The shores of the island consist of red cliffs and are precipitous except at the NW extremity which is marshy. On the latter point, three white triangular beacons have been positioned to give the approximate alignment of Banka Ivanova and Banka Boysmana, two shallow banks, marked by spar buoys, SW and S of the island.

Arkhipelag Yevgenii

9.49 Arkhipelag Yevgenii consists of a chain of about 22 islands and islets. This archipelago forms the SE side of the outer part of Amurskiy Zaliv.

Ostrov Zheltukhina (42°50'N., 131°34'E.), the S island of Arkhipelag Yevgenii, has bare cliffs of red color and can be identified by its twin-peaked summit which is easily distinguishable from the other islets nearby.

Ostrov Tsivol'ka, round and precipitous, lies about 1.5 miles WNW of Ostrov Zheltukhina, and is high, precipitous, and prominent from its covering of green vegetation.

Ostrov Karamzina, an oblong and cliffy islet, lies about 3 miles ENE of Ostrov Zheltukhina and has the shape of a sugarloaf. A pillar rock lies off the S extremity of the island and a lighted buoy is moored during the navigational season close S of the rock.

Ostrov Moiseyeva, covered with bushes, lies about 0.8 mile NE of Ostrov Zheltukhina. Ostrov Sergeyeva and Ostrov Krotova, also covered with brushes, lie on a reef extending 1.3 miles NNW from Ostrov Moiseyeva.

Ostrov Rikorda lies with its S end 1.5 miles NNE of Ostrov Moiseyeva and is nearly divided into two parts by a narrow isthmus. The N part attains an elevation of 193m. Foul ground extends 0.3 mile S from the S end of the island.

Ostrova Pakhtusova is a group of three islands and several above and below-water rocks, lying 0.8 mile NW of the NW part of Ostrov Rikorda.

Caution.—A marine farm has been established between Ostrov Rikorda and Ostrova Pakhtusova and is bounded by lines joining the following positions:

a. 42°52'59"N, 131°38'28"E.
b. 42°54'20"N, 131°39'43"E.
c. 42°53'39"N, 131°40'52"E.
d. 42°53'29"N, 131°40'44"E.
e. 42°53'55"N, 131°39'58"E.
f. 42°52'59"N, 131°39'07"E.

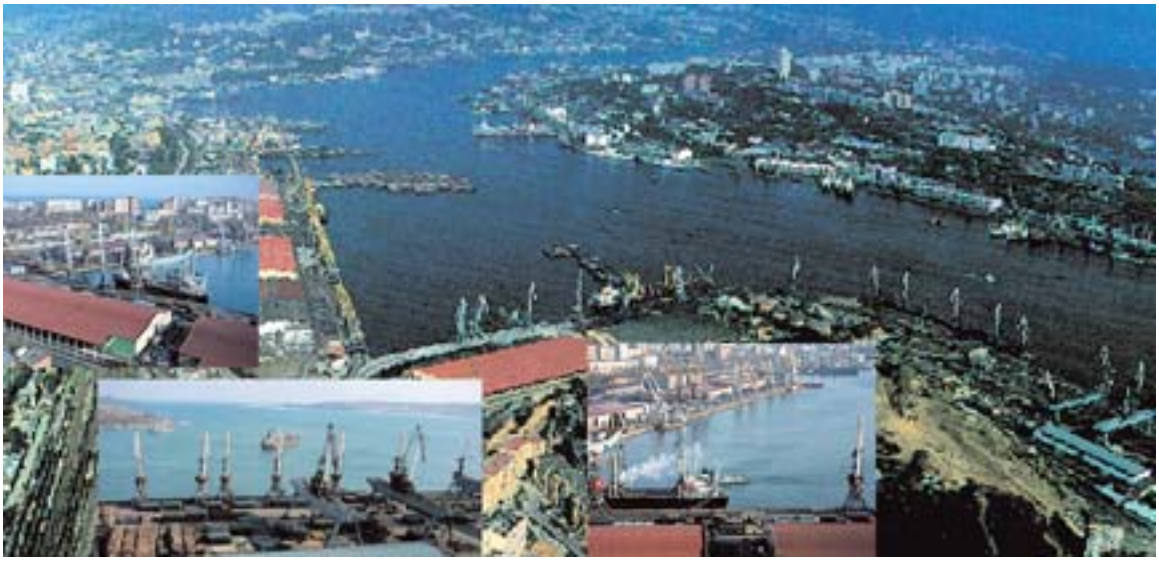
9.50 Ostrova Verkhovskogo (42°43'N., 131°49'E.), the SE extremity of Arkhipelag Yevgenii, comprises two groups of bare jagged rocks of red granite which lie on a steep-to shoal having depths of less than 1.8m. The lighted tower is erected above a precipice on the S side of the E and largest rock, and is a good mark in the S approach to Vladivostok.

Ostrova Verkhovskogo

Ostrov Russkiy, the main island of Arkhipelag Yevgenii, is about 8 miles in diameter and is generally hilly, with its summit, Gora Russkiy, rising to 293m in the N part. The S part of the island, which rises to two equally high peaks of 280m, is generally precipitous along the S and E shores with numerous indentations and projections.

Caution.—Ostrov Russkiy is reported to be under the control of the Russian Navy and forms a good part of the naval base at Vladivostok. Numerous prohibited anchorage and navigation areas exist in the vicinity of the island and vessels are advised not to approach the area without permission.

9.51 Ostrov Shkota, a triangular island connected to the S end of Ostrov Russkiy by a causeway, is precipitous and bordered by rocks and reef. Bukhta Novyy Dzhigit, located between the above island and Mys Tobizina, about 1 mile E, is



Vladivostok Harbor

blocked on its W side by Kamni Sivuch'i, a group of above and below-water rocks, but can be entered on the E side in depths of about 27m. Vessels with local knowledge can proceed into the coves where there are depths of 9 to 11m in the middle.

Ostrov Lavrova and Ostrov Yengel'ma lie on a shallow bank and are connected to the SW coast of Ostrov Russkiy by a causeway located about 1.5 miles NW of the Ostrov Shkota.

Proliv Starka, with a least depth of 4m, separates Mys Rogozina, the W extremity of Ostrov Russkiy, from the NE end of Ostrov Popova. Marked by a lighted buoy on its S side and a barrel buoy on its N side, this strait is frequently used by small craft rounding the island.

Bukhta Novik (43°03'N., 131°50'E.), a long inlet entered between Mys Larionova and Mys Staritskogo, at the NW extremity of Ostrov Russkiy, consists of a fairly wide and deep outer part and a long narrow inner section. The entrance, with rocky spits on each side, is marked by several spar buoys. Ostrov Ushi, a barren islet off the W entrance point, is conspicuous.

A short channel connects the outer part of Bukhta Novik to Bukhta Bezymyannaya (43°04'N., 131°51'E.) to the N. This channel is named the Torpedo Boat Canal and is approximately 300m in length and 25m wide, with depths of 4.6 to 6.6m. A light is shown from each side of the N entrance.

Anchorage.—Anchorage can be taken nearly anywhere in the outer part of Bukhta Novik, but the inner part is suitable only for small craft and special moorings. The entire bay is under the control of the naval facility at Vladivostok and is closed to non-military vessels.

Caution.—A submarine cable has been laid between Bukhta Novik and Gavin Semenovskaya. For further information, see the Caution section in paragraph 9.53.

It has been reported (2014) small vessels should observe a speed limit of 8 knots when in transit through the Torpedo Boat Canal between Bukhta Bezymyannaya and the outer part of Bukhta Novik.

9.52 Ostrov Popova, close SW of Ostrov Russkiy, is hilly, covered with grass, and thickly wooded in places. Gora Popova, on the NW side of the island, attains an elevation of 179m. Mys Likandera, the S extremity of the island, is a lofty narrow peninsula.

Ostrov Kozlova lies 2 miles WNW of Mys Likandera. Ostrov Dva Brata, an islet with three summits, lies about 1 mile NW of Ostrov Kozlova and a shoal, with a depth of 8.2m, lies midway between.

Ostrov Naumova, Ostrov Malyy, 43m high, and Ostrov Klykova, 60m high, lie on a shoal which extends 1.5 miles SE from the SE side of Ostrov Popova. A lighted buoy is moored at the seaward end of the shoal.

Ostrov Reyneke lies close S of Mys Likandera and has a summit which attains an elevation of 162m. A rock, with a depth of 2.5m, lies close off the S coast of the island, and an islet lies close off the NE point of the island.

Vladivostok (43°07'N., 131°54'E.)

World Port Index No. 60610

9.53 Vladivostok is the major port of the Russian Far East. Primary exports include steel, timber, and bulk and bagged cargo; imports include grain, cellulose, and coal. Other general cargo is also handled at the port, as well as containers and commercial fishing. Vladivostok is also home to the Russian Naval Pacific Fleet.

Proliv Bosfor Vostochnyy, leading between the S extremity of Poluostrov Murav'yev-Amurskiy and the NE side of Ostrov Russkiy, forms the two entrances to Vladivostok Harbor, with the main approach from the E between Mys Karazina and Mys Basargina. The primary facilities are situated in Bukhta Zolotoy Rog, a horn-shaped bay located in the NE part of the harbor, and are protected by the surrounding hills from nearly all winds.

There are a number of piers and a levee in Bukhta Uliss entered between **Mys Artura** (43°04'N., 131°55'E.) and Mys Ostryy, 0.8 mile NW.

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http://www.vmtp.ru

Winds—Weather.—Winds from the N prevail from the beginning of September to the end of March, and SE winds prevail for the balance of the year. The mean annual velocity, as well as the mean monthly velocities, of the wind is, on the average, about 4 knots. Winds with a velocity of 32 knots or greater predominate about 1 day a month.

The mean annual temperature for Vladivostok is 4.4°C. The coldest month is January which has a mean daily temperature of -13.9°C. The warmest month is August with a mean daily temperature of 20.6°C. A minimum temperature of -30.0°C was recorded in the month of January.

Restricted visibility of less than 0.25 mile, due to fog, has been reported (2009).

Ice.—Proliv Bosfor Vostochnyy begins to freeze in January, first in its NW part. The ice, advancing gradually, ordinarily reaches Ostrov Skrypleva by the middle of this month. The breaking of the ice occurs in the reverse order, clearing the E half of the strait by the middle of March and the entire strait, as a rule, by the end of this month. Near the E entrance the ice, being exposed to the action of the swell, is more or less confined to the shores and navigation is, as a rule, maintained throughout the winter with the aid of ice breakers.

The ice in Bukhta Zolotoy Rog sometimes attains a thickness of 0.8m at its head.

Tides—Currents.—The tidal rise is reported (2011) to be about 0.4m. Although the tidal current in Bukhta Zolotoy Rog are weak and irregular, those in Proliv Bosfor Vostochnyy sometimes attain a rate of 2 knots. On the flood tide, the currents set into both entrances of the strait, meeting near **Mys Goldobina** (43°05'N., 131°53'E.). On the ebb tide, the currents separate near the same point and flow out through both entrances.

Heavy seas are frequent from April to August (9 days or more per month, on the average), and reaches its highest frequency in July (18 days per month, on the average). The fog is often thickest in the E part of Proliv Bosfor Vostochnyy, while being clear in Bukhta Zolotoy Rog, but should the wind commence to set in from seaward, the length of the strait quickly fills with fog and then proceeds to cover the entire harbor.

Depths—Limitations.—The approaches to Vladivostok are deep, but in many cases obstructed by submarine nets or other equipment. Depths in the inner roads range from 20 to 33m, allowing vessels having a draft as deep as 19m to transit the inner roads. The port is divided into three parts—Inner Roads, Western Outer Roads, and Eastern Outer Roads.

Bukhta Diomid (43°05'N, 131°53'E)A floating dock, positioned at the entrance to Bukhta Diomid is a fishing trawler base and has ten numbered berths, is bounded by lines joining the following positions:

a. 43°05'04"N, 131°53'10"E.
b. 43°05'08"N, 131°53'13"E.
c. 43°05'07"N, 131°53'14"E.
d. 43°05'03"N, 131°53'11"E.

The harbor in **Bukhta Zolotoy Rog** is separated into the commercial port area and the fishing port area. Seventeen berths, including an oil terminal, are in the commercial area; 11 berths are in the fishing port area. An oil terminal with three berths is located at the Pervaya Rechka Pier (43°09'N, 131°54'E), on the E side of Amurskiy Zaliv. All three berths are finger piers.

See the table titled **Vladivostok—Berthing Facilities** for detailed information about these berths.

Vladivostok—Berthing Facilities

Berth	Maximum length	Depth alongside	Maximum Draft	Remarks
Commercial Port				
No. 1	272m	9.0m	5.4-9.0m	Passenger terminal.
No. 2	236m	9.0m	8.8m	Passenger terminal.
No. 3	131m	11.5-12.0m	—	Under reconstruction.
No. 4	272m	—	—	
No. 5	224m	11.1m	10.8m	General cargo.
No. 6	193m	10.7m	10.4-10.9m	General cargo.
No. 7	208m	11.5m	10.9-11.1m	General cargo.
No. 8	202m	11.5m	11.1m	General/bulk cargo.
No. 9	224m	10.5m	9.7-10.6m	General cargo.
No. 10	201m	10.6m	9.1-9.7m	General cargo.
No. 11	36m	Left: 7.8m Right: 7.1m	Left: 7.5m Right: 6.8m	Oil terminal. Can accommodate tankers up to 10,000 dwt.
No. 12	117m	9.4m	8.9-9.0m	General and bulk cargo.

Vladivostok—Berthing Facilities				
Berth	**Maximum length**	**Depth alongside**	**Maximum Draft**	**Remarks**
No. 13	265m	11.5m	10.9-11.0m	Bulk cargo.
No. 14	210m	11.5m	10.7m	Steel products and containers.
No. 15	210m	13.1m	12.6m	Steel products and containers.
No. 16	320m	10.5-12.5m	10.0-11.7m	Container terminal.
No. 42	200m	7.0m	—	Reefer and general cargo.
Regulations for vessels at the Commercial Port—For Berths Nos. 13, 14, 15, and 16—Main engine must be kept on standby and vessel must be ready to depart for the outer roads when wind speeds from the SE exceed Beaufort Force 6 and/or sea heights exceed 4m. The Captain and crew must remain on board while vessel is berthed. Storm warnings are normally delivered on board by the Port Control Officer.				
Fishing Port				
No. 44	102m	8.5-9.5m	—	Auxiliary.
No. 45	137m	8.6-9.2m	—	General cargo.
No. 46	220m	7.9-9.8m	—	Reefer and general cargo.
No. 47	192m	7.2-10.2m	—	Reefer.
No. 48	240m	8.3-9.0m	—	Reefer.
No. 49	265m	9.0-10.0m	—	General cargo.
No. 50	300m	10.1-10.6m	—	Reefer, general cargo, and oil.
No. 51	99m	9.4m	—	Auxiliary.
No. 52	202m	7.4-9.3m	—	General cargo and containers.
No. 53	155m	8.1-8.9m	—	General cargo and containers.
No. 54	40m	8.0-8.4m	—	Auxiliary.
Oil Terminal at the Pervaya Rechka Pier				
No. 1	—	—	9.5m	Tankers of any length or beam and up to a maximum 30,000 dwt can be accommodated. Berthing is med moor (stern-to) with 2 anchors let go forward.
No. 2	—	—	9.5m	
No. 3	—	—	8.4m	
Regulations for tankers at the Pervaya Rechka Pier.—Main engine and mooring gear must always be ready to engage while alongside. The Captain or Chief Officer must remain on board while vessel is berthed. All cargo operations must cease and vessel must be ready to depart the berth when wind speeds from the N exceed Beaufort Force 7.				

Aspect.—Ostrov Skrypleva lies on the S side of the E entrance, about 1.7 miles S of Mys Basargina. The island is 49m high and covered with grass. A reef extends about 325m N from the island and is marked by a buoy.

Lights, buoys, and beacons lead into Proliv Bosfor Vostochnyy and Bukhta Zolotoy Rog. Range lights, aligned 299°30', stand almost 1 mile NE of Mys Tokarevskogo, and are reported to be good marks. A turning buoy is moored about 0.7 mile E of the forward range light. It has also been reported that a radio tower in position 43°06'08"N, 131°53'54"E, and a beige high-rise building, in position 43°05'56"N, 131°54'07"E, make good visual navigation aids.

Bukhta Zolotoy Rog is surrounded on three sides by high hills with dense urban structures, allowing for many visual aids, with little to no ice during the winter months. Within the harbor are numerous beacons and buoys.

Pilotage.—Pilotage is compulsory for foreign vessels. Pilots must be requested through the vessel's agent 24 hours prior to arrival and then confirmed again 4 hours prior to arrival. Notice of ETA and any changes should also be reported to the VTS on VHF channel 67 (see paragraph titled **Vessel Traffic Service** below). Pilots will monitor VHF channels 16 and 67.

Foreign vessels embark a pilot in an area designated as 175-A, centered on position 43°02'54"N, 131°59'36"E, or at any one of the following positions:

a. 43°04'12"N, 131°46'30"E.
b. 43°04'40"N, 131°48'00"E.
c. 43°07'30"N, 131°47'00"E.
d. 43°02'22"N, 131°57'47"E.

Russian vessels embark a pilot in an area designated as 175-

B, bounded by lines joining the following positions:

a. 43°04'02"N, 131°58'24"E.
b. 43°04'12"N, 131°58'24"E.
c. 43°04'12"N, 132°00'24"E.
d. 43°03'44"N, 132°00'24"E.

During the ice season, pilot boarding will be in position 43°07'00"N, 131°46'06"E.

At any time of the year the pilot boarding area can be changed as agreed upon by the pilot, depending on the actual prevailing environmental conditions.

Pilotage is also compulsory for mooring, shifting berths, and any movement along the quays that is needed.

The use of tugs is compulsory for all operations which require a pilot; four tugs available. Tugs will normally join the vessel near the Fairway Buoy.

Contact Information.—The contact information for the port is given in the table titled **Vladivostok Port—Contact Information.**

Regulations.—Vladivostok is approached through the traffic separation scheme (TSS) that has been established in Zaliv Petra Velikogo. The scheme may be seen on the chart. The approach position for the port from the SW is 41°39'N, 131°36'E. From this position, vessels proceed NE within the separation scheme, until reaching Ussuriyskiy Zaliv at the E end of Proliv Bosfor Vostochnyy. The strait, Proliv Bosfor Vostochnyy (43°04'17"N, 131°50'24"E), leads between the N end of Poluostrov Sapernyy (43°03'N., 131°54'.) and the S end of Poluostrov Murav'yev Amerskiy to the harbor entrance. Fairways have been established at each end of Proliv Bosfor Vostochnyy and in the S part Bukhta Zolotoy Rog.

The Vladivostok TSS has not been adopted by IMO, but mariners are advised to comply with Rule 10 of the International Regulations for Preventing Collision at Sea (1972).

Passage through the W approaches into Proliv Bosfor Vostochnyy is prohibited and passage SE of Ostrov Skrypleva (43°01'44"N., 131°57'11"E.) is prohibited.

A speed restriction of 9 knots is in effect from the time of crossing the harbor entrance until the second turning buoy into the actual port area, where the speed restriction becomes 6 knots. Passage through Bukhta Zoltoy Rog is often made more narrow than indicated on the chart by numerous vessels medmoored along either side of the bay.

Vessel Traffic Service.—A Vessel Traffic Service (VTS) has been established to control all vessel movement in and around the harbor area and approaches. The VTS operates 24 hours a day and provides an information service, a traffic organization service, and a navigational assistance service. The Vladivostok VTS is an integrated part of Zaliv Petra Velikogo VTS and comprises Sector 3 (Vladivostok) and Sector 4 (Slavyanka) of that VTS. (See the **Vessel Traffic Service** section within paragraph 9.41 for further details)

Participation in the VTS is mandatory for the following vessels:

1. All vessels greater than 20m in length.
2. All foreign vessels.
3. All vessels carrying dangerous cargo.
4. All oil tankers.
5. All vessels carrying 12 or more passengers.

All vessels required to participate in the VTS Area of Control must report to Vladivostok Traffic on VHF channel 67 when entering Sector 3 (Vladivostok) or on VHF channel 71 when entering the VTS Area of Control for Sector 4 (Slavyanka).

These reports must provide the information listed in the table titled **Vladivostok—Required VTS Entry/Movement/Departure Report Information** and are given, as follows:

1. **Entering vessels—**Upon passing the following reporting points (RP):
   a. RP1—42°46'12"N, 131°34'00"E.
   b. RP2—42°55'48"N, 132°46'08"E.
   c. RP3—42°50'00"N, 131°47'24"E.
2. **Movement Reports—**Made to Vladivostok Traffic on VHF channel 71 whenever vessel crosses the boundary between Sector 3 (Vladivostok) and Sector 4 (Slavyanka).
3. **Departing vessels—**Made to Vladivostok Traffic on VHF channel 71 not less than 15 minutes before departing the berth or anchorage.

All vessels underway should maintain a continuous listening watch on VHF channel 67 when in Sector 3 and on VHF channel 71 when in Sector 4.

All vessels within the VTS area of control that wish to cease monitoring VHF or to change the VHF channel being used must first obtain permission from the VTS.

The VTS can be contacted, as follows:

1. Call sign: Vladivostok Traffic
2. VHF: VHF channels 16 and 67 (for Sector 3)
   VHF channels 71 (for Sector 4)
3. Telephone: 78-4232-498400
4. Facsimile: 78-4232-498438
5. E-mail: vts.vldv@norfes.ru

Vladivostok Port—Contact Information

	Port Authority	Harbormaster	Port Control	Chief Controllers Office
Call sign	—	—	Vladivostok Port Control	Vladivostok Radio 2
VHF	—	—	VHF channels 12 and 67	VHF channels 14 and 16
Telephone	78-4232-495222	78-4232-302893	78-4232-221513	78-4232-221893
	78-4232-224074		78-4232-495767	78-4232-495143
Facsimile	78-4232-222364	78-4232-220621	78-4232-221513	78-4232-495353
E-mail	vmtp@vmtp.ru	—	—	—

See the graphic titled **Vladivostok VTS** for detailed display of the TSS, VTS, and Reporting Points (RP).

Anchorage.—Vessels must have permission to anchor granted by the VTS. Several designated anchorage areas exist, both W of the harbor in Amurskiy Zaliv and outside the harbor E of Proliv Bosfor Vostochnyy. Anchoring is prohibited in the harbor and many other areas as best seen on the chart.

The area designated in Amurskiy Zaliv is not for any vessels bound for Vladivostok harbor since entry to the harbor through Proliv Bosfor Vostochnyy is prohibited. This anchorage is only for tankers bound for the oil terminal at Pervaya Rechka Pier (43°09'N, 131°54'E), in depths of 13 to 16m, and is bounded by lines joining the following positions:

a. 43°04'00"N, 131°45'25"E.
b. 43°04'23"N, 131°46'07"E.
c. 43°04'18"N, 131°47'09"E.
d. 43°03'28"N, 131°46'26"E.

For vessels bound for the commercial and fishing berths in the harbor, the designated area for anchoring is 175-A, in depths of 28 to 33m, mud, good holding. The limits of this area are described in the Pilotage paragraph in this same section.

Caution.—Area No. 229, dangerous to navigation, extends from the coastline to position 43°01'N, 131°56E.

The buoys and beacons in the approaches to Vladivostok are liable to drift or be altered and therefore cannot implicitly be relied upon. They are removed in the winter.

A submerged hulk, depth unknown, lies outside the entrance to Proliv Bosfor Vostochnyy in position 43°00'54"N, 132°00'42"E.

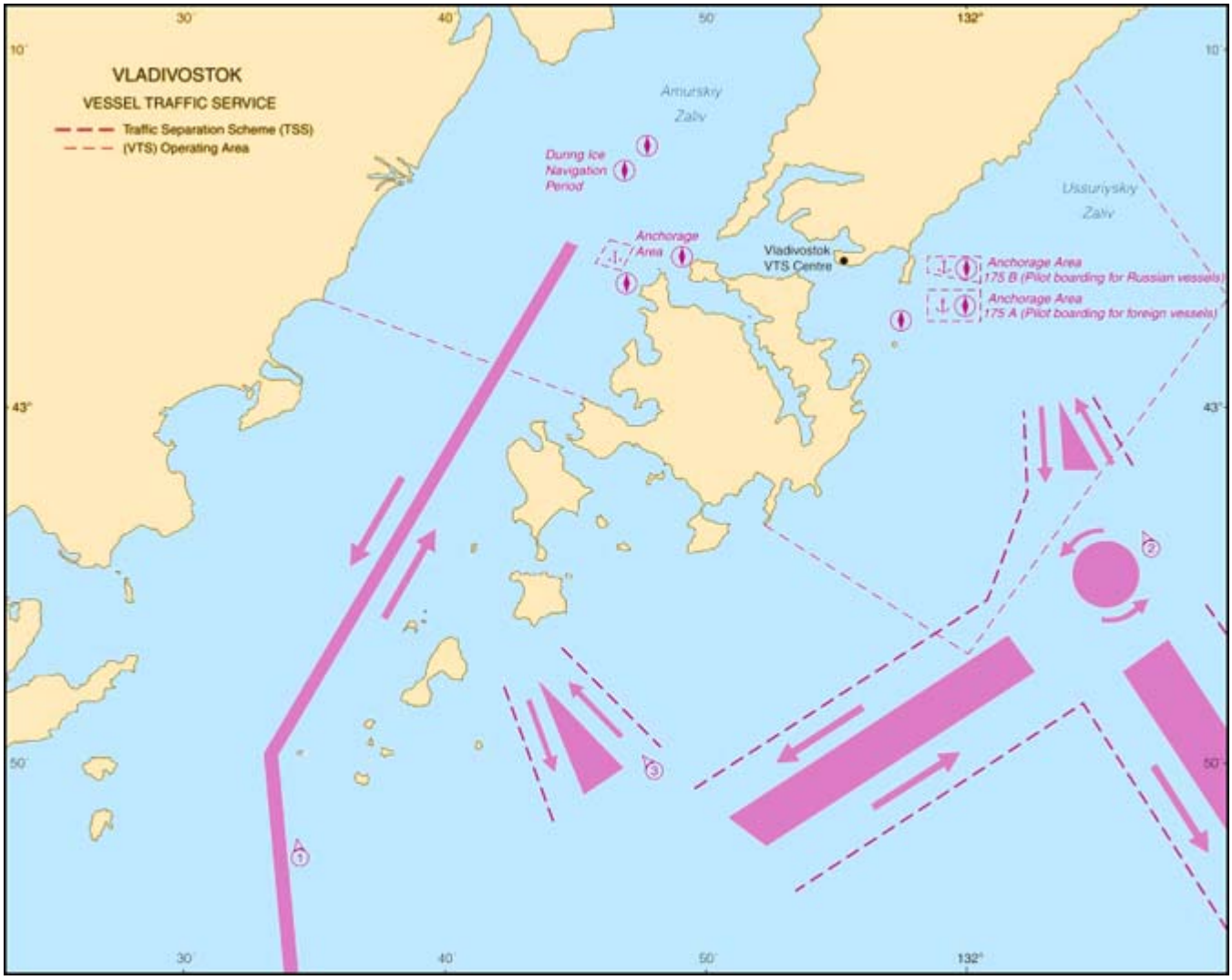
A power line, with a vertical clearance of 44m, crosses the W entrance into Proliv Bosfor Vostochnyy.

A submerged jetty, is located in Bukhta Zolotoy and oriented in a WSW to ENE direction, is centered near position 43°06'26"N, 131°55'05"E.

Vladivostok—Required VTS Entry/Movement/Departure Report Information

Item	Type	Description	Entry Report	Movement Report	Departure Report
A	Ship	Vessel name, call sign, or ship station identity and flag	X	X	X
C	Position	A 4-digit group giving latitude in degrees and minutes suffixed with N (north) or S (south) and a 5-digit group giving longitude in degrees and minutes suffixed with E (east) or W (west)	X[1]	X[1]	
D		True bearing (first 3 digits) and distance (state distance) in nautical miles from a clearly identified landmark (state landmark)			
E	True course	A 3-digit group			
F	Vessel speed in knots and tenths of knots	A 3-digit group			
I	Destination and ETA	Specify destination port name and give ETA using a 6-digit group giving day of month (first 2 digits), then hours and minutes (last 4 digits). If time zone used is not UTC, then specify time zone used	X		X
O	Maximum present static draft in meters	A 4-digit group giving meters and centimeters			X
P	Cargo on board	Identify cargo including brief details of any dangerous cargoes as well as any harmful substances and gasses that could endanger persons or the environment			X
T	Vessel's representative and/or owner	Details of name and particulars of ship's representative and/or owner for provision of information			X
W	Vessel size and type	Details of length, breadth, tonnage and type of vessel			X
X	Miscellaneous	Port Clearance Number			X

X[1] Either format may be used.



Vladivostok VTS

Two stranded wrecks are located in Bukhta Diomid in position 43°05'27"N, 131°53'32'E and position 43°05'18"N, 131°53'12'E; depths are unknown.

A stranded wreck is located in the E part of Bukhta Zolotoy Rog in position 43°06'16"N, 131°55'34'E.

A dangerous wreck, with a depth of 12.3m, is located in the W part of Bukhta Zolotoy Rog in position 43°06'26"N, 131°52'54"E; a submerged obstruction, with a depth of 12.8m, lies in nearly the same latitude but in longitude 131°52'52"E.

A dangerous wreck, with a depth of 12.3m, is situated in Proliv Bosfor Vostochnyy in position 43°06'25"N, 131°52'54"E.

Works in progress are reported to be ongoing around the entrance to Bukhta Uliss in the vicinity of position 43°04'13"N., 131°54'45"E.

A foul ground area has been established (2013) NNW of Ostrov Skrypleva centered on position 43°02'31"N., 131°56'46"E.

Two submarine power cables cross Proliv Bosfor Vostochnyy between the vicinity of Mys Novosil'skogo and Poluostrov Nazimov. The longest of these connects through the following points:

a. 43°03'08"N, 131°53'51"E. (coast)
b. 43°03'27"N, 131°54'13"E.
c. 43°03'59"N, 131°55'00"E. (coast)

The other submarine cable connects between the following points:

a. 43°03'26"N, 131°54'05"E. (coast)
b. 43°04'00"N, 131°54'56"E. (coast)

A vehicle bridge, with vertical clearance of 64.2m at HW, has been completed (2012) across Bukhta Zolotoy Rog between the following two points:

a. 43°06'19"N, 131°53'42"E. (coast)
b. 43°06'43"N, 131°53'53"E. (coast)

The Russkiy Bridge has been completed (2012) across Proliv Bosfor Vostochnyy between Mys Novosil'skogo and Mys Nazimova. This bridge has a vertical clearance of 71m at HW and

The Zolotoy Rog Bridge

connects the following two points:

a. 43°03'47"N, 131°54'24"E. (W side)
b. 43°03'46"N, 131°54'35"E. (E side)

Amurskiy Zaliv

9.54 Mys Tokarevskogo (43°05'N., 131°51'E.), the NW entrance point of Proliv Bosfor Vostochnyy and marked by a light, also forms the E entrance point of the N half of Amurskiy Zaliv. Although the main part of the bay lies W and N of Ostrov Russkiy, it is generally entered to the S between Ostrova Rimskogo-Korsakova and Ostrov Tsivol'ka, the SW extremity of Arkhipelag Yevgenii. Its N extremities are lower than the E and W shores, with the delta region of Reka Suyfun in the NW part causing considerable amounts of shoaling all across the N end. During winter, nearly all of the bay is icebound, some parts with ice hummocks up to 9m high, and navigation is restricted to its S limits.

Bukhta Kirpchnogo Zavoda, an open indentation about 5.5 miles NNE of Mys Tokarevskogo, is entered between Mys Filisova (Mys Firsova) to the N and Mys Lagernyy to the S.

Depths—Limitations.—There is an oil pier, with a depth of 8.8m at its head which is suitable for tankers, situated in the NE part of the bay. A lighted buoy marks the W edge of a 4.9m shoal about 0.5 mile NW.

Anchorage.—Well protected from SE winds, the bay affords good anchorage, in 7 to 9m, mud and sand, between the months of April and August.

Mys Tokarevskogo Light

Caution.—A submarine cable has been laid between Gavin Semenovskaya (43°07'N., 131°52'E.) and Bukhta Novik (43°03"N., 131°49'E.) passing through the following positions:

a. 43°06'54"N, 131°52'23"E.
b. 43°07'00"N, 131°51'08"E.
c. 43°06'27"N, 131°50'08"E.
d. 43°04'02"N, 131°48'44"E.
e. 43°03'12"N, 131°49'01"E.
f. 43°02'56"N, 131°49'37"E.

Several marine farms have been established (2013) along the W coast of Ostrov Russkiy E of longitude 131°45'36"E between latitude 43°01'N and latitude 43°04'N. Mariculture beds exist in many inlets and small bays along the W coast of Ostrov Russkiy between latitude 43°01'18"N and latitude 43°02'24"N. Mariners should avoid all these areas.

9.55 Mys Krasnyy (43°12'N., 131°55'E.), a high cape with cliffs of red color, generally marks the limit of deep-water navigation in the upper region of Amurskiy Zaliv. Numerous shoals, with depths of less than 7.3m, lie W and NW of the point and Ostrov Skrebtsova, a small islet, lies on a reef about 1 mile NNW. A boat channel, marked by a lighted buoy on the E end of the above reef and beacons to the NE, leads from the vicinity of Mys Krasnyy to Zaliv Uglovoy at the NE extremity of the gulf.

Poluostrov Erdmana (43°15'N., 131°59'E.), a raised peninsula which separates Zaliv Uglovoy from the main portion of the head of Amurskiy Zaliv, is marked at **Mys Tikhiy** (43°15'N., 131°58'E.), its S extremity, by some low red cliffs. To the NW of the peninsula the head of the gulf, which is generally low and somewhat marshy, rounds to the W for about 6 miles before again rising to the higher shores on the E side of the entrance to Reka Suyfun.

A new bridge, approximately 2.5 miles in length with a 6m vertical clearance at HW, extends (2013) SSW from Mys Tikhiy to a point along the coast at position 43°13'31"N, 131°57'53"E.

Mys Rechnoy (43°18'N., 131°50'E.), a precipitous point rising to a height of 75m a short distance within, forms the E entrance point of Reka Suyfun and is a good mark from the S. Ostrov Rechnoy, a barren precipitous islet, 21m high, lies about 1 mile SSE of the point and is connected to it by a shallow spit. The principal channel of Reka Suyfun, with a depth 0.9m, is marked by buoys and beacons and leads from SW of Ostrov Rechnoy to Razdol'noye about 17 miles upstream. It is frozen solid from November to April.

9.56 Poluostrov Peschanyy (43°10'N., 131°47'E.), a triangular peninsula connected to the mainland by a narrow strip of land, terminates with its E extremity, Mys Peschanyy, about 3 miles off the W shore of Amurskiy Zaliv. The greater portion of the N part of the peninsula is wooded and trees grow on its summit. The summit of the peninsula, about 1 mile NW of Mys Peschanyy, rises to a height of 179m in the form of a sharp-peaked hill that is conspicuous in clear weather for up to 25 miles.

Mys Nizmennyy, a low point of land not easily discernible against the high shore NW, is located about 2.5 miles NW of Mys Ogranovicha, the S extremity of Poluostrov Peschanyy, and forms between it and the peninsula the entrance to Bukhta Melkovodnaya, a fairly large inlet which nearly dries at LW.

Gora Stolovaya, an elongated table hill, rises near the shore about 2 miles SSW of Mys Nizmenyy and with its steep S slope forms a good mark from the SE.

9.57 Polustrov Lomonosova (43°00'N., 131°35'E.), a somewhat triangular peninsula which is precipitous on most of its W side, lies with its SE extremity, Mys Lomonosova, about 1.5 miles off the general trend of the coast in this area.

Bukhta Sedimi, entered between Mys Turek, the SW extremity of Polustrov Lomonosova, and Mys Kupriyanova, about 3 miles to the S, is almost completely open to the SE and provides a clear approach from seaward. The shores of the bay are low and sandy with Reka Sedimi entering in the NW corner, but the coastal range beyond rises quickly to heights of 610m or more and provides good shelter from N winds.

Bukhta Narva (43°00'N., 131°31'E.), a small bay close W of Polustrov Lomonosova, is entered between Mys Turek and Mys Brinera (42°58'58"N, 131°29'44"E). Bukhta Narva has depths of 15m, with shoaling towards the head, where there is a low shore of marshy grasses.

Bukhta Geka is located close S of Mys Brinera with a shoreline of low scrub with some trees and houses along the S shore.

A small pier, with about 3m at its head, is situated 1.5 miles WNW of Mys Turek.

Anchorage.—Anchorage can be taken in Bukta Narva, when winds are blowing offshore, in depths of 13m, sand. Anchorage is also available in Bukta Geka during periods of offshore winds, in depths of 9m, off a sandy beach.

Caution.—A dangerous wreck is charted close S of the pier. Ostrov Krolichiy, lying on the coastal reef about 0.2 mile offshore, is covered with bushes.

A marine farm located E of Ostrov Antipenko should be avoided and is bounded by lines joining the following positions:

a. 42°59'03"N, 131°29'54"E.
b. 42°59'03"N, 131°30'59"E.
c. 42°58'22"N, 131°30'59"E.
d. 42°58'18"N, 131°30'26"E.
e. 42°59'03"N, 131°29'52"E.

A group of five submerged mooring buoys which needs to be avoided lies E of Bukta Geka and is centered on position 42°58'56"N, 131°31'08"E.

Poluostrov Yankovskogo (42°57'N., 131°31'E.), the E extremity of which is Mys Kupriyanova, is a broad, hilly, and wooded peninsula bordered on the N by a shallow lagoon and connected to the mainland by a strip of low marshy land. The S shore is generally precipitous with several islands close off, the largest being Ostrov Gerasimova, steep and cliffy, and separated from the mainland by a narrow channel with numerous rocks in it.

Caution.—An underwater obstruction lies about 2.8 miles SE of Mys Kupriyanova.

Mys Bryusa (42°53'N., 131°28'E.), the NE extremity of a narrow hilly peninsula known as Poluostrov Bryusa, is a precipitous point faced in many places with sheer cliffs and columnar formations. The point is marked by a light; a racon is located at the light. A reef, which breaks in SE gales, extends about 0.5 mile NE of the point and numerous rocks, above and below-water, lie scattered along the S shore.

9.58 Slavyanka (42°52'N., 131°23'E.), a small port located

at the head of Bukhta Slavyanka, handles scrap metal, general cargo, vehicles, oil products, and logs. Bukhta Slavyanka is the inner part of Zaliv Slavyanskiy. Zaliv Slavyanskiy, a protected bay located on the W shore of Amurskiy Zaliv, is entered between Mys Bryusa and the S end of Ostrov Gerasimova, about 1.5 miles to the N. The entrance channel, with depths of at least 19m, is further restricted to 0.5 mile in width by the shoals which lie off the entrance points and caution is required.

Bukhta Slavyanka, is formed by Mys Mal'tseva, a high precipitous point about 3 miles WNW of Mys Bryusa, and a spit-like point about 1.5 miles NE. The shores of the inner bay are lower and more sandy than the outer bay, but the land rises rapidly to Gora Yankovskogo, a conspicuous 452m peak located about 2.7 miles to the NW.

Ice.—The port is reported to be open all year, but ice appears by mid-December and completely encloses the port from January through mid-March. Broken ice remains in the S part of the bay until mid-April.

Depths—Limitations.—The port consists of an outer harbor with seven numbered anchorages, having depths of 14 to 18m, for lighterage operations and an inner harbor with two piers, a commercial wharf, and three floating drydocks for ship repair. Each of the two piers is 250m in length. Pier No. 1 has two berths while Pier No. 2 has three berths. Further details, including the commercial wharf, are listed in the table titled **Slavyanka—Berth Facilities:**

Slavyanka—Berth Facilities			
Berth	**Length**	**Depths Alongside**	**Maximum Draft Allowed**
Commercial Wharf			
—	200m	6.0m	5.7m
Pier No. 1			
N	150m	9.0m	8.7m
S	150m	7.2m	6.9m
Pier No. 2			
E	300m	7.2m	6.9m
W	150m	9.0m	8.7m
S	150m	7.2m	6.9m

Pilotage.—Pilotage is compulsory throughout Zaliv Slavyanskiy. Pilotage is available only during daylight hours in good visibility for large tonnage vessels and vessels with drafts more than 7m. Pilots are available during working days from 0800 until 2400 and by special request on other days.

Pilots are requested 2 hours before arrival from the port dispatcher (Slavyanskiy SRZ) on VHF channel 30. Vessels should also request permission to enter, depart, or move about the port from the port dispatcher (Slavyanskiy SRZ) on VHF channel 12.

Pilots can be contacted by radio (call sign: Pilots 1) or by using VHF channel 6. Pilots will board in position 42°53'30"N, 131°26'00"E.

Regulations.—Foreign vessels bound for Zaliv Slavyanskiy should send a message when passing the following positions:

1. Inbound vessels—when passing N of 41°N.
2. Inbound vessels—when passing E of 131°E.
3. Inbound vessels—when passing W of 134°E.

These messages should include the following information:

1. Vessel name and nationality.
2. Vessel type and call sign.
3. Time of approach to the pilot boarding area and when the pilot embarks.
4. Maximum length and width, plus height of freeboard.
5. Vessel draft.
6. Condition of main engine and steering gear.
7. Number of crew members and passengers.
8. Previous port of call.

Permission must be requested via VHF channel 12 from the Port Dispatcher (Slavyanskiy SRZ) before entering port, mooring, or shifting berths.

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

1. Call sign: Slavyanka Radio 13
   Dock 1
2. VHF: VHF channels 12 and 30

The harbormaster can be contacted via telephone (78-42331-4440).

Vessel Traffic Service.—A Vessel Traffic Service (VTS) has been established under the control of Vladivostok for the harbor waters of Slavyanka and approaches. This VTS is also an integrated part of the Zaliv Petra Velikogo VTS and comprises Sector 4 of that VTS. See paragraph 9.41 and paragraph 9.53 for further details.

Anchorage.—Anchorage, which is the best on the W side of Zaliv Amurskiy, may be obtained in Guba Tulamu, a small cove at the SW extremity of the outer bay, in depths of 7 to 16m, mud, where it is sheltered from S and W winds. With E and SE winds, a heavy sea enters Zaliv Slavyanskiy and it is advisable to anchor in the SW part of the bay. Caution is necessary, to avoid the prohibited anchorage area in the entrance.

The quarantine anchorage is located in position 42°53'24"N, 131°25'18"E.

9.59 Ostrov Sibiryakova (42°48'N., 131°26'E.), the S island of a group extending up to 5.5 miles S of Poluostrov Bryusa, consists of itself and Ostrov Antipenko along with numerous islets and rocks, all separated from the mainland by a marked channel with a depth of about 10m. Kekur Kolonna, a white pillar rock, lies on a reef W of the two main islands and forms the S end of a chain of rocks extending about 0.5 mile to the N, where a spar buoy serves to mark the S side of the channel between Ostrov Antipenko and Poluostrov Bryusa.

Caution.—A marine farm located E of Ostrov Sibiryakova should be avoided and is bounded by lines joining the following positions:

a. 42°49'07"N, 131°30'10"E.
b. 42°47'28"N, 131°28'50"E.
c. 42°48'10"N, 131°27'26"E.
d. 42°48'29"N, 131°27'42"E.
e. 42°49'07"N, 131°27'04"E.

Another marine farm located E of Ostrov Antipenko (close N of Ostrov Sibiryakova) should be avoided and is bounded by lines joining the following positions:

a. 42°49'26"N, 131°26'54"E.
b. 42°50'02"N, 131°27'59"E.

c. 42°50'36"N, 131°26'59"E.
d. 42°51'22"N, 131°28'26"E.
e. 42°50'00"N, 131°30'52"E.
f. 42°49'16"N, 131°30'11"E.
g. 42°49'26"N, 131°26'54"E.

Bukhta Mandzhur, entered between the S extremity of Ostrov Sibiryakova and Kamni Baklan, close E of the E extremity of Poluostrov Klerka, about 2.7 miles WSW, is an open bay with generally sandy shores, except at its N end where cliffy precipices rise at Mys Chirok. Being exposed to S and SE winds, the bay offers no good anchorage during summer, except for small craft, and only fair anchorage in winter when vessels can anchor off the N shore.

9.60 Poluostrov Klerka (42°46'N., 131°22'E.), a narrow hilly peninsula devoid of trees, but marked by patches of cultivated land, is connected to the mainland by a low marshy isthmus and terminates at its seaward end in two separate points.

Mys Klerka, the S point, is high, bare, and precipitous. It is marked by caves showing as dark patches against the yellow coast. A light is shown from Mys Klerka. Extensive shoaling, known as Mel' Griden', extends SE of the peninsula, and with depths of less than 3m and a least depth of 0.6m, is marked near its outer extremity by a lighted buoy. Nearly any swell from the SE will break on this ledge and, due to its being steep-to on all sides, caution is required in thick weather.

Ostrov Klerka, a small precipitous island thickly covered with shrubs, lies about 0.8 mile WSW of Mys Klerka and is connected to the peninsula to the N by a rocky ledge. Bukhta Klerka, a cove, lies between the above spit and the peninsula to the E and can be entered by small craft with local knowledge.

Bukhta Boysmana, a completely open bay entered between Ostrov Klerka and Mys Krasnyy Utes, a fairly conspicuous cliff about 4 miles W, has generally sandy shores across its head, but rises to a steep coastline in its W part. A bank, on which there are some below-water rocks, extends 0.5 mile E from Mys Krasnyy Utes.

Anchorage.—Good anchorage during the autumnal NE winds can be taken in the E half of the bay, off the W side of Ostrov Klerka, in depths of 9 to 10m, sand and mud, but caution is necessary to avoid the ledge extending N of the island.

9.61 The coast from Mys Krasnyy Utes trends S for approximately 3 miles to Mys L'va and is generally elevated, except for a few river valleys at the N and S ends. The latter cape rises somewhat more precipitously and is marked by a nearby rock which, when seen from seaward, resembles a sitting lion.

Gora Grebenchataya, about 3 miles WSW of Mys Krasnyy Utes, rises to an elevation of 395m and with its jagged summit is one of the most striking features along this part of the coast.

Mys Sosnovyy, about 1.2 miles SSW of Mys L'va, is a fairly precipitous cape made conspicuous by Kekury Baklan'i, a group of conspicuous granite rocks about 31m high, which extend 0.3 mile E from a point about 0.4 mile NE of Mys Sosnovyy.

The coast from Mys Sosnovyy trends generally to the S for about 7 miles to Mys Gamova, the W entrance point of Zaliv Petra Velikogo, and becomes heavily indented with numerous coves having for the most part high precipitous shores fringed with narrow sandy beaches. Several islets and dangers lie off this section of coast and caution is required.

Banka Bonsdorfa, comprising several detached shoals with a least depth of 0.9m, lies about 2 miles S of Mys Sosnovvy and up to 0.8 mile offshore. Because this danger is steep-to and probably only breaks in a SE swell, great caution is required when navigating in the vicinity.

Ostrova Astaf'yeva is comprised of two groups of pointed red granite islets which lie about 0.5 mile and 0.8 mile NE, respectively, of Mys Astaf'yeva. Reefs, marked by breakers, extend NE from the NE islet and WNW from the SW islet. Because these islets and reefs are steep-to, they must be considered dangerous during fog.

Ostrov Makisimova, a round-topped islet with a grassy summit, lies about 0.5 mile NE of Mys Telyakovskogo and 2.5 miles NNE of Mys Gamova. A reef extends about 0.3 mile NE from the islet and terminates in a pinnacle rock with a least depth of 1.5m. The W side of the islet is steep-to.

Mys Gamova (42°33'N., 131°14'E.), a precipitous flat-topped projection, forms the SE extremity of Poluostrov Gamova. A light is shown from a tower with a dwelling on the point and a radiobeacon transmits from the lighthouse.

The peninsula backing the point is high and rugged, being marked by Gora Tumannaya, a conspicuous sharp-peaked mountain, topped by a beacon and rising to a height of 562m, about 2 miles NW of Mys Gamova. A pillar rock, conspicuous from the E and NE, is located on the E side of the cape and in foggy weather can be seen, as a rule, before the rest of the shore.

Zaliv Pos'yeta

9.62 Zaliv Pos'yeta (Posiette Bay) is entered between Mys Gamova and Mys Suslova, about 16 miles W.

Winds—Weather.—The prevailing wind in the gulf is from the SE in summer and mostly from the NW in autumn and winter. In spring, the winds are variable, but are frequently fresh from the N and W; these winds are more violent in Zaliv Pos'yeta than in any part of Zaliv Petra Velikogo.

Fog is more frequent in spring and summer, being most restrictive during June and July. Frequently the whole gulf will be suddenly enveloped in fog. A cloud with ragged edges appearing on Gora Tumannaya NW of Mys Gamova is said to be a sign of an approaching SE wind and accompanying fog. As the cloud accumulates and descends, the fog rapidly envelops Zaliv Pos'yeta.

Ice.—The outer part of Zaliv Pos'yeta is open all winter and Reyd Pallada usually so, but in exceptional circumstances the latter has a thin coating of ice which breaks up with the E wind. The inner bays begin to freeze about the beginning of December. The ice is thawed toward the end of March.

The earliest recorded appearance of drift-ice off Mys Gamova is January 19, and the latest February 18. The earliest final disappearance is March 3, and the latest March 29. The average number of days with ice off the point is 72.

Vessel Traffic Service.—A Vessel Traffic Service (VTS) has been established for the waters of Zaliv Pos'yeta N of a line from Mys Suslova (42°30'54"N., 130°51'53"E.) to Mys Gamova (42°33'23"N., 131°13'04"E.). This VTS is an integrated part of the Zaliv Petra Velikogo VTS and comprises Sector 5 of that VTS. (See paragraph 9.41)

Anchorage.—Eighteen designated anchorages lie centered on position 42°33'30"N, 130°49'48"E.

Caution.—The buoys and beacons in Zaliv Pos'yeta are not always in position and are removed during winter.

Marine farms have been established in the NW part of Zaliv Pos'yeta as best seen on the chart. Two new marine farms are established in E part of Zaliv Pos'yeta off Gora Tumannaya and off the SE coast of Poluostrov Krabbe, as follows:

1. Off Gora Tumannaya—bounded by the coast and lines joining the following positions:
   a. 42°33'35"N, 131°11'09"E.
   b. 42°33'16"N, 131°11'02"E.
   c. 42°33'30"N, 131°10'16"E.
   d. 42°33'03"N, 131°09'14"E.
   e. 42°32'35"N, 131°09'14"E.
   f. 42°32'35"N, 131°11'23"E.
   g. 42°33'15"N, 131°12'55"E.
2. Off the SE coast of Poluostrov Krabbe—bounded by the coast and lines joining the following positions:
   a. 42°35'48"N, 130°52'13"E.
   b. 42°35'35"N, 130°52'12"E.
   c. 42°35'28"N, 130°53'35"E.
   d. 42°35'56"N, 130°53'38"E.

9.63 The coast of Zaliv Pos'yeta trends NNW from Mys Gamova, maintaining a rocky precipitous character to Bukhta Troitsy, about 6 miles within. Numerous coves and a small bay known as Bukhta Vityaz' indent this section of the coast, but do not provide good shelter and generally offer only poor holding ground.

Bukhta Troitsy, entered between Mys Stenina on the E and Mys Slychkovo, about 0.9 mile to the W, forms a natural harbor sheltered from all winds except from the S.

Zarubino (42°38'N., 131°05'E.) (World Port Index No. 60582) lies within the W basin of Bukhta Troitsy (Trinity Bay). It is a small harbor that is open to shipping all year without icebreaker assistance. Ice begins to appear at the end of November with some steady formation by mid-December, but remains thin enough to be easily broken by tugs.

Depths—Limitations.—Entry into Bukhta Troitsy is wide and deep, passing between Mys Stenina (42°37'N, 131°08'E) and Mys Slychkova. The width of the opening between these two capes is only 0.9 mile.

A wharf along the shore, with a total length of 650m, has four designated berths. Berths 1-3 are used for timber and general cargo, while Berth 4 handles vessels with fishing products, perishable goods, fertilizers, and preservatives. Depths alongside vary from 8.5 to 10m. The port authority should be consulted for the latest information.

Aspect.—Mys Slychkovo, backed by a conspicuous pillar-shaped peninsula known as Poluostrov Zarubina, is connected to the mainland by a low isthmus and forms a basin on the W side of the bay that can be used by small craft from the anchorage.

Ostrovok Brauzera, an oblong islet of shingle and gravel, lies on a reef connected to the NE shore of the peninsula and effectively blocks the S part of the basin.

Bukhta Troitsy is entered along a recommended route from the SSE, as shown on the chart. Once in the bay, entry to Zarubino is achieved by passing N then E of Ostrovok Brauzera.

Pilotage.—Pilotage is compulsory and is available 24 hours. Vessels should advise ETA 10 days, 48 hours, 24 hours, and 4 hours prior to arrival.

The pilot boarding areas are, as follows:

1. 42°38'42"N, 131°06'49"E. (Russian vessels only)
2. 42°37'42"N, 131°07'06"E. (Foreign vessels only)
3. 42°39'23"N, 131°06'45"E. (Vessels over 1,000 gt)
4. 42°37'13"N, 131°03'40"E. (Vessels over 1,000 gt)
5. 42°34'48"N, 131°06'04"E.

The vessel's ETA should be sent via the agent 10 days before expected arrival and then reconfirmed 48 hours, 24 hours, and 4 hours before arrival.

Port State Control Inspectorate (PSC) and the Coastguard should be contacted by the vessel on VHF channel 16 when vessel is 2 miles from port.

Regulations.—The following regulations apply in the harbor:

1. When visibility is less than 200m, arrival and departure at the port are prohibited; pilotage and mooring are allowed only upon approval from the harbor authority.
2. The harbormaster should be informed in writing of any defects to the vessel.
3. Vessels more than 50m loa must proceed at their minimum speed while navigating through the inner roads.
4. Overtaking is prohibited in the inner roads.
5. Permission must be granted by Port State Control Inspectorate (PSC) to leave the port. A Notice of ETD should by advised to the PSC at least 6 hours prior to departure. Permission granted is valid for only 24 hours; if departure not achieved, permission must be requested again.

Vessel Traffic Service.—A Vessel Traffic Service (VTS) has been established for the waters of Zaliv Pos'yeta N of a line from Mys Suslova (42°30'54"N., 130°51'53"E.) to Mys Gamova (42°33'23"N., 131°13'04"E.). This VTS is an integrated part of the Zaliv Petra Velikogo VTS and comprises Sector 5 of that VTS. (See paragraph 9.41)

Contact Information.—Harbor authorities can be contacted, as follows:

Duty Officer	
Call sign	Zarubino 1
VHF	VHF channel 9
Port Authority	
Telephone	78-4233-150262
Facsimile	78-4232-964660
	78-4233-150234
E-mail	trinity@nht.ru
Port State Control Inspectorate	
Call sign	Troitsy 33
VHF	VHF channels 9 and 16
Coastguard	
Call sign	Lebed 42
VHF	VHF channel 16

Anchorage.—Bukhta Troitsy is one of the best anchorages in Zaliv Pos'yeta. Depths in the central portion of the bay are as deep as 20m. There are two designated areas for anchorage, both of which require the assistance of a pilot, as follows:

1. District N1 (for Russian vessels arriving from abroad)—Area bounded by lines joining the following positions:
   a. 42°39'00"N, 131°06'24"E.
   b. 42°39'00"N, 131°07'12"E.
   c. 42°38'24"N, 131°07'12"E.
   d. 42°38'24"N, 131°06'24"E.
2. District N2 (for all foreign vessels)—Area bounded by lines joining the following positions:
   a. 42°38'00"N, 131°06'42"E.
   b. 42°38'00"N, 131°07'24"E.
   c. 42°37'24"N, 131°06'42"E.
   d. 42°37'24"N, 131°07'24"E.

There is also an anchorage designated (N3) for quarantine stay with a radius of 400m from position 42°39'18"N, 131°06'42"E.

Although anchorage is available in Gavan Silach, it can only used in case of emergency.

9.64 Poluostrov Krabbe (42°38'N., 130°52'E.), the S extremity of which is Mys Degera, is located at the head of Zaliv Pos'yeta and because of its rugged nature is conspicuous from the offing. A hill located about 0.4 mile N of Mys Degera rises to a height of 161m and provides a good mark for aiding in the identification of the point.

Reyd Pallada, a spacious roadstead open to the SE, is entered between Mys Degera and Mys Shelyagina, a conspicuous and elevated cape about 4 miles SW. The NE shore of the roadstead is steep-to and hilly, but the W side is low and marshy with depths of less than 9m up to 1 mile offshore.

Kosa Churkhado, a narrow sandy spit covered with grass, extends about 2.2 miles NNE from the mainland, on the NW side of Reyd Pallada, and rises at its NE extremity, Mys Nazimova, to a conspicuous gray cliff 27m high.

Banka Klykova, a detached steep-to rocky shoal with a least depth of 1.8m, lies in the entrance to Reyd Pallada, about 1.5 miles S of Mys Degera. Two beacons about 0.3 mile W of Mys Degera, when in line bearing 003°, indicate the central part of this bank.

A lighted buoy is moored during the navigational season on the S side of Banka Klykova, but it should not be depended on.

Gora Tigrovaya, a cone-shaped mountain, rises to a height of 830m about 14 miles NW of the N extremity of Poluostrov Krabbe, and forms an excellent mark during clear weather in the approach to Zaliv Pos'yeta.

The summit of Gora Tigrovaya, in line bearing about 318° with the E extremity of the cliffs of Mys Nazimova, leads into Zaliv Pos'yeta, clear of Banka Klykova.

The strait leading from Reyd Pallada to the inner bays of Zaliv Pos'yeta is formed between Mys Nazimova and Mys Astaf'yeva, the W extremity of Poluostrov Krabbe, about 0.5 mile to the E. Ostrov Cherkavskogo, a bare islet about 15m high, divides the strait into two channels. The W channel, about 135m wide, with depths of 11 to 14m, is recommended. Caution is necessary, however, to avoid a reef, with a least depth of 1.5m, that extends to Mys Nazimova by passing close off the steep-to W side of Ostrov Cherkavskogo. Tidal currents in the narrows attain a rate of up to 2 knots.

Bukhta Ekspeditsii and Bukhta Novgorodskaya, the W and E bays of the inner part of Zaliv Pos'yeta, are formed by an indented peninsula, known as Poluostrov Novgorodskiy, which extends about 3 miles WSW of the mainland N of Poluostrov Krabbe. Both bays are heavily encumbered with shoals having depths of 4m and less, and they are generally only suitable for small craft. Pos'yet, however, at the SW end of Poluostrov Novgorodskiy, can be reached in the channel N of Ostrov Cherkavskogo in depths of 8 to 18m.

9.65 Pos'yet (42°39'N., 130°48'E.) (World Port Index No. 60540), situated at the head of the bight on the E side of Mys Ryazanova, the SE extremity of Novgorodskiy, is available for coasters.

Tides—Currents.—The tidal range at MHWS is 0.7m.

Ice.—The port is open year round. However, light ice conditions are present from the end of December through February; during this time only vessels of Ice Class 3 (according to the Russian register) may enter the port. Ice usually clears by the end of April.

Depth—Limitations.—The port is approached directly from Zaliv Pos'yeta through Bukhta Reyd Pallada along a NW course, as shown on the chart. The approach channel is 100m wide, with depths to 25m. There are three berths in the harbor, with depths alongside of 9.5m, capable of accommodating vessels with drafts up to 9m. Additional information about these berths is contained in the table below:

Pilotage.—Pilotage is compulsory and available 24 hours. Pilots can be contacted on VHF channels 12 and 16. Pilots board in position 42°36'00"N, 130°49'48"E.

Regulations.—The port of Pos'yet is located within Sector 5 of the Zaliv Petra Velikogo Vessel Traffic Service (VTS). See paragraph 9.41 for more details.

Berth No.	Berth Length	Maximum LOA	Cargo
1	147.3m	175m	Coal
2	146.0m	—	General cargo and containers
3	146.5m	—	Bulk cargo

Vessel must advise the port of ETA at least 48 hours in advance and then reconfirm the ETA 24 and 12 hours prior to arrival, with final confirmation within 4 hours of arrival. The ETA message must contain the following information:

1. Vessel's name.
2. Vessel's flag.
3. Vessel's call sign.
4. IMO identification number.
5. Home port.
6. Vessel's loa, beam, and height of hull.
7. Purpose of visit.
8. Charterer's and agent's name, address, and contact details.

Vessels less than 5,000 gt in size may enter and depart the port at any time, while vessels larger than 5,000 gt may only do

so if the navigation aids are in good working order and the weather is good. Leaving or entering port is prohibited in visibility less than 0.5 mile.

One-way traffic has been established between Cape Nazimova and Ostrov Cherkavskogo, with inbound vessels having priority of passage.

Tugs are available and are required for mooring operations, movement of vessels in port waters, and passage through the fairway narrows. Tugs are ordered through the agents and the number of tugs required will be determined by agreement between the master and the pilot.

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

1. Call sign: Primorye Traffic
2. VHF: VHF channels 16 and 68
3. Telephone: 78-4232-491051
4. Facsimile: 78-4232-491052

Anchorage.—Eighteen designated anchorage berths and their positions are listed below:

1. Anchorage No. 1—42°32'30"N, 130°59'09"E.
2. Anchorage No. 2—42°32'30"N, 131°00'30"E.
3. Anchorage No. 3—42°32'30"N, 131°01'51"E.
4. Anchorage No. 4—42°32'30"N, 131°03'12"E.
5. Anchorage No. 5—42°32'30"N, 131°04'33"E.
6. Anchorage No. 6—42°32'30"N, 131°05'54"E.
7. Anchorage No. 7—42°33'30"N, 130°59'09"E.
8. Anchorage No. 8—42°33'30"N, 131°00'30"E.
9. Anchorage No. 9—42°33'30"N, 131°01'51"E.
10. Anchorage No. 10—42°33'30"N, 131°03'12"E.
11. Anchorage No. 11—42°33'30"N, 131°04'33"E.
12. Anchorage No. 12—42°33'30"N, 131°05'54"E.
13. Anchorage No. 13—42°34'30"N, 130°59'09"E.
14. Anchorage No. 14—42°34'30"N, 131°00'30"E.
15. Anchorage No. 15—42°34'30"N, 131°01'51"E.
16. Anchorage No. 16—42°34'30"N, 131°03'12"E.
17. Anchorage No. 17—42°34'30"N, 131°04'33"E.
18. Anchorage No. 18—42°34'30"N, 131°05'54"E.

Anchoring is prohibited in the fairway between Cape Nazimova and Ostrov Cherkavskogo.

Mys Suslova (42°31'N., 130°52'E.), the W entrance point of Zaliv Pos'yeta, is the S extremity of a peninsula, 261m high, which is connected to the mainland by a low, marshy isthmus. The N shore is a sandy beach which fringes the S side of the isthmus.

Zaliv Pos'yeta to the Tumen River

9.66 Ostrov Furugel'ma (42°28'N., 130°55'E.), a hilly and conspicuous island with precipitous reddish-gray shores, lies about 4 miles SE of Mys Suslova. A beacon, 3.3m high, and consisting of a white quadrilateral iron framework pyramid, is situated on a hill about 0.3 mile S of the NE end of the island.

A rock, which dries 0.3m, lies about 0.3 mile SW of the SW extremity of the island.

Two pinnacle rocks, with a least depth of 6.4m, and a group of rocks 2m high, lie about 0.4 mile W and 1.2 miles WNW, respectively, of the NW extremity of the island.

Kekur Gel'mersena, a steep-to pillar rock about 9.1m in height, lies 0.5 mile NNE of the NE extremity of Ostrov Furugel'ma, and when seen through fog has the appearance of a becalmed junk under sail. Several other rocks, some submerged or awash, lie up to 1 mile N and E of the same point and caution is required.

It has been reported that there is an almost constant S current in the vicinity of Ostrov Furugel'ma. Eddies exist almost constantly in an area extending up to 3 miles S and SE of the island.

9.67 Mys Butakova (42°28'N., 130°50'E.), a rounded cliffy cape backed by Gora Butakova, a somewhat conical hill about 308m high, lies 3.5 miles SW of Mys Suslova and is the E entrance point of Bukhta Sivuch'ya. It is fringed by numerous rocks and a reef.

Ostrov Very, an islet with a grassy summit, lies in the entrance to Bukhta Sivuch'ya in a position about 0.7 mile WSW of Mys Butakova and 0.3 mile offshore. Kamni Butakova, a group of rocks having the appearance of an islet when seen from the S and E, lies about 0.4 mile SSW of Ostrov Very and is surrounded by steep-to reefs.

Vessels can enter Bukhta Sivuch'ya by passing between Kamni Butakova and Fal'shivyy Ostrovok, a rounded cliff at the end of a spit, about 1 mile W. The entrance is narrowed to about 0.5 mile by the reefs in the vicinity and the anchorage is only comfortable in calm weather. There are depths of 18 to 24m in the fairway, shoaling to about 12m, 0.3 mile from the head of the bay. The head of the bay is formed by marshy land with numerous small lagoons backed by Ozero Tal'mi, an inland lake.

The coast trends S from Fal'shivyy Ostrovok for about 11 miles to the mouth of the Tumen River and consists of low marshy land with several lagoons immediately within.

Gora Golubinyy Utes, a sharp-peaked detached hill covered with grass and shrub, rises to a height of 182m about 3 miles SSW of Fal'shivvy Ostrovok and, being surrounded by low land, is conspicuous.

The **Tumen River** (42°18'N., 130°41'E,.), in its lower reaches, forms the border between Russia and North Korea.The Tumen River and the coast of Korea to the S are described in Pub. 157, Sailing Directions (Enroute) Coasts of Korea and China.

Russian

RUSSIAN	English
B	
bakan	large buoy
banka	shoal
bar	bar
bashnya	tower
basseyn	basin
belyy, belaya, beloye	white
bereg	coast, shore, beach, bank of a stream
beregovoy, beregovaya, beregovoye	littoral, coastal
bochka	barrel buoy, mooring buoy
boloto	swamp, marsh
bol'shoy, bol'shaya, bol'shoye	large, big
buek	small boat or a float
bukhta	bay
burun	breaker
buruny	breakers
buy	buoy
C	
chernyy, chernaya, chernoye	black
D	
del'ta	delta
derevnya	village
derevo	tree
dok	dock
dolgota	longitude
dolina	valley
dom	house
doroga	road
dyuny	dunes
E	
elling	slipway
F	
farvater	fairway, channel
fiord	fiord
fort	fort
G	
gavan'	harbor
gora	mountain, hill
gorod	city, town
granitsa	boundary
greben'	crest, ridge
guba	arm, recess, bay
guriy	cairn
K	
kamen'	rock, stone
kamennyy	masonry
kammi	rocks, stones
kanal	canal, channel
kanava	ditch
kekur	pillar, rock
kholm	hillock
khram	temple
koleno	bend, reach of a channel
kosa	spit
kran	crane
krest	cross
kungas	flat-bottomed craft
kurgan	artificial hillock
L	
laguna	lagoon
led	ice
les	forest
liman	estuary, firth
lotsman	pilot
lug	meadow
M	
machta	mast
malyy, malaya, maloye	small, little
mayak	lighthouse
mel'	shoal
meridian	meridian
milya	mile
mol	mole
more	sea
morskaya kapusta	kelp
morskoy, morskaya, morskoye	most seaward (adj)
most	bridge
mys	cape, point
N	
nadstroyka	superstructure
nadvodnyy, nadvodnaya, nadvodnoye	above water
nizhniy, nizhnyaya, nizhneye	lower
nizkiy, nizkaya, nizkoye	low
nos	cape, promontory
novyy, novaya, novoye	new
O	
oblast'	district, province
obryv	precipice
ogon'	light (also: fire)
okean	ocean
opasnot'	danger
ostrov	island
ostrova	islands
ostrovok	islet
osushka	drying patch
osyp'	landslide
otlichitel'nyy	distinguishing
otliv	ebb
otmel'	coastal shoal
ozero	lake
P	
perekat	shifting bar

RUSSIAN	English
peresheek	isthmus
peschanyy	sandy
pesok	sand
ploskogor'ye	tableland
plotina	dam
podvodnyy	submerged
poluostrov	peninsula
polyus	pole (geographic)
porogi	rapids, falls
port	port
poselok	settlement
prikladnoy chas	high water interval (mean)
priliv	flood (tide)
primorskiy	maritime
pristan'	pier, jetty
pritok	tributary
prokhod	passage, pass
proliv	strait
promezhutochnyy	intermediate
proseka	clearing through forest
protoka	effluent, arm of a river
pustynya	desert
put'	route, path, way
pyatno	patch
R	
radiomayak	radiobeacon
ravnina	plain
razvaliny	ruins
rechka	rivulet
reka	river
reyd	roadstead
rif	reef
ruchey	creek
rukav	arm, channel of a river
S	
selenie	settlement
selo	village
seredina	middle (noun)
sever	north
severnyy, severnaya, severnoye	northern
shchel'	gap, crevice
shest	pole, staff
shirota	latitude
siniy	blue
skala	cliff, rock
sneg	snow
somnitel'no	is doubtful
sopka	volcano
spornyy	conflicting
sredniy, srednaya, sredneye	middle, average
staryy	old
stolb	post, column
strelka	spit
stvor	range
sukhoy, sukhaya, sukhoye	dry
T	
techenie	current
tolcheya	confused sea
tropik	tropic
tsentr	center
tserkov'	church
tundra	tundra
tunnel'	tunnel
U	
utes	cliff
ust'ye	river mouth
ushchel'ye	canyon
V	
valuny	boulders
vekha	spar buoy
verkhniy, verkhnaya, verkhneye	upper
vershina	summit, peak
vkhod	entrance
vneshniy	outer
vnutrenniy	inner
vodopad	waterfall
vodorosli	sea weeds
vodovorot	whirlpool, eddy
volnolom	breakwater
vostok	east
vostochnyy, vostochnaya, vostoch-noye	eastern
vulkan	volcano
Y	
yakornoye mesto	anchorage
yug	south
yuzhnyy, yuzhnaya, yuzhnoye	southern
Z	
zaliv	gulf, bay, inlet
zamok	castle
zapad	west
zapadnyy, zapadnaya, zapadnoye	western
zavod'	cove
zelenyy, zelenaya, zelenoye	green
zemlya	land
znak	beacon on land
zona	zone

Japanese

JAPANESE	English
A	
abura	oil
asai	shallow
asase	ledge, shoal
B	
bae (see hae)	bank, shoal, rock
bakufu	waterfall
bana (see hana)	cape, point
bashi	bridge, point
byochi	anchorage, harbor
C	
chiiasi	little, small
cho	township
chu	middle
D	
dai	large, great
daiba	fort
dake (see take)	hill, mountain
dashi	rock, reef
F	
fukai	deep
futo	wharf, pier
G	
ga	of (in names)
gaiko	outer harbor
gake	cliff
gan	rock
ganpeki	quay, wharf, seawall
gata	lagoon, bay, inlet
gawa (see kawa)	river
genya	field, plain
genyu	crude oil
guchi (see kuchi)	entrance, strait, channel
gun	district
gunto	island group
guri	reef, rock, shoal, bank
gyoko	fishing harbor
H	
hae (see bae)	bank, shoak, rock
hakuchi	roadstead, anchorage
hama	beach, coast
hana	cape, point
hanto	peninsula
hashi	bridge, point
hatoba	wharf
heigen	plain, field
higashi	east
hikui	low
hira	flat, level
hiro	fathom
hiroi	wide, broad
ho	cove
ho	peak
hoku	north
I	
ikari	anchor
ike	lake, pond
ishi	rock
iso	reef, rock, shoal
iwa	rock, island, shoal, mountain
J	
jima (see shima)	island, rock, reef
jorikusho	landing place
ju	middle
juyu	crude oil, heavy oil
K	
kai	sea
kaiho	fort
kaikyo	strait, channel
kaiwan	gulf, inlet, sound
kaku	point, cape
kami	upper
kawa guchi	estuary
kawa	river
kei	river
ken	prefecture
ki	tree
kita	north
ko	harbor, port
ko	lagoon, lake, small
kubi	cape, isthmus
kuchi	mouth of channel, entrance
kuri	reef, rock
kuro, kuroi	black
M	
machi	town
matsu	cape, point, pine tree
michi	road
mijikai	short
minami	south
minato	harbor, port
mine	peak, mountain
misaki	cape, point, peninsula
mizu	water
mori	forest, wood
mura	village
myaku	chain (of hills, reefs)
N	
nada	sea, gulf
nagai	long
naikai	inland sea
naiko	inner harbor

JAPANESE	English
naka	middle
nan	south
ne	rock, reef, island
nippon, nihon	Japan
nishi	west
no	of (possessive like 's)
nobori	mountain
numa	marsh, swamp
nupuri	mountain
O	
o	great, large
o	small
oka	hill, land, mound
oki	offing, offshore, bay
okii	great, large
P	
pii	cape
R	
ressho	chain of islets, archipelago
retsugan	chain of rocks
retto	chain of islands, archipelago
S	
saki	cape, point
sambashi	pier
san	mount, mountain
satai	sandbank
sawa	marsh, swamp, lake
se	bank, islet, reef, shoal
sei	west
seki	cape, point, rock
sekiyu	oil
sen	peak
sendan	shoal
seto	strait, channel
sha	sand
shi	city
shima	island, rock, reef
shimo	lower
shio	current, tide
shiri	cape, point
sho	bank, reef, shoal, small
sho	island, reef
shoto	archipelago, island chain
shu	country, province, state
sima (see shima)	island, rock, reef
son	village
sone	rock, shoal
su	bank, reef, shoal
sui	water, waterway
suido	channel, strait
suna	sand
syoto (see shoto)	archipelago, island chain
T	
ta	ricefield
tai	bank, sandbank
takai	high, tall
take	hill, mountain
taki	waterfall
to	island, islet,, east, rock
toge	mountain, pass
torii	gateway of shinto temple
U	
uchi	bay, in, inside
umi	in, inside
unga	canal
ura	bay, bight, beach
W	
wan	bay
Y	
yama	mountain, hill, range
Z	
zaki (see saki)	cape, point, headland
zan	peak, mountain, hill
ze	shoal
zeikanjo	customhouse
zen	mountain
zone, zono	shoal

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
A					
AIRO MISAKI	46	51 N	143	26 E	7.42
AKA ZAKI	44	09 N	145	47 E	4.65
AKO ANCHORAGE	60	17 N	165	52 E	2.18
ALEKSANDROVSKSAKHALINSKIY	50	54 N	142	08 E	8.28
ANADYR	64	44 N	177	30 E	1.37
ARAHATA SAKI	50	30 N	156	10 E	4.4
ARAISE SAKI	50	39 N	155	51 E	4.14
ARAKAWA DAKE	50	31 N	155	30 E	4.14
ATOIYA MISAKI	44	27 N	146	35 E	4.54
AZARASHI IWA	48	32 N	153	51 E	4.21
B					
BANKA BRUKS	64	37 N	171	58 W	1.14
BEREZOVAYA	54	03 N	159	28 E	3.9
BERUTARUBE SAKI	44	27 N	146	52 E	4.44
BERUTARUBE YAMA	44	28 N	146	56 E	4.43
BIG DIOMEDE ISLAND	65	48 N	169	05 W	1.3
BLACK POINT	54	41 N	167	50 E	2.59
BOSHNYAKOVA	49	39 N	142	09 E	8.22
BROOKE BANK	64	37 N	171	58 W	1.14
BUKHTA ANASTASII	61	24 N	172	54 E	1.44
BUKHTA ANDREYA	48	33 N	140	11 E	8.57
BUKHTA BECHEVINSKAYA	53	13 N	159	45 E	3.16
BUKHTA BEZYMYANNAYA	42	54 N	132	17 E	9.43
BUKHTA BEZYMYANNAYA	43	01 N	131	51 E	9.51
BUKHTA ENGAUNGYN	66	08 N	179	45 W	1.31
BUKHTA GLADOVSKAYA	54	55 N	166	16 E	2.53
BUKHTA GLUBOKAYA	60	59 N	172	15 E	1.45
BUKHTA INNOKENTIYA	48	36 N	140	11 E	8.56
BUKHTA KRASHENINNIKOVA	50	18 N	155	21 E	4.12
BUKHTA KRYUGERA	56	01 N	162	03 E	3.4
BUKHTA LAVROVA	60	19 N	167	08 E	2.9
BUKHTA MAMGA	54	23 N	136	47 E	6.60
BUKHTA NAGAYEVA	59	34 N	150	43 E	6.12
BUKHTA NARVA	43	00 N	131	31 E	9.57
BUKHTA NOVIK	43	03 N	131	50 E	9.51
BUKHTA NOVITSKOGO	42	46 N	132	53 E	9.34
BUKHTA NOVOKURIL'SKAYA	46	13 N	150	20 E	4.38
BUKHTA OKEANSKAYA	50	11 N	155	44 E	4.10
BUKHTA POLOVINA	54	57 N	166	29 E	2.54
BUKHTA PRAVDA	46	57 N	142	01 E	8.8
BUKHTA ROSSETA	54	56 N	136	54 E	6.46
BUKHTA RUDNAYA	44	21 N	135	50 E	9.18
BUKHTA SIZIMIN	50	43 N	140	27 E	8.45
BUKHTA SLAVYANKA	64	22 N	173	21 W	1.24
BUKHTA SOBOLEVA	54	56 N	136	49 E	6.46
BUKHTA SOMNENIYA	60	31 N	167	47 E	2.8
BUKHTA STOROZH	54	34 N	161	10 E	3.10
BUKHTA TABO	51	35 N	141	27 E	8.1
BUKHTA TAKEMA	45	27 N	137	12 E	9.12
BUKHTA TETYUKHE	44	21 N	135	50 E	9.18
BUKHTA VANINA	49	05 N	140	17 E	8.53
BUKHTA VANINO	49	05 N	140	17 E	8.53
BUKHTA VRANGELA	42	45 N	133	04 E	9.34
BUKHTA YUZHNAYA GLUBOKAYA	60	12 N	166	54 E	2.10
BUROTON TO	46	43 N	150	45 E	4.31
C					
CAPE KRIGUGON	65	28 N	171	02 W	1.6
CAPE NOVOSILSKI	65	28 N	171	02 W	1.6
CHACHA DAKE	44	21 N	146	15 E	4.58
CHASHIKOTSU ZAKI	44	23 N	146	01 E	4.65
CHETVERTYY KURIL'SKIYE PROLIV	49	45 N	155	10 E	4.1
CHIGA	49	02 N	144	20 E	7.32
CHIKURA DAKE	50	20 N	155	27 E	4.12
CHINOMIJI HAKUCHI	44	16 N	146	11 E	4.58
CHIRINKOTAN TO	48	59 N	153	29 E	4.21
CHUO ZAKI	45	50 N	150	02 E	4.34
D					
DAIGO SAKI	50	23 N	155	35 E	4.13
DAIKOKU SHIMA	45	29 N	148	35 E	4.52
DAISANTO ZAN	46	11 N	150	23 E	4.38
DE KASTRI	51	28 N	140	47 E	8.41
DE KASTRI	51	28 N	140	47 E	8.41
DUE	50	50 N	142	05 E	8.26
E					
ENTOMO MISAKI	48	38 N	144	40 E	7.31
ENTRANCE,	56	42 N	162	56 E	2.44
F					
FAIRWAY ROCK	65	37 N	168	45 W	1.3
FUJITA SAKI	50	41 N	156	11 E	4.5
FURUKAMAPPU	44	01 N	145	51 E	4.60
FUTAGOJIMA HAKUCHI	45	38 N	149	27 E	4.35
G					
GAVAN GLAZENAPA	64	41 N	172	37 W	1.14
GAVAN RATMANOVA	64	49 N	172	28 W	1.13
GAVAN' SIBIR'	60	28 N	166	15 E	2.16
GORA ARMAN VESTOVYY	59	49 N	149	55 E	6.11
GORA ARMAN ZAPADNYY	59	49 N	149	55 E	6.11
GORA BERNARDINSKIY	54	08 N	139	15 E	6.69
GORA BOL'SHAYA	60	31 N	162	23 E	5.19
GORA DIONISIYA	64	35 N	177	16 E	1.34
GORA DVUKHVERSHINNAYA	59	34 N	162	59 E	2.34
GORA ESPENBERGA	54	09 N	142	29 E	7.12
GORA FERSMANA	50	31 N	155	30 E	4.14
GORA GAVANSKAYA	54	49 N	167	30 E	2.56
GORA KAMBAL'NAYA	51	18 N	156	53 E	5.4
GORA KAMUY	45	31 N	148	48 E	4.53
GORA KEKURNAYA	60	22 N	166	42 E	2.15
GORA KOLOKOL	46	02 N	150	04 E	4.37

GORA KRENITSYNA	49	21 N	154	42 E	4.17
GORA MEDVEZH'YA	45	23 N	148	51 E	4.41
GORA MIL'NA	46	49 N	151	47 E	4.27
GORA MNOGOGLAVAYA	60	32 N	166	18 E	2.15
GORA MOROSHECHNAYA	56	48 N	156	18 E	5.9
GORA OSTRAYA	59	15 N	142	10 E	6.22
GORA PEREVAL'NAYA	45	09 N	147	49 E	4.46
GORA PLOSKAYA	60	22 N	165	14 E	2.20
GORA SERDTSE KAMEN	65	37 N	178	17 W	1.29
GORA SHESTAKOVA	49	29 N	154	44 E	4.17
GORA SHIROKAYA	53	52 N	159	33 E	3.9
GORA SHTELLERA	54	53 N	166	24 E	2.48
GORA SIBETORO	45	24 N	148	35 E	4.51
GORA SOPOCHNAYA	56	02 N	156	01 E	5.9
GORA STOKAP	44	50 N	147	21 E	4.45
GORA TONOBORI	46	13 N	143	27 E	7.46
GORA TYATYA	44	21 N	146	15 E	4.58
GORA UGOL'NAYA	60	16 N	165	36 E	2.19
GORA URATMAN	47	07 N	152	15 E	4.27
GORA URGINSKAYA	58	44 N	159	36 E	5.16
GORA USHKI	59	22 N	146	11 E	6.17
GORA VKHODNAYA	65	42 N	171	04 W	1.5
GORA VOLNISTAYA	59	33 N	143	56 E	6.21
GORA VYSOKAYA	50	41 N	156	17 E	4.4
GUBA BEZYMENNAYA	64	45 N	174	50 W	1.26

H

HARUMUKOTAN TO	49	07 N	154	31 E	4.18
HATCHO SHIMA	45	04 N	147	32 E	4.45
HITOKAPPU YAMA	44	50 N	147	21 E	4.45
HIYORI ZAKI	46	04 N	150	19 E	4.34

I

IJU BANA	45	17 N	148	02 E	4.50
IKABANOTSU SAKI	45	16 N	147	52 E	4.48
IMAI SAKI	50	46 N	156	12 E	4.4
IWAOI YAMA	43	54 N	145	30 E	4.64
IWO YAMA	45	56 N	149	55 E	4.37

K

KAIHYO IWA	48	32 N	153	51 E	4.21
KAIMEN ZAN	46	08 N	150	17 E	4.33
KAMEN' GAVRYUSHKIN	51	14 N	157	18 E	3.29
KAMEN' SIVUCHIY	52	11 N	158	26 E	3.25
KAMNI DRAKHENFEL'SA	60	22 N	166	12 E	2.14
KAMOGAWA SAKI	50	26 N	155	43 E	4.14
KAMOI DAKE	45	31 N	148	48 E	4.53
KARASUNOO MISAKI	46	14 N	150	35 E	4.33
KASHIWABARA WAN	50	41 N	156	08 E	4.6
KATAOKA WAN	50	43 N	156	11 E	4.5
KERAMUI SAKI	43	39 N	145	33 E	4.62
KETOI TO	47	20 N	152	29 E	4.26
KHABAROVSK	48	30 N	135	10 E	7.8
KHOLMSK	47	03 N	142	03 E	8.8
KHOY	51	16 N	142	10 E	8.30
KIMPEI MASAKI	49	38 N	154	49 E	4.17
KINGA	62	27 N	179	22 E	1.42
KINKIL'SKOY	59	20 N	160	12 E	5.16
KITA JIMA	46	32 N	150	53 E	4.30
KITASOYA MISAKI	49	46 N	142	10 E	8.22
KITOLOVNAYA BANKA	54	59 N	167	07 E	2.56
KOKUTAN SAKI	50	52 N	156	29 E	4.2
KOMPAKOVA	54	40 N	155	40 E	5.8
KOMSOMOL'SK	50	33 N	136	58 E	7.8
KORSAKOV	46	37 N	142	46 E	7.47
KOSA MEECHKIN	65	28 N	178	00 W	1.28
KOSA RUSSKAYA KOSHKA	64	34 N	178	32 E	1.34
KOZMINO BAY OIL TERMINAL	42	43 N	133	01 E	9.36
KRASNOGORSK	48	25 N	142	05 E	8.15
KRILLOVO	46	27 N	142	21 E	7.50
KRONE	53	28 N	159	57 E	3.13
KUJIRA WAN	50	18 N	155	21 E	4.12
KUKIDONO SAKI	45	20 N	148	01 E	4.49
KURIL'SKIY ZALIV	45	14 N	147	51 E	4.47
KURO IWA	47	36 N	152	53 E	4.24
KUROISHI YAMA	49	21 N	154	42 E	4.17
KUSHINO MISAKI	45	34 N	149	32 E	4.34
KUYBYSHEVKA	45	06 N	147	42 E	4.46

L

LA PEROUSE STRAIT	45	43 N	142	00 E	7.52
LAZAREV	52	14 N	141	31 E	8.35

M

MAGADAN	59	32 N	150	46 E	6.12
MAGO	53	15 N	140	13 E	7.7
MAKANRU TO	49	47 N	154	26 E	4.16
MAKAROV	48	38 N	142	47 E	7.35
MAMIYA SAKI	50	24 N	156	01 E	4.9
MATSUWA TO	48	05 N	153	12 E	4.23
MISHIMA WAN	46	13 N	150	20 E	4.38
MITSUKA YAMA	50	41 N	156	17 E	4.4
MIYAGAWA SAKI	50	36 N	156	10 E	4.6
MOEKESHI WAN	44	37 N	147	00 E	4.44
MOSKAL'VO	53	34 N	142	30 E	7.11
MOYORO DAKE	45	23 N	148	51 E	4.41
MURAKAMI WAN	50	44 N	156	09 E	4.6
MYS ACHCHEN	64	46 N	175	26 W	1.27
MYS AFRIKA	56	11 N	163	22 E	2.45
MYS AL'SKIY	54	35 N	136	05 E	6.38
MYS ALEKSANDRA	54	17 N	139	47 E	7.3
MYS ALEKSANDRA	64	44 N	177	32 E	1.36
MYS ALEVINA	58	50 N	151	20 E	6.4
MYS AMAGO MEL'GOT	64	36 N	172	27 W	1.15
MYS AMAKHTONSKIY	59	31 N	149	13 E	6.11
MYS ANASTASII	46	01 N	142	11 E	7.51
MYS ANIVA	46	01 N	143	25 E	7.44
MYS ARA	60	01 N	165	12 E	2.20
MYS AREGICHINSKIY	60	30 N	155	27 E	5.30
MYS ARGALI	53	20 N	159	58 E	3.14
MYS ARKA	54	54 N	136	47 E	6.44
MYS ARTURA	43	04 N	131	55 E	9.53
MYS ASACHA	52	08 N	158	23 E	3.26
MYS AYYASH	52	20 N	143	12 E	7.17
MYS BABUSHKINA	59	02 N	154	06 E	6.2
MYS BARANOVA	49	21 N	142	04 E	8.20
MYS BASOVA	62	27 N	179	22 E	1.42
MYS BELKINA	45	49 N	137	41 E	9.11
MYS BELKINA	49	57 N	142	08 E	8.23
MYS BELLINSGAUZENA	49	30 N	144	15 E	7.26
MYS BELYY	55	06 N	137	09 E	6.43
MYS BENOCHI	46	07 N	142	13 E	7.51
MYS BERINGA	65	00 N	175	54 W	1.27
MYS BOL DUGANDZHA	54	38 N	136	50 E	6.41
MYS BOL'SHOY LARGANGDA	54	08 N	136	48 E	6.61
MYS BORISOVA	55	57 N	137	23 E	6.32
MYS BOZHEDOMOVA	60	18 N	161	53 E	5.17
MYS BRESKENS	45	26 N	147	56 E	4.49
MYS BRINERA	42	59 N	131	30 E	9.57
MYS BRINERA	44	20 N	135	50 E	9.17
MYS BRYUSA	42	53 N	131	28 E	9.57
MYS BUREVESTNIK	44	55 N	147	40 E	4.42
MYS BUTAKOVA	42	28 N	130	50 E	9.67
MYS BYCHIY	49	48 N	140	32 E	8.48
MYS CHAGDBAKH	52	59 N	141	08 E	7.5
MYS CHAPLINA	64	24 N	172	14 W	1.18
MYS CHAUNO	53	33 N	142	15 E	7.10
MYS CHAZHMA	55	03 N	161	54 E	3.6
MYS CHERNY	54	41 N	167	50 E	2.59
MYS CHIBUYNYY	50	46 N	156	12 E	4.4
MYS CHIRIKOVA	59	29 N	150	30 E	6.12
MYS CHUKOTSKIY	64	14 N	173	05 W	1.19
MYS DAL'NIY	43	18 N	134	47 E	9.25
MYS DAL'NIY	59	14 N	148	27 E	6.14
MYS DAL'NIY	60	26 N	161	54 E	5.19
MYS DATTA	49	18 N	140	26 E	8.49
MYS DELIL'-DE-LYA-KROYERA	50	48 N	143	41 E	7.23
MYS DERBESHOVA	50	41 N	156	11 E	4.5
MYS DEZHNEVA	66	05 N	169	38 W	1.2
MYS DOKUCHAYEVA	44	31 N	146	11 E	4.65
MYS DYUANKO	49	12 N	140	21 E	8.50
MYS DZHAORE	52	40 N	141	17 E	8.38
MYS ENGEL'MA	43	12 N	132	10 E	9.46
MYS ENGELYUKAK	64	35 N	172	31 W	1.15

MYS EYKAN	57	01 N	138	55 E	6.25
MYS FUNATOMARI	49	45 N	144	08 E	7.25
MYS FURUGEL'MA	50	31 N	142	03 E	8.25
MYS GADIKAN	59	24 N	145	19 E	6.19
MYS GAMOVA	42	33 N	131	14 E	9.61
MYS GAMOVA	42	34 N	131	13 E	9.41
MYS GAUROVITSA	53	55 N	138	21 E	6.65
MYS GAYKOVSKOGO	54	23 N	137	39 E	6.56
MYS GEKA	64	26 N	178	14 E	1.36
MYS GEMBACHEVA	42	50 N	132	34 E	9.38
MYS GEORGIYA	48	38 N	144	40 E	7.31
MYS GEREYA	59	24 N	145	41 E	6.19
MYS GINTERA	63	13 N	179	14 E	1.39
MYS GNEVNYY	44	27 N	146	52 E	4.44
MYS GOLDOBINA	43	05 N	131	53 E	9.53
MYS GOLENISHCHEVA	59	14 N	164	36 E	2.31
MYS GORKA	61	41 N	157	42 E	5.34
MYS GORYANSKIY	48	58 N	142	59 E	7.34
MYS GOVENA	59	48 N	166	05 E	2.13
MYS GROZNYY	44	32 N	136	11 E	9.17
MYS IL'PINSKIY	59	47 N	164	50 E	2.30
MYS IL'YA MUROMETS	45	30 N	148	54 E	4.41
MYS INGAKAN	54	05 N	137	28 E	6.64
MYS IRANKHI	64	47 N	172	45 W	1.17
MYS IVANOVA	50	20 N	140	32 E	8.46
MYS IZYL'MET'YEVA	48	55 N	141	58 E	8.17
MYS KAMATAN	58	18 N	158	44 E	5.15
MYS KAMBAL'NYY	51	06 N	156	42 E	5.3
MYS KAMCHATSKIY	56	00 N	163	03 E	2.46
MYS KAMENISTYY	54	50 N	162	10 E	3.7
MYS KAMKER	57	09 N	139	04 E	6.25
MYS KAMYATYAN	58	18 N	158	44 E	5.15
MYS KANGYNIN	65	54 N	178	53 W	1.30
MYS KASTRIKUM	46	14 N	150	35 E	4.33
MYS KEKURNYY	58	54 N	164	42 E	2.24
MYS KEKURNYY	59	24 N	145	52 E	6.18
MYS KEYTEVAN	59	32 N	154	36 E	5.28
MYS KHALEZOVA	53	10 N	141	50 E	8.40
MYS KHALYUSTKINA	65	16 N	172	11 W	1.8
MYS KHANYANGDA	57	51 N	140	30 E	6.23
MYS KHARBIZ	59	31 N	151	31 E	6.8
MYS KHARIUZOV	57	05 N	156	32 E	5.10
MYS KHAYRYUZOVA	57	05 N	156	32 E	5.10
MYS KHIVA	46	04 N	150	19 E	4.34
MYS KHODZHELAYKA	51	38 N	157	55 E	3.27
MYS KHODZHI	50	49 N	142	05 E	8.26
MYS KHOE	51	16 N	142	10 E	8.30
MYS KIMBERLEY	49	38 N	154	49 E	4.17
MYS KINKIL'SKIY	59	20 N	160	12 E	5.16
MYS KITOUSI	50	13 N	142	10 E	8.24
MYS KLIN	54	35 N	136	23 E	6.39
MYS KOKINA	50	11 N	155	48 E	4.10
MYS KOMANDOR	54	57 N	166	31 E	2.54
MYS KONERGINO	65	54 N	178	53 W	1.30
MYS KONSERVNYY	45	20 N	148	01 E	4.49
MYS KORABELNY	54	42 N	167	44 E	2.58
MYS KOZLOVA	54	29 N	161	43 E	3.8
MYS KOZYREVSKOGO	50	39 N	155	51 E	4.14
MYS KRASHENINNIKOVA	58	27 N	163	29 E	2.26
MYS KRASIYIOTES	44	09 N	145	47 E	4.65
MYS KRASNAYA SKALA	43	14 N	134	36 E	9.26
MYS KRASNYY	43	12 N	131	55 E	9.55
MYS KRASNYY PARTIZAN	48	59 N	140	23 E	8.50
MYS KRAYNIY	54	02 N	137	14 E	6.59
MYS KRAYNIY	62	26 N	164	33 E	5.26
MYS KRESHCHENYY OGNEM	60	33 N	168	42 E	2.7
MYS KRESTOVOZDVIZHENSKIY	47	58 N	139	32 E	9.3
MYS KRESTOVVY	51	49 N	158	06 E	3.27
MYS KRIGUYGUN	65	28 N	171	02 W	1.6
MYS KRIL'ON	45	53 N	142	05 E	7.51
MYS KRON'YE	53	28 N	159	57 E	3.13
MYS KRONOTSKIY	54	44 N	162	10 E	3.7
MYS KRUTOY	52	34 N	158	31 E	3.24
MYS KRUTOY	54	23 N	137	49 E	6.54
MYS KRYUGERA	56	01 N	162	05 E	3.4
MYS KURBATOVA	50	52 N	156	29 E	4.2
MYS KUSOVA	54	47 N	138	01 E	6.51
MYS KUVYLOKUOK	64	39 N	172	50 W	1.17
MYS KUZACHIN	51	43 N	158	00 E	3.27
MYS KUZINOTY	45	34 N	149	32 E	4.34
MYS KUZNETSOVA	46	03 N	141	56 E	8.2
MYS KYGYNIN	64	45 N	172	05 W	1.12
MYS LAMANON	48	47 N	141	51 E	8.17
MYS LAMSDORFA	54	03 N	138	40 E	6.66
MYS LAZAREVA	52	14 N	141	32 E	8.34
MYS LESOVSKOGO	64	20 N	173	33 W	1.23
MYS LEVASHOVA	50	30 N	156	10 E	4.4
MYS LEVASHOVA	52	48 N	156	10 E	5.7
MYS LEVENORNA	46	24 N	143	36 E	7.43
MYS LEVENSHTERNA	54	05 N	143	00 E	7.15
MYS LITKE	53	56 N	140	22 E	7.3
MYS LOPATINA	46	36 N	141	49 E	8.4
MYS LOPATKA	50	52 N	156	40 E	3.30
MYS LOVTSOVA	44	27 N	146	35 E	4.54
MYS LOVUSHEK	53	13 N	159	43 E	3.16
MYS LYSAYA GOLOVA	64	17 N	173	22 W	1.21
MYS LYUGREN	65	30 N	171	40 W	1.8
MYS MADZHALINDA	55	17 N	136	07 E	6.35
MYS MAL DUGANDZHA	54	41 N	136	39 E	6.39
MYS MAL'MINSKIY	56	42 N	138	22 E	6.28
MYS MANORSKIY	55	07 N	135	42 E	6.36
MYS MAPATSA	48	49 N	140	15 E	8.55
MYS MAREKAN	59	19 N	143	27 E	6.21
MYS MARII	54	19 N	142	16 E	7.12
MYS MATUGIN	61	41 N	160	15 E	5.39
MYS MAYACHNYA	49	18 N	140	26 E	8.51
MYS MAYACHNYY	45	23 N	137	09 E	9.12
MYS MAYACHNYY	52	53 N	158	42 E	3.19
MYS MEDVEZHONOK	50	26 N	155	43 E	4.14
MYS MERTENSA	64	32 N	172	25 W	1.10
MYS MINAMI NAYOSHI	46	26 N	141	51 E	8.4
MYS MONATI	54	42 N	166	40 E	2.53
MYS MOSOLOVA	45	06 N	136	46 E	9.14
MYS MUKHTELYA	54	18 N	138	43 E	6.63
MYS MUSIKAN	56	14 N	137	50 E	6.32
MYS MYSOVOY	44	16 N	146	18 E	4.57
MYS NACHIKINSKIY	57	57 N	162	42 E	2.41
MYS NADEZHDY	61	30 N	156	43 E	5.33
MYS NAKLONNYY	56	35 N	138	15 E	6.28
MYS NALYCHEVA	53	09 N	159	24 E	3.18
MYS NAVARIN	62	15 N	179	07 E	1.42
MYS NEEGCHAN	64	55 N	172	25 W	1.8
MYS NEPROPUSK	54	45 N	166	42 E	2.54
MYS NEPROYDENNYY	50	17 N	155	12 E	4.8
MYS NEVEL'SKOGO	51	57 N	141	26 E	8.33
MYS NIKTA	54	34 N	136	54 E	6.60
MYS NIZKIG	61	37 N	173	50 E	1.43
MYS NIZKIY	50	01 N	144	00 E	7.24
MYS NIZKIY	57	49 N	163	12 E	2.41
MYS NIZKIY	59	02 N	164	44 E	2.24
MYS NIZKIY	60	24 N	170	45 E	1.46
MYS NIZMENNYY	43	30 N	135	09 E	9.23
MYS NIZMENYY	49	11 N	142	04 E	8.20
MYS NOGDAN	58	41 N	141	41 E	6.23
MYS NOSOROG	55	10 N	135	51 E	6.35
MYS NOTTATEY	61	07 N	163	37 E	5.20
MYS NUNYAMO	65	36 N	170	40 W	1.4
MYS NURKI	56	44 N	138	33 E	6.27
MYS NYGCHIGEN	65	04 N	172	06 W	1.9
MYS NYGLIGAN	65	04 N	172	06 W	1.9
MYS OBRUCHEVA	42	49 N	133	33 E	9.32
MYS OBRYVISTYY	54	29 N	137	50 E	6.55
MYS OBRYVISTYY	62	19 N	163	21 E	5.25
MYS ODZHAN	57	29 N	139	47 E	6.24
MYS OLAROVSKOGO	42	52 N	133	55 E	9.28
MYS OLYUTORSKIY	59	55 N	170	21 E	1.46
MYS OMGON	58	01 N	157	41 E	5.14
MYS OPASNYY	52	41 N	158	36 E	3.22
MYS OPASNYY	61	47 N	158	31 E	5.34
MYS OPORNYY	50	44 N	156	09 E	4.6
MYS OREKHOVSKI	55	03 N	166	04 E	2.53
MYS ORIA	59	59 N	165	14 E	2.21
MYS OSSORSKAYA	59	13 N	163	16 E	2.35
MYS OSTROVNOY	42	48 N	133	43 E	9.30
MYS OSTROVNOY	60	42 N	155	54 E	5.32
MYS OSTROVSKOY	59	43 N	161	02 E	5.16
MYS OTLICHITEL'NYY	55	47 N	137	02 E	6.33
MYS OTVESNYY	52	37 N	158	33 E	3.23
MYS OZERNOY	57	43 N	163	19 E	2.41
MYS OZERNYY	50	36 N	156	10 E	4.6
MYS PAKKLAN	59	38 N	163	25 E	2.33
MYS PALATA	54	34 N	167	50 E	2.60
MYS PESCHANAYA KOSA	59	02 N	163	10 E	2.37
MYS PESCHANYY	48	27 N	140	11 E	9.2

MYS PESCHANYY	54	50 N	167	28 E	2.57
MYS PESCHANYY	60	08 N	166	11 E	2.14
MYS PIRAMIDNYY	52	23 N	158	35 E	3.25
MYS PIRATKOV	51	58 N	158	17 E	3.26
MYS POGOBI	52	13 N	141	39 E	8.36
MYS POKATYY	56	44 N	163	05 E	2.44
MYS POLEVOGO	49	46 N	142	10 E	8.22
MYS POPOVA	49	03 N	144	24 E	7.27
MYS POVOROTNYY	42	40 N	133	03 E	9.34
MYS POVOROTNYY	48	51 N	144	42 E	7.27
MYS POVOROTNYY	60	43 N	160	46 E	5.22
MYS POVOROTNYY	65	08 N	179	40 W	1.33
MYS PRASOLOVA	44	23 N	146	01 E	4.65
MYS PRAVYY VKHODNOI	64	22 N	172	36 W	1.19
MYS PRIGLUBYY	53	41 N	142	36 E	7.12
MYS PROMEZHUTOCHNYY	58	48 N	164	11 E	2.25
MYS PRONGE	52	52 N	141	15 E	8.39
MYS PRZHEVAL'SKOGO	45	06 N	147	30 E	4.45
MYS PUPYR'	62	03 N	163	12 E	5.25
MYS PUZINO	64	25 N	173	14 W	1.24
MYS PYATA	49	02 N	144	20 E	7.32
MYS RADUZHNYY	54	45 N	137	13 E	6.47
MYS RAZDEL'NYY	45	15 N	148	30 E	4.42
MYS RAZDELNY	66	10 N	178	52 W	1.32
MYS RAZMYTYY	45	50 N	150	02 E	4.34
MYS RECHNOY	43	18 N	131	50 E	9.55
MYS RIFOVYY	50	29 N	156	08 E	4.9
MYS RIFOVYY	61	45 N	159	29 E	5.35
MYS ROGACHEVA	44	11 N	146	03 E	4.59
MYS RZHAVYY	59	24 N	146	41 E	6.15
MYS SEDLOVIDNYY	43	05 N	132	18 E	9.44
MYS SEMENOVA	46	27 N	150	51 E	4.30
MYS SEMENOVA	58	59 N	163	41 E	2.27
MYS SENEKA	54	19 N	137	44 E	6.59
MYS SENYAVINA	47	21 N	142	56 E	7.40
MYS SERYY	60	09 N	169	55 E	2.4
MYS SEVERNYY	54	30 N	137	55 E	6.54
MYS SEVERNYY	55	12 N	137	40 E	6.49
MYS SEVEROVOSTOCHNY	55	18 N	166	17 E	2.49
MYS SEVERO-VOSTOCHNYY	55	02 N	138	15 E	6.50
MYS SEVERO-ZAPADNYY	55	11 N	137	33 E	6.47
MYS SEVERO-ZAPADNYY	55	17 N	165	44 E	2.50
MYS SEVERO-ZAPADNYY	57	56 N	162	34 E	2.40
MYS SEVORSI	45	19 N	148	45 E	4.42
MYS SHANTSA	45	23 N	137	09 E	9.12
MYS SHELIKHOVA	50	23 N	155	35 E	4.13
MYS SHESTAKOVA	59	14 N	148	55 E	6.10
MYS SHIL'KAN	59	22 N	145	47 E	6.18
MYS SHIPUNSKIY	53	06 N	160	02 E	3.15
MYS SHKOTA	43	41 N	135	18 E	9.21
MYS SHTERNBERGA	48	15 N	142	09 E	8.13
MYS SHTEYNA	53	09 N	160	04 E	3.15
MYS SIVOL'KUT	64	22 N	172	36 W	1.19
MYS SLEPIKOVSKOGO	47	18 N	141	57 E	8.10
MYS SOBORNYY	51	22 N	140	51 E	8.43
MYS SOLOV'YEVA	50	50 N	140	32 E	8.45
MYS SOSUNOVA	46	32 N	138	21 E	9.7
MYS SOYMONOVA	48	56 N	142	59 E	7.35
MYS SPIRIDONOVA	44	06 N	145	45 E	4.64
MYS SREDNIY	53	23 N	159	56 E	3.13
MYS SREDNIY	59	07 N	154	52 E	6.2
MYS SREDNIY	59	26 N	150	45 E	6.9
MYS SREDNIY	61	36 N	163	15 E	5.24
MYS STANYUKOVICHA	59	23 N	148	59 E	6.10
MYS STARITSKOGO	48	40 N	141	53 E	8.16
MYS STOLBGATYY	44	02 N	145	40 E	4.64
MYS STOLBOVOY	56	41 N	163	17 E	2.44
MYS STOLETIYA	64	19 N	173	39 W	1.26
MYS STOROZHEVOY	61	50 N	158	52 E	5.34
MYS SULKOVSKOGO	54	52 N	167	22 E	2.56
MYS SUSHCHEVA	51	41 N	141	07 E	8.32
MYS SUSLOVA	42	31 N	130	52 E	9.65
MYS SVOBODNYY	46	51 N	143	26 E	7.42
MYS SYSOYEVA	42	46 N	133	21 E	9.33
MYS SYSOYEVA	42	51 N	132	19 E	9.43
MYS SYURKUM	50	06 N	140	42 E	8.47
MYS TAMLEVO	53	22 N	141	46 E	7.9
MYS TARAN	59	07 N	151	06 E	6.7
MYS TAYGONOS	60	34 N	160	11 E	5.21
MYS TAYNOCHIN	61	49 N	159	23 E	5.34
MYS TELANSKIY	60	56 N	159	47 E	5.37
MYS TELYAKOVSKOGO	43	13 N	132	19 E	9.45
MYS TERPENIYA	48	38 N	144	45 E	7.28
MYS TIKHIY	43	15 N	131	58 E	9.55
MYS TKHADGOU	52	15 N	141	21 E	8.37
MYS TO	51	02 N	140	41 E	8.44
MYS TOKAREVSKOGO	43	05 N	131	51 E	9.54
MYS TOMARI ANIVA	46	36 N	142	46 E	7.46
MYS TRI SESTRY	51	07 N	157	03 E	3.30
MYS TRUZHENIK	48	59 N	140	22 E	8.52
MYS TUKURGU	54	00 N	138	35 E	6.66
MYS TUNAYCHA	46	52 N	143	09 E	7.41
MYS TUPOY	57	01 N	162	51 E	2.43
MYS TYK	51	45 N	141	41 E	8.36
MYS TYL'SKIY	54	40 N	135	38 E	6.37
MYS UARKE	52	31 N	141	13 E	8.37
MYS UGLEVOY	50	24 N	156	01 E	4.9
MYS UGOL'NYY	61	00 N	163	30 E	5.19
MYS UKOY	55	38 N	136	46 E	6.33
MYS UKURUNRU	53	58 N	137	51 E	6.65
MYS URUMPET	44	35 N	147	15 E	4.43
MYS USPENIYA	54	34 N	137	38 E	6.55
MYS UTKOLOKSKIY	57	54 N	157	04 E	5.12
MYS VARKHALAMSKIY	61	39 N	159	34 E	5.36
MYS VASIL'YEVA	50	00 N	155	23 E	4.11
MYS VESLOVSKIY	43	39 N	145	33 E	4.62
MYS VILIGINSKIY	61	13 N	156	40 E	5.33
MYS VINEIS	46	07 N	141	55 E	8.3
MYS VITGENSHTEYNA	60	51 N	172	04 E	1.46
MYS VKHODNOI RIF	55	11 N	165	58 E	2.52
MYS VKHODNOY	53	40 N	142	29 E	7.10
MYS VKHODNOY	54	53 N	136	44 E	6.43
MYS VKHODNOY	58	59 N	163	04 E	2.38
MYS VODOPADNYY	61	25 N	163	46 E	5.20
MYS VODOPADSKI	54	39 N	167	40 E	2.61
MYS VOSTOCHNYY	58	55 N	152	45 E	6.2
MYS VOYENNYKH TOPOGRAFOV	62	38 N	179	38 E	1.41
MYS VRANGELYA	54	17 N	138	40 E	6.62
MYS VYSOKIY	61	10 N	172	42 E	1.44
MYS YABLONOVYY	47	37 N	141	58 E	8.11
MYS YAPON	59	29 N	154	56 E	5.28
MYS YAUGICH	50	46 N	156	31 E	4.2
MYS YEGOROVA	44	47 N	136	27 E	9.16
MYS YELISTRATOVA	61	31 N	163	02 E	5.23
MYS YELIZAVETY	54	25 N	142	42 E	7.14
MYS YEVSTAFIYA	46	18 N	143	34 E	7.44
MYS YOMAN	48	46 N	144	42 E	7.28
MYS YUSHINA	55	22 N	165	57 E	2.49
MYS YUZHNO-KURIL'SKIY	44	01 N	145	53 E	4.59
MYS YUZHNYY	44	02 N	135	38 E	9.19
MYS YUZHNYY	57	44 N	156	47 E	5.11
MYS YUZHNYY	58	38 N	163	46 E	2.25
MYS ZABIYAKA	55	15 N	165	53 E	2.51
MYS ZHELTYY	51	33 N	157	46 E	3.27
MYS ZHONKIYER	50	53 N	142	06 E	8.27
MYS ZHUKOVSKOGO	49	26 N	142	06 E	8.20
MYS ZHUPANOVA	53	40 N	159	55 E	3.12
MYS ZOLOTOY	47	19 N	139	00 E	9.4

N

NAGA IWA	48	33 N	153	51 E	4.21
NAIBO WAN	44	43 N	147	08 E	4.44
NAKHODKA	42	49 N	132	54 E	9.35
NAYAKHANSKIY REYD	61	54 N	159	00 E	5.35
NAYOSHI BYOCHI	49	27 N	142	08 E	8.21
NAYOSHI SAKI	49	26 N	142	06 E	8.20
NEMO YAMA	49	34 N	154	49 E	4.17
NEVEL’SK	46	40 N	141	52 E	8.6
NIKOL'SKOYE	55	12 N	165	59 E	2.53
NIKOLAYEVSK-NA-AMURE	53	08 N	140	44 E	7.6
NOBORI YAMA	45	09 N	147	49 E	4.46
NODA HAKUCHI	47	26 N	141	59 E	8.10
NOTORO MISAKI	45	06 N	147	30 E	4.45
NYYVO RADIOBEACON	51	57 N	143	08 E	7.20

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O MISAKI	45	26 N	147	56 E	4.49
O SAKI	44	01 N	145	53 E	4.59
OCHIBU MISAKI	47	21 N	142	56 E	7.40
ODAMOE YAMA	45	02 N	147	55 E	4.42

OKAPPUNO MISAKI	44	16 N	146	18 E	4.57
OKHA	53	34 N	143	03 E	7.16
OKHOTSK	59	22 N	143	12 E	6.22
OKHOTSKIY REYD	59	22 N	143	12 E	6.22
OKINO SHIMA	50	09 N	155	34 E	4.11
OKTYABR'SKIY	52	40 N	156	15 E	5.6
OL'GA PORT	43	44 N	135	17 E	9.22
OLYUTORSKIY ZALIV	59	49 N	166	15 E	2.11
ONNEKOTAN TO	49	25 N	154	45 E	4.17
OSTROV ALYUMKA	64	41 N	177	37 E	1.35
OSTROV ANTSIFEROVA	50	12 N	154	59 E	4.12
OSTROV ASKOL'D	42	45 N	132	20 E	9.40
OSTROV ATLASOVA	50	52 N	155	33 E	4.7
OSTROV BAYDUKOV	53	18 N	141	29 E	7.4
OSTROV BERINGA	55	00 N	166	15 E	2.48
OSTROV BOL'SHOY PELIS,	42	39 N	131	28 E	9.48
OSTROV BOL'SHOY SHANTAR	55	00 N	137	46 E	6.46
OSTROV BROUTONA	46	43 N	150	45 E	4.31
OSTROV CHIRINKOTAN	48	59 N	153	29 E	4.21
OSTROV CHIRPOY	46	32 N	150	53 E	4.30
OSTROV DYM	50	09 N	155	34 E	4.11
OSTROV EKARMA	48	57 N	153	57 E	4.21
OSTROV FURUGEL'MA	42	28 N	130	55 E	9.66
OSTROV IONY	56	24 N	143	23 E	6.30
OSTROV KETOY	47	20 N	152	29 E	4.26
OSTROV KHARIMKOTAN	49	07 N	154	31 E	4.18
OSTROV KONUS	60	34 N	162	08 E	5.19
OSTROV KOSA MEECHKYN	65	28 N	178	00 W	1.28
OSTROV KRASHENINNIKOVA	53	13 N	159	33 E	3.17
OSTROV MAKANRUSHI	49	47 N	154	26 E	4.16
OSTROV MANDZHUR	57	50 N	162	27 E	2.40
OSTROV MATUA	48	05 N	153	12 E	4.23
OSTROV MEN'SHIKOVA	54	35 N	139	15 E	6.68
OSTROV MONERON	46	15 N	141	14 E	8.5
OSTROV NEDORAZUMENIYA	59	35 N	150	24 E	6.11
OSTROV NUNEANGAN	64	38 N	172	20 W	1.15
OSTROV ONEKOTAN	49	25 N	154	45 E	4.17
OSTROV OPASNYY	43	02 N	134	12 E	9.28
OSTROV PTICHIY	54	36 N	137	05 E	6.48
OSTROV RAIKOKE	48	18 N	153	15 E	4.23
OSTROV RASSHUA	47	46 N	153	01 E	4.24
OSTROV RATMANOVA	65	48 N	169	05 W	1.3
OSTROV SAKHARNAYA GOLOVA	54	58 N	136	30 E	6.42
OSTROV SHIASHKOTAN	48	51 N	154	10 E	4.19
OSTROV SHLEM	45	29 N	148	35 E	4.52
OSTROV SIBIRYAKOVA	42	48 N	131	26 E	9.59
OSTROV SPAFAR'YEVA	59	12 N	149	03 E	6.6
OSTROV STARICHKOV	52	47 N	158	37 E	3.22
OSTROV SUYATOY IONY	56	24 N	143	23 E	6.1
OSTROV TOPORKOV	52	55 N	158	47 E	3.18
OSTROV TRETIY	61	35 N	162	34 E	5.22
OSTROV VERKHOTUROVA	59	37 N	164	40 E	2.30
OSTROV ZAV'YALOVA	59	05 N	150	36 E	6.6
OSTROV ZHELTUKHINA	42	50 N	131	34 E	9.49
OSTROV ZUBCHATYY	60	48 N	162	45 E	5.19
OSTROVA KHAGEMIF	52	28 N	141	22 E	8.37
OSTROVA RIMSKOGO-KORSAKOVA	42	41 N	131	28 E	9.48
OSTROVA USHISHIR	47	32 N	152	49 E	4.25
OSTROVA VERKHOVSKOGO	42	43 N	131	49 E	9.50
OSTROVOK MORSKAYA MATUGA	61	23 N	159	55 E	5.38
OSTROVOK PTICHIY	58	52 N	164	30 E	2.25
OSTROVOK YUZHNYY	54	20 N	137	47 E	6.54
OZERO BUSSE	46	31 N	143	18 E	7.46

P

PERVYY KURIL'SKIY PROLIV	50	50 N	156	35 E	3.31
PETROPAVLOVSK-KAMCHATSKIY	53	01 N	158	39 E	3.21
PIL'TUN	52	51 N	143	18 E	7.17
POGRANICHNOYE	50	23 N	143	47 E	7.23
POLOUSTROV LONGDAR NEGOTNI	56	28 N	138	11 E	6.29
POLU. MURAV'YEV-AMURSKIY	43	10 N	132	00 E	9.42
POLUOSTROV ERDMANA	43	15 N	131	59 E	9.55
POLUOSTROV KAMENISTYY	59	16 N	146	20 E	6.16
POLUOSTROV KLERKA	42	46 N	131	22 E	9.60
POLUOSTROV PESCHANYY	43	10 N	131	47 E	9.56
POLUOSTROV SAPERNYY	43	03 N	131	54 E	9.53
POLUOSTROV YANKOVSKOGO	42	57 N	131	31 E	9.57
POLUSTROV LOMONOSOVA	43	00 N	131	35 E	9.57
PORONAYSK	49	13 N	143	08 E	7.33
PORT OF VOSTOCHNYY	42	44 N	133	03 E	7.37
PORTOVYY PUNKT KORF	60	24 N	166	02 E	2.17
POS'YET	42	39 N	130	48 E	9.65
PRIGORODNOYE	46	37 N	142	54 E	7.48
PROLIV BUSSOL'	46	40 N	151	51 E	4.29
PROLIV YEKATERINY	44	27 N	146	45 E	4.1
PROVIDENIYA	64	23 N	173	18 W	1.25

R

RAIKOKE JIMA	48	18 N	153	15 E	4.23
RAKKIBETSU MISAKI	45	30 N	148	54 E	4.41
RAKOVAYA MEL'	52	58 N	158	38 E	3.21
RASHOWA JIMA	47	46 N	153	01 E	4.24
RECHKA KIKHCHIK	53	28 N	156	01 E	5.7
REID OTKHPYTIY	45	52 N	149	46 E	4.36
REKA ANADYR'	64	45 N	177	32 E	1.38
REKA APUKA	60	27 N	169	35 E	2.5
REKA BOL'SHAYA VOROVSKAYA	54	13 N	155	50 E	5.7
REKA GOLYGINA	51	55 N	156	29 E	5.5
REKA ICHA	55	42 N	155	39 E	5.9
REKA IRET'	59	55 N	154	29 E	5.29
REKA KALAKHTYRKA	52	58 N	158	50 E	3.18
REKA KHALAKTYRKA	52	58 N	158	50 E	3.18
REKA KOLPAKOVA	54	40 N	155	40 E	5.8
REKA KRONOTSKAYA	54	31 N	160	45 E	3.11
REKA KRUTOGOROVAYA	55	02 N	155	36 E	5.8
REKA MUTNAYA	53	04 N	159	00 E	3.18
REKA OKHOTA	59	20 N	143	02 E	6.23
REKA OZERNAYA	51	30 N	156	30 E	5.4
REKA OZERNAYA	57	21 N	162	47 E	2.43
REKA SEMLYACHIK	54	06 N	159	55 E	3.12
REKA STOLBOVAYA	56	42 N	162	56 E	2.44
REKA TIGIL'	58	02 N	158	13 E	5.15
REKA UKA	57	50 N	162	08 E	2.39
REKA VOROVSKAYA	54	13 N	155	50 E	5.7
REKA VOYAMPOLKA	58	31 N	159	10 E	5.15
REKA VYVENKA	60	11 N	165	29 E	2.19
REYD AGNEVO	50	34 N	142	03 E	8.25
REYD CHEKHOV	47	26 N	141	59 E	8.10
REYD IL'INSKIY	47	59 N	142	12 E	8.12
REYD MAKAR'YEVSKIY	50	50 N	142	05 E	8.26
REYD OTKRYTYY	45	52 N	149	46 E	4.36
REYD PLOVER	64	22 N	173	21 W	1.24
REYD STARODUBSKOYE	47	25 N	142	50 E	7.39
REYD TOMARI	47	46 N	142	03 E	8.12
REYD TYATINSKIY	44	16 N	146	11 E	4.58
REYD VOSTOCHNYY	48	17 N	142	38 E	7.37
REYD VZMAR'YE	47	52 N	142	32 E	7.38
REYD ZHUKOVSKOGO	49	27 N	142	08 E	8.21
RUBETSU	45	06 N	147	42 E	4.46
RUBETSU WAN	45	06 N	147	40 E	4.46
RURUI MISAKI	44	31 N	146	11 E	4.65
RUYOBETSU MISAKI	44	11 N	146	03 E	4.59

S

SEA LION ROCK	54	50 N	167	22 E	2.61
SEOROSHI MISAKI	45	19 N	148	45 E	4.42
SEVERNAYA GAVAN	47	04 N	142	03 E	8.8
SEVERO-KURIL'SKIY	50	41 N	156	08 E	4.6
SHAKHTERSK	49	10 N	142	04 E	8.19
SHANA WAN	45	14 N	147	51 E	4.47
SHASUKOTAN TO	48	51 N	154	10 E	4.19
SHIBETORO DAKE	45	24 N	148	35 E	4.51
SHIMANOBORI YAMA	43	59 N	145	44 E	4.55
SHIMUSHIRU WAN	46	52 N	151	50 E	4.28
SHIRAURA	47	52 N	142	32 E	7.38
SHIRINKI TO	50	12 N	154	59 E	4.12
SHIRIYAJIRI DAKE	50	16 N	155	15 E	4.12
SHUSU SAN	45	13 N	148	15 E	4.51
SIVUCHIY KAMEN'	54	50 N	167	22 E	2.61
SKALA KAMEN' OPASNOSTI	45	48 N	142	14 E	7.52
SKALA RONKU	48	56 N	144	36 E	7.27
SLAVYANKA	42	52 N	131	23 E	9.58
SOI SHO	45	28 N	148	32 E	4.51
SOMNITELNAYA BANKA	59	22 N	164	40 E	2.30
SOPKA KAMBAL'NAYA	51	18 N	156	53 E	3.29
SOPKA KARYMSKAYA	54	03 N	159	28 E	3.9
SOPKA KHODUTKA	52	02 N	157	43 E	3.26
SOPKA KLYUCHEVSKAYA	56	04 N	160	38 E	3.2

SOPKA KOZELSKAYA	53	13 N	158	53 E	3.16
SOPKA SHIVELYUCH	56	40 N	161	30 E	2.46
SOPKA VILYUCHINSKAYA	52	42 N	158	17 E	3.22
SOPKA ZHELTOVSKAYA	51	34 N	157	19 E	3.28
SOPKA ZHUPANOVA	53	35 N	159	09 E	3.9
SOVETSKAYA GAVAN'	48	58 N	140	17 E	8.52
STANITSKOGO MEL'	52	53 N	158	39 E	3.21
STARAYA GAVAN'	55	12 N	166	14 E	2.55
STATEN MISAKI	46	06 N	150	05 E	4.37
SURIBACHI WAN	50	11 N	155	44 E	4.10

T

TATAR STRAIT	48	45 N	141	15 E	8.1
TATARSKIY STRAIT	48	45 N	141	15 E	8.1
TATSUKAMI SAKI	50	11 N	155	48 E	4.10
TENEDOS SHOAL	64	16 N	178	00 W	1.20
TISINE MISAKI	49	57 N	142	08 E	8.23
TOMARI SAKI	50	29 N	156	08 E	4.9
TOMARI YAMA	43	50 N	145	30 E	4.61
TOMARIORU HAKUCHI	47	46 N	142	03 E	8.12
TONNAI MISAKI	46	52 N	143	09 E	7.41
TORIGA SAKI	49	21 N	142	04 E	8.20
TORPEDO BOAT CANAL	43	03 N	131	51 E	9.51
TOSHIRURI MISAKI	45	15 N	148	30 E	4.42
TUIRTOF	65	42 N	171	04 W	1.5
TUMEN RIVER	42	18 N	130	41 E	9.67
TYRTOVA	65	42 N	171	04 W	1.5

U

UEMBETSU SAKI	44	55 N	147	40 E	4.42
UGLEGORSK TERMINAL	49	05 N	142	02 E	8.18
URUMOMBETSU SAKI	44	35 N	147	15 E	4.43
URUPPO FUJI	46	02 N	150	04 E	4.37
URYU	46	27 N	142	21 E	7.50
USHISHIRU SHIMA	47	32 N	152	49 E	4.25
UST-KAMCHATSK	56	13 N	162	29 E	3.3
USU MISAKI	47	37 N	141	58 E	8.11

V

VANINO	49	05 N	140	17 E	8.52
VAYAM-PALKA	58	31 N	159	10 E	5.15
VITYAZ MARINE TERMINAL	52	42 N	143	33 E	7.18
VLADIVOSTOK	43	07 N	131	54 E	9.53
VULCAN VILYUCHIK	52	42 N	158	17 E	3.22
VULKAN BERUTARUBE	44	28 N	146	56 E	4.43
VULKAN CHIKURACHKI	50	20 N	155	27 E	4.12
VULKAN FUSSA	50	16 N	155	15 E	4.12
VULKAN GOLOVNINA	43	50 N	145	30 E	4.61
VULKAN MENDELEYEVA	43	59 N	145	44 E	4.55
VULKAN MIL'NA	46	49 N	151	47 E	4.27
VULKAN NEMO	49	34 N	154	49 E	4.17
VULKAN TEBEN'KOVA	45	02 N	147	55 E	4.42
VULKAN TRI SESTRY	45	56 N	149	55 E	4.37

Y

YABLOKOBYTS	47	37 N	141	58 E	8.11
YAOKURI SAKI	50	11 N	155	39 E	4.10
YEKARUMA TO	48	57 N	153	57 E	4.21
YENCHO ZAN	49	29 N	154	44 E	4.17
YUZHNO-KURIL'SKIY	44	01 N	145	51 E	4.60

Z

ZALIV ALEKSANDRY	54	10 N	139	10 E	6.69
ZALIV ARTYUSHIMA	50	44 N	156	09 E	4.6
ZALIV AYAN	56	27 N	138	09 E	6.31
ZALIV CHAYVO	52	23 N	143	10 E	7.19
ZALIV CHIKHACHEVA	51	28 N	140	47 E	8.42
ZALIV DOBROYE NACHALO	44	43 N	147	08 E	4.44
ZALIV KOZYREVSKOGO	50	43 N	156	11 E	4.5
ZALIV KUYBYSHEVSKIY	45	06 N	147	40 E	4.46
ZALIV L'VINAYA PAST'	44	37 N	147	00 E	4.44
ZALIV MIL'NA	46	52 N	151	50 E	4.28
ZALIV NABIL'SKIY	51	44 N	143	19 E	7.21
ZALIV NYYSKIY	51	58 N	143	11 E	7.20
ZALIV OL'GI	43	43 N	135	15 E	9.22
ZALIV OL’GI	43	43 N	135	15 E	9.22
ZALIV SEVERO-KURIL'SKIY	50	41 N	156	08 E	4.6
ZALIV SHCHUKINA	45	38 N	149	27 E	4.35
ZALIV VLADIMIRA	43	54 N	135	31 E	9.20
ZARUBINO	42	38 N	131	05 E	9.63