



No. 18

30 APRIL 2016



UNITED STATES OF AMERICA

NOTICE TO MARINERS



Published Weekly by the
National Geospatial-Intelligence Agency

Prepared Jointly with the
National Ocean Service and U.S. Coast Guard

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Visit the Maritime Safety Web site at <http://msi.nga.mil/NGAPortal/MSI.portal>

IMPORTANT INFORMATION

The Notice to Mariners is published by the National Geospatial-Intelligence Agency (NGA), under the authority of Department of Defense Directive 5105.60, to advise mariners of important matters affecting navigational safety, including new hydrographic discoveries, changes in channels and navigational aids, etc. (U.S. Code Title 10, Sec. 442 and Title 44, Sec. 1336 refer). Nothing in the arrangement of information implies endorsement or acceptance by NGA in matters affecting the status and boundaries of States and territories. The Notice to Mariners presents corrective information affecting charts, NGA/DLIS Catalog of Maps Charts and Related Products, Coast Pilots, USCG Light Lists, NGA List of Lights and other products produced by the National Geospatial-Intelligence Agency, National Ocean Service and U.S. Coast Guard.

Information for the Notice to Mariners is contributed by the following Agencies: National Geospatial-Intelligence Agency (NGA) (Department of Defense) for waters outside the territorial limits of the United States; National Ocean Service (NOS) (Department of Commerce), which is charged with the surveys and charting of the coasts and harbors of the United States and its territories; the U.S. Coast Guard (USCG) (Department of Homeland Security), which is responsible for the safety of life at sea and the establishment and operation of aids to navigation; and the U.S. Army Corps of Engineers (Department of Defense), which is charged with the improvement of rivers and harbors of the United States. In addition, important contributions are made by foreign hydrographic offices and cooperating observers of all nationalities.

For further information concerning NGA hydrographic products and services, including the Maritime Safety Web site, users may contact:

<u>Name</u>	<u>Telephone</u>	<u>DSN</u>	<u>FAX</u>
Maritime Safety Office	571-557-8384	N/A	571-558-3213
World Wide Navigational Warning Service	571-557-5455	547-5455	571-558-3426
Maritime Safety Web site	571-557-7103	547-7103	N/A
Notice to Mariners: Regions 1 and 2	571-557-8282	547-8282	571-558-3213
Notice to Mariners: Regions 3 thru 9	571-557-8383	547-8383	571-558-3213
Sailing Directions, Fleet Guides	571-557-5831	547-5831	571-558-3213
Navigation Publications	571-557-8080	547-8080	571-558-3213
NGA/DLIS Catalog of Maps Charts and Related Products	269-961-7766	661-7766	269-961-7791

The Maritime Safety Web site can be accessed directly at <http://msi.nga.mil/NGAPortal/MSI.portal>. For your convenience, NGA provides the following e-mail addresses: For information affecting Notice to Mariners, use MCDNtM@nga.mil; for information affecting Sailing Directions and all other navigational publications, use MCDPubs@nga.mil; for information concerning the Maritime Safety Web site, use webmaster_nss@nga.mil; and for information concerning the World Wide Navigational Warning Service, use NavSafety@nga.mil.

Mariners are requested to notify NGA of discrepancies in charts and publications, using the Marine Information Report and Suggestion Sheet at the back of this Notice to Mariners. This form should also be used to report permanent changes, additions, or deletions from charted or published information. Reports which constitute an immediate hazard to navigation should be sent to the nearest NAVAREA Coordinator via coast radio stations. All reports are greatly appreciated. Marine Information Report and Suggestion forms received during the past week were submitted by the following observers:

Observer	Ship/Organization
2/o Brian Roney	USNS MATTHEW PERRY
QM2 Dejuan Burns	USS SHILOH

Cover Photo: The **United States Training Ship GOLDEN BEAR** is the training vessel for California State University Maritime Academy (Cal Maritime) in Vallejo, California. Each summer, cadets, faculty and staff from Cal Maritime board the ship for a pair of two-month training cruises. During the academic year, first-year cadets live aboard the ship at Cal Maritime's campus on the Carquinez Strait near San Francisco. The **TS GOLDEN BEAR** was built in 1989 as the USNS Maury for the U.S. Navy. She was originally designed to conduct deep-sea hyper-accurate bathymetric survey operations. The ship was operated by the U.S. Navy's Military Sealift Command before being transferred to the Maritime Administration and then Cal Maritime in 1995. She is 500 feet in length, has a beam of 72 feet, a draft of 30 feet 6 inches, and displaces 16,000 tons fully loaded. She is propelled by twin diesel engines, has a top speed of 20 knots, and a range of over 17,000 miles.

INFORMATION
OF
SPECIAL INTEREST
OR
IMPORTANCE
TO
MARINERS

NM 18/16

HYDROGRAM

**National Geospatial-Intelligence Agency
Springfield, VA 22150-7500**

SPECIAL
ANNOUNCEMENTS

NEW PRODUCTS
OR SERVICES

IMPORTANT
CHANGES

30 April 2016

TERMINATION OF PDU PATCH FILES IN THE .RTP FILE FORMAT

EFFECTIVE 12 MARCH 2016 THE NGA MARITIME SAFETY OFFICE WILL NO LONGER PROVIDE PUBLICATION DATA UPDATES (PDU) PATCH FILES IN THE “.RTP” FILE FORMAT. SEE SECTION III FOR DETAILS.

NOAA CHART NEW EDITIONS AND THEIR AVAILABILITY

NOAA RECOGNIZES TWO PAPER NAUTICAL CHART PRODUCTS: CHARTS-ON-DEMAND AND TRADITIONAL NOAA/NOS PAPER CHARTS. FOR ADDITIONAL INFORMATION, SEE SECTIONS II AND III.

NGA CHART NEW EDITIONS AND THEIR AVAILABILITY

NGA RECOGNIZES TWO PAPER NAUTICAL CHART PRODUCTS: ENTERPRISE PRODUCT ON DEMAND-MARITIME (EPOD-M) CHARTS AND TRADITIONAL NGA PAPER CHARTS. FOR ADDITIONAL INFORMATION, SEE SECTIONS II AND III.

NGA DIGITAL NAUTICAL PUBLICATIONS-QUARTERLY UPDATE

THE DIGITAL NAUTICAL PUBLICATIONS-QUARTERLY UPDATE, FIRST QUARTER 2016, IS READY FOR ISSUE. THE DIGITAL NAUTICAL PUBLICATIONS-QUARTERLY UPDATE IS A LIMITED DISTRIBUTION PRODUCT AND IS PRODUCED BY NGA IN DIGITAL FORMAT ONLY. SEE SECTIONS II AND III.

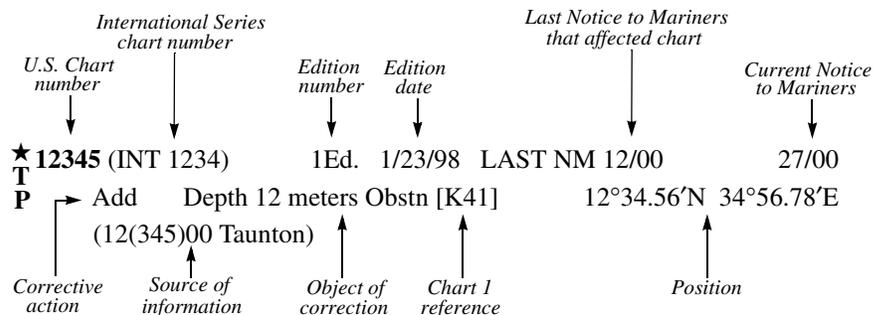
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY’S IMPLEMENTATION OF A HARDCOPY TO DIGITAL TRANSITION STRATEGY

THIS NOTICE IS A REMINDER OF THE NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY (NGA) HARDCOPY TO DIGITAL TRANSITION PROGRAM. SEE SECTION III FOR DETAILS.

EXPLANATION OF CONTENTS

The Notice to Mariners contains corrective information affecting nautical charts, the NGA/DLIS Catalog of Maps Charts and Related Products, Coast Pilots, USCG Light Lists, NGA List of Lights and other related nautical publications. The information contained in these corrections is important to safe navigation. It is the user's responsibility to decide which of their charts and publications require correction. Consult the U.S. Coast Guard Local Notice to Mariners for information pertaining to waterways within the United States that are not normally used by oceangoing vessels. Because of the sometimes transitory nature of aids to navigation, depths and port information, local area sources should be consulted whenever possible. This publication is not required to be maintained intact. Portions may be separated for correction or attachment to an affected product. The Notice to Mariners is divided into the following sections:

Section I-1 contains corrections to nautical charts listed in numeric order by chart number. Each chart correction listed applies only to that particular chart. Related charts, if any, will have their own specific correction listed separately. Users should also refer to U.S. Chart 1 Nautical Chart Symbols, Abbreviations and Terms for additional information pertaining to the correcting of charts. The illustration below describes the elements that comprise a typical chart correction:



A chart correction preceded by:

★ indicates that it is based upon original U.S. source information.

T indicates that it is temporary in nature.

P indicates that it is preliminary, and that permanent corrective action will appear in a future Notice to Mariners.

The letter M immediately following the chart number indicates that the correction should be applied to the metric side of the chart only. The letter N is not a part of the chart number.

The letter N preceding the current Notice to Mariners number indicates that the affected chart is on Limited Distribution and is normally only for use by U.S. Navy, government-owned or -chartered vessels.

Position coordinates are referred to the horizontal datum of the affected chart.

Courses and bearings are given in degrees true.

Light sectors are expressed in degrees true from the vessel TOWARD the light.

The visible range(s) listed for lights is normally the nominal range (the distance at which it can be seen in clear weather), expressed in nautical miles, except in the Great Lakes where it is expressed in statute miles.

The colors of structures and lights of navigational aids are abbreviated in accordance with Chart 1.

Section I-2* contains all chartlets, depth tabulations and notes associated with the chart corrections in Section I-1. Chartlets and depth tabulations supersede all previous information portrayed.

Section I-3 lists all NGA and NOS charts which have been affected by Notice to Mariners and the notice numbers which have affected them since the date of the oldest Summary of Corrections or the chart's announcement, whichever is later.

Section II-1 is a weekly listing of corrections to the NGA/DLIS Catalog of Maps Charts and Related Products, including new charts and publications. It also contains the latest price category information.

Section II-2* contains corrections to navigation publications, including Coast Pilots, *The American Practical Navigator*, and other related nautical publications.

Section II-3* lists weekly updates to the USCG Light Lists.

Section II-4* lists weekly updates to the NGA List of Lights.

Section II-5 lists all NGA, NOS and USCG navigation publications which have been affected by Notice to Mariners and the notice numbers which have affected them since the date of the publication's announcement.

Section III-1 lists the message number of all in-force Navigational Warnings, and the text of those warnings promulgated during the previous week. Notice to Mariners Nos. 13, 26 and 39 list a summary of all in-force Navigational Warnings for the preceding quarter. Notice to Mariners No. 52 lists a complete summary of all in-force Navigational Warnings.

Section III-2 contains miscellaneous information of particular interest to the maritime community.

*The left-hand pages of these sections are intentionally blank.

SECTION I
CHART CORRECTIONS

NM 18/16

12221	82Ed. 2/14	LAST NM 17/16	18/16	
Delete	Light "2"		37°20'16"N 76°15'33"W	
	Light "8"		37°20'54"N 76°16'00"W	
	(44/15 CG5)			
★12233	38Ed. 1/14	LAST NM 29/15	18/16	
Delete	Depth 14 feet		38°09'19"N 76°19'12"W	
Add	Depth 10 feet		38°09'19"N 76°19'14"W	
	Depth 7 feet		38°09'09"N 76°19'09"W	
	(NOS)			
★12238	41Ed. 7/14	LAST NM 10/16	18/16	
Delete	Light "2"		37°20'16"N 76°15'33"W	
	Light "8"		37°20'54"N 76°16'00"W	
	(44/15 CG5)			
12280	11Ed. 2/14	LAST NM 17/16	18/16	
	(Right Panel)			
Delete	Light "2"		37°20.2'N 76°15.6'W	
	(44/15 CG5)			
★12318	45Ed. 4/10	LAST NM 8/16	18/16	
Add	Buoy Y, Fl Y (Priv)		39°28'47"N 74°12'47"W	
	(41/15 CG5)			
12323	26Ed. 12/12	LAST NM 12/16	18/16	
Add	Buoy Y, Fl Y (Priv)		39°28'47"N 74°12'47"W	
	(41/15 CG5)			
★12334	72Ed. 11/13	LAST NM 13/16	18/16	
Delete	Light		40°41'08.8"N 74°01'35.3"W	
	(38/15 CG1)			
12335	45Ed. 3/12	LAST NM 36/14	18/16	
Delete	Light		40°41'08.4"N 74°01'35.4"W	
	(38/15 CG1)			
12372	36Ed. 8/13	LAST NM 13/16	18/16	
	(Page C)			
Add	Chartlet, depicting changes in hydrography, from Subsection I-2 (See 45/13, 20/15-12372)		41°14'55.0"N 72°27'13.0"W	
	(Page D, Inset 4)			
Add	Depth 14 feet		41°15'31.8"N 72°27'58.9"W	
	Depth 16 feet		41°15'40.3"N 72°28'10.8"W	
	(NOS)			
★12374	15Ed. 12/14	LAST NM 7/15	18/16	
Delete	Depth 44 feet		41°14'54.2"N 72°27'13.0"W	
	Depth 60 feet		41°13'24.9"N 72°28'40.0"W	
Substitute	Depth 26 feet for 30 feet		41°14'46.3"N 72°28'26.5"W	
	Depth 38 feet for 67 feet		41°14'40.9"N 72°27'25.0"W	
	Depth 46 feet for 55 feet		41°13'46.8"N 72°27'26.4"W	
Add	Depth 14 feet		41°15'31.8"N 72°27'58.9"W	
	Depth 16 feet		41°15'40.3"N 72°28'10.8"W	
	Depth 32 feet		41°14'20.7"N 72°27'04.0"W	
	Depth 34 feet		41°14'53.4"N 72°27'14.1"W	
	Depth 34 feet		41°14'55.5"N 72°27'40.6"W	
	Depth 35 feet		41°14'44.0"N 72°28'14.2"W	
	Depth 45 feet		41°13'25.6"N 72°28'38.0"W	
	(NOS)			
★12375	22Ed. 10/10	LAST NM 27/15	18/16	
Delete	Depth 55 feet		41°14'17.8"N 72°26'40.2"W	
Add	Depth 32 feet		41°14'20.7"N 72°27'04.0"W	
	Depth 45 feet		41°14'42.1"N 72°25'58.6"W	
	Depth 47 feet		41°14'19.0"N 72°26'38.9"W	
	Depth 48 feet		41°14'42.3"N 72°26'30.6"W	
	(NOS)			
13229	32Ed. 6/13	LAST NM 51/15	18/16	
	(Page G)			
Delete	Buoy "25"		41°43'57"N 70°37'55"W	
	Buoy "A"		41°40'38"N 70°43'41"W	
	(Page H)			
Delete	Buoy "25"		41°43'56"N 70°37'55"W	
	(38/15, 14/16 CG1)			
13230	51Ed. 4/14	LAST NM 25/15	18/16	
Delete	Buoy "25"		41°43'57"N 70°37'55"W	
	Buoy "A"		41°40'38"N 70°43'40"W	
	(38/15, 14/16 CG1)			
★13236	31Ed. 4/12	LAST NM 28/15	18/16	
Delete	Buoy "25"		41°43'56.5"N 70°37'54.8"W	
	Buoy "A"		41°40'37.7"N 70°43'40.5"W	
	(38/15, 14/16 CG1)			
★13267	36Ed. 9/13	LAST NM 9/16	18/16	
Delete	Buoy "NI"		42°10'18"N 70°42'06"W	
Add	Buoy "1" G, Fl G 2.5s BELL		42°10'13"N 70°42'02"W	
	(Inset)			
Delete	Buoy "NI"		42°10'19.3"N 70°42'06.8"W	
Add	Buoy "1" G, Fl G 2.5s BELL		42°10'12.6"N 70°42'01.8"W	
	(38/15 CG1)			
★13292	41Ed. 8/14	LAST NM 1/16	18/16	
Delete	Buoy		43°39'06"N 70°13'46"W	
	Buoy		43°39'08"N 70°14'33"W	
	Buoy		43°39'09"N 70°13'41"W	
	Buoy		43°39'09"N 70°14'34"W	
	Buoy		43°39'09"N 70°14'35"W	
	Buoy		43°39'13"N 70°13'32"W	
	Buoy		43°39'14"N 70°13'56"W	
	Buoy		43°39'18"N 70°13'52"W	
	(38/15 CG1)			
★14862	28Ed. 4/13/02	LAST NM 13/16	18/16	
Add	Legend "(MRASS)" at light "2"		43°50'45"N 82°37'51"W	
	Note			
	"MARINER ACTIVATED SOUND SIGNAL (MRASS)"			
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."		43°50'27"N 82°46'34"W	
	(Inset Harbor Beach)			
Add	Legend "(MRASS)" at light "2"		43°50'44.2"N 82°37'52.1"W	
	(38/15 CG9)			
★14863	32Ed. 3/14	LAST NM 47/15	18/16	
Add	Legend "(MRASS)" at light (Fl R)		44°24'24"N 83°18'59"W	
	HORN (MRASS) to light		44°15'13"N 83°26'59"W	
	Note			
	"MARINER ACTIVATED SOUND SIGNAL (MRASS)"			
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."		44°22'25"N 83°25'20"W	
	(Inset Entrance to Au Sable River)			
Add	Legend "(MRASS)" at light		44°24'23.8"N 83°18'59.2"W	
	(Inset Tawas Harbor)			
Add	HORN (MRASS) to light		44°15'13.5"N 83°26'58.4"W	
	(38/15 CG9)			
★14864	28Ed. 11/13	LAST NM 47/15	18/16	
Add	Legend "(MRASS)" at light		45°03'37"N 83°25'24"W	
	Note			
	"MARINER ACTIVATED SOUND SIGNAL (MRASS)"			
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."		45°09'15"N 83°32'00"W	
	(Inset Alpena Harbor)			
Add	Legend "(MRASS)" at light		45°03'37.3"N 83°25'23.1"W	
	(38/15 CG9)			

14880 33Ed. 6/14 LAST NM 13/16 18/16
 Add Legend "(MRASS)" at light 45°56'57"N 83°54'12"W
 Legend "(MRASS)" at light 45°50'35"N 84°36'56"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 45°22'16"N 84°05'05"W
 (38/15 CG9)

★**14881** 34Ed. 6/14 LAST NM 13/16 18/16
 Add Legend "(MRASS)" at light 45°56'57"N 83°54'12"W
 Legend "(MRASS)" at light 45°50'35"N 84°36'56"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 46°03'16"N 84°17'19"W

(Inset)
 Add Legend "(MRASS)" at light 45°50'34.9"N 84°36'55.8"W
 (38/15 CG9)

★**14882** 36Ed. 1/14 LAST NM 6/15 18/16
 Add Legend "(MRASS)" at light 45°56'56.9"N 83°54'11.2"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 45°58'08.5"N 84°01'57.0"W
 (38/15 CG9)

14902 29Ed. 1/05 LAST NM 13/16 18/16
 Add Legend "(MRASS)" at light (Fl R 5s) 45°50.6'N 84°36.9'W
 Legend "(MRASS)" at light 45°19.2'N 85°15.9'W
 Legend "(MRASS)" at light 45°56.7'N 86°14.9'W
 Legend "(MRASS)" at light 44°36.4'N 87°25.8'W
 Legend "(MRASS)" at light (F) 44°27.4'N 87°29.6'W
 Legend "(MRASS)" at light (F) 44°37.8'N 86°15.0'W
 Legend "(MRASS)" at light 45°34.9'N 86°59.9'W
 Legend "(MRASS)" at light 45°20.0'N 86°56.3'W
 Legend "(MRASS)" at light (Iso) 45°44.8'N 87°02.2'W
 Legend "(MRASS)" at light (Fl R 2.5s) 44°47.5'N 87°18.6'W
 Legend "(MRASS)" at light 44°39.2'N 87°54.1'W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 45°12.9'N 87°52.7'W
 (38/15 CG9)

★**14903** 24Ed. 9/08 LAST NM 25/14 18/16
 Add Legend "(MRASS)" at light (Iso R) 44°36'25"N 87°25'46"W
 Legend "(MRASS)" at light (F) 44°27'26"N 87°29'35"W
 Legend "(MRASS)" at light 44°08'34"N 87°33'39"W
 Legend "(MRASS)" at light (Iso) 44°05'33"N 87°38'35"W
 Legend "(MRASS)" at light (Fl R) 43°44'58"N 87°41'34"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 43°49'06"N 87°55'00"W

(Inset Two Rivers)
 Add Legend "(MRASS)" at light 44°08'33.6"N 87°33'38.5"W

(Inset Kewaunee)
 Add Legend "(MRASS)" at light 44°27'26.2"N 87°29'35.1"W
 (38/15 CG9)

★**14904** 27Ed. 12/12 LAST NM 12/16 18/16
 Add Legend "(MRASS)" at light (Fl R) 43°23'07"N 87°51'35"W
 Legend "(MRASS)" at light (Iso R) 42°35'20"N 87°48'31"W
 Legend "(MRASS)" at light (Oc G) 42°21'39"N 87°48'49"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 42°56'10"N 87°58'02"W

(Inset Kenosha Harbor)
 Add Legend "(MRASS)" at light 42°35'19.7"N 87°48'30.9"W

(Inset Port Washington)
 Add Legend "(MRASS)" at light 43°23'07.1"N 87°51'34.9"W

(Inset Waukegan)
 Add Legend "(MRASS)" at light 42°21'38.3"N 87°48'48.3"W
 (38/15 CG9)

★**14905** 31Ed. 1/07 LAST NM 24/15 18/16
 Add Legend "(MRASS)" at light (Oc G) 42°21'39"N 87°48'48"W
 Legend "(MRASS)" at light 41°40'52"N 87°26'28"W
 Legend "(MRASS)" at light 41°43'45"N 86°54'42"W
 Legend "(MRASS)" at light (FR) 42°24'00"N 86°17'19"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 41°33'24"N 87°07'30"W

(Inset Michigan City)
 Add Legend "(MRASS)" at light 41°43'44.4"N 86°54'41.8"W
 (38/15 CG9)

★**14906** 25Ed. 9/13 LAST NM 1/14 18/16
 Add Legend "(MRASS)" at light (FR) 42°23'57"N 86°17'17"W
 Legend "(MRASS)" at light (Fl R) 42°40'34"N 86°13'02"W
 Legend "(MRASS)" at light (Fl R) 42°46'20"N 86°13'00"W
 Legend "(MRASS)" at light (Fl R) 43°03'28"N 86°15'23"W
 Legend "(MRASS)" at light (Iso R) 43°13'30"N 86°20'50"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 43°03'30"N 86°04'06"W

(Inset Saugatuck Harbor)
 Add Legend "(MRASS)" at light 42°40'36.7"N 86°12'58.4"W

(Inset South Haven)
 Add Legend "(MRASS)" at light 42°24'04.8"N 86°17'16.7"W
 (38/15 CG9)

★**14908** 19Ed. 1/16 LAST NM 14/16 18/16
 Add Legend "(MRASS)" at light (Iso R) 45°56'42"N 86°14'52"W
 Legend "(MRASS)" at light 45°34'53"N 86°59'55"W
 Legend "(MRASS)" at light (Iso) 45°44'48"N 87°02'14"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 45°56'00"N 86°42'15"W

(Inset)
 Add Legend "(MRASS)" at light 45°56'41.6"N 86°14'51.6"W
 (38/15 CG9)

★**14909** 21Ed. 2/16 LAST NM 17/16 18/16
 Add Legend "(MRASS)" at light 45°34'54"N 86°59'56"W
 Legend "(MRASS)" at light 45°19'56"N 86°56'13"W

Note
 "MARINER ACTIVATED SOUND SIGNAL
 (MRASS)
 Horn is activated by keying the microphone 5
 times on VHF-FM Ch 83A." 45°32'54"N 87°19'00"W

(Inset Detroit Harbor)
 Add Legend "(MRASS)" at light 45°19'55.6"N 86°56'12.9"W
 (38/15 CG9)

★14910	23Ed. 2/03	LAST NM 11/16	18/16		
Add	Legend "(MRASS)" at light (Fl R 2.5s)	44°47'31"N 87°18'35"W		Add	Legend "(MRASS)" at light 41°43'44.2"N 86°54'41.9"W
	Legend "(MRASS)" at light (Iso R)	44°36'25"N 87°25'46"W		Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)
	Legend "(MRASS)" at light (F)	44°27'27"N 87°29'35"W			Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A." 41°43'45.0"N 86°53'50.5"W
	Legend "(MRASS)" at light	44°39'11"N 87°54'05"W			
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)			
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	44°50'42"N 88°02'25"W		Add	Legend "(MRASS)" at light 41°40'51"N 87°26'27"W
	(Inset Algoma)			Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)
Add	Legend "(MRASS)" at light	44°36'25.2"N 87°25'46.0"W			Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A." 41°40'45"N 87°31'40"W
	(38/15 CG9)				
14913	20Ed. 1/16	LAST NM 13/16	18/16		
Add	Legend "(MRASS)" at light (Fl R)	45°19'13"N 85°15'54"W		Add	Legend "(MRASS)" at light 41°40'51"N 87°26'28"W
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)			Legend "(MRASS)" at light 41°43'45"N 86°54'42"W
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	45°14'24"N 84°57'26"W		Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)
	(38/15 CG9)				Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A." 41°35'47"N 87°27'01"W
				(38/15 CG9)	
★14915	26Ed. 3/14	LAST NM 7/15	18/16		
Add	Legend "(MRASS)" at light	45°44'47.5"N 87°02'14.0"W		14927	25Ed. 8/06
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)		Add	Legend "(MRASS)" at light 41°40'51"N 87°26'28"W
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	45°48'30.0"N 87°07'00.0"W		Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)
	(38/15 CG9)				Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A." 41°59'30"N 87°21'45"W
				(38/15 CG9)	
★14918	27Ed. 3/1/04	LAST NM 11/16	18/16		
Add	Legend "(MRASS)" at light	44°39'11.2"N 87°54'04.6"W		★14929	25Ed. 12/10
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)		Add	Legend "(MRASS)" at light 41°40'51.0"N 87°26'28.0"W
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	44°31'10.0"N 87°57'00.0"W		Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)
	(38/15 CG9)				Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A." 41°42'07.0"N 87°34'31.0"W
				(38/15 CG9)	(See 46/13-14929)
★14919	28Ed. 10/04	LAST NM 13/16	18/16		
Add	Legend "(MRASS)" at light	44°47'31.3"N 87°18'34.4"W		★14933	25Ed. 9/13
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)		Add	Legend "(MRASS)" at light 43°03'25.1"N 86°15'21.8"W
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	44°53'40.0"N 87°21'00.0"W		Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)
	(38/15 CG9)				Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A." 43°05'24.0"N 86°14'30.0"W
				(38/15 CG9)	
★14922	20Ed. 11/08	LAST NM 5/16	18/16		
	(Inset Manitowoc)			★14968	29Ed. 2/16
Add	Legend "(MRASS)" at light	44°05'33.7"N 87°38'37.8"W		(NOS)	NEW EDITION
	(Inset Sheboygan)				18/16
Add	Legend "(MRASS)" at light	43°44'58.2"N 87°41'33.6"W		★14976	19Ed. 2/16
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)		(NOS)	NEW EDITION
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	43°45'26.5"N 87°43'35.0"W			18/16
	(38/15 CG9)			★16707	14Ed. 4/15
				Change	LAST NM 10/16
					(Valdez and Valdez Marine Terminal)
					Period of buoy (mooring) to 4s
				(NOS)	61°05'18.2"N 146°23'29.8"W
14926	12Ed. 10/10	LAST NM 29/15	18/16		
	(Page 13)			17320	19Ed. 11/13
Add	Legend "(MRASS)" at light	41°40'51.2"N 87°26'27.8"W		Substitute	Dangerous submerged rock [K13] for depth 5 fathoms 3 feet
	Note	"MARINER ACTIVATED SOUND SIGNAL (MRASS)			56°53.3'N 134°21.8'W
	Horn is activated by keying the microphone 5 times on VHF-FM Ch 83A."	41°40'56.0"N 87°25'50.0"W		Add	Dangerous submerged rock [K13]
					56°53.6'N 134°21.8'W
					Dangerous submerged rock [K13]
					56°52.7'N 134°22.5'W
					Dangerous submerged rock [K13]
					56°52.7'N 134°22.1'W
				(NOS)	

17360 37Ed. 6/15 LAST NM 9/16 18/16
 Add Dangerous submerged rock [K13] 56°53.6'N 134°21.8'W
 Dangerous submerged rock [K13] 56°53.3'N 134°21.8'W
 (NOS)

★17368 8Ed. 9/14 LAST NM 9/16 18/16
 (Security Bay Extension)
 Add Depth 0 fathom 3 feet Rk [K14.2] 56°52'41"N 134°22'04"W
 Depth 0 fathom 5 feet Rk [K14.2] 56°52'40"N 134°22'29"W
 Depth 0 fathom 5 feet Rk [K14.2] 56°53'17"N 134°21'47"W
 Depth 1 fathom 4 feet Rk [K14.2] 56°53'34"N 134°21'50"W
 Depth 1 fathom Rk [K14.2] 56°49'54"N 134°19'16"W
 (NOS)

17400 18Ed. 9/13 LAST NM 48/13 18/16
 Change Buoy to "12" R, Fl R 4s 55°43.9'N 133°39.7'W
 (2/16 CG17)

★17404 15Ed. 10/13 LAST NM 1/14 18/16
 Delete BELL from buoy "12" 55°43'55"N 133°39'41"W
 (2/16 CG17)

24480 2Ed. 8/22/15 LAST NM N9/16 N18/16
 (Panel A)
 Change Visibility (range) of light to 13M 8°06.6'N 76°44.9'W
 Light to Fl(3) W 12s 20m 10M 8°08.2'N 76°50.5'W
 (13, 14/16 Bogota)

24486 1Ed. 12/1/07 LAST NM 8/15 18/16
 Change Visibility (range) of light to 13M 8°06'36"N 76°44'53"W
 Light to Fl(3) 12s 20m 10M 8°08'11"N 76°50'21"W
 (13, 14/16 Bogota)

24517 2Ed. 6/10/95 LAST NM 8/16 18/16
 Delete Light 8°08'11.0"N 76°50'30.0"W
 Change Visibility (range) of light to 13M 8°06'36.0"N 76°44'53.0"W
 Add Light Fl(3) 12s 20m 10M 8°08'10.9"N 76°50'20.8"W
 (13, 14/16 Bogota)

36001 Ed. 3/6/03 LAST NM N6/16 N18/16
 Delete Wreck 48°23.9'N 6°45.2'W
 Add Depth 125 meters Wk [K26] 48°32.5'N 6°17.3'W
 Depth 110 meters Wk [K26] 48°32.3'N 5°50.5'W
 Depth 99 meters Wks [K26] 48°43.4'N 5°04.9'W
 Depth 145 meters Wks [K26] 48°30.1'N 6°34.0'W
 Depth 94 meters Wk [K26] 48°48.7'N 5°04.7'W
 Depth 155 meters Wk [K26] 48°23.4'N 6°45.5'W
 Depth 130 meters Obstn [K41] 48°29.2'N 6°27.9'W
 (25(55)13 Brest)

36005 3Ed. 10/22/11 LAST NM 16/16 18/16
 Change Visibility (range) of light (Fl W) to 24M 48°19.8'N 4°46.1'W
 Add Depth 125 meters Wk [K26] 48°32.5'N 6°17.3'W
 Depth 110 meters Wk [K26] 48°32.3'N 5°50.5'W
 Depth 99 meters Wks [K26] 48°43.4'N 5°04.9'W
 Depth 145 meters Wks [K26] 48°30.1'N 6°34.0'W
 Depth 115 meters Wk [K26] 48°16.2'N 5°47.8'W
 Depth 106 meters Wk [K26] 48°16.1'N 5°23.1'W
 Depth 94 meters Wk [K26] 48°48.7'N 5°04.7'W
 Depth 135 meters Obstn [K41] 48°12.0'N 6°23.1'W
 Depth 103 meters Obstn [K41] 48°12.0'N 5°11.7'W
 Depth 130 meters Obstn [K41] 48°29.2'N 6°27.9'W
 (25(55)13, 32(56)14 Brest)

37025 26Ed. 8/9/97 LAST NM 6/16 18/16
 Change Visibility (range) of light (Fl) to 24M 48°20.0'N 4°46.4'W
 (32(56)14 Brest)

★37035 2Ed. 11/7/13 REPLACE ON ISSUE N18/16
 (NGA)

★37036 2Ed. 1/23/14 REPLACE ON ISSUE N18/16
 Change NGA Ref No. to 37AHA37036 in right lower margin of chart
 (NGA)

★37038 (INT 1574) 2Ed. 7/25/13 REPLACE ON ISSUE N18/16
 (NGA)

37050 10Ed. 5/21/11 LAST NM N6/16 N18/16
 Change Visibility (range) of light to 6M 48°26'44"N 5°09'02"W
 Add Depth 125 meters Wk [K26] 48°32'32"N 6°17'17"W
 Depth 110 meters Wk [K26] 48°32'21"N 5°50'28"W
 Depth 99 meters Wk [K26] 48°43'25"N 5°04'52"W
 Depth 94 meters Wk [K26] 48°48'45"N 5°04'40"W
 Depth 102 meters Wk [K26] 48°44'08"N 5°04'42"W
 (25(55)13, 32(56)14 Brest)

37320 17Ed. 5/11/13 LAST NM N6/16 N18/16
 Change Visibility (range) of light (Fl W) to 24M 48°19.8'N 4°46.3'W
 Visibility (range) of light to 6M 48°26.7'N 5°09.1'W
 Visibility (range) of light to 4M 48°00.3'N 4°33.1'W
 Add Depth 125 meters Wk [K26] 48°32.5'N 6°17.3'W
 Depth 110 meters Wk [K26] 48°32.3'N 5°50.5'W
 Depth 99 meters Wk [K26] 48°43.4'N 5°04.9'W
 Depth 145 meters Wks [K26] 48°30.1'N 6°34.0'W
 Depth 115 meters Wk [K26] 48°16.2'N 5°47.8'W
 Depth 106 meters Wk [K26] 48°16.1'N 5°23.1'W
 Depth 135 meters Obstn [K41] 48°12.0'N 6°23.1'W
 Depth 103 meters Obstn [K41] 48°12.0'N 5°11.7'W
 Depth 130 meters Obstn [K41] 48°29.2'N 6°27.9'W
 (25(55)13, 32(56), 51(57)14 Brest)

37328 3Ed. 7/26/14 LAST NM N12/16 N18/16
 Change Visibility (range) of light (Fl W) to 24M 48°19'47"N 4°46'15"W
 Visibility (range) of light to 4M 48°00'19"N 4°33'04"W
 Characteristic of light to Fl G 2.5s 48°21'35"N 4°46'59"W
 (32(56), 51(57)14 Brest)

43030 25Ed. 1/5/13 LAST NM N17/16 N18/16
 Substitute Depth 14.1 meters Wk [K26] for 11.3 meters Wk 57°40.3'N 10°06.7'E
 Depth 18 meters Wk [K26] for 15 meters Wk 57°41.9'N 10°15.0'E
 Depth 14.9 meters Wk [K26] for 11.8 meters Wk 57°38.6'N 10°00.9'E
 (8(95)16 Kobenhavn; Dan CH 101)

43360 22Ed. 3/23/13 LAST NM N5/16 N18/16
 Substitute Depth 14.1 meters Wk [K26] for 11.3 meters Wk 57°40.3'N 10°06.7'E
 Depth 18 meters Wk [K26] for 15 meters Wk 57°41.9'N 10°15.0'E
 Depth 14.9 meters Wk [K26] for 11.8 meters Wk 57°38.6'N 10°00.9'E
 Add Depth 19.1 meters enclosed by depth contour (20-meter) centered 57°41.1'N 9°59.6'E
 Depth 16.1 meters and extend depth contour (20-meter) N to enclose 57°38.8'N 9°54.4'E
 Depth 18.9 meters and extend depth contour (20-meter) W to enclose 57°42.0'N 10°01.8'E
 (43(1111)14, 8(95)16 Kobenhavn; Dan CH 101)

44015 10Ed. 4/11/15 LAST NM 45/15 18/16
 Add Submarine cable (power) [L31.1] joining 55°37.8'N 21°06.6'E
 55°57.1'N 19°01.9'E
 55°55.6'N 18°00.4'E
 55°50.4'N 17°44.9'E
 55°41.7'N 16°39.1'E
 55°55.8'N 16°16.4'E
 56°25.2'N 16°13.3'E
 56°31.1'N 16°15.0'E
 56°32.1'N 16°13.1'E
 (4(97)15 Klaipeda; UKHO ARCS 2251-0)

SECTION I

NM 18/16

44049	11Ed. 5/18/13	LAST NM N17/16	N18/16	Dashed line joining	28°09'52.9"N 15°23'53.6"W
Delete	Topmark from buoy	55°36'24"N 12°41'11"E			28°08'46.9"N 15°23'53.6"W
Substitute	Depth 11 meters for 11.6 meters (16(414)15, 8(100)16 Kobenhavn)	55°43'16"N 12°38'16"E			28°08'46.9"N 15°23'55.1"W
					28°09'45.1"N 15°23'55.1"W
					28°09'45.1"N 15°24'07.1"W
44050	24Ed. 5/3/14	LAST NM N17/16	N18/16	Legend "Being Reclaimed (2006)"	28°09'17.9"N 15°23'54.1"W
Delete	Purple composite line joining	55°40'52.1"N 12°35'39.1"E		Light	28°09'21.6"N 15°23'54.0"W
		55°40'58.9"N 12°35'44.8"E		(See N49/15-51346)	
		55°40'59.4"N 12°35'46.1"E		Relocate	Buoy from 28°06'40.0"N 15°24'45.6"W to
		55°40'58.1"N 12°35'50.5"E			28°06'40.2"N 15°24'42.0"W
		55°40'53.4"N 12°35'47.5"E			Light from 28°08'15.0"N 15°25'16.8"W to
Buoy		55°40'51.6"N 12°35'46.4"E			28°08'12.5"N 15°25'13.5"W
Substitute	Depth 11 meters for 11.3 meters	55°43'15.8"N 12°38'15.8"E		Change	Legend to "Being Reclaimed (2015)"
					28°09'36.4"N 15°24'12.5"W
Add	Depth 11.3 meters (8(100, 234)16 Kobenhavn)	55°43'09.0"N 12°38'04.0"E		Add	Double solid line with land tint (pier extension) [F14] between
					28°08'14.7"N 15°25'16.5"W
					28°08'12.3"N 15°25'13.7"W
44120	9Ed. 12/14/13	LAST NM N15/16	N18/16	Land tint to area bound by shore and solid line [F13] joining	28°09'43.9"N 15°24'18.3"W
Delete	Dangerous submerged rock (11(182)16 Gdynia)	54°08.9'N 15°17.1'E			28°09'44.0"N 15°24'11.0"W
					28°09'43.5"N 15°24'11.1"W
					28°09'43.7"N 15°24'09.3"W
					28°09'44.2"N 15°24'07.7"W
					28°09'43.9"N 15°24'02.6"W
					28°09'43.5"N 15°24'01.6"W
					28°09'42.7"N 15°24'01.6"W
					28°09'42.2"N 15°24'01.0"W
					28°09'41.6"N 15°23'58.2"W
					28°09'41.9"N 15°23'55.9"W
					28°09'40.1"N 15°23'55.8"W
					28°09'40.0"N 15°23'54.7"W
					28°09'08.1"N 15°23'54.6"W
					28°09'08.1"N 15°23'58.3"W
					28°09'07.3"N 15°23'58.4"W
					28°09'07.3"N 15°23'53.6"W
					28°09'40.9"N 15°23'53.8"W
					28°09'41.6"N 15°23'53.1"W
					28°09'42.8"N 15°23'52.9"W
					28°09'53.0"N 15°23'54.9"W
					28°09'53.4"N 15°23'55.4"W
					and delete all hydrography within above area
					Light Fl G 5s with visible sector 275°-255°
					28°09'07.3"N 15°23'58.3"W
					Light Q(4) G 10s 16m 5M
					28°09'07.3"N 15°23'53.7"W
					(49(303)15, 4(17), 9(52), 10(58)16 Cadiz; Spn CH 6100)
51347	1Ed. 5/15/10	LAST NM N49/15	N18/16	Delete	Double dashed line and legend "Works in Progress" between
					28°08'47"N 15°23'55"W
					28°09'55"N 15°23'55"W
				Light	28°09'22"N 15°23'54"W
Add	Land tint to area bound by shore and solid line [F13] joining	28°09'44"N 15°24'19"W			28°09'42"N 15°23'53"W
		28°09'53"N 15°23'56"W			
					Double solid line with land tint (pier) [F14] joining
					28°09'42"N 15°23'54"W
					28°09'07"N 15°23'54"W
					28°09'07"N 15°23'58"W
					Light Q(4) G 10s 16m 5M
					28°09'07"N 15°23'54"W
					(49(303)15 Cadiz; Spn CH 6100)
52039	5Ed. 3/30/13	LAST NM N6/16	N18/16	Delete	Buoy
					36°09'08"N 5°19'07"W
					36°09'10"N 5°18'30"W
				Add	Anchorage area "D" [N12.3] bound by purple dashed line joining
					36°06'18"N 5°25'24"W
					36°06'18"N 5°24'00"W
					36°04'42"N 5°23'54"W
					36°04'42"N 5°24'54"W
					36°04'54"N 5°24'54"W
					36°05'10"N 5°25'04"W
					36°05'18"N 5°25'24"W
51346	1Ed. 4/3/10	LAST NM N49/15	N18/16	Delete	Buoy
					28°08'11.5"N 15°25'12.4"W
					28°08'12.5"N 15°25'05.4"W
					28°08'13.8"N 15°25'04.7"W
					Depth 4.5 meters Wk

(continued on next page)

52039 (Continued)
 Add Anchorage symbol [N10] with legend "A" 36°10'08"N 5°23'29"W
 Anchorage symbol [N10] with legend "B" 36°09'32"N 5°25'23"W
 Anchorage symbol [N10] with legend "C" 36°07'30"N 5°24'40"W
 (48(298)15, 7(38)16 Cadiz)

52043 22Ed. 5/19/12 LAST NM N16/16 N18/16
 Delete Buoy 36°09'07.2"N 5°19'44.8"W
 Anchorage area "A" in vicinity 36°10'08.2"N 5°23'29.5"W
 Anchorage area "B" in vicinity 36°09'30.9"N 5°25'23.3"W
 Anchorage area "C" in vicinity 36°07'29.3"N 5°24'39.6"W
 Purple dashed line (anchorage area limit) joining 36°05'24.0"N 5°25'25.2"W
 36°06'17.0"N 5°25'25.2"W
 36°06'16.7"N 5°23'59.7"W
 Change Height of light to 4m 36°10'12.6"N 5°22'52.4"W
 Add Anchorage area "A" [N12.3] bound by purple dashed line joining 36°09'30.0"N 5°22'54.0"W
 36°09'30.0"N 5°22'30.0"W
 36°10'24.0"N 5°23'18.0"W
 36°10'24.0"N 5°24'30.0"W
 36°10'00.0"N 5°24'24.0"W
 36°10'00.0"N 5°23'48.0"W
 Anchorage area "B" [N12.3] bound by purple dashed line joining 36°10'04.8"N 5°25'21.6"W
 36°10'12.0"N 5°25'18.0"W
 36°10'12.0"N 5°25'30.0"W
 36°09'48.0"N 5°26'00.0"W
 36°09'18.0"N 5°26'12.0"W
 36°09'12.0"N 5°24'18.0"W
 36°09'39.0"N 5°24'30.0"W
 36°09'34.8"N 5°24'40.2"W
 thence along lesser arc of a circle, radius 0.4 mile, centered arc between 36°09'55.8"N 5°24'54.6"W
 36°09'34.8"N 5°24'40.2"W
 36°10'04.8"N 5°25'21.6"W
 Anchorage area "C" [N12.3] bound by breakwater and purple dashed line joining 36°08'05.1"N 5°25'04.9"W
 36°08'18.0"N 5°24'27.0"W
 36°06'54.0"N 5°24'06.0"W
 36°07'00.4"N 5°25'02.7"W
 Purple dashed line (anchorage area limit) [N12.1] joining 36°05'24.0"N 5°25'24.0"W
 36°06'18.0"N 5°25'24.0"W
 36°06'18.0"N 5°24'00.0"W
 36°05'15.8"N 5°23'59.7"W
 Note: Area extends beyond chart border
 (2(6), 48(298)15, 7(38)16 Cadiz)

54339 9Ed. 3/28/09 LAST NM N26/15 N18/16
 Add Stranded wreck [K24] 38°02'16.5"N 23°31'15.2"E
 (12(211)15 Athens)

54341 4Ed. 11/26/94 LAST NM 31/15 18/16
 Add Buoy, conical, Fl Y 1.5s [Q130.6] 37°26'51"N 22°45'42"E
 (11(192)15 Athens)

54344 6Ed. 3/23/96 LAST NM 49/15 18/16
 Add Wreck [K29] 37°56'00"N 24°06'10"E
 (11(194)15 Athens)

54346 9Ed. 4/3/04 LAST NM 43/15 18/16
 Delete Buoys (4) in vicinity 37°57'17.7"N 23°35'06.0"E
 Add Buoy Y, conical 37°56'09.6"N 23°41'07.5"E
 Legend "Numerous mooring buoys" 37°57'06.1"N 23°33'09.7"E
 "Works in progress (2015) marked by buoys" area [F32] bound by existing limits and dashed line joining 37°57'33.2"N 23°34'40.7"E
 37°57'24.2"N 23°34'42.7"E
 37°57'08.2"N 23°34'47.7"E
 37°57'08.2"N 23°34'54.7"E
 37°57'07.2"N 23°35'01.7"E
 37°57'10.4"N 23°35'00.6"E
 and delete all hydrography within above area
 (See 36(12-54346)
 (8(133), 10(169, 170)15 Athens)

54369 5Ed. 1/16/16 LAST NM N16/16 N18/16
 Delete Purple composite-line circle and legend "Unexploded Ordnance" in vicinity 39°48'23"N 25°45'42"E
 (13(56)16 Istanbul)

54482 1Ed. 9/27/14 LAST NM N2/16 N18/16
 Add Light Fl(2) Y 6s 10m 5M 36°35'38.2"N 36°10'24.0"E
 (11(49)16 Istanbul)

56065 4Ed. 7/19/14 LAST NM N38/15 N18/16
 Relocate Pilot station symbol from 31°51'18"N 34°36'58"E to 31°51'49"N 34°37'07"E
 Buoy from 31°52'44"N 34°33'49"E to 31°52'26"N 34°33'29"E
 (8, 38/15 Haifa)

56067 4Ed. 3/14/15 LAST NM N25/15 N18/16
 Delete Buoy 31°52'43.6"N 34°33'49.5"E
 Relocate Pilot station symbol from 31°51'18.4"N 34°36'54.3"E to 31°51'49.2"N 34°37'07.2"E
 (8, 38/15 Haifa)

★63350 2Ed. 1/9/16 NEW EDITION N18/16
 (NGA)

71027 10Ed. 11/30/13 LAST NM N17/16 N18/16
 Add Platform (lighted) [L10] 4°47.2'N 113°32.0'E
 (16/16 Sarawak)

71252 3Ed. 8/20/11 LAST NM N40/15 N18/16
 Add Depth 9.2 meters Obstn [K41] 1°12'58"N 103°44'56"E
 (2(204)16 Taunton)

71253 12Ed. 1/19/13 LAST NM N40/15 N18/16
 Substitute Depth 9.2 meters Obstn [K41] for depth 11.9 meters 1°12'58.3"N 103°44'55.6"E
 (2(204)16 Taunton)

71254 2Ed. 10/6/07 LAST NM N40/15 N18/16
 Substitute Depth 9.2 meters Obstn [K41] for depth 11.9 meters 1°12'58.3"N 103°44'55.6"E
 (2(204)16 Taunton)

71255 7Ed. 8/15/09 LAST NM N38/15 N18/16
 Add Depth 14.8 meters 1°16'14.4"N 103°38'36.0"E
 Depth 14.9 meters 1°16'16.8"N 103°38'51.6"E
 (2(204)16 Taunton)

71340 12Ed. 7/6/13 LAST NM N15/16 N18/16
 Add Platform (lighted) [L10] 4°47.2'N 113°32.0'E
 (16/16 Sarawak)

★74180 3Ed. 7/26/13 NEW EDITION N18/16
 (NGA)

★74209 3Ed. 8/1/14 NEW EDITION N18/16
 (NGA)

★74216 3Ed. 7/4/14 NEW EDITION N18/16
 (NGA)

★74223 3Ed. 7/4/14 NEW EDITION N18/16
 (NGA)

★74227 3Ed. 7/18/14 NEW EDITION N18/16
 (NGA)

★74228 5Ed. 7/18/14 NEW EDITION N18/16
 (NGA)

★74245 3Ed. 8/1/14 NEW EDITION N18/16
 (NGA)

94061 (Continued)
(Plan)
 Delete Buoy "Q8" 24°26'04.7"N 118°02'10.3"E
 Buoy "No 25" 24°25'38.7"N 118°03'47.3"E
 Buoy "No 606" 24°26'20.4"N 118°00'49.3"E
 Buoy "No 26" 24°25'34.7"N 118°03'29.6"E
 Buoy "No 402" 24°24'20.9"N 118°05'11.5"E
 Buoy "No 604" 24°26'20.1"N 118°01'16.7"E
 (See 14/16-94061)
 Relocate Buoy "No 28" from 24°25'56.9"N 118°02'48.2"E to 24°25'47.5"N 118°03'04.1"E
 Buoy "No 41" from 24°28'47.6"N 118°03'38.6"E to 24°28'41.8"N 118°03'41.2"E
 Buoy "No 18" from 24°23'04.7"N 118°07'05.3"E to 24°23'02.1"N 118°07'02.8"E
 Buoy "No 20" from 24°23'41.2"N 118°06'29.8"E to 24°23'47.8"N 118°06'17.8"E
 Buoy "No 602" from 24°26'13.0"N 118°01'48.5"E to 24°26'03.7"N 118°02'04.4"E
 Buoy "No 608" from 24°26'39.8"N 118°00'04.7"E to 24°26'26.7"N 118°00'27.4"E
 Buoy "No 15" from 24°22'09.5"N 118°08'22.6"E to 24°22'12.2"N 118°08'15.7"E
 Change Designation of buoy "JT16" to "JT22" 24°31'51.8"N 118°12'05.8"E
 and add AIS [S17.2]
 Add Buoy "209" GRG, pillar, cone topmark, Fl(2+1) G 6s AIS 24°25'48.6"N 118°11'01.5"E
 Buoy "210" RGR, pillar, can topmark, Fl(2+1) R 6s 24°25'49.3"N 118°10'47.9"E
 Buoy "211" GRG, pillar, cone topmark, Fl(2+1) G 9s 24°26'45.2"N 118°11'47.9"E
 Buoy "212" RGR, pillar, can topmark, Fl(2+1) R 9s 24°26'50.6"N 118°11'40.2"E
 Buoy "213" GRG, pillar, cone topmark, Fl(2+1) G 12s 24°27'24.4"N 118°12'22.8"E
 Buoy "214" RGR, pillar, can topmark, Fl(2+1) R 12s 24°27'30.2"N 118°12'14.4"E
 Buoy "215" GRG, pillar, cone topmark, Fl (2+1) G 6s 24°28'27.1"N 118°13'16.4"E
 Buoy "216" RGR, pillar, can topmark, Fl(2+1) R 6s 24°28'32.6"N 118°13'02.1"E
 Buoy "217" GRG, pillar, cone topmark, Fl (2+1) G 9s 24°29'46.7"N 118°13'26.5"E
 Buoy "218" RGR, pillar, can topmark, Fl(2+1) R 9s 24°29'48.4"N 118°13'16.7"E
 Buoy "219" G, pillar, cone topmark, QG AIS 24°31'08.4"N 118°13'36.8"E
 Buoy "220" R, pillar, cone topmark, QR 24°31'04.7"N 118°13'26.1"E
 Buoy "No 31A" G, pillar, cone topmark, Fl(2) G 6s 24°27'07.3"N 118°02'53.6"E
 Buoy "No 1" G, pillar, cone topmark, QG 24°27'31.5"N 118°11'41.0"E
 Buoy "JT15" G, pillar, cone topmark, Fl(2) G 6s AIS 24°30'54.0"N 118°14'00.0"E
 Buoy "JT16" R, pillar, can topmark, Fl(2) R 6s 24°30'50.5"N 118°13'50.0"E
 Buoy "JT19" G, pillar, cone topmark, Fl G 4s 24°31'36.1"N 118°12'51.0"E
 Buoy "JT20" R, pillar, can topmark, Fl R 4s 24°31'32.1"N 118°12'40.9"E
 Buoy "No 606" R, pillar, can topmark, Fl(3) R 10s 24°26'15.6"N 118°01'19.9"E
 AIS [S17.2] to buoy "No 42" 24°28'55.2"N 118°03'30.0"E
 Buoy "DX25" G, pillar, cone topmark, Fl(2) G 6s 24°25'24.0"N 118°09'51.1"E
 Buoy "DX27" G, pillar, cone topmark, Fl(3) G 10s 24°24'36.7"N 118°08'26.1"E
 Buoy "DX16" R, pillar, can topmark, Fl(2) R 6s 24°30'29.3"N 118°15'09.9"E
 Buoy "No 402" BY, pillar, double cone topmark points upward, VQ [Q130.3] 24°24'42.6"N 118°04'42.9"E
 Buoy "No 1" Y, pillar, Mo(O) Y 12s [Q130.6] 24°25'55.2"N 118°05'18.5"E
 (30(1074)09, 50(2223)10, 19(624)11, 33(1221)12, 20(662)14, 6(260)16 Tianjin; Cna CH 14291, 14295)

94067 11Ed. 3/4/06 LAST NM 16/16 18/16
 Add Submarine cable [L30.1] joining 23°21'30"N 119°48'00"E
 23°21'51"N 119°47'12"E
 23°22'19"N 119°46'48"E
 23°27'10"N 119°41'25"E
 23°28'33"N 119°40'11"E
 23°30'45"N 119°39'44"E
 23°31'34"N 119°39'44"E
 23°33'20"N 119°38'48"E
 23°33'23"N 119°38'34"E
 Submarine cable [L30.1] joining 23°33'55"N 119°33'38"E
 23°34'31"N 119°32'51"E
 23°34'56"N 119°32'34"E
 23°35'05"N 119°32'17"E
 23°35'35"N 119°30'52"E
 (116/15 Tso-ying)
94080 8Ed. 9/26/09 LAST NM 46/15 18/16
 Add Submarine cable [L30.1] joining 23°17.0'N 120°05.7'E
 23°17.2'N 120°02.1'E
 23°17.8'N 120°00.1'E
 23°17.9'N 119°58.9'E
 23°18.8'N 119°54.7'E
 23°21.9'N 119°47.2'E
 23°28.5'N 119°40.2'E
 23°31.6'N 119°39.7'E
 23°33.4'N 119°38.6'E
 (116/15 Tso-ying)
94082 9Ed. 5/27/06 LAST NM 46/15 18/16
 Add Submarine cable [L30.1] joining 23°16'58"N 120°05'43"E
 23°17'13"N 120°02'08"E
 23°17'24"N 120°01'20"E
 23°17'50"N 120°00'09"E
 23°17'56"N 119°58'55"E
 23°18'00"N 119°58'32"E
 (116/15 Tso-ying)
94120 7Ed. 3/10/07 LAST NM 7/16 18/16
 Add Submarine cable [L30.1] joining 25°04.7'N 121°06.3'E
 25°05.3'N 121°05.3'E
 25°07.4'N 121°00.0'E
 (116/15 Tso-ying)
94123 10Ed. 4/30/11 LAST NM N50/14 N18/16
 Add Submarine cable [L30.1] joining 25°04'23"N 121°07'30"E
 25°04'28"N 121°06'45"E
 25°05'15"N 121°05'19"E
 25°05'50"N 121°04'00"E
 (116/15 Tso-ying)
94160 9Ed. 8/4/07 LAST NM 7/16 18/16
 Add Submarine cable [L30.1] joining 25°04.7'N 121°06.4'E
 25°05.3'N 121°05.3'E
 25°09.2'N 120°56.0'E
 25°11.8'N 120°52.1'E
 25°15.9'N 120°45.9'E
 25°18.9'N 120°42.1'E
 25°25.3'N 120°35.3'E
 25°46.5'N 120°16.1'E
 25°52.6'N 120°10.6'E
 26°00.4'N 120°01.6'E
 26°02.9'N 120°01.3'E
 26°06.1'N 119°58.8'E
 26°06.7'N 119°57.6'E
 26°08.2'N 119°56.1'E
 26°08.8'N 119°56.2'E
 Submarine cable [L30.1] joining 26°13.1'N 119°59.4'E
 26°12.8'N 119°59.2'E
 26°12.4'N 119°59.4'E
 26°11.4'N 120°01.9'E
 26°11.2'N 120°04.2'E
 26°12.4'N 120°07.1'E
 26°15.7'N 120°11.1'E
 26°19.6'N 120°21.9'E
 26°21.0'N 120°22.9'E
 26°23.7'N 120°27.9'E
 26°23.7'N 120°28.7'E
 26°22.9'N 120°29.2'E

(continued on next page)

SECTION I

NM 18/16

94160	(Continued)				
Add	Submarine cable [L30.1] joining	26°08.8'N 119°56.2'E			
		26°08.1'N 119°55.8'E			
		26°06.8'N 119°55.2'E			
		25°59.5'N 119°53.7'E			
		25°59.1'N 119°53.8'E			
		25°58.4'N 119°54.3'E			
		25°58.3'N 119°54.7'E			
		25°58.4'N 119°55.7'E			
	Submarine cable [L30.1] joining	26°09.1'N 119°57.2'E			
		26°08.8'N 119°57.3'E			
		26°09.7'N 119°59.0'E			
		26°10.9'N 119°59.5'E			
		26°11.7'N 119°59.1'E			
		26°12.6'N 119°58.9'E			
		26°13.1'N 119°59.4'E			
	(116/15 Tso-ying)				
94164	2Ed. 3/23/96 LAST NM 5/16			18/16	
Add	Submarine cable [L30.1] joining	25°53'00"N 120°10'11"E			
		25°59'51"N 120°02'00"E			
		26°00'23"N 120°01'38"E			
		26°02'56"N 120°01'18"E			
		26°06'07"N 119°58'46"E			
		26°06'42"N 119°57'37"E			
		26°08'11"N 119°56'06"E			
		26°08'42"N 119°56'12"E			
	Submarine cable [L30.1] joining	26°13'05"N 119°59'22"E			
		26°12'46"N 119°59'11"E			
		26°12'22"N 119°59'23"E			
		26°11'55"N 120°00'19"E			
		26°11'24"N 120°01'51"E			
		26°11'13"N 120°04'09"E			
		26°11'23"N 120°04'45"E			
	Submarine cable [L30.1] joining	26°14'00"N 120°09'02"E			
		26°15'42"N 120°11'07"E			
		26°16'23"N 120°13'00"E			
	Submarine cable [L30.1] joining	26°08'46"N 119°56'14"E			
		26°08'06"N 119°55'46"E			
		26°06'46"N 119°55'09"E			
		25°59'33"N 119°53'45"E			
		25°59'04"N 119°53'49"E			
		25°58'26"N 119°54'16"E			
		25°58'15"N 119°54'44"E			
		25°58'22"N 119°55'44"E			
	Submarine cable [L30.1] joining	26°09'08"N 119°57'13"E			
		26°08'53"N 119°57'14"E			
		26°08'50"N 119°57'19"E			
		26°09'23"N 119°58'36"E			
		26°09'42"N 119°59'02"E			
		26°10'18"N 119°59'22"E			
		26°10'54"N 119°59'29"E			
		26°11'26"N 119°59'17"E			
		26°12'08"N 119°58'44"E			
		26°12'30"N 119°58'47"E			
		26°13'05"N 119°59'22"E			
	(116/15 Tso-ying)				
95082	10Ed. 10/4/08 LAST NM N16/16			N18/16	
Add	Buoy "No A" Y, pillar, "X" topmark, Fl Y 4s [Q130.6]	35°59'00"N 126°34'59"E			
	Submarine cable (power) [L31.1] joining	35°58'42"N 126°38'01"E			
		35°58'48"N 126°38'01"E			
		35°58'55"N 126°37'50"E			
		35°59'07"N 126°37'45"E			
		35°59'09"N 126°37'43"E			
		35°59'13"N 126°37'30"E			
		35°59'20"N 126°36'51"E			
		35°59'29"N 126°36'14"E			
	(34(636)14, 46(744)15 Inchon)				
95083	9Ed. 7/30/11 LAST NM N16/16			N18/16	
Add	Buoy "No A" Y, pillar, "X" topmark, Fl Y 4s [Q130.6]	35°59'00.2"N 126°34'59.2"E			
	Submarine cable (power) [L31.1] joining	35°58'42.1"N 126°38'01.4"E			
		35°58'48.4"N 126°38'00.8"E			
		35°58'49.6"N 126°37'59.5"E			
		35°58'55.3"N 126°37'49.8"E			
		35°59'06.6"N 126°37'45.2"E			
		35°59'08.6"N 126°37'43.1"E			
		35°59'13.3"N 126°37'30.4"E			
		35°59'19.6"N 126°36'51.2"E			
		35°59'29.1"N 126°36'13.8"E			
	(34(636)14, 46(744)15 Inchon)				
95087	4Ed. 10/4/08 LAST NM N16/16			N18/16	
Add	Submarine cable (power) [L31.1] joining	35°58'42.1"N 126°38'01.4"E			
		35°58'48.4"N 126°38'00.8"E			
		35°58'49.6"N 126°37'59.5"E			
		35°58'55.3"N 126°37'49.8"E			
		35°59'06.8"N 126°37'45.0"E			
	Double dashed line with land tint (bridge) and legend "Under construction (2014) (Marked by yellow light buoys)" between	36°00'19.4"N 126°42'29.1"E			
		35°59'39.5"N 126°42'22.7"E			
	Vertical clearance [D20] 20 meters along bridge between	35°59'48.3"N 126°42'24.2"E			
		35°59'43.2"N 126°42'23.4"E			
	(15(242), 17(276)09, 33(606), 34(636)14 Inchon; UKHO ARCS 1008-0)				
★803621	1Ed. 8/22/15 NEW CHART (NGA)			N18/16	
★803728	1Ed. 5/9/15 NEW CHART (NGA)			N18/16	
806901	1Ed. 2/28/09 LAST NM N16/16			N18/16	
Add	Buoy "A" Y, pillar, "X" topmark, Fl Y 4s [Q130.6]	35°59'00"N 126°34'59"E			
	Submarine cable (power) [L31.1] joining	35°58'42"N 126°38'01"E			
		35°58'48"N 126°38'01"E			
		35°58'55"N 126°37'50"E			
		35°59'07"N 126°37'45"E			
		35°59'09"N 126°37'43"E			
		35°59'13"N 126°37'30"E			
		35°59'20"N 126°36'51"E			
		35°59'29"N 126°36'14"E			
	Double dashed line with land tint (bridge) and legend "Under construction (2014) (Marked by yellow light buoys)" between	36°00'19"N 126°42'29"E			
		35°59'40"N 126°42'23"E			
	Vertical clearance [D20] 20 meters along bridge between	35°59'48"N 126°42'24"E			
		35°59'43"N 126°42'23"E			
	(15(242), 17(276)09, 33(606), 34(636)14, 46(744)15 Inchon; UKHO ARCS 1008-0)				
★809179	1Ed. 7/4/15 NEW CHART (NGA)			N18/16	

Chart 44430

NM N18/16

ENVIRONMENTALLY SENSITIVE
SEA AREA (ESSA)

The following activities are prohibited within the ESSA:

- Hydrodynamic processes that cause long term chemical changes to water, except vessels in transit;
- Disruption to seabed, including dumping;
- Construction below and above water level.

SECTION I

NM 18/16

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/16 THROUGH NM 18/16

Note: N indicates Not For Sale; P indicates Preliminary; T indicates Temporary;
* indicates New Edition/New Chart; ** indicates Chart Canceled

Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
50	9	8/16*	11477	6	N12/16	13003	52	5*,13/16	14916	10	11/16
400	3	5,17/16	11478	25	12/16	13006	36	9,11,12/16	14918	27	11,18/16
401	5	17/16	11480	41	13/16	13009	36	11/16	14919	28	13,18/16
402	4	5/16	11481	9	12/16	13200	38	4,9/16	14922	20	5,18/16
411	54	12,14,17/16	11489	40	5,13/16	13201	12	N9/16	14924	29	12,13/16
500	10	8/16*	11491	39	12,13/16	13212	39	13/16	14925	24	5/16*
501	13	10,17/16	11494	9	N13/16	13213	43	13/16	14926	12	18/16
513	9	8/16*	11496	12	N13/16	13221	60	9,12,13/16	14927	25	18/16
530	35	8/16*	11503	46	13/16	13223	43	13/16	14929	25	18/16
531	25	12/16	11505	5	16/16	13224	40	9,12/16	14930	26	12/16
1113A		12,14,17/16	11506	45	5/16	13225	34	12/16	14932	24	3/16*
1114A		11,12/16	11507	36	13/16	13229	32	18/16	14933	25	12,18/16
1115A		2,6,9,16/16	11509	32	13/16	13230	51	18/16	14934	30	5*,14/16
1116A		16/16*	11510	20	13/16	13233	19	13/16	14937	25	12/16
1117A		3,6,9,11,16,17/16	11512	64	16/16	13236	31	18/16	14942	27	5/16*
11004	9	16/16	11520	45	12,13,17/16	13237	42	13/16	14962	21	13/16
11006	34	2,6,9,12,14,16,17/16	11521	30	13/16	13241	18	13/16	14968	29	18/16*
11009	39	7,8,12/16	11525	9	N7,N12,N17/16	13260	41	4,9,11/16	14975	36	11/16
11013	48	12,14,17/16	11528	1	13/16	13263	9	N4,N9,N11/16	14976	19	18/16*
11300	43	3,6,9,11,16,17/16	11532	22	11/16	13267	36	4,9,18/16	16003	18	14/16
11301	26	15/16	11534	39	6/16*	13269	11	4/16	16005	11	7,14/16
11302	34	15/16	11536	20	17/16	13270	64	4,9/16	16006	37	7*,10/16
11305	2	N15/16	11541	41	5/16*	13272	52	9/16	16011	39	8*,10/16
11309	41	15/16	11544	41	17/16	13274	28	9/16	16012	24	7*,11/16
11311	25	15/16	12200	51	8/16	13288	43	8,9,11/16	16013	31	11,13/16
11316	42	15/16	12201	28	N8/16	13292	41	18/16	16200	15	14/16
11317	33	15/16	12205	34	3/16*	13293	35	9/16	16220	6	9/16
11318	2	N15/16	12206	35	8/16*	13297	12	16/16*	16420	12	7/16*
11322	33	2,14/16	12210	40	5/16	13301	21	8,11/16	16440	16	7/16*
11330	22	3,11,16,17/16	12214	49	8/16	13302	23	8,11/16	16460	17	7/16*
11331	22	15/16	12221	82	10,17,18/16	13309	29	9,13/16	16480	13	7/16*
11332	33	15,17/16	12222	55	14,17/16	13396	7	6/16*	16500	12	7/16*
11339	4	6,9,15/16	12225	60	9,12,13,15/16	14003	6	5,9/16	16520	25	7*,10/16
11340	79	16/16*	12230	66	10,14,17/16	14193	1	N3/16*	16531	9	7/16*
11341	44	12,15,17/16	12231	30	9,14,17/16	14500	27	13/16	16580	15	11/16
11342	55	15/16	12233	38	18/16	14756	1	N2/16*	16590	12	11/16
11344	40	12/16	12235	34	9,12,13,15/16	14771	17	11/16	16601	11	11/16
11345	35	16/16	12238	41	10,18/16	14786	14	17/16	16700	32	13/16
11346	4	9,14/16	12241	23	10/16	14803	28	17/16	16701	23	13/16
11347	40	6,9,15/16	12243	15	13/16	14813	22	17/16	16702	14	13/16
11348	23	9,15/16	12245	68	14,17/16	14820	21	13/16	16707	14	9,10,18/16
11349	46	16/16	12248	44	12/16	14822	32	11,17/16	17010	1	N12/16
11351	43	17/16	12252	25	13/16	14825	25	17/16	17315	25	11/16
11352	42	9/16	12256	18	14,17/16	14826	28	13,17/16	17320	19	9,18/16
11353	7	9,17/16	12261	30	14,17/16	14829	7	13,17/16	17327	24	10/16
11356	41	16,17/16	12263	56	14/16	14830	33	17/16	17360	37	9,18/16
11357	43	9,14,16/16	12264	32	5,10,14/16	14832	35	13,17/16	17368	8	9,18/16
11358	58	9,14/16	12266	31	14/16	14833	27	13,17/16	17400	18	18/16
11360	44	2,6,9,16/16	12268	12	8/16*	14835	33	13/16	17404	15	18/16
11362	6	N2,N6,N9,N16/16	12270	37	8/16*	14837	29	17/16	17514	1	N12/16
11363	44	17/16	12277	36	8,17/16	14838	4	11,17/16	18002	8	N10/16
11365	23	9/16	12280	11	10,12,13,17,18/16	14839	38	17/16	18003	20	12/16
11366	16	8,9,17/16	12281	55	9,14/16	14841	30	17/16	18005	6	N9,N10/16
11367	37	6/16	12285	42	5/16*	14842	15	17/16	18006	5	N10/16
11370	29	17/16	12300	49	5,8,9,12/16	14843	24	17/16	18007	33	3,12/16
11373	52	17/16	12301	23	N5,N8,N9,N12/16	14844	32	17/16	18008	9	N3,N12,N17/16
11374	38	17/16	12304	47	8,10/16	14845	28	17/16	18009	4	N10/16
11375	39	16/16*	12311	46	8,17/16	14846	14	5,11/16	18010	22	3,10/16
11376	58	7/16*	12312	56	5,10,14/16	14847	31	5,11/16	18020	39	9,10/16
11377	11	5/16*	12313	53	13/16	14848	58	13/16	18022	36	9,10/16
11380	4	5/16*	12314	33	15/16	14850	54	17/16	18400	49	12/16
11389	34	2,12,15/16	12316	35	8/16	14852	46	17/16	18421	51	12/16
11390	25	12,15/16	12318	45	8,18/16	14853	17	17/16	18423	38	12,15/16
11400	36	11,12/16	12323	26	8,12,18/16	14860	36	12,13/16	18431	9	12/16
11404	25	7/16	12326	53	10/16*	14862	28	13,18/16	18441	47	15/16
11411	19	12/16	12327	106	4,5,11,13/16	14863	32	18/16	18443	17	15/16
11412	47	3/16*	12331	33	4/16	14864	28	18/16	18444	17	15/16
11415	11	12/16	12332	24	4/16	14867	27	12,13/16	18448	36	8/16*
11420	30	12,14,17/16	12333	37	4,5/16	14877	2	N3/16*	18460	14	12/16
11423	9	N12,N14,N17/16	12334	72	11,13,18/16	14880	33	12,13,18/16	18471	11	8/16*
11428	37	5/16*	12335	45	18/16	14881	34	12,13,18/16	18480	32	12/16
11429	23	12/16	12337	24	4/16	14882	36	18/16	18500	30	9/16
11434	29	14,17/16	12341	28	2/16	14886	12	13/16	18502	87	2,9,12/16
11435	15	N14,N17/16	12343	20	2,8/16	14901	15	7,12,13/16	18504	66	9/16
11438	14	17/16	12345	11	2/16	14902	29	7,11,12,13,18/16	18521	75	14/16
11442	36	14/16	12346	12	2/16	14903	24	18/16	18524	37	14/16
11445	31	14/16	12347	31	5,8/16	14904	27	12,18/16	18537	12	8/16*
11446	33	14/16	12348	34	9/16	14905	31	18/16	18547	9	13/16*
11449	17	14/16	12354	45	9/16*	14906	25	18/16	18584	48	5/16
11450	11	5,14/16	12362	17	8/16	14907	28	17/16*	18640	27	5/16*
11451	35	5,14/16	12364	40	11/16	14908	19	14*,18/16	18649	68	14/16
11452	23	14/16	12366	30	11/16	14909	21	17*,18/16	18650	57	14/16
11460	43	5,14/16	12372	36	11,13,18/16	14910	23	11,18/16	18652	36	14/16
11461	5	5,14/16	12373	15	11/16	14911	22	17/16*	18653	12	14/16
11462	27	5,14/16	12374	15	18/16	14912	18	13/16*	18654	45	14/16
11463	19	14/16	12375	22	18/16	14913	20	13*,18/16	18661	30	11/16
11464	18	5,14/16	13000	1	N9/16	14915	26	18/16	18663	6	11/16

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/16 THROUGH NM 18/16

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Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.	Chart No.	Ed. No.	Notice to Mariners No.
18680	32	10/16	25600	47	2.3,13/16	37095	4	N3,N6,N8/16	51027	8	2,15/16
18700	23	9,10/16	25601	34	5/16	37115	3	N16/16	51032	10	2/16
18703	26	9/16	25608	22	3,5/16	37120	4	N16/16*	51061	14	12,13,14/16
18704	13	9/16	25613	3	3/16	37162	14	N14,N15/16	51064	2	12,13,14/16
18720	34	10/16	25640	45	13/16	37165	4	N16/16	51159	4	N15/16
18721	12	10/16	25641	29	13/16	37221	14	5/16	51160	21	5,6,15,17/16
18723	3	10/16	25673	17	3/16	37222	14	N15/16	51163	4	15,16/16
18749	44	3/16*	26001	4	5/16	37226	19	N5/16	51164	18	15/16
18751	47	5/16*	26083	14	4/16	37229	16	N10/16	51165	9	N15,N16/16
18758	7	10/16	26125	3	2/16	37230	15	N10/16	51166	4	N15/16
18760	8	N10/16	26127	21	2/16	37231	19	N5/16	51167	7	N15/16
18774	12	10/16	26128	50	2/16	37235	11	2/16	51180	5	6,17/16
19002	12	N17/16	26220	6	2/16	37241	21	N14,N15/16	51220	8	14,17/16
19004	39	17/16	26229	12	N12/16	37242	12	N14,N15/16	51222	6	14/16
19010	20	17/16	26230	13	N12/16	37243	7	14/16	51223	3	N14,N15/16
19013	19	17/16	26320	5	5/16	37244	13	N14,N15/16	51225	3	2/16
19327	11	4/16	27060	2	11/16	37264	3	3,8,9,13/16	51240	2	17/16
19332	9	16/16*	27061	5	11/16	37281	16	N3,N13/16	51261	23	12/16
19339	3	N17/16	27080	4	14,17/16	37320	17	N2,N6,N18/16	51265	1	N12/16*
19340	27	17/16	27083	39	12/16	37325	10	N6,N12,N13,N14, N15/16	51346	1	N18/16
19357	25	5/16	27100	2	17/16				51347	1	N18/16
19358	21	4/16	27102	11	11/16	37328	3	N2,N12,N18/16	51460	4	15/16
19361	9	4/16	27141	5	12/16	37330	3	N6,N15/16	51473	1	N15,N16/16
19366	38	17/16	27142	5	11,12/16	37360	16	N2/16	51480	4	2,15/16
19367	41	4,5,17/16	27146	2	12/16	37362	7	N16/16	51559	4	14,15/16
19369	7	5,17/16	27160	2	12/16	37380	3	N16/16	51560	11	2,14,15,17/16
21033	46	5/16	27161	4	12/16	38030	1	3/16	51561	11	2,14,15/16
21036	7	5/16	27180	2	4,12/16	38181	5	N10/16*	51562	10	14,17/16
21125	14	N3/16*	27206	18	12/16	38461	1	N13/16	51620	11	N5/16*
21342	29	N5/16*	28004	1	17/16	38500	6	9/16	51644	5	N2/16*
22004	38	14/16	28201	9	N3/16*	38528	1	N16/16*	52039	5	N2,N6,N18/16
22008	35	2/16	29323	4	3/16*	38545	1	N3/16*	52040	18	14/16
22050	4	5,11/16	35002	2	N10/16*	38589	1	N3/16*	52043	22	N2,N16,N18/16
22051	19	4,5/16	35010	2	N5/16*	43030	25	N4,N5,N11,N15,N17, N18/16	52045	7	N16/16
22052	7	4,5/16	35015	4	N9/16*				52046	22	N5/16*
22055	1	4/16	35017	4	N10/16*	43186	2	N17/16*	52052	2	N14/16
22082	5	10/16	35018	2	N10/16*	43300	6	N5/16*	52053	1	N2/16*
22083	6	10/16	35019	3	N10/16*	43320	5	10/16**	52054	2	N3/16*
22084	5	N16/16*	35024	2	N4/16	43340	14	N10/16*	52055	2	N16/16*
22100	3	17/16	35057	3	N5/16*	43360	22	N4,N5,N18/16	52066	4	N15/16*
22101	20	17/16	35062	3	N2/16*	44015	10	18/16	52079	1	N15/16
22120	3	14,15/16	35064	2	N5/16*	44036	5	5/16	52080	15	N15/16
22121	10	N14/16	35067	2	N3/16*	44037	6	N5/16	52084	3	N8/16
22124	3	N14/16	35068	3	N14/16*	44038	5	5,7,8/16	52085	4	N4,N15/16
22125	2	15/16	35074	3	N14/16*	44039	1	N5/16	52086	3	N4/16
22130	2	14/16	35092	4	N6/16*	44040	25	4,5,8,10,11,15,17/16	52088	3	8/16
22134	1	N14/16	35113	4	N13/16*	44041	8	N4,N5,N6,N8/16	52091	1	N4/16
22140	2	14/16	35114	4	N15/16*	44042	8	N4,N6,N8/16	52122	17	N3/16*
22142	3	N2/16	35117	3	N15/16*	44043	8	4,6,8/16	52125	1	3/16
22160	2	2/16	35118	4	N16/16*	44044	6	8,17/16	52126	2	N3/16*
22172	9	N3,N10/16	35121	2	N13/16*	44045	7	N4,N15,N17/16	52140	7	N3/16
22173	37	N10/16	35128	2	N3/16*	44046	11	N5,N9,N10,N13,N14, N16/16	52143	8	14/16
22182	7	3,15/16	35139	2	N7/16*				52144	6	N3/16
22342	10	N6/16*	35140	2	N6/16*	44048	13	N4,N5/16	52180	14	16/16
22347	6	N8/16**	36001		N4,N6,N18/16	44049	11	N6,N13,N17,N18/16	53011	3	15/16
24406	32	N11/16	36005	3	2,3,4,6,16,18/16	44050	24	N5,N9,N13,N17,N18/16	53031	2	10/16
24430	5	5,8,10/16	36006	2	N6/16*	44052	2	N10,N13,N16/16	53060	15	8,10,15/16
24431	14	8/16	36012	1	N14/16*	44054	1	N5/16	53061	11	N2,N11,N15/16
24434	4	5,10/16	36017	2	N13/16*	44061	22	6,7,12/16	53062	14	N11,N13/16
24435	5	5/16	36022	2	N13/16*	44062	9	N7,N17/16	53063	9	2/16
24450	3	7,8/16	36024	2	N13/16*	44063	9	N6,N17/16	53066	3	N5/16*
24452	7	10/16	36033	3	N13/16*	44064	20	N6,N14/16	53081	10	N9,N15/16
24453	5	7/16	36044	3	N13/16*	44067	23	6,14,17/16	53082	15	N9,N10,N16/16
24454	5	6,7/16	36049	2	N4/16	44069	17	N6,N12/16	53083	8	8,10,16/16
24460	4	4,6/16	37003	2	N10/16*	44082	12	N4/16	53084	7	N2/16
24470	4	5/16	37005	18	N16/16	44083	9	N5/16	53086	9	N2/16
24471	9	6,8/16	37008	5	N9/16*	44084	2	N2,N4/16	53089	4	8/16
24480	2	N6*,N9,N18/16	37010	25	N16/16	44100	9	N7,N14/16	53093	4	N2/16
24481	7	6/16	37015	2	N6/16	44105	2	8/16	53100	18	N10/16
24484	3	10/16	37016	4	N6/16*	44120	9	N4,N15,N18/16	53105	21	N5,N11,N12,N14/16
24486	1	18/16	37019	4	N13/16*	44140	10	N3,N13/16	53106	8	N3*,N12/16
24490	3	8/16	37020	4	N13/16*	44178	3	N2/16*	53110	1	2,15/16
24502	6	5/16	37021	4	N10/16*	44180	7	N5/16	53111	4	9,12/16
24504	7	4/16	37022	2	N2/16*	44181	6	N5/16	53141	6	N6/16
24507	1	4/16	37025	26	2,6,18/16	44183	7	N5/16	53149	3	N9/16
24508	4	3/16	37030	2	N2/16*	44185	8	N4,N5/16	53160	15	N15/16*
24510	3	3,4/16	37032	3	N3/16*	44187	2	5,8/16	53161	8	3/16
24517	2	8,18/16	37033	3	N17/16*	44361	8	N10/16	53162	7	3,9/16
25017	6	N13/16	37034	3	N7/16*	44362	2	N2/16*	53164	10	N9/16
25018	9	13/16	37035	2	N18/16*	44401	9	N4/16	53165	14	N2,N4,N5/16
25521	35	6/16	37036	2	N18/16*	44430	4	N3,N13,N18/16	53180	11	N3*,N9/16
25527	32	N11/16	37038	2	N18/16*	44446	1	N18/16	53182	5	N3/16*
25550	2	3/16	37050	10	N2,N6,N18/16	44462	5	N3,N13,N18/16	53183	14	N4,N9/16
25561	24	2/16	37051	3	N13/16*	44463	10	N3,N13,N18/16	53184	5	9/16
25563	50	2,11,15/16	37052	5	N14/16*	44465	4	N3,N13/16	53200	7	9,15,17/16
25566	27	15/16	37057	4	N14/16*	51002	7	13,14/16	53203	12	N15,N17/16
25570	4	N5/16*	37080	4	N3,N8,N13/16	51013	4	14,17/16	53204	10	15/16

SECTION I

NM 18/16

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/16 THROUGH NM 18/16

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53205	3	17/16	55140	3	N9/16*	73004	4	8/16	93044	2	5/16
53206	8	N3/16*	55150	2	2/16	73006	2	8/16	93047	2	5,18/16
53207	1	N17/16	55160	2	2,4/16	73082	1	8/16	93048	1	2,17/16
53220	7	15,16/16	56011	1	15,16/16	73393	2	N14/16*	93049	1	5/16
53226	3	16/16	56065	4	N18/16	73461	6	8/16	93110	2	4/16
53242	12	4/16	56067	4	N18/16	73580	4	7/16	93113	3	N4/16
53244	3	N5/16*	57006	5	5/16	73581	4	7,13/16	93115	3	N18/16
53262	8	10/16	57100	10	12/16	74031	2	N17/16*	93117	3	18/16
53263	1	10/16	57120	13	2,12/16	74180	3	N18/16*	93180	8	N13/16
53268	4	10/16	57123	1	N2/16	74181	8	5/16	93261	6	N13/16
53279	4	2,9/16	57180	6	2,3,4,5,10/16	74182	12	5,13/16	93610	4	N15/16
53285	4	2/16	57181	6	3,5/16	74189	2	N17/16*	93710	4	N4,N15/16
53287	6	2,9/16	57182	12	3,5,11/16	74190	7	13/16	93720	11	3,4,12,15/16
53302	4	15/16	57183	1	3,11,13/16	74199	2	N17/16*	93721	6	N3,N4,N5,N12/16
53311	4	N3/16*	57200	6	2,3,4,10/16	74209	3	N18/16*	93725	6	3,12/16
53313	1	N3/16	57201	6	N3,N4,N9,N10,N11/16	74212	3	N17/16*	93726	5	3,12/16
54040	4	N4/16*	57240	8	6/16	74213	3	N17/16*	93730	5	N3,N12/16
54041	7	10/16	57241	13	N2,N3,N8/16	74216	3	N18/16*	93733	14	N12/16
54043	3	N3/16*	57242	9	6/16	74223	3	N18/16*	93734	13	N12/16
54060	5	10,13/16	57381	13	N10/16	74227	3	N18/16*	93736	25	N3,N10/16
54061	13	N3,N10/16	61060	7	N12/16	74228	5	N18/16*	93778	9	N4,N5,N15/16
54082	13	N13,N16/16	61061	11	N12/16	74237	3	N13/16	94004	7	7,16,18/16
54083	5	N13,N16/16	61211	8	N2/16	74243	3	N17/16*	94016	3	7,18/16
54090	3	9,13/16	61433	2	N3/16*	74245	3	N18/16*	94033	6	4/16
54095	3	9/16	61434	3	N5/16*	74266	3	N17/16*	94040	14	16/16
54105	3	9/16	62000	21	2/16*	74267	3	N18/16*	94060	12	4,16,18/16
54125	4	8/16	62024	14	14/16*	74277	3	N17/16*	94061	6	4,14,16,18/16
54131	3	5*,10,15/16	62028	16	17/16*	74302	3	N17/16*	94067	11	16,18/16
54140	8	8/16	62090	8	N2/16*	74345	2	N17/16*	94080	8	18/16
54141	4	2,3/16	62093	9	N3/16	75147	2	N17/16*	94082	9	18/16
54180	7	8/16	62095	5	N3/16	81023	6	17/16*	94120	7	7,18/16
54195	3	8,13/16	62097	6	16/16	81076	13	4/16	94123	10	N18/16
54200	4	2,6,7,8,9/16	62098	8	N16/16	81544	7	10/16*	94160	9	5,7,18/16
54201	6	2,6,13/16	62230	4	N16/16*	81711	7	4/16	94164	2	5,18/16
54220	5	2,6,7,9/16	62241	11	N5/16	82689	4	N5/16*	94165	4	5/16
54222	4	2/16	62242	12	N5/16	82690	11	N3/16*	94282	9	13/16
54223	2	2,6/16	62313	5	N2/16*	91005	6	14/16	94287	2	5,13/16
54224	3	2/16	62367	1	N14/16	91008	2	N16,N18/16	94290	3	13/16
54225	2	2/16	62490	3	12/16	91010	6	18/16	94420	4	13/16
54226	2	6,12/16	62541	4	N12/16	91020	6	N11,N14,N16/16	94421	11	4/16
54227	3	N12/16	62590	3	12/16	91025	8	11/16	94423	13	N4/16
54279	4	10/16	62591	5	N5*,N12/16	91030	4	N14,N16/16	94440	4	N4/16
54280	11	10/16	63000	14	6/16*	91040	1	16/16	95016	9	9,11/16
54281	6	10/16	63005	19	5/16*	91080	4	14,16/16	95060	15	N9/16
54288	5	10/16	63054	4	N5/16*	91081	1	16/16	95066	13	N9/16
54320	4	14/16	63291	9	7/16	91160	4	11/16	95068	3	N3,N7,N9,N15,N16/16
54324	9	8/16	63350	2	N18/16*	91175	3	11/16	95082	10	N16,N18/16
54334	3	9,14/16	63380	2	13/16	91220	3	11/16	95083	9	N16,N18/16
54335	3	9/16	63390	2	5/16	91240	5	11/16	95087	4	N5,N16,N18/16
54339	9	N18/16	63400	1	5/16	91280	8	N11/16	95162	3	N3/16
54341	4	18/16	63410	6	4/16	91286	11	N13/16	95180	13	N3/16
54344	6	18/16	63413	6	N4/16	91289	20	N13/16	95250	4	11/16
54346	9	18/16	63417	3	N4/16	91300	4	N12/16*	95262	13	11/16
54363	3	9/16	63420	2	4/16	91331	3	11,14,16/16	95263	1	N3,N5,N11/16
54369	5	N16*,N18/16	71027	10	N5,N15,N17,N18/16	91340	4	N14,N16/16	95266	2	N3/16
54380	7	N4/16	71050	2	5/16	91345	1	N11,N14,N16/16	95267	6	9/16
54382	9	4,11/16	71058	3	N15/16	91350	1	N4/16	95270	5	5,9,13/16
54387	7	11/16	71059	2	N15/16	91400	3	N16/16	95274	4	3,5,13/16
54389	8	4,14/16	71061	16	N15/16	92006	5	15,17/16	95277	1	N13/16
54400	8	14,15/16	71071	6	5/16	92020	2	14/16	95279	1	N3/16
54402	4	14/16	71238	1	N2,N3/16	92025	4	N14,N16/16	96036	2	9/16
54403	4	2,11/16	71243	6	2/16	92030	4	13,14/16	96041	12	N4/16
54406	2	14/16	71252	3	N18/16	92033	5	11/16	96042	12	N4,N8/16
54407	4	14,15/16	71253	12	N18/16	92050	2	N16/16	96141	4	4/16
54416	6	N14/16	71254	2	N18/16	92070	3	16/16	96181	5	4/16
54418	4	15/16	71255	7	N18/16	92090	2	14,16/16	96200	5	4/16
54421	6	14/16	71261	9	10/16	92100	3	14/16	96938	4	4/16
54430	1	14/16	71271	12	N8/16	92150	4	N11/16	96951	2	N14/16
54441	6	4,9,17/16	71275	4	10/16	92170	3	11/16	96962	4	14/16
54480	9	N4/16	71285	4	8/16	92290	3	N14/16	97005	9	7,11,14,16/16
54481	10	N2/16	71295	3	5/16	92302	3	N16/16	97015	10	17/16
54482	1	N2,N18/16	71320	2	N15,N17/16	92320	4	10/16	97040	5	7/16
55001	4	11/16	71330	14	N2,N6,N15,N17/16	92330	3	16/16	97050	2	N16/16
55040	4	11,12/16	71331	11	15,17/16	92350	4	13/16	97080	6	16/16
55041	7	11/16	71333	2	2,17/16	92356	2	13/16	97084	3	N16/16
55042	2	N4,N16/16	71335	3	N15,N17/16	92360	3	14/16	97090	1	N3/16
55043	2	12/16	71340	12	N6,N15,N18/16	92380	4	N10,N14/16	97120	6	17/16
55044	5	11,12/16	71343	4	N6,N17/16	92383	8	N10/16	97145	2	12/16
55045	3	N11/16	71348	4	N6/16	92385	5	N10/16	97166	2	N2/16
55046	5	N2,N4,N9,N17/16	71350	8	6,17/16	92440	5	16/16	97167	3	2/16
55048	13	N4,N17/16	71402	1	6/16	92470	3	14/16	97180	7	N17/16
55049	7	N4/16	72007	10	15/16	93006	3	4,12,16/16	97267	16	4/16
55064	4	N10*,N15/16	72021	8	15/16	93010	6	13/16	97330	1	N2/16
55100	8	11/16	72085	3	15/16	93018	8	13,17/16	97342	14	2/16
55104	3	N3/16*	72141	5	17/16	93020	2	5/16	97345	2	2/16
55110	2	11,15/16	72143	5	17/16	93030	7	5/16	97440	8	2/16
55138	5	16/16	73000	9	8/16	93036	12	N12,N15/16	97483	7	4/16

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/16 THROUGH NM 18/16

Note: N indicates Not For Sale; P indicates Preliminary; T indicates Temporary;
* indicates New Edition/New Chart; ** indicates Chart Canceled

Chart No.	Ed. No.	Notice to Mariners No.
802202	8	N14,N17/16
803222	1	N10,N14/16
803316	2	N16/16**
803416	1	N16/16*
803435	1	N16*,N17/16
803444	1	N16/16
803445	1	N3/16
803455	1	N10/16
803468	1	N13,N16/16
803496	1	N10/16
803621	1	N18/16*
803636	1	N16/16*
803728	1	N18/16*
805647	2	N8/16**
806901	1	N5,N16,N18/16
806973	1	N7,N9,N15,N16/16
809144	1	N4,N17/16
809147	1	N8/16*
809167	1	N12/16
809179	1	N18/16*

SECTION II
NGA/DLIS CATALOG CORRECTIONS

NM 18/16

Note: Underlining indicates that column in which a correction has been made or new information added.			Edition		Price Category	NTM
NGA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date		
REGION 1						
14XCO14968 (7642014010604)	Grand Portage Bay, Minn. to Shesheeb Point, Ont.	120,000	<u>29</u>	<u>2/16</u>	NOS	18/16
14XHA14976 (7642014010717)	Isle Royale	40,000	<u>19</u>	<u>2/16</u>	NOS	18/16
REGION 3						
37AHA37035 (7642015122658)	<u>UKHO 1186, River Thames - Canvey Island to Tilbury</u>		2	<u>11/13</u>	UKHO	18/16
	<u>Panel A: Canvey Island to Coalhouse Point</u>	12,500				
	<u>51 26 14N 0 19 21E</u>					
	<u>51 30 47N 0 36 28E</u>					
	<u>B: Coalhouse Point to Tilbury</u>	12,500				
	<u>51 26 14N 0 19 23E</u>					
	<u>51 25 02N 0 26 16E</u>					
37AHA37036 (7642015122643)	<u>UKHO 2151, River Thames - Tilbury to Margaret Ness</u>	12,500	<u>2</u>	<u>1/14</u>	UKHO	18/16
	<u>51 26 32N 0 11 54E</u>					
	<u>51 30 47N 0 22 55E</u>					
	<u>Inset: Continuation</u>	12,500				
	<u>51 29 38N 0 04 08E</u>					
	<u>51 29 38N 0 09 26E</u>					
	<u>51 28 32N 0 10 28E</u>					
	<u>51 28 32N 0 12 45E</u>					
	<u>51 31 17N 0 12 45E</u>					
	<u>51 31 17N 0 04 08E</u>					
37BHA37038 (INT 1574) (7642015122645)	<u>UKHO 2484, River Thames - Hole Haven to London Bridge</u>		2	<u>7/13</u>	UKHO	18/16
	<u>Panel A: Hole Haven to Purfleet</u>	25,000				
	<u>51 26 14N 0 12 36E</u>					
	<u>51 31 20N 0 33 44E</u>					
	<u>B: Purfleet to London Bridge</u>	25,000				
	<u>51 28 08N 0 05 24W</u>					
	<u>51 31 22N 0 15 46E</u>					
	<u>C: Continuation of Hole Haven Creek</u>	25,000				
	<u>51 30 41N 0 30 03E</u>					
	<u>51 32 56N 0 33 25E</u>					
	<u>D: Thames Tidal Barrier</u>	5,000				
	<u>51 29 35N 0 01 37E</u>					
	<u>51 30 06N 0 02 49E</u>					
REGION 6						
63ACO63350 (7642014008998)	<u>Manaung (Cheduba) Island to Pagoda Point</u>	300,000	<u>2</u>	<u>1/16</u>	<u>DS</u>	18/16
REGION 7						
74AHA74180 (7642015273188)	Aus. 237, Brisbane River - The Bar to Lytton Reach <u>27 25 19S 153 07 55E</u> <u>27 18 20S 153 12 52E</u>	12,500	<u>3</u>	<u>7/13</u>	AHS	18/16
74BHA74209 (7642015273160)	Aus. 819, Bustard Head to North Reef	150,000	<u>3</u>	<u>8/14</u>	AHS	18/16
74BHA74216 (7642015444212)	Aus. 256, Cleveland Bay and Approaches	50,000	<u>3</u>	<u>7/14</u>	AHS	18/16
	Plans: Cape Ferguson	10,000				
	<u>Nelly Bay</u>	7,500				
74BCO74223 (7642015273142)	Aus. 826, Bowen to Cape Bowling Green	150,000	<u>3</u>	<u>7/14</u>	AHS	18/16
74BCO74227 (7642015273239)	Aus. 821, Hydrographers Passage	150,000	<u>3</u>	<u>7/14</u>	AHS	18/16

**SECTION II
NGA/DLIS CATALOG CORRECTIONS**

Note: Underlining indicates that column in which a correction has been made or new information added.			Edition		Price Category	NTM
NGA Ref. No. (National Stk. No.)	Title	Scale = 1:	No.	Date		
<u>74BCO74228</u> (7642015273240)	Aus. 823, Percy Isles to Mackay <u>21 51 36S 149 09 00E</u> <u>20 56 00S 150 43 00E</u>	150,000	<u>5</u>	<u>7/14</u>	AHS	18/16
<u>74BCO74245</u> (7642015366799)	Aus. 820, North Reef to Port Clinton	150,000	<u>3</u>	<u>8/14</u>	AHS	18/16
<u>74BHA74267</u> (7642015273184)	Aus. 834, Claremont Isles to Cape Weymouth <u>13 54 00S 143 13 20E</u> <u>12 22 00S 144 12 50E</u>	150,000	<u>3</u>	<u>10/15</u>	AHS	18/16
MISCELLANEOUS CHARTS AND PUBLICATIONS						
<u>LPCXX803621</u> (7642016001208)	<u>Jazirat Faylaka</u> <u>29 11 00N 48 09 00E</u> <u>29 30 00N 48 48 00E</u>	<u>50,000</u>	<u>1</u>	<u>8/15</u>	<u>DS</u>	18/16
<u>LPCXX803728</u> (7642016012828)	<u>Salalah</u> <u>16 52 30N 53 56 00E</u> <u>17 12 00N 54 27 00E</u>	<u>50,000</u>	<u>1</u>	<u>5/15</u>	<u>DS</u>	18/16
<u>LPCXX809179</u> (7642016012827)	<u>Al Mukalla</u> <u>14 24 00N 49 00 00E</u> <u>14 43 00N 49 30 00E</u>	<u>50,000</u>	<u>1</u>	<u>7/15</u>	<u>DS</u>	18/16
DNCDX012 (7644014474190)	Japan/North Pacific		<u>27</u>	<u>3/16</u>	DS	18/16
CDPUBQTLY (7644015310779)	Digital Nautical Publications-Quarterly Update (1st Quarter 2016)		<u>161</u>	<u>2016</u>	<u>DS</u>	18/16

Price Categories effective 1 October 2015

A 23.75 D 14.75 E 12.25 F 12.25 G 7.75 H 12.25

- CHS Canadian Hydrographic Service
- DS Distribution Limited
- GPO Government Printing Office
- NOS National Ocean Service
- UKHO United Kingdom Hydrographic Office
- DHO Danish Hydrographic Office
- AHS Australian Hydrographic Service
- JCG Japan Coast Guard
- * Not for sale or reproduction outside U.S.A.

Note: New editions cancel former editions. They include corrections published in the Notice to Mariners prior to the effective date of the new editions and/or important corrections from other sources. Mariners are warned against the use of obsolete charts and publications as new editions contain information essential to safe navigation; however, such new editions are not valid until their availability is announced in the weekly Notice to Mariners.

DoD users and DoD contractors may direct questions concerning the availability and distribution of announced hardcopy charts to the Defense Logistics Agency (DLA) at 1-800-826-0342 or 804-279-6500; DSN 695-6500; Fax 804-279-6524.

Civilian users can obtain information about ordering NGA paper charts at: <http://www.nauticalcharts.noaa.gov/staff/charts.htm>.

SAILING DIRECTIONS CORRECTIONS

PUB 146 16 Ed 2014 LAST NM 12/15
 Pub. 146 has been updated to 26 March 2016, including Notice to Mariners 13/2016, and can be downloaded from the NGA Maritime Website
<http://msi.nga.mil/NGAPortal/MSI.portal>
 (NGA) 18/16

PUB 175 12 Ed 2014 LAST NM 38/14
 Pub. 175 has been updated to 2 April 2016, including Notice to Mariners 14/2016, and can be downloaded from the NGA Maritime Website
<http://msi.nga.mil/NGAPortal/MSI.portal>
 (NGA) 18/16

COAST PILOT CORRECTIONS

COAST PILOT 1 45 Ed 2015 20 MAR 2016
LAST NM 47/15

Chapter 2—Paragraphs 2738 to 2749.25; read:

⁽²⁷³⁸⁾ **§226.203 Critical habitat for North Atlantic right whales (*Eubalaena glacialis*).**

⁽²⁷³⁹⁾ Critical habitat is designated for North Atlantic right whales as described in this section. The textual descriptions in paragraph (b) of this section are the definitive source for determining the critical habitat boundaries. The maps of the critical habitat units provided in paragraph (c) of this section are for illustrative purposes only.

⁽²⁷⁴⁰⁾ (a) Physical and biological features essential to the conservation of endangered North Atlantic right whales.

⁽²⁷⁴¹⁾ (1) Unit 1. The physical and biological features essential to the conservation of the North Atlantic right whale, which provide foraging area functions in Unit 1 are: The physical oceanographic conditions and structures of the Gulf of Maine and Georges Bank region that combine to distribute and aggregate *C.finmarchicus* for right whale foraging, namely prevailing currents and circulation patterns, bathymetric features (basins, banks, and channels), oceanic fronts, density gradients, and temperature regimes; low flow velocities in Jordan, Wilkinson, and Georges Basins that allow diapausing *C.finmarchicus* to aggregate passively below the convective layer so that the copepods are retained in the basins; late stage *C.finmarchicus* in dense aggregations in the Gulf of Maine and Georges Bank region; and diapausing *C.finmarchicus* in aggregations in the Gulf of Maine and Georges Bank region.

⁽²⁷⁴²⁾ (2) Unit 2. The physical features essential to the conservation of the North Atlantic right whale, which

provide calving area functions in Unit 2, are:

⁽²⁷⁴³⁾ (i) Sea surface conditions associated with Force 4 or less on the Beaufort Scale,

⁽²⁷⁴⁴⁾ (ii) Sea surface temperatures of 7°C to 17°C, and

⁽²⁷⁴⁵⁾ (iii) Water depths of 6 to 28 meters, where these features simultaneously co-occur over contiguous areas of at least 231 nm² of ocean waters during the months of November through April. When these features are available, they are selected by right whale cows and calves in dynamic combinations that are suitable for calving, nursing, and rearing, and which vary, within the ranges specified, depending on factors such as weather and age of the calves.

⁽²⁷⁴⁶⁾ (b) Critical habitat boundaries. Critical habitat includes two areas (Units) located in the Gulf of Maine and Georges Bank Region (Unit 1) and off the coast of North Carolina, South Carolina, Georgia and Florida (Unit 2).

⁽²⁷⁴⁷⁾ (1) Unit 1. The specific area on which are found the physical and biological features essential to the conservation of the North Atlantic right whale include all waters, seaward of the boundary delineated by the line connecting the geographic coordinates and landmarks identified herein:

⁽²⁷⁴⁸⁾ (i) The southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.).

⁽²⁷⁴⁹⁾ (ii) From this point, southwesterly to 41°37.19'N., 69°59.11'W.

^(2749.01) (iii) From this point, southward along the eastern shore of South Monomoy Island to 41°32.76'N., 69°59.73'W.

^(2749.02) (iv) From this point, southeasterly to 40°50'N., 69°12'W.

^(2749.03) (v) From this point, east to 40°50'N., 68°50'W.

^(2749.04) (vi) From this point, northeasterly to 42°00'N., 67°55'W.

^(2749.05) (vii) From this point, east to 42°00'N., 67°30'W.

^(2749.06) (viii) From this point, northeast to the intersection of the U.S.-Canada maritime boundary and 42°10'N.

^(2749.07) (ix) From this point, following the U.S.-Canada maritime boundary north to the intersection of 44°49.727'N., 66°57.952'W.; From this point, moving southwest along the coast of Maine, the specific area is located seaward of the line connecting the following points:

^(2749.08) Insert table titled **Table 226.203** from back of this Subsection.

COAST PILOT 1 (Continued)

^(2749.09) (x) From this point (43°2.55'N., 70°43.33'W.) on the coast of New Hampshire south of Portsmouth, the boundary of the specific area follows the coastline southward along the coasts of New Hampshire and Massachusetts along Cape Cod to Provincetown southward along the eastern edge of Cape Cod to the southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.) with the exception of the area landward of the lines drawn by connecting the following points:

^(2749.10) Insert table titled **Table 226.203a** from back of this Subsection.

^(2749.11) (xi) In addition, the specific area does not include waters landward of the 72 COLREGS lines (33 CFR part 80) described below.

^(2749.12) (A) Portland Head, ME to Cape Ann, MA.

^(2749.13) (1) A line drawn from the northernmost extremity of Farm Point to Annisquam Harbor Light.

^(2749.14) (2) [Reserved]

^(2749.15) (B) Cape Ann MA to Marblehead Neck, MA.

^(2749.16) (1) A line drawn from Gloucester Harbor Breakwater Light to the twin towers charted at latitude 42°35'06.177"N., longitude 70°41'32.330"W.

^(2749.17) (2) A line drawn from the westernmost extremity of Gales Point to the easternmost extremity of House Island; thence to Bakers Island Light; thence to Marblehead Light.

^(2749.18) (C) Hull, MA to Race Point, MA.

^(2749.19) (1) A line drawn from Canal Breakwater Light 4 south to the shoreline.

^(2749.20) (2) [Reserved]

^(2749.21) (2) Unit 2. Unit 2 includes marine waters from Cape Fear, North Carolina, southward to 28°N latitude (approximately 31 miles south of Cape Canaveral, Florida) within the area bounded on the west by the shoreline and the 72 COLREGS lines, and on the east by rhumb lines connecting the following points in the order stated from north to south: foraging area and southeastern calving area. (See 50 CFR 226.203, chapter 2 for limits, regulations and exceptions).

^(2749.22) Insert new table titled **Table 226.203b** from back of this Subsection.

^(2749.23) (c) Overview maps of the designated critical habitat for the North Atlantic right whale follow.

^(2749.24) Insert new table titled **North Atlantic Right Whale Critical Habitat Northeastern U.S. Foraging Area Unit 1** from back of this Subsection.

^(2749.25) Insert new table titled **North Atlantic Right Whale Critical Habitat Southeastern U.S. Calving Area Unit 2** from back of this Subsection.

(L 85-2016; FR 1/27/16)

18/16

COAST PILOT 1 45 Ed 2015 27 MAR 2016

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and

COAST PILOT 1 (Continued)

sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

Chapter 2—Paragraphs 2168 to 2168.11; read:

⁽²¹⁶⁸⁾ **§165.120 Security Zone, John Joseph Moakley United States Courthouse, Boston, MA.**

^(2168.01) (a) Location. This security zone encompasses all U.S. navigable waters, from surface to bottom, within five hundred (500) yards of the John Joseph Moakley United States Courthouse (Moakley Courthouse) in Boston, MA, and following any natural waterside seawall configuration.

^(2168.02) (b) Regulations. While this security zone is being enforced, the following regulations, along with those contained in 33 CFR 165.33, apply:

^(2168.03) (1) No person or vessel may enter or remain in this security zone without the permission of the Captain of the Port (COTP), Sector Boston. However, the COTP hereby grants vessels permission to enter this security zone as long as such vessels proceed through the area with caution and operate at a speed no faster than that speed necessary to maintain a safe course, unless otherwise required by the Navigation Rules as published in 33 CFR part 83 and remain beyond one hundred (100) yards of the Moakley Courthouse in Boston, MA, following any natural waterside seawall configuration enclosed by a line connecting the following points:

^(2168.04) <Insert new table titled **Table 165** from back of this Subsection.>

^(2168.05) (2) Although vessels have permission to enter the five hundred (500) yards security zone under the conditions mentioned in the preceding paragraph, no person or vessel may come within one hundred (100) yards of the Moakley Courthouse under any conditions unless given express permission from the COTP or the COTP's designated representatives.

^(2168.06) (3) Any person or vessel permitted to enter the security zone shall comply with the directions and orders of the COTP or the COTP's representatives. Upon be-

ing hailed by siren, radio, flashing lights, or other means, the operator of a vessel within the zone shall proceed as directed. Any person or vessel within the security zone shall exit the zone when directed by the COTP or the COTP's representatives.

^(2168.07) (4) To obtain permissions required by this regulation, individuals may reach the COTP or a COTP representative via VHF channel 16 or 617–223–5757 (Sector Boston Command Center) to obtain permission.

^(2168.08) (5) Penalties. Those who violate this section are subject to the penalties set forth in 33 U.S.C. 1232 and 50 U.S.C. 192.

^(2168.09) (c) Effective and enforcement period. This security zone is in effect permanently but will only be enforced when deemed necessary by the COTP. Anyone, including members of federal, state or local law enforcement agencies, may request that this security zone be enforced.

^(2168.10) (d) Notification. The COTP will notify the public of the enforcement of this security zone by publishing a Notice of Enforcement (NOE) in the Federal Register and via the other means listed in 33 CFR 165.7. Such notifications will include the date and times of enforcement, along with any predetermined conditions of entry.

^(2168.11) (e) COTP representative. The COTP's representative may be any Coast Guard commissioned, warrant, or petty officer or any Federal, state, or local law enforcement officer who has been designated by the COTP to act on the COTP's behalf. The COTP's representative may be on a Coast Guard vessel, a Coast Guard Auxiliary vessel, federal, state or local law enforcement or safety vessel, or a location on shore.

(FR 3/1/16) 18/16

COASTPILOT 1 45Ed2015

Chapter 3—Paragraph 61; read:

⁽⁶¹⁾ Seasonal occurrence of North Atlantic right whales—During seasons and in areas where right whales may occur, vessel operators should maintain a sharp lookout for whales and reduce speeds when consistent with safe navigation. In any given year oceanographic variability may affect the seasonal distribution of right whales. In 1986, right whales were frequently sighted within the Stellwagen Bank National Marine Sanctuary throughout the summer, and in the early spring of 1998 a large number of right whales were documented near the Narragansett/Buzzards Bay Traffic Separation Scheme. Two areas in U.S. waters have been designated as critical habitats for North Atlantic right whales; the northeastern foraging area and southeastern calving area. (See 50 CFR 226.203, chapter 2 for limits, regulations and exceptions).

(L 85-2016) 18/16

COAST PILOT 1 (Continued)

Chapter 11—Paragraph 141; read:

⁽¹⁴¹⁾ Endangered North Atlantic right whales may occur in the Stellwagen Bank and Jefferys Ledge area year-round (peak season for Jefferys Ledge: October through December; peak season in the Stellwagen Bank: early spring). This area has been designated as the Gerry E. Studds-Stellwagen Bank National Marine Sanctuary, and includes the North Atlantic Right Whale Critical Habitat Northeastern Foraging Area (See 50 CFR 226.203, chapter 2, for limits and regulations.) The Pilots distribute educational material to mariners in an effort to reduce right whale ship strikes. (See North Atlantic Right Whales, indexed as such, chapter 3, for more information on right whales and recommended measures to avoid collisions with whales.)

(L 85-2016)

18/16

Chapter 12—Paragraph 64; read:

⁽⁶⁴⁾ Cape Cod Bay lies within the federally designated critical habitat for North Atlantic right whales. The Northeastern Foraging Area is a primary winter/spring feeding area, and may be inhabited by right whales year-round (peak season: December through May). (See 50 CFR 226.101 and 226.203, chapter 2 for habitat boundary and regulations.) It is illegal to approach closer than 500 yards of any right whale (see 50 CFR 224.103(c), chapter 2, for limits and regulation.)

(L 85-2016)

18/16

**COAST PILOT 2 45 Ed 2016 20 MAR 2016
LAST NM 5/16**

Chapter 2—Paragraphs 4037 to 4048.24; read:

⁽⁴⁰³⁷⁾ **§226.203 Critical habitat for North Atlantic right whales (*Eubalaena glacialis*).**

⁽⁴⁰³⁸⁾ (a) Physical and biological features essential to the conservation of endangered North Atlantic right whales.

⁽⁴⁰³⁹⁾ (1) Unit 1. The physical and biological features essential to the conservation of the North Atlantic right whale, which provide foraging area functions in Unit 1 are: The physical oceanographic conditions and structures of the Gulf of Maine and Georges Bank region that combine to distribute and aggregate *C.finmarchicus* for right whale foraging, namely prevailing currents and circulation patterns, bathymetric features (basins, banks, and channels), oceanic fronts, density gradients, and temperature regimes; low flow velocities in Jordan, Wilkinson, and Georges Basins that allow diapausing *C.finmarchicus* to aggregate passively below the convective layer so that the copepods are retained in the basins; late stage *C.finmarchicus* in dense aggregations in the Gulf of Maine and Georges Bank region; and diapausing *C.finmarchicus*

in aggregations in the Gulf of Maine and Georges Bank region.

⁽⁴⁰⁴⁰⁾ (2) Unit 2. The physical features essential to the conservation of the North Atlantic right whale, which provide calving area functions in Unit 2, are:

⁽⁴⁰⁴¹⁾ (i) Sea surface conditions associated with Force 4 or less on the Beaufort Scale,

⁽⁴⁰⁴²⁾ (ii) Sea surface temperatures of 7°C to 17°C, and

⁽⁴⁰⁴³⁾ (iii) Water depths of 6 to 28 meters, where these features simultaneously co-occur over contiguous areas of at least 231 nmi² of ocean waters during the months of November through April. When these features are available, they are selected by right whale cows and calves in dynamic combinations that are suitable for calving, nursing, and rearing, and which vary, within the ranges specified, depending on factors such as weather and age of the calves.

⁽⁴⁰⁴⁴⁾ (b) Critical habitat boundaries. Critical habitat includes two areas (Units) located in the Gulf of Maine and Georges Bank Region (Unit 1) and off the coast of North Carolina, South Carolina, Georgia and Florida (Unit 2).

⁽⁴⁰⁴⁵⁾ (1) Unit 1. The specific area on which are found the physical and biological features essential to the conservation of the North Atlantic right whale include all waters, seaward of the boundary delineated by the line connecting the geographic coordinates and landmarks identified herein:

⁽⁴⁰⁴⁶⁾ (i) The southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.).

⁽⁴⁰⁴⁷⁾ (ii) From this point, southwesterly to 41°37.19'N., 69°59.11'W.

⁽⁴⁰⁴⁸⁾ (iii) From this point, southward along the eastern shore of South Monomoy Island to 41°32.76'N., 69°59.73'W.

^(4048.01) (iv) From this point, southeasterly to 40°50'N., 69°12'W.

^(4048.02) (v) From this point, east to 40°50'N., 68°50'W.

^(4048.03) (vi) From this point, northeasterly to 42°00'N., 67°55'W.

^(4048.04) (vii) From this point, east to 42°00'N., 67°30'W.

^(4048.05) (viii) From this point, northeast to the intersection of the U.S.-Canada maritime boundary and 42°10'N.

^(4048.06) (ix) From this point, following the U.S.-Canada maritime boundary north to the intersection of 44°49.727'N., 66°57.952'W.; From this point, moving southwest along the coast of Maine, the specific area is located seaward of the line connecting the following points:

COAST PILOT 2 (Continued)

^(4048.07) Insert table titled **Table 226.203** from back of this Subsection.

^(4048.08) (x) From this point (43°2.55'N., 70°43.33'W.) on the coast of New Hampshire south of Portsmouth, the boundary of the specific area follows the coastline southward along the coasts of New Hampshire and Massachusetts along Cape Cod to Provincetown southward along the eastern edge of Cape Cod to the southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.) with the exception of the area landward of the lines drawn by connecting the following points:

^(4048.09) Insert table titled **Table 226.203a** from back of this Subsection.

^(4048.10) (xi) In addition, the specific area does not include waters landward of the 72 COLREGS lines (33 CFR part 80) described below.

^(4048.11) (A) Portland Head, ME to Cape Ann, MA.

^(4048.12) (1) A line drawn from the northernmost extremity of Farm Point to Annisquam Harbor Light.

^(4048.13) (2) [Reserved]

^(4048.14) (B) Cape Ann MA to Marblehead Neck, MA.

^(4048.15) (1) A line drawn from Gloucester Harbor Breakwater Light to the twin towers charted at latitude 42°35'06.177"N., longitude 70°41'32.330"W.

^(4048.16) (2) A line drawn from the westernmost extremity of Gales Point to the easternmost extremity of House Island; thence to Bakers Island Light; thence to Marblehead Light.

^(4048.17) (C) Hull, MA to Race Point, MA.

^(4048.18) (1) A line drawn from Canal Breakwater Light 4 south to the shoreline.

^(4048.19) (2) [Reserved]

^(4048.20) (2) Unit 2. Unit 2 includes marine waters from Cape Fear, North Carolina, southward to 28°N latitude (approximately 31 miles south of Cape Canaveral, Florida) within the area bounded on the west by the shoreline and the 72 COLREGS lines, and on the east by rhumb lines connecting the following points in the order stated from north to south: foraging area and southeastern calving area. (See 50 CFR 226.203, chapter 2 for limits, regulations and exceptions).

^(4048.21) Insert new table titled **Table 226.203b** from back of this Subsection.

^(4048.22) (c) Overview maps of the designated critical habitat for the North Atlantic right whale follow.

^(4048.23) Insert new table titled **North Atlantic Right Whale Critical Habitat Northeastern U.S. Foraging Area Unit 1** from back of this Subsection.

^(4048.24) Insert new table titled **North Atlantic Right Whale Critical Habitat Southeastern U.S. Calving**

Area Unit 2 from back of this Subsection.

(L 85-2016)

18/16

Chapter 3—Paragraph 52; read:

⁽⁵²⁾ Seasonal occurrence of North Atlantic right whales—During seasons and in areas where right whales may occur, vessel operators should maintain a sharp lookout for whales and reduce speeds when consistent with safe navigation. In any given year oceanographic variability may affect the seasonal distribution of right whales. In 1986, right whales were frequently sighted within the Stellwagen Bank National Marine Sanctuary throughout the summer, and in the early spring of 1998 a large number of right whales were documented near the Narragansett/Buzzards Bay Traffic Separation Scheme. Two areas in U.S. waters have been designated as critical habitats for North Atlantic right whales; the northeastern foraging area and southeastern calving area. (See 50 CFR 226.203, chapter 2 for limits, regulations and exceptions).

(L 85-2016)

18/16

Chapter 3—Paragraph 141; read:

⁽¹⁴¹⁾ Great South Channel lies within the federally designated critical habitat for North Atlantic right whales. In some years, more than a third of the remaining population of North Atlantic right whales can be found in the Great South Channel at any one time. It is illegal to approach closer than 500 yards of any right whale. (See 50 CFR 224.103(c), chapter 2, for limits and regulations.) It is recommended that all large vessels (over 100 gross tons) avoid operating in the critical habitat during the peak period of right whale occurrence (March through July). When the area cannot be avoided, precautionary measures should be taken to reduce the risk of ship strikes. (See North Atlantic Right Whales, indexed as such, in chapter 3 for more information on right whales and recommended measures to avoid collisions with whales.)

(L 85-2016)

18/16

COAST PILOT 2 45 Ed 2016 27 MAR 2016

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000

COAST PILOT 2 (Continued)

scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey**

Methods from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622)

18/16

COAST PILOT 3 49 Ed 2016 20 MAR 2016
LAST NM 10/16

Chapter 3—Paragraphs 3326 to 3337.25; read:

⁽³³²⁶⁾ **§226.203 Critical habitat for North Atlantic right whales (*Eubalaena glacialis*).**

⁽³³²⁷⁾ Critical habitat is designated for North Atlantic right whales as described in this section. The textual descriptions in paragraph (b) of this section are the definitive source for determining the critical habitat boundaries. The maps of the critical habitat units provided in paragraph (c) of this section are for illustrative purposes only.

⁽³³²⁸⁾ (a) Physical and biological features essential to the conservation of endangered North Atlantic right whales.

⁽³³²⁹⁾ (1) Unit 1. The physical and biological features essential to the conservation of the North Atlantic right whale, which provide foraging area functions in Unit 1 are: The physical oceanographic conditions and structures of the Gulf of Maine and Georges Bank region that combine to distribute and aggregate *C. finmarchicus* for right whale foraging, namely prevailing currents and circulation patterns, bathymetric features (basins, banks, and channels), oceanic fronts, density gradients, and temperature regimes; low flow velocities in Jordan, Wilkinson, and Georges Basins that allow diapausing *C. finmarchicus* to aggregate passively below the convective layer so that the copepods are retained in the basins; late stage *C. finmarchicus* in dense aggregations in the Gulf of Maine and Georges Bank region; and diapausing *C. finmarchicus* in aggregations in the Gulf of Maine and Georges Bank region.

⁽³³³⁰⁾ (2) Unit 2. The physical features essential to the conservation of the North Atlantic right whale, which provide calving area functions in Unit 2, are:

⁽³³³¹⁾ (i) Sea surface conditions associated with Force 4 or less on the Beaufort Scale,

⁽³³³²⁾ (ii) Sea surface temperatures of 7°C to 17°C, and

⁽³³³³⁾ (iii) Water depths of 6 to 28 meters, where these features simultaneously co-occur over contiguous areas of at least 231 nm² of ocean waters during the months of November through April. When these features are available, they are selected by right whale cows and calves in dynamic combinations that are suitable for calving, nursing, and rearing, and which vary, within the ranges specified, depending on factors such as weather and age of the calves.

⁽³³³⁴⁾ (b) Critical habitat boundaries. Critical habitat includes two areas (Units) located in the Gulf of Maine and

COAST PILOT 3 (Continued)

Georges Bank Region (Unit 1) and off the coast of North Carolina, South Carolina, Georgia and Florida (Unit 2).

⁽³³³⁵⁾ (1) Unit 1. The specific area on which are found the physical and biological features essential to the conservation of the North Atlantic right whale include all waters, seaward of the boundary delineated by the line connecting the geographic coordinates and landmarks identified herein:

⁽³³³⁶⁾ (i) The southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.).

⁽³³³⁷⁾ (ii) From this point, southwesterly to 41°37.19'N., 69°59.11'W.

^(3337.01) (iii) From this point, southward along the eastern shore of South Monomoy Island to 41°32.76'N., 69°59.73'W.

^(3337.02) (iv) From this point, southeasterly to 40°50'N., 69°12'W.

^(3337.03) (v) From this point, east to 40°50'N., 68°50'W.

^(3337.04) (vi) From this point, northeasterly to 42°00'N., 67°55'W.

^(3337.05) (vii) From this point, east to 42°00'N., 67°30'W.

^(3337.06) (viii) From this point, northeast to the intersection of the U.S.-Canada maritime boundary and 42°10'N.

^(3337.07) (ix) From this point, following the U.S.-Canada maritime boundary north to the intersection of 44°49.727'N., 66°57.952'W.; From this point, moving southwest along the coast of Maine, the specific area is located seaward of the line connecting the following points:

^(3337.08) Insert table titled **Table 226.203** from back of this Subsection.

^(3337.09) (x) From this point (43°2.55'N., 70°43.33'W.) on the coast of New Hampshire south of Portsmouth, the boundary of the specific area follows the coastline southward along the coasts of New Hampshire and Massachusetts along Cape Cod to Provincetown southward along the eastern edge of Cape Cod to the southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.) with the exception of the area landward of the lines drawn by connecting the following points:

^(3337.10) Insert table titled **Table 226.203a** from back of this Subsection.

^(3337.11) (xi) In addition, the specific area does not include waters landward of the 72 COLREGS lines (33 CFR part 80) described below.

^(3337.12) (A) Portland Head, ME to Cape Ann, MA.

^(2749.13) (1) A line drawn from the northernmost extremity of Farm Point to Annisquam Harbor Light.

^(3337.14) (2) [Reserved]

^(3337.15) (B) Cape Ann MA to Marblehead Neck, MA.

^(3337.16) (1) A line drawn from Gloucester Harbor Breakwater Light to the twin towers charted at latitude 42°35'06.177"N., longitude 70°41'32.330"W.

^(3337.17) (2) A line drawn from the westernmost extremity of Gales Point to the easternmost extremity of House Island; thence to Bakers Island Light; thence to Marblehead Light.

^(3337.18) (C) Hull, MA to Race Point, MA.

^(3337.19) (1) A line drawn from Canal Breakwater Light 4 south to the shoreline.

^(3337.20) (2) [Reserved]

^(3337.21) (2) Unit 2. Unit 2 includes marine waters from Cape Fear, North Carolina, southward to 28°N latitude (approximately 31 miles south of Cape Canaveral, Florida) within the area bounded on the west by the shoreline and the 72 COLREGS lines, and on the east by rhumb lines connecting the following points in the order stated from north to south: foraging area and southeastern calving area. (See 50 CFR 226.203, chapter 2 for limits, regulations and exceptions).

^(3337.22) Insert new table titled **Table 226.203b** from back of this Subsection.

^(3337.23) (c) Overview maps of the designated critical habitat for the North Atlantic right whale follow.

^(3337.24) Insert new table titled **North Atlantic Right Whale Critical Habitat Northeastern U.S. Foraging Area Unit 1** from back of this Subsection.

^(3337.25) Insert new table titled **North Atlantic Right Whale Critical Habitat Southeastern U.S. Calving Area Unit 2** from back of this Subsection.

(L 85-2016)

18/16

COAST PILOT 3 49 Ed 2016 27 MAR 2016

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

COAST PILOT 3 (Continued)

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622)

18/16

COAST PILOT 4 **47 Ed 2015** **20 MAR 2016**
LAST NM 7/16

Chapter 2—Paragraph 3250.01; read:

^(3250.01) **§334.405 South of entrance to Chesapeake Bay off Camp Pendleton, Virginia; firing range.**

(FR 2/29/16)

18/16

Chapter 2—Paragraph 3250.02; read:

^(3250.02) (a) The danger zone. An area directly from Camp Pendleton extending offshore as designated by lines drawn as follows: Beginning at latitude 36°49'00"N., longitude 75°58'04"W.; thence to latitude 36°49'19"N., longitude 75°57'41"W.; thence to latitude 36°49'21"N., longitude 75°57'32"W.; thence to latitude 36°49'13"N., longitude 75°56'44"W.; thence to latitude 36°49'22"N., longitude 75°55'48"W.; thence to latitude 36°49'12"N., longitude 75°55'46"W.; thence to latitude 36°49'02"N., longitude 75°55'45"W.; thence to latitude 36°48'52"N., longitude 75°55'45"W.; thence to latitude 36°48'54"N., longitude 75°56'42"W.; thence to latitude 36°48'41"N., longitude 75°57'28"W.; thence to latitude 36°48'41"N., longitude 75°57'37"W.; thence to latitude 36°48'57"N., longitude 75°58'04"W. The datum for these coordinates is WGS84.

(FR 2/29/16)

18/16

Chapter 2—Paragraph 3250.03; read:

^(3250.03) (b) *The regulations.* (1) Persons and vessels shall proceed through the area with caution and shall remain therein no longer than necessary for purpose of transit.

(FR 2/29/16)

18/16

Chapter 2—Paragraph 3250.04; read:

^(3250.04) (2) When firing is in progress during daylight hours, red flags will be displayed at conspicuous locations on the beach. No firing will be done during the hours of darkness or low visibility.

(FR 2/29/16)

18/16

Chapter 2—Paragraph 3250.05; read:

^(3250.05) (3) Firing on the ranges shall be suspended as long as any persons or vessels are within the danger zone.

(FR 2/29/16)

18/16

Chapter 2—Paragraph 3250.06; read:

^(3250.06) (4) Lookout posts shall be manned by the activity or agency operating the firing range State Military Reservation, Camp Pendleton.

(FR 2/29/16)

18/16

Chapter 2—Paragraph 3250.07; read:

^(3250.07) (5) There shall be no firing on the range during

COAST PILOT 4 (Continued)

periods of low visibility which would prevent the recognition of a vessel (to a distance of 7,500 yards) which is properly displaying navigation lights, or which would preclude a vessel from observing the red range flags or lights.

(FR 2/29/16) 18/16

Chapter 2—Paragraph 3250.08; read:

^(3250.08) (c) *Enforcement*. The regulations in this section shall be enforced by the Adjutant General of Virginia, and such agencies as he or she may designate.

(FR 2/29/16) 18/16

Chapter 2—Paragraph 3902; read:

⁽³⁹⁰²⁾ **§226.203 Critical habitat for North Atlantic right whales (*Eubalaena glacialis*).**

(L 85-2016) 18/16

Chapter 2—Paragraph 3903; read:

⁽³⁹⁰³⁾ Critical habitat is designated for North Atlantic right whales as described in this section. The textual descriptions in paragraph (b) of this section are the definitive source for determining the critical habitat boundaries. The maps of the critical habitat units provided in paragraph (c) of this section are for illustrative purposes only.

(L 85-2016) 18/16

Chapter 2—Paragraph 3904; read:

⁽³⁹⁰⁴⁾ (a) Physical and biological features essential to the conservation of endangered North Atlantic right whales.

(L 85-2016) 18/16

Chapter 2—Paragraph 3905; read:

⁽³⁹⁰⁵⁾ (1) *Unit 1*. The physical and biological features essential to the conservation of the North Atlantic right whale, which provide foraging area functions in Unit 1 are: The physical oceanographic conditions and structures of the Gulf of Maine and Georges Bank region that combine to distribute and aggregate *C.finmarchicus* for right whale foraging, namely prevailing currents and circulation patterns, bathymetric features (basins, banks, and channels), oceanic fronts, density gradients, and temperature regimes; low flow velocities in Jordan, Wilkinson, and Georges Basins that allow diapausing *C.finmarchicus* to aggregate passively below the convective layer so that the copepods are retained in the basins; late stage *C.finmarchicus* in dense aggregations in the Gulf of Maine and Georges Bank region; and diapausing *C.finmarchicus* in aggregations in the Gulf of Maine and Georges Bank region.

(L 85-2016) 18/16

Chapter 2—Paragraph 3906; read:

⁽³⁹⁰⁶⁾ (2) *Unit 2*. The physical features essential to the conservation of the North Atlantic right whale, which provide calving area functions in Unit 2, are:

(L 85-2016) 18/16

Chapter 2—Paragraph 3907; read:

⁽³⁹⁰⁷⁾ (i) Sea surface conditions associated with Force 4 or less on the Beaufort Scale,

(L 85-2016) 18/16

Chapter 2—Paragraph 3908; read:

⁽³⁹⁰⁸⁾ (ii) Sea surface temperatures of 7°C to 17°C, and

(L 85-2016) 18/16

Chapter 2—Paragraph 3909; read:

⁽³⁹⁰⁹⁾ (iii) Water depths of 6 to 28 meters, where these features simultaneously co-occur over contiguous areas of at least 231 nmi² of ocean waters during the months of November through April. When these features are available, they are selected by right whale cows and calves in dynamic combinations that are suitable for calving, nursing, and rearing, and which vary, within the ranges specified, depending on factors such as weather and age of the calves.

(L 85-2016) 18/16

Chapter 2—Paragraph 3910; read:

⁽³⁹¹⁰⁾ (b) *Critical habitat boundaries*. Critical habitat includes two areas (Units) located in the Gulf of Maine and Georges Bank Region (Unit 1) and off the coast of North Carolina, South Carolina, Georgia and Florida (Unit 2).

(L 85-2016) 18/16

Chapter 2—Paragraph 3911; read:

⁽³⁹¹¹⁾ (1) *Unit 1*. The specific area on which are found the physical and biological features essential to the conservation of the North Atlantic right whale include all waters, seaward of the boundary delineated by the line connecting the geographic coordinates and landmarks identified herein:

(L 85-2016) 18/16

Chapter 2—Paragraph 3912; read:

⁽³⁹¹²⁾ (i) The southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.).

(L 85-2016) 18/16

Chapter 2—Paragraph 3913; read:

⁽³⁹¹³⁾ (ii) From this point, southwesterly to 41°37.19'N., 69°59.11'W.

(L 85-2016) 18/16

Chapter 2—Paragraph 3913.01; read:

^(3913.01) (iii) From this point, southward along the eastern

COAST PILOT 4 (Continued)

shore of South Monomoy Island to 41°32.76'N., 69°59.73'W. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.10; replace with below: ^(3913.10) New table titled Table 226.203a from back of this Subsection. (L 85-2016)	18/16
Chapter 2—Paragraph 3913.02; read: ^(3913.02) (iv) From this point, southeasterly to 40°50'N., 69°12'W. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.11; read: ^(3913.11) (xi) In addition, the specific area does not include waters landward of the 72 COLREGS lines (33 CFR part 80) described below. (L 85-2016)	18/16
Chapter 2—Paragraph 3913.03; read: ^(3913.03) (v) From this point, east to 40°50'N., 68°50'W. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.12; read: ^(3913.12) (A) <i>Portland Head, ME to Cape Ann, MA.</i> (L 85-2016)	18/16
Chapter 2—Paragraph 3913.04; read: ^(3913.04) (vi) From this point, northeasterly to 42°00'N., 67°55'W. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.13; read: ^(3913.13) (1) A line drawn from the northernmost extremity of Farm Point to Annisquam Harbor Light. (L 85-2016)	18/16
Chapter 2—Paragraph 3913.05; read: ^(3913.05) (vii) From this point, east to 42°00'N., 67°30'W. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.14; read: ^(3913.14) (2) [Reserved] (L 85-2016)	18/16
Chapter 2—Paragraph 3913.06; read: ^(3913.06) (viii) From this point, northeast to the intersection of the U.S.-Canada maritime boundary and 42°10'N. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.15; read: ^(3913.15) (B) <i>Cape Ann MA to Marblehead Neck, MA.</i> (L 85-2016)	18/16
Chapter 2—Paragraph 3913.07; read: ^(3913.07) (ix) From this point, following the U.S.-Canada maritime boundary north to the intersection of 44°49.727'N., 66°57.952'W.; From this point, moving southwest along the coast of Maine, the specific area is located seaward of the line connecting the following points: (L 85-2016)	18/16	Chapter 2—Paragraph 3913.16; read: ^(3913.16) (1) A line drawn from Gloucester Harbor Breakwater Light to the twin towers charted at latitude 42°35'06.177"N., longitude 70°41'32.330"W. (L 85-2016)	18/16
Chapter 2—Paragraph 3913.08; replace with below: ^(3913.08) New table titled Table 226.203 from back of this Subsection. (L 85-2016)	18/16	Chapter 2—Paragraph 3913.17; read: ^(3913.17) (2) A line drawn from the westernmost extremity of Gales Point to the easternmost extremity of House Island; thence to Bakers Island Light; thence to Marblehead Light. (L 85-2016)	18/16
Chapter 2—Paragraph 3913.09; read: ^(3913.09) (x) From this point (43°02.55'N., 70°43.33'W.) on the coast of New Hampshire south of Portsmouth, the boundary of the specific area follows the coastline southward along the coasts of New Hampshire and Massachusetts along Cape Cod to Provincetown southward along the eastern edge of Cape Cod to the southern tip of Nauset Beach (Cape Cod) (41°38.39'N., 69°57.32'W.) with the exception of the area landward of the lines drawn by connecting the following points: (L 85-2016)	18/16	Chapter 2—Paragraph 3913.18; read: ^(3913.18) (C) <i>Hull, MA to Race Point, MA.</i> (L 85-2016)	18/16
		Chapter 2—Paragraph 3913.19; read: ^(3913.19) (1) A line drawn from Canal Breakwater Light 4 south to the shoreline. (L 85-2016)	18/16
		Chapter 2—Paragraph 3913.20; read: ^(3913.20) (2) [Reserved] (L 85-2016)	18/16

COAST PILOT 4 (Continued)

Chapter 2—Paragraph 3913.21; read:

^(3913.21) (2) *Unit 2*. Unit 2 includes marine waters from Cape Fear, North Carolina, southward to 28°N latitude (approximately 31 miles south of Cape Canaveral, Florida) within the area bounded on the west by the shoreline and the 72 COLREGS lines, and on the east by rhumb lines connecting the following points in the order stated from north to south.

(L 85-2016) 18/16

Chapter 2—Paragraph 3913.22; replace with below:

^(3913.22) New table titled **Table 226.203b** from back of this Subsection.

(L 85-2016) 18/16

Chapter 2—Paragraph 3913.23; read:

^(3913.23) (c) Overview maps of the designated critical habitat for the North Atlantic right whale follow.

(L 85-2016) 18/16

Chapter 2—Paragraph 3913.24; replace with below:

^(3913.24) New graphic titled **North Atlantic Right Whale Critical Habitat Northeastern U.S. Foraging Area Unit 1** from back of this Subsection.

(L 85-2016) 18/16

Chapter 2—Paragraph 3913.25; replace with below:

^(3913.25) New graphic titled **North Atlantic Right Whale Critical Habitat Southeastern U.S. Calving Area Unit 2** from back of this Subsection.

(L 85-2016) 18/16

Chapter 3—Paragraph 119; read:

⁽¹¹⁹⁾ **Seasonal occurrence of North Atlantic right whales**—During seasons and in areas where right whales may occur, vessel operators should maintain a sharp lookout for whales and reduce speeds when consistent with safe navigation. In any given year oceanographic variability may affect the seasonal distribution of right whales. In 1986, right whales were frequently sighted within the Stellwagen Bank National Marine Sanctuary throughout the summer, and in the early spring of 1998 a large number of right whales were documented near the Narragansett/Buzzards Bay Traffic Separation Scheme. Two areas in U.S. waters have been designated as critical habitats for North Atlantic right whales; the northeastern foraging area and southeastern calving area. (See **50 CFR 226.203**, chapter 2 for limits, regulations and exceptions).

(L 85-2016) 18/16

Chapter 4—Paragraph 30; read:

⁽³⁰⁾ **Firing range danger zones** are between 7 and 9 miles southward of Cape Henry. (See **33 CFR 334.380**,

334.390 and 334.405, chapter 2, for limits and regulations.)

(L 85-2016) 18/16

Chapter 8—Paragraphs 13 to 16; read:

⁽¹³⁾ <Deleted paragraph>

⁽¹⁴⁾ <Deleted paragraph>

⁽¹⁵⁾ <Deleted paragraph>

⁽¹⁶⁾ <Deleted paragraph>

(L 85-2016) 18/16

Chapter 8—Paragraphs 254 to 257; read:

⁽²⁵⁴⁾ <Deleted paragraph>

⁽²⁵⁵⁾ <Deleted paragraph>

⁽²⁵⁶⁾ <Deleted paragraph>

⁽²⁵⁷⁾ <Deleted paragraph>

(L 85-2016) 18/16

Chapter 9—Paragraphs 8 to 11; read:

⁽⁸⁾ <Deleted paragraph>

⁽⁹⁾ <Deleted paragraph>

⁽¹⁰⁾ <Deleted paragraph>

⁽¹¹⁾ <Deleted paragraph>

(L 85-2016) 18/16

Chapter 10—Paragraphs 90 to 92; read:

⁽⁹⁰⁾ <Deleted paragraph>

⁽⁹¹⁾ <Deleted paragraph>

⁽⁹²⁾ <Deleted paragraph>

(L 85-2016) 18/16

COAST PILOT 4 47 Ed 2015 27 MAR 2016

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the

COAST PILOT 4 (Continued)

diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

Chapter 10—Paragraphs 457 to 459; read:

⁽⁴⁵⁷⁾ The Miami area is served by the Biscayne Bay Pilots Association, at the far east end of the Port of Miami on Dodge Island, 2911 Port Blvd., Miami, FL 33132; telephone 305-374-2791 (office), 305-375-9453 (dispatch); fax 305-374-2375; VHF-FM radiotelephone channel 16. All types

of vessels are served.

⁽⁴⁵⁸⁾ Biscayne Bay Pilots have three boats: MIAMI, 42 feet long; BISCAYNE, 42 feet long; VIZCAYA, 52 feet long; all boats have black hulls with buff superstructures, and the word PILOT in black letters on the sides. International Code Flag H is flown by day, and the standard pilot lights are displayed at night. The pilot boats monitor VHF-FM channel 16 and work on channel 12. The pilot boarding and cruising area is close seaward about 3 nautical miles E of Miami Lighted Buoy M (25°46'06"N., 80°05'00"W.). The buoy is equipped with a racon. Unless directed to come closer by the Biscayne Bay Pilots, ships should approach no closer. Pilots will board vessels day or night. Vessels are requested to rig the pilot ladder on the leeward side about 1 meter above the water, and maintain a speed of about 6 knots. Swift variable currents, usually E of the sea buoy, may affect boarding procedures. Cargo vessels exceeding 965 feet in length are requested to stay 3 nautical miles eastward of the sea buoy for pilot boarding. All other large deep-draft vessels are requested to stay at least 2 nautical miles eastward of the sea buoy for pilot boarding because of the strength and proximity of the Gulf stream current.

⁽⁴⁵⁹⁾ Pilotage is usually arranged by telephone or fax through ship's agents. Vessels are requested to give a 24-hour advance notice of arrival with confirmation 2 hours before ETA by radiotelephone on VHF-FM channel 12.

(L 168-2016; L 1574-2015) 18/16

COAST PILOT 5 43 Ed 2015 27 MAR 2016
LAST NM 17/16

Chapter 1—Paragraphs 101 to 103; read:

⁽¹⁰¹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed

COAST PILOT 5 (Continued)

when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

COAST PILOT 6 46 Ed 2016 27 MAR 2016
LAST NM 17/16

Chapter 1—Paragraphs 99 to 111; read:

⁽⁹⁹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰⁰⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to

assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

^(100.1) Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(100.02) Add table titled **ZOC Categories** from back of this Subsection.

^(100.03) Add graphic titled **ZOC Source Diagram** from back of this Subsection.

⁽¹⁰¹⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹⁰²⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

⁽¹⁰³⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁴⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁵⁾ <Paragraph deleted>

COAST PILOT 6 (Continued)

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

**COAST PILOT 7 48 Ed 2016 27 MAR 2016
LAST NM 17/16**

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ Source and Zone of Confidence (ZOC) Diagrams

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC

diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

**COAST PILOT 8 37 Ed 2015 27 MAR 2016
LAST NM 5/16**

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ Source and Zone of Confidence (ZOC) Diagrams

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area. There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

COAST PILOT 8 (Continued)

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.

(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

COAST PILOT 9 33 Ed 2015 27 MAR 2016
LAST NM 38/15

Chapter 1—Paragraphs 101 to 113; read:

⁽¹⁰¹⁾ **Source and Zone of Confidence (ZOC) Diagrams**

⁽¹⁰²⁾ The age and accuracy of hydrographic survey data that support nautical charts can vary. Depth information on nautical charts, paper or digital, is based on data from the latest available hydrographic survey, which in many cases may be quite old. Diagrams are provided on nautical charts to assist mariners in assessing hydrographic survey data and the associated level of risk to navigate in a particular area.

There are currently two types of diagrams shown on NOAA paper and raster navigational charts (RNCs) of 1:500,000 scale and larger—Zone of Confidence (ZOC) diagrams and source diagrams. ZOC information (designated CATZOC) is also found on electronic navigational charts (ENCs). This provides consistency in the display of source data between ENCs and newer paper charts.

⁽¹⁰³⁾ Both source and ZOC diagrams consist of a graphic representation of the extents of hydrographic surveys within the chart and accompanying table of related survey quality categories. CATZOC information on an ENC, unlike the diagrams on a paper chart or RNC, is displayed over the ENC data using symbols rather than letters. These symbols are displayed on a separate layer, which can be viewed when planning a route, then switched off until needed again at another time.

^(103.01) Add table titled **ZOC Categories** from back of this Subsection.

^(103.02) Add graphic titled **ZOC Source Diagram** from back of this subsection/

⁽¹⁰⁴⁾ On ZOC diagrams, the quality of the hydrographic data is assessed according to six categories; five quality categories for assessed data (A1, A2, B, C and D) and a sixth category (U) for data that has not yet been assessed. On the ENC, the categories are shown using a rating system of stars—the higher the quality, the greater the number of stars. Assessment of hydrographic data quality and classification into zones of confidence is based on a combination of: survey date, position accuracy, depth accuracy and sea floor coverage (the survey's ability to detect objects on the seafloor.)

⁽¹⁰⁵⁾ Source diagrams will be replaced with ZOC diagrams as new editions are created. Similar to the ZOC diagram, they provide the mariner with additional information about the density and adequacy of the sounding data depicted on the chart. The adequacy with which sounding data reflects the configuration of the bottom depends on the following factors: survey technology employed (sounding and navigation equipment), survey specifications in effect (prescribed survey line spacing and sounding interval) and type of bottom (e.g., rocky with existence of submerged pinnacles, flat sandy, coastal deposits subject to frequent episodes of deposition and erosion).

⁽¹⁰⁶⁾ <Paragraph deleted>

⁽¹⁰⁷⁾ <Paragraph deleted>

⁽¹⁰⁸⁾ <Paragraph deleted>

⁽¹⁰⁹⁾ <Paragraph deleted>

⁽¹¹⁰⁾ <Paragraph deleted>

⁽¹¹¹⁾ <Paragraph deleted>

COAST PILOT 9 (Continued)

⁽¹¹²⁾ Add table titled **Source Diagrams** from back of this Subsection.

⁽¹¹³⁾ Add table titled **Bottom Coverage and Survey Methods** from back of this Subsection.
(TXT 1-5/16; NCM 04/16; NOS 18622) 18/16

DIGITAL PUBS - QUARTERLY CORRECTIONS

DIGITAL PUBS - QUARTERLY	161 Ed 2016
(1ST QUARTER)	NEW EDITION
(NGA)	N18/16

Table 226.203

Latitude	Longitude
44°49.727'N.	66°57.952'W.
44°49.67'N.	66°57.77'W.
44°48.64'N.	66°56.43'W.
44°47.36'N.	66°59.25'W.
44°45.51'N.	67°02.87'W.
44°37.07'N.	67°09.75'W.
44°27.77'N.	67°32.86'W.
44°25.74'N.	67°38.39'W.
44°21.66'N.	67°51.78'W.
44°19.08'N.	68°02.05'W.
44°13.55'N.	68°10.71'W.
44°08.36'N.	68°14.75'W.
43°59.36'N.	68°37.95'W.
43°59.83'N.	68°50.06'W.
43°56.72'N.	69°04.89'W.
43°50.28'N.	69°18.86'W.
43°48.96'N.	69°31.15'W.
43°43.64'N.	69°37.58'W.
43°41.44'N.	69°45.27'W.
43°36.04'N.	70°03.98'W.
43°31.94'N.	70°08.68'W.
43°27.63'N.	70°17.48'W.
43°20.23'N.	70°23.64'W.
43°04.06'N.	70°36.70'W.
43°02.93'N.	70°41.47'W.
43°02.55'N.	70°43.33'W.

Table 226.203a

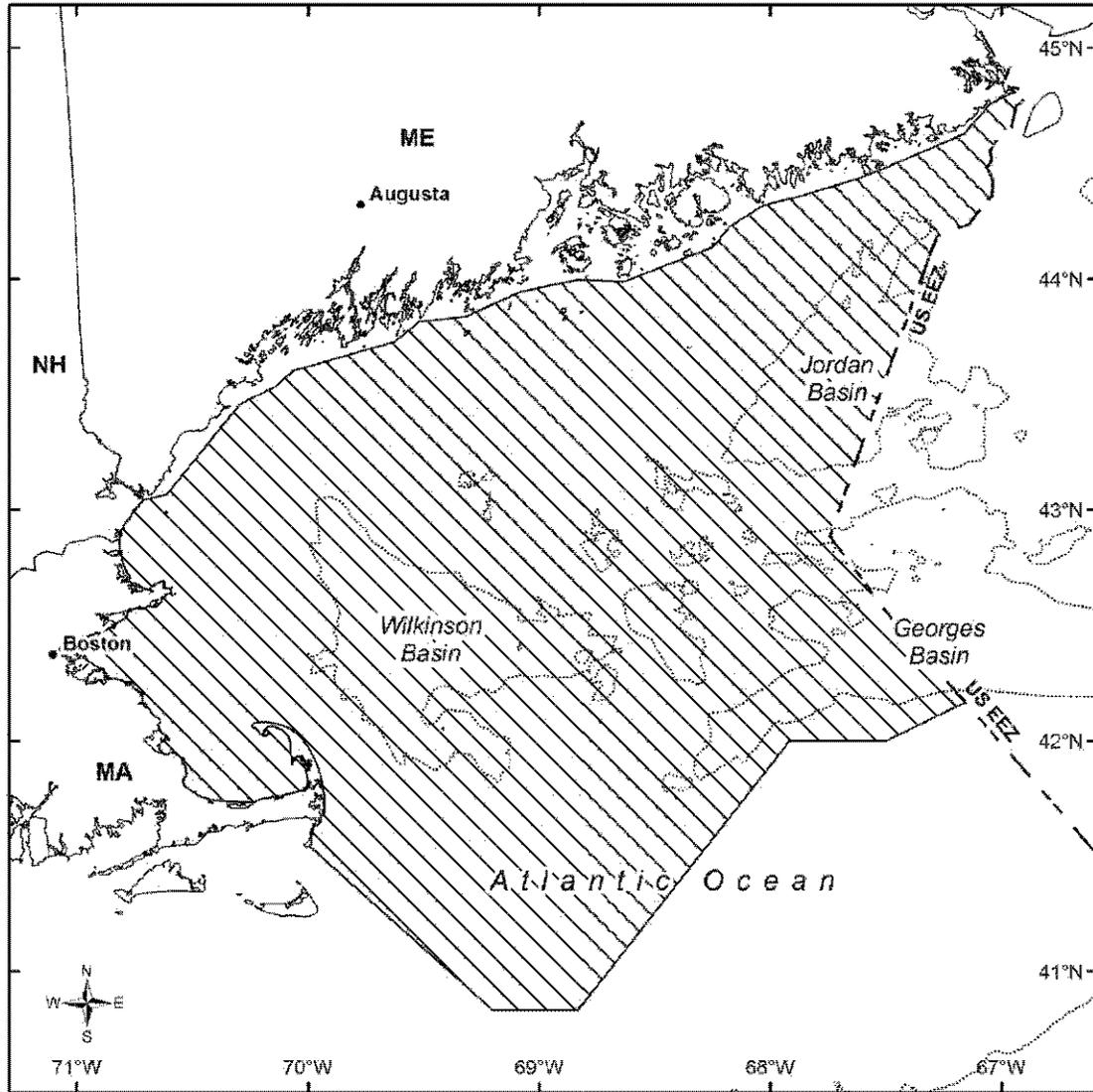
42°59.986N.	70°44.654W.	to	Rye Harbor
42°59.956N.	70°44.737W.		Rye Harbor
42°53.691N.	70°48.516W.	to	Hampton Harbor
42°53.519N.	70°48.748W.		Hampton Harbor
42°49.136N.	70°48.242W.	to	Newburyport Harbor
42°48.964N.	70°48.282W.		Newburyport Harbor
42°42.145N.	70°46.995W.	to	Plum Island Sound
42°41.523N.	70°47.356W.		Plum Island Sound
42°40.266N.	70°43.838W.	to	Essex Bay
42°39.778N.	70°43.142W.		Essex Bay
42°39.645N.	70°36.715W.	to	Rockport Harbor
42°39.613N.	70°36.60W.		Rockport Harbor
42°20.665N.	70°57.205W.	to	Boston Harbor
42°20.009N.	70°55.803W.		Boston Harbor
42°19.548N.	70°55.436W.	to	Boston Harbor
42°18.599N.	70°52.961W.		Boston Harbor
42°15.203N.	70°46.324W.	to	Cohasset Harbor
42°15.214N.	70°47.352W.		Cohasset Harbor
42°12.09N.	70°42.98W.	to	Scituate Harbor
42°12.211N.	70°43.002W.		Scituate Harbor
42°09.724N.	70°42.378W.	to	New Inlet
42°10.085N.	70°42.875W.		New Inlet
42°04.64N.	70°38.587W.	to	Green Harbor
42°04.583N.	70°38.631W.		Green Harbor
41°59.686N.	70°37.948W.	to	Duxbury Bay/ Plymouth Harbor
41°58.75N.	70°39.052W.		Duxbury Bay/ Plymouth Harbor
41°50.395N.	70°31.943W.	to	Ellisville Harbor
41°50.369N.	70°32.145W.		Ellisville Harbor
41°45.87N.	70°28.82W.	to	Sandwich Harbor
41°45.75N.	70°28.40W.		Sandwich Harbor
41°44.93N.	70°25.74W.	to	Scorton Harbor
41°44.90N.	70°25.60W.		Scorton Harbor
41°44.00N.	70°17.50W.	to	Barnstable Harbor
41°44.00N.	70°13.90W.		Barnstable Harbor
41°45.53N.	70°09.387W.	to	Sesuit Harbor
41°45.523N.	70°09.307W.		Sesuit Harbor
41°45.546N.	70°07.39W.	to	Quivett Creek
41°45.551N.	70°07.32W.		Quivett Creek
41°47.269N.	70°01.411W.	to	Namskaket Creek
41°47.418N.	70°01.306W.		Namskaket Creek
41°47.961N.	70°0.561W.	to	Rock Harbor Creek
41°48.07N.	70°0.514W.		Rock Harbor Creek
41°48.432N.	70°0.286W.	to	Boat Meadow River
41°48.483N.	70°0.216W.		Boat Meadow River
41°48.777N.	70°0.317W.	to	Herring River
41°48.983N.	70°0.196W.		Herring River
41°55.501N.	70°03.51W.	to	Herring River, inside Wellfleet Harbor
41°55.322N.	70°03.191W.		Herring River, inside Wellfleet Harbor
41°53.922N.	70°01.333W.	to	Blackfish Creek/ Loagy Bay
41°54.497N.	70°01.182W.		Blackfish Creek/ Loagy Bay
41°55.503N.	70°02.07W.	to	Duck Creek
41°55.753N.	70°02.281W.		Duck Creek
41°59.481N.	70°04.779W.	to	Pamet River
41°59.563N.	70°04.718W.		Pamet River
41°03.601N.	70°14.269W.	to	Hatches Harbor
41°03.601N.	70°14.416W.		Hatches Harbor
41°48.708N.	69°56.319W.	to	Nauset Harbor
41°48.554N.	69°56.238W.		Nauset Harbor
41°40.885N.	69°56.781W.	to	Chatham Harbor
41°40.884N.	69°56.28W.		Chatham Harbor

Table 226.203b

Latitude	Longitude
33°51'N.	at shoreline
33°42'N.	77°43'W.
33°37'N.	77°47'W.
33°28'N.	78°33'W.
32°59'N.	78°50'W.
32°17'N.	79°53'W.
31°31'N.	80°33'W.
30°43'N.	80°49'W.
30°30'N.	81°01'W.
29°45'N.	81°01'W.
29°15'N.	80°55'W.
29°08'N.	80°51'W.
28°50'N.	80°39'W.
28°38'N.	80°30'W.
28°28'N.	80°26'W.
28°24'N.	80°27'W.
28°21'N.	80°31'W.
28°16'N.	80°31'W.
28°11'N.	80°33'W.
28°00'N.	80°29'W.
28°00'N.	at shoreline

**North Atlantic Right Whale Critical Habitat
Northeastern U.S. Foraging Area**

Unit 1

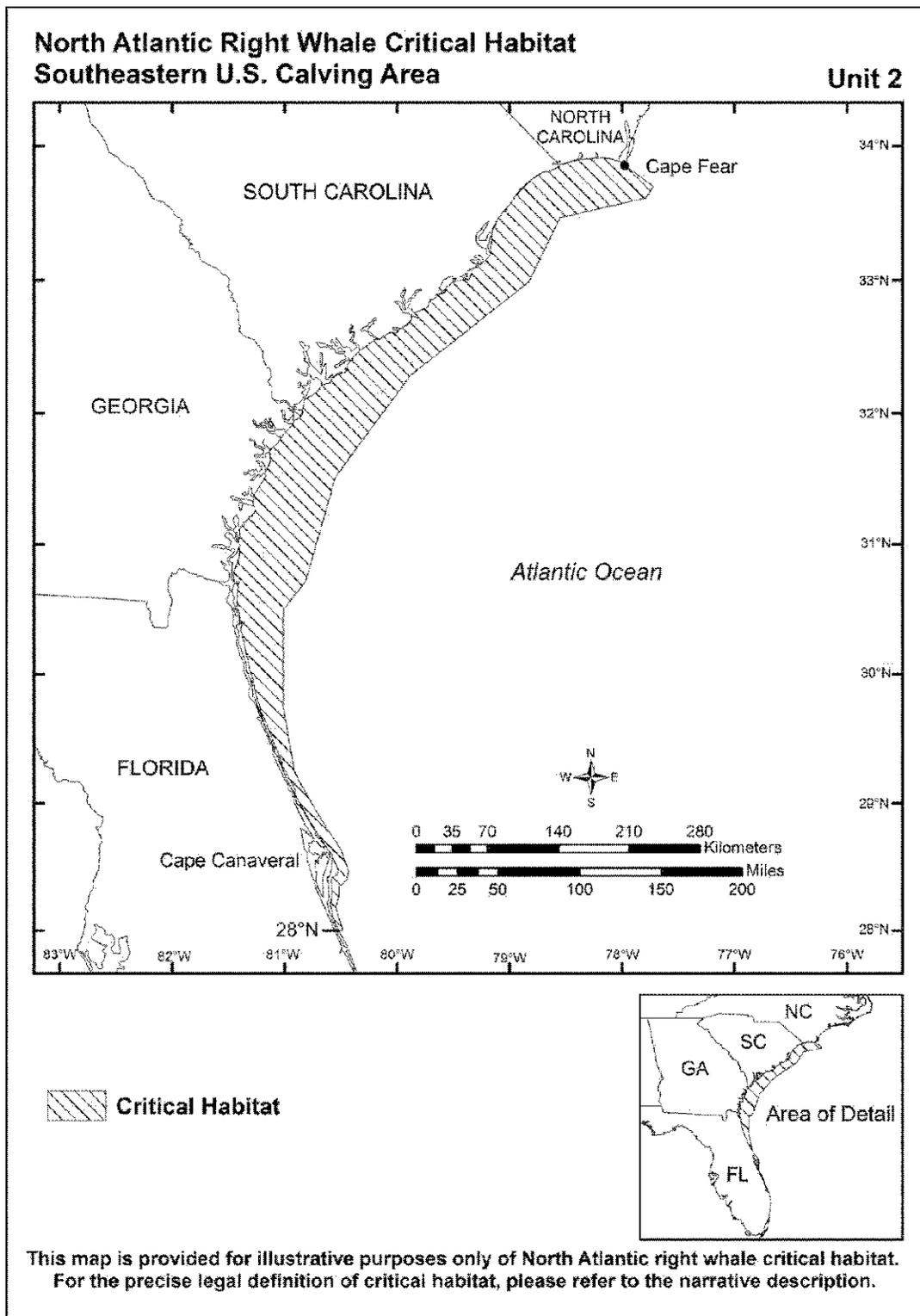


-  Critical Habitat
-  200m Depth Contour

This map is provided for illustrative purposes only of North Atlantic right whale critical habitat. For the precise legal definition of critical habitat, please refer to the narrative description.



COAST PILOT 1



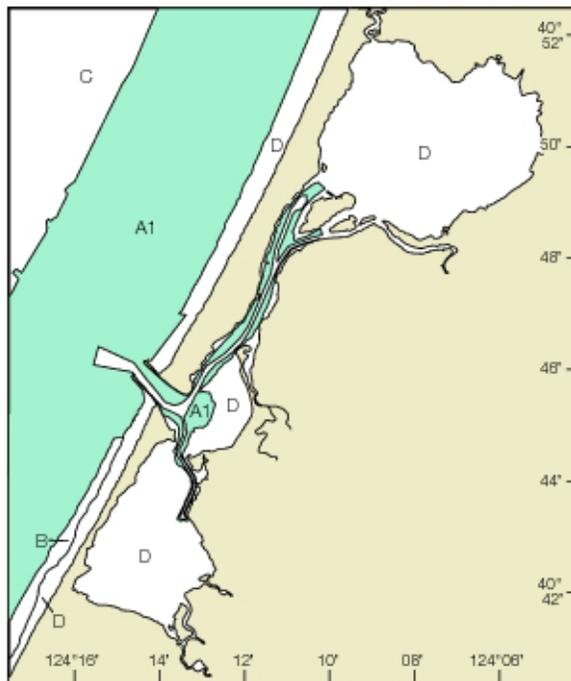
Chapter 1

ZOC CATEGORIES (Refer to Chapter 1, United States Coast Pilot)				
ZOC	DATE	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1	2008-2009	± 16 ft	= 1.6 ft + 1% depth	All significant seafloor features detected
B	1949	± 160 ft	= 3.2 ft + 2% depth	Uncharted features hazardous to surface navigation are not expected but may exist
C	1949	± 1600 ft	= 6.5 ft + 2% depth	Depth anomalies may be expected
D	-	Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected

COAST PILOT 1

Chapter 1

ZOC Source Diagram



COAST PILOT 1

Source Diagrams

Referring to the accompanying sample Source Diagram below and the previous discussion of survey methods over time, transiting from Point X to Point Y, along the track indicated by the dotted line, would have the following information available about the relative quality of the depth information shown on the chart.

Point X lies in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1940-1969 time period. The sounding data would have been collected by continuous recording single beam echo sounder. It is possible that features could have been missed between sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram.

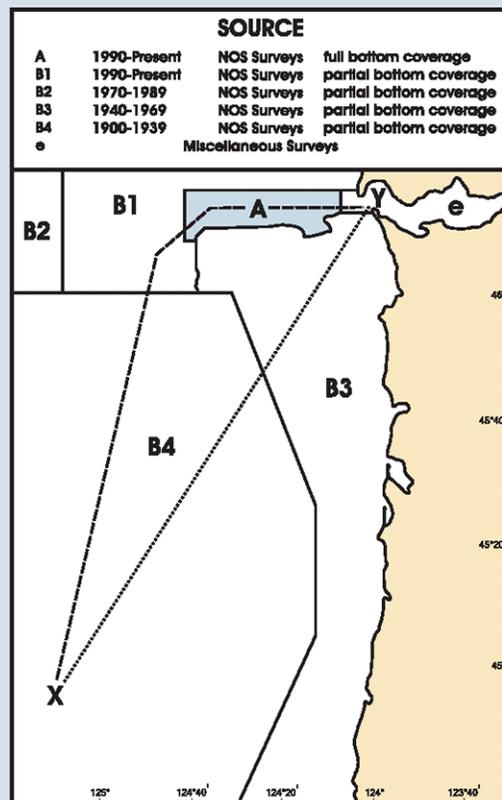
Referring again to the accompanying sample Source Diagram, and the previous discussion of survey methods over time, a mariner could choose to transit from Point X to Point Y, along the track shown with a dashed line.

The transit starts again in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might still exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1990 - present time period, with partial bottom coverage. The data is collected in metric units and acquired by continuous recording single beam echo sounder. It is possible that features could have been missed between the sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit then crosses into an area surveyed by NOAA within the 1990 - present time period, having full bottom coverage. This area of the charted diagram is shaded with a blue screen to draw attention to the fact that full bottom coverage has been achieved. The data would have been collected in metric units and acquired by side scan sonar or multibeam sonar technology. Undetected features in this area, at the time of the survey, would be unlikely.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram. By choosing to transit along the track shown by the dashed line, the mariner would elect to take advantage of survey information that is more recent and collected with modern technology.



Bottom Coverage and Survey Methods

Prior to 1940, most survey data was acquired by lead line, and soundings were positioned using horizontal sextant angles. This positioning method is considered to be accurate for near shore surveys. However, lead line surveys only collect discrete single-point depths. The depths between the soundings can only be inferred and undetected shoals and other uncharted features may exist in these areas, especially in areas of irregular relief.

From 1940 to 1990, sounding data acquisition typically used continuous-recording single beam echo sounders as stand-alone survey systems, which resulted in partial bottom sounding coverage. Although the sampling is continuous along the track of the sounding vessel, features such as discrete objects or small area shoals between sounding lines may not have been detected. Positioning of the sounding vessel in this period progressed from horizontal sextant angles, through land based electronic positioning systems, to differentially corrected Global Positioning System (DGPS) satellite fixes.

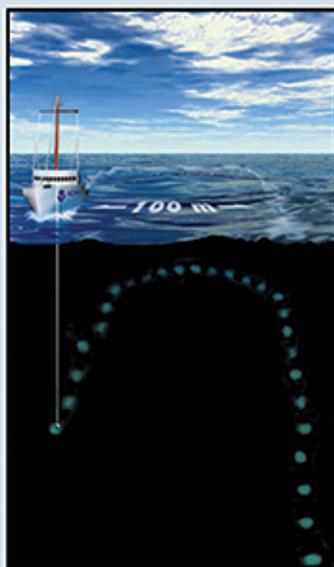
From 1990 to the present, most surveys have been conducted using either multi-beam sonar systems or a combination of side scan sonar and single beam echo sounder systems to achieve full bottom coverage. The term full bottom coverage refers to survey areas in which the field party has acquired continuously recorded, high-resolution sonar data in overlapping swaths. This sonar data, either multi-beam bathymetry or side scan imagery, has been analyzed in an attempt to locate all hazards to navigation within the survey's limits; all position data has been determined using DGPS. NOAA began utilizing airborne light detection and ranging systems (LIDAR) for near shore bathymetric surveying in the late 1990s.

This type of survey method provided sounding data at a lower resolution than sonar systems, thus making small obstructions and hazards difficult to identify. Although LIDAR systems provide continuously recorded swath data, the resulting sounding resolution is not dense enough for the survey to be considered full bottom coverage. However, LIDAR surveys in which significant anomalies have been further investigated using multi-beam sonar are considered adequate for the full bottom coverage designation. Stand-alone LIDAR surveys are depicted on the source diagram as partial bottom coverage areas.

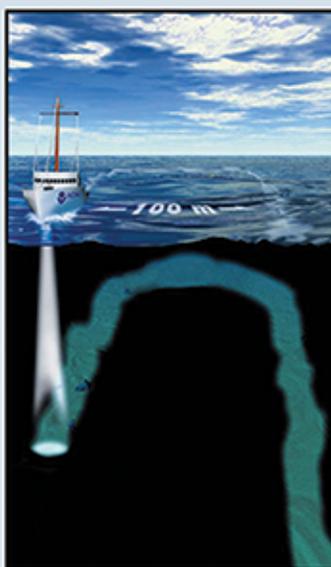
Although full bottom coverage surveys are not feasible in all areas, this method is typically preferred over lead line, single beam echo sounder, and LIDAR technologies. Full bottom coverage surveys typically extend inshore to depths of 4-8 meters (13-26 feet). Due to scaling factors, a full bottom coverage survey area may appear to extend further inshore once depicted on the source diagram. Generally, sounding data in depths of 6 meters (20 feet) and shoaler – 8 meters (26 feet) and shoaler in Alaskan waters – has been acquired using a partial bottom coverage method. Caution and prudent seamanship should be used when transiting these near shore areas.

The spacing of sounding lines required to survey an area using a single beam echo sounder depends on several factors such as water depths, bottom configuration, survey scale, general nature of the area and the purpose of the survey. For example, a 1:10,000-scale survey conducted in an estuary will typically have 100-meter line spacing requirements but may be reduced to 50 meters or less to adequately develop an irregular bottom, shoal or some other feature that may present a hazard to navigation. Also, hydrographic project instructions for surveys may have required line spacing that deviates from these general specifications.

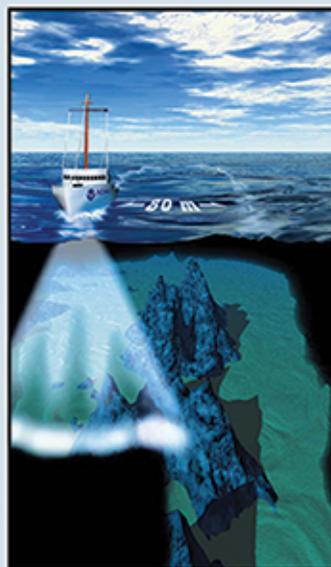
Leadline (pre 1940)



Single Beam (1940's - 1980's)



Multibeam (1990's - present)



Chapter 2

Table 165

Latitude	Longitude
42°21'15"N.	71°02'54"W.; Bounded by the curvature of the seawall, thence to
42°21'18"N.	71°02'43"W.; thence to
42°21'20"N.	71°02'40"W.; Bounded by 100 yards off the curvature of the seawall, thence to
42°21'16"N.	71°02'57"W.; thence to point of origin.

COAST PILOT 1

Chapter 2

Table 226.203

Latitude	Longitude
44°49.727'N.	66°57.952'W.
44°49.67'N.	66°57.77'W.
44°48.64'N.	66°56.43'W.
44°47.36'N.	66°59.25'W.
44°45.51'N.	67°02.87'W.
44°37.07'N.	67°09.75'W.
44°27.77'N.	67°32.86'W.
44°25.74'N.	67°38.39'W.
44°21.66'N.	67°51.78'W.
44°19.08'N.	68°02.05'W.
44°13.55'N.	68°10.71'W.
44°08.36'N.	68°14.75'W.
43°59.36'N.	68°37.95'W.
43°59.83'N.	68°50.06'W.
43°56.72'N.	69°04.89'W.
43°50.28'N.	69°18.86'W.
43°48.96'N.	69°31.15'W.
43°43.64'N.	69°37.58'W.
43°41.44'N.	69°45.27'W.
43°36.04'N.	70°03.98'W.
43°31.94'N.	70°08.68'W.
43°27.63'N.	70°17.48'W.
43°20.23'N.	70°23.64'W.
43°04.06'N.	70°36.70'W.
43°02.93'N.	70°41.47'W.
43°02.55'N.	70°43.33'W.

COAST PILOT 2

Table 226.203a

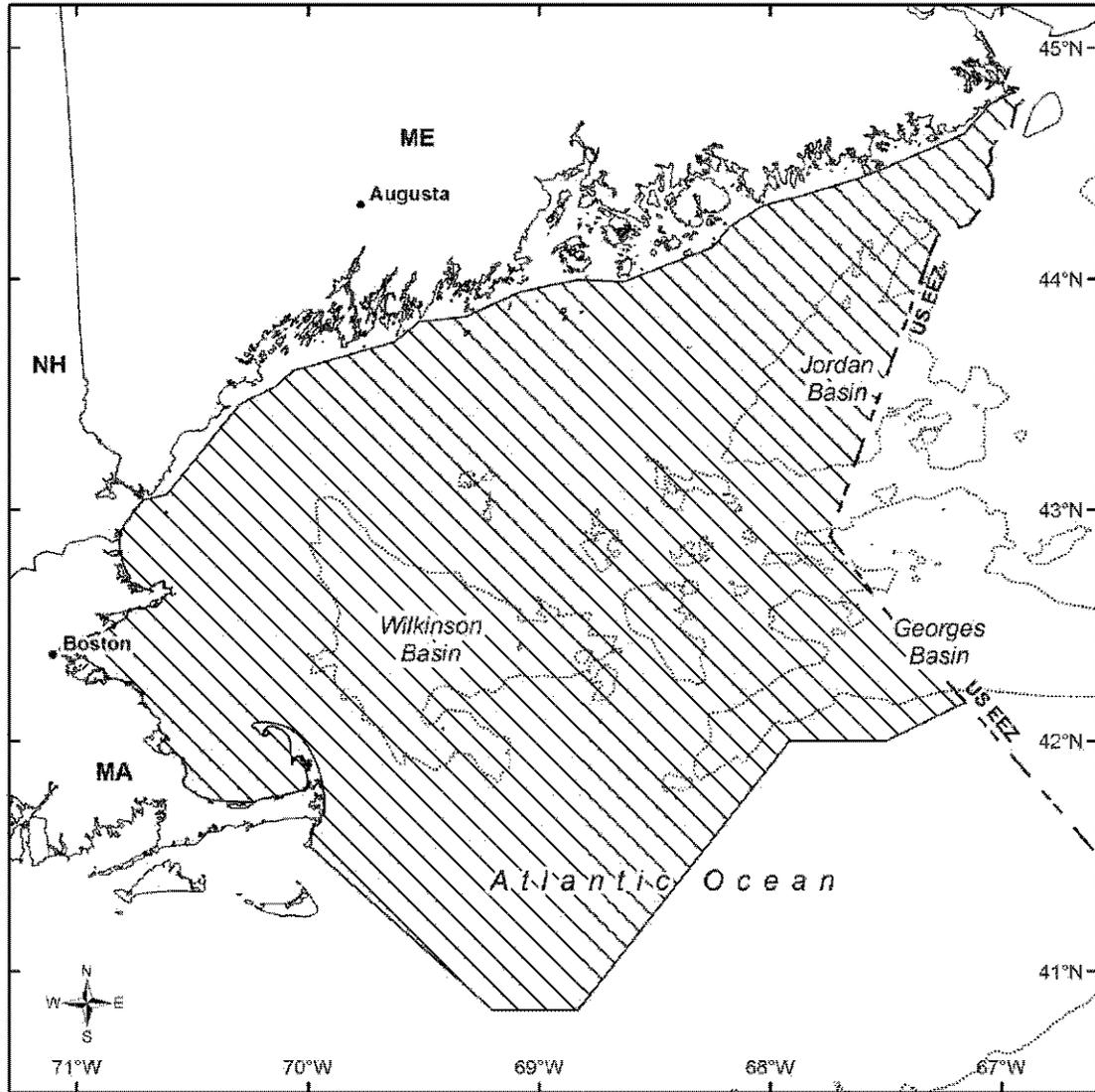
42°59.986N.	70°44.654W.	to	Rye Harbor
42°59.956N.	70°44.737W.		Rye Harbor
42°53.691N.	70°48.516W.	to	Hampton Harbor
42°53.519N.	70°48.748W.		Hampton Harbor
42°49.136N.	70°48.242W.	to	Newburyport Harbor
42°48.964N.	70°48.282W.		Newburyport Harbor
42°42.145N.	70°46.995W.	to	Plum Island Sound
42°41.523N.	70°47.356W.		Plum Island Sound
42°40.266N.	70°43.838W.	to	Essex Bay
42°39.778N.	70°43.142W.		Essex Bay
42°39.645N.	70°36.715W.	to	Rockport Harbor
42°39.613N.	70°36.60W.		Rockport Harbor
42°20.665N.	70°57.205W.	to	Boston Harbor
42°20.009N.	70°55.803W.		Boston Harbor
42°19.548N.	70°55.436W.	to	Boston Harbor
42°18.599N.	70°52.961W.		Boston Harbor
42°15.203N.	70°46.324W.	to	Cohasset Harbor
42°15.214N.	70°47.352W.		Cohasset Harbor
42°12.09N.	70°42.98W.	to	Scituate Harbor
42°12.211N.	70°43.002W.		Scituate Harbor
42°09.724N.	70°42.378W.	to	New Inlet
42°10.085N.	70°42.875W.		New Inlet
42°04.64N.	70°38.587W.	to	Green Harbor
42°04.583N.	70°38.631W.		Green Harbor
41°59.686N.	70°37.948W.	to	Duxbury Bay/ Plymouth Harbor
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41°50.369N.	70°32.145W.		Ellisville Harbor
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41°45.75N.	70°28.40W.		Sandwich Harbor
41°44.93N.	70°25.74W.	to	Scorton Harbor
41°44.90N.	70°25.60W.		Scorton Harbor
41°44.00N.	70°17.50W.	to	Barnstable Harbor
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41°45.53N.	70°09.387W.	to	Sesuit Harbor
41°45.523N.	70°09.307W.		Sesuit Harbor
41°45.546N.	70°07.39W.	to	Quivett Creek
41°45.551N.	70°07.32W.		Quivett Creek
41°47.269N.	70°01.411W.	to	Namskaket Creek
41°47.418N.	70°01.306W.		Namskaket Creek
41°47.961N.	70°0.561W.	to	Rock Harbor Creek
41°48.07N.	70°0.514W.		Rock Harbor Creek
41°48.432N.	70°0.286W.	to	Boat Meadow River
41°48.483N.	70°0.216W.		Boat Meadow River
41°48.777N.	70°0.317W.	to	Herring River
41°48.983N.	70°0.196W.		Herring River
41°55.501N.	70°03.51W.	to	Herring River, inside Wellfleet Harbor
41°55.322N.	70°03.191W.		Herring River, inside Wellfleet Harbor
41°53.922N.	70°01.333W.	to	Blackfish Creek/ Loagy Bay
41°54.497N.	70°01.182W.		Blackfish Creek/ Loagy Bay
41°55.503N.	70°02.07W.	to	Duck Creek
41°55.753N.	70°02.281W.		Duck Creek
41°59.481N.	70°04.779W.	to	Pamet River
41°59.563N.	70°04.718W.		Pamet River
41°03.601N.	70°14.269W.	to	Hatches Harbor
41°03.601N.	70°14.416W.		Hatches Harbor
41°48.708N.	69°56.319W.	to	Nauset Harbor
41°48.554N.	69°56.238W.		Nauset Harbor
41°40.885N.	69°56.781W.	to	Chatham Harbor
41°40.884N.	69°56.28W.		Chatham Harbor

Table 226.203b

Latitude	Longitude
33°51'N.	at shoreline
33°42'N.	77°43'W.
33°37'N.	77°47'W.
33°28'N.	78°33'W.
32°59'N.	78°50'W.
32°17'N.	79°53'W.
31°31'N.	80°33'W.
30°43'N.	80°49'W.
30°30'N.	81°01'W.
29°45'N.	81°01'W.
29°15'N.	80°55'W.
29°08'N.	80°51'W.
28°50'N.	80°39'W.
28°38'N.	80°30'W.
28°28'N.	80°26'W.
28°24'N.	80°27'W.
28°21'N.	80°31'W.
28°16'N.	80°31'W.
28°11'N.	80°33'W.
28°00'N.	80°29'W.
28°00'N.	at shoreline

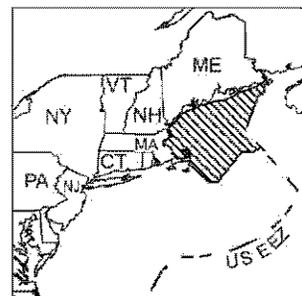
**North Atlantic Right Whale Critical Habitat
Northeastern U.S. Foraging Area**

Unit 1

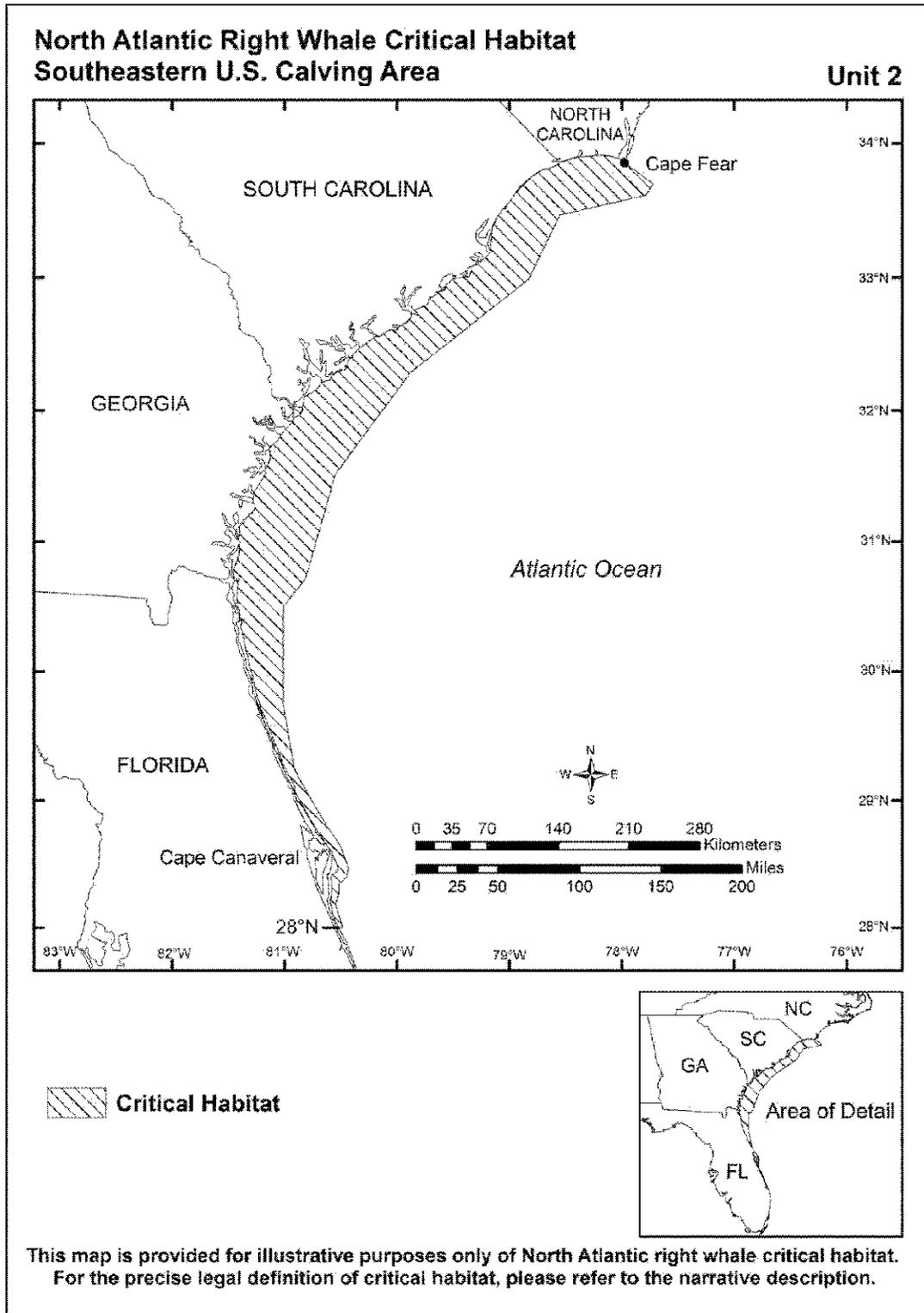


-  Critical Habitat
-  200m Depth Contour

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COAST PILOT 2



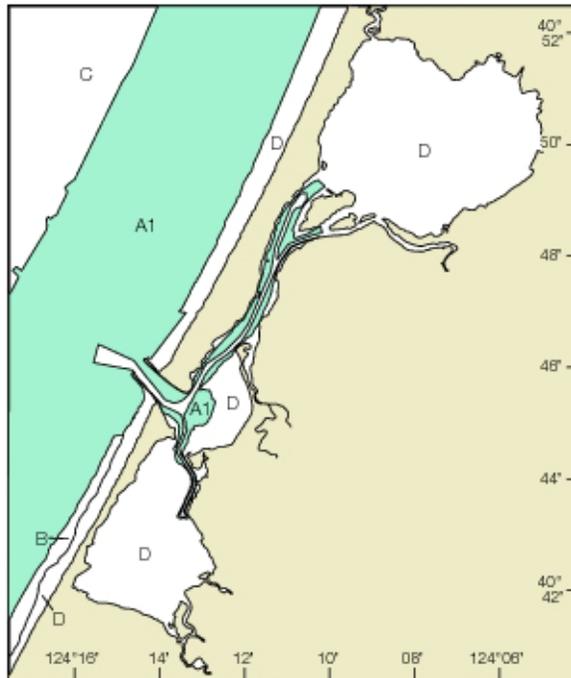
Chapter 1

ZOC CATEGORIES (Refer to Chapter 1, United States Coast Pilot)				
ZOC	DATE	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1	2008-2009	± 16 ft	= 1.6 ft + 1% depth	All significant seafloor features detected
B	1949	± 160 ft	= 3.2 ft + 2% depth	Uncharted features hazardous to surface navigation are not expected but may exist
C	1949	± 1600 ft	= 6.5 ft + 2% depth	Depth anomalies may be expected
D	-	Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected

COAST PILOT 2

Chapter 1

ZOC Source Diagram



COAST PILOT 2

Source Diagrams

Referring to the accompanying sample Source Diagram below and the previous discussion of survey methods over time, transiting from Point X to Point Y, along the track indicated by the dotted line, would have the following information available about the relative quality of the depth information shown on the chart.

Point X lies in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1940-1969 time period. The sounding data would have been collected by continuous recording single beam echo sounder. It is possible that features could have been missed between sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

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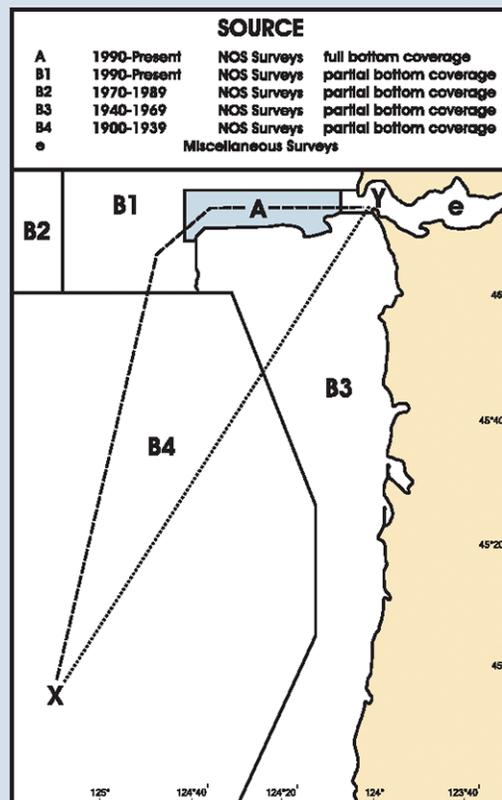
Referring again to the accompanying sample Source Diagram, and the previous discussion of survey methods over time, a mariner could choose to transit from Point X to Point Y, along the track shown with a dashed line.

The transit starts again in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might still exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1990 - present time period, with partial bottom coverage. The data is collected in metric units and acquired by continuous recording single beam echo sounder. It is possible that features could have been missed between the sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit then crosses into an area surveyed by NOAA within the 1990 - present time period, having full bottom coverage. This area of the charted diagram is shaded with a blue screen to draw attention to the fact that full bottom coverage has been achieved. The data would have been collected in metric units and acquired by side scan sonar or multibeam sonar technology. Undetected features in this area, at the time of the survey, would be unlikely.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram. By choosing to transit along the track shown by the dashed line, the mariner would elect to take advantage of survey information that is more recent and collected with modern technology.



Bottom Coverage and Survey Methods

Prior to 1940, most survey data was acquired by lead line, and soundings were positioned using horizontal sextant angles. This positioning method is considered to be accurate for near shore surveys. However, lead line surveys only collect discrete single-point depths. The depths between the soundings can only be inferred and undetected shoals and other uncharted features may exist in these areas, especially in areas of irregular relief.

From 1940 to 1990, sounding data acquisition typically used continuous-recording single beam echo sounders as stand-alone survey systems, which resulted in partial bottom sounding coverage. Although the sampling is continuous along the track of the sounding vessel, features such as discrete objects or small area shoals between sounding lines may not have been detected. Positioning of the sounding vessel in this period progressed from horizontal sextant angles, through land based electronic positioning systems, to differentially corrected Global Positioning System (DGPS) satellite fixes.

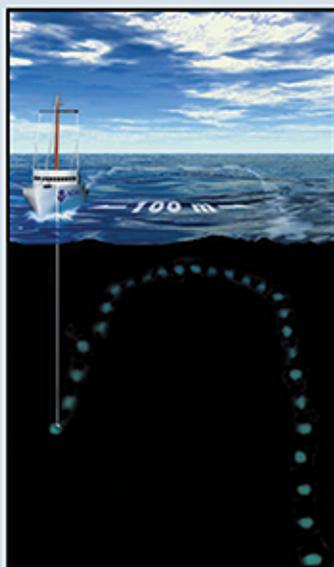
From 1990 to the present, most surveys have been conducted using either multi-beam sonar systems or a combination of side scan sonar and single beam echo sounder systems to achieve full bottom coverage. The term full bottom coverage refers to survey areas in which the field party has acquired continuously recorded, high-resolution sonar data in overlapping swaths. This sonar data, either multi-beam bathymetry or side scan imagery, has been analyzed in an attempt to locate all hazards to navigation within the survey's limits; all position data has been determined using DGPS. NOAA began utilizing airborne light detection and ranging systems (LIDAR) for near shore bathymetric surveying in the late 1990s.

This type of survey method provided sounding data at a lower resolution than sonar systems, thus making small obstructions and hazards difficult to identify. Although LIDAR systems provide continuously recorded swath data, the resulting sounding resolution is not dense enough for the survey to be considered full bottom coverage. However, LIDAR surveys in which significant anomalies have been further investigated using multi-beam sonar are considered adequate for the full bottom coverage designation. Stand-alone LIDAR surveys are depicted on the source diagram as partial bottom coverage areas.

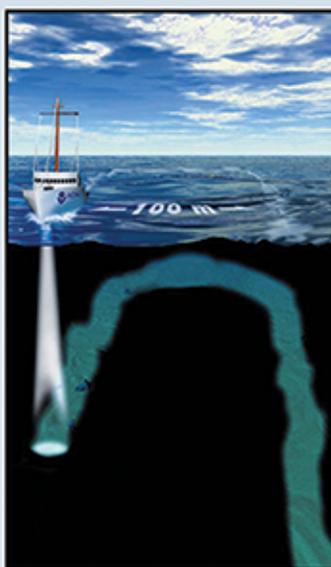
Although full bottom coverage surveys are not feasible in all areas, this method is typically preferred over lead line, single beam echo sounder, and LIDAR technologies. Full bottom coverage surveys typically extend inshore to depths of 4-8 meters (13-26 feet). Due to scaling factors, a full bottom coverage survey area may appear to extend further inshore once depicted on the source diagram. Generally, sounding data in depths of 6 meters (20 feet) and shoaler – 8 meters (26 feet) and shoaler in Alaskan waters – has been acquired using a partial bottom coverage method. Caution and prudent seamanship should be used when transiting these near shore areas.

The spacing of sounding lines required to survey an area using a single beam echo sounder depends on several factors such as water depths, bottom configuration, survey scale, general nature of the area and the purpose of the survey. For example, a 1:10,000-scale survey conducted in an estuary will typically have 100-meter line spacing requirements but may be reduced to 50 meters or less to adequately develop an irregular bottom, shoal or some other feature that may present a hazard to navigation. Also, hydrographic project instructions for surveys may have required line spacing that deviates from these general specifications.

Leadline (pre 1940)



Single Beam (1940's - 1980's)



Multibeam (1990's - present)

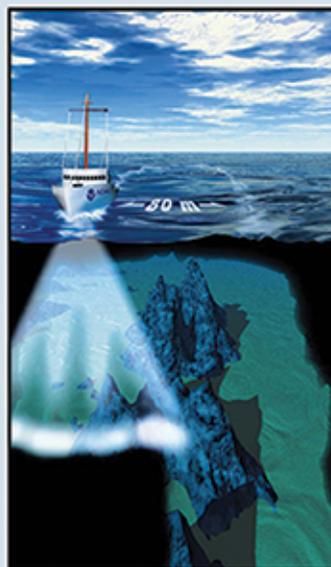


Table 226.203

Latitude	Longitude
44°49.727'N.	66°57.952'W.
44°49.67'N.	66°57.77'W.
44°48.64'N.	66°56.43'W.
44°47.36'N.	66°59.25'W.
44°45.51'N.	67°02.87'W.
44°37.07'N.	67°09.75'W.
44°27.77'N.	67°32.86'W.
44°25.74'N.	67°38.39'W.
44°21.66'N.	67°51.78'W.
44°19.08'N.	68°02.05'W.
44°13.55'N.	68°10.71'W.
44°08.36'N.	68°14.75'W.
43°59.36'N.	68°37.95'W.
43°59.83'N.	68°50.06'W.
43°56.72'N.	69°04.89'W.
43°50.28'N.	69°18.86'W.
43°48.96'N.	69°31.15'W.
43°43.64'N.	69°37.58'W.
43°41.44'N.	69°45.27'W.
43°36.04'N.	70°03.98'W.
43°31.94'N.	70°08.68'W.
43°27.63'N.	70°17.48'W.
43°20.23'N.	70°23.64'W.
43°04.06'N.	70°36.70'W.
43°02.93'N.	70°41.47'W.
43°02.55'N.	70°43.33'W.

Table 226.203a

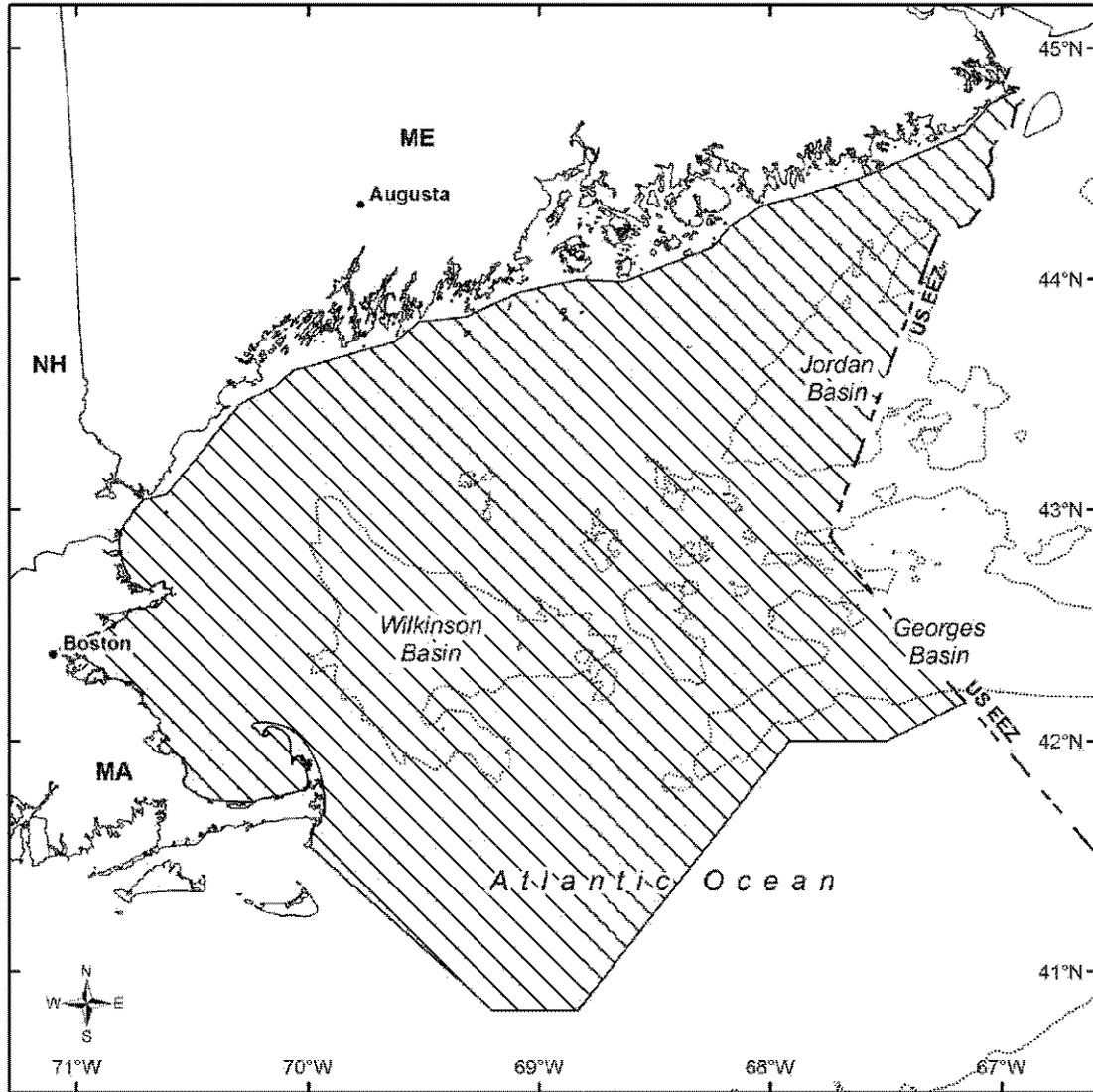
42°59.986N.	70°44.654W.	to	Rye Harbor
42°59.956N.	70°44.737W.		Rye Harbor
42°53.691N.	70°48.516W.	to	Hampton Harbor
42°53.519N.	70°48.748W.		Hampton Harbor
42°49.136N.	70°48.242W.	to	Newburyport Harbor
42°48.964N.	70°48.282W.		Newburyport Harbor
42°42.145N.	70°46.995W.	to	Plum Island Sound
42°41.523N.	70°47.356W.		Plum Island Sound
42°40.266N.	70°43.838W.	to	Essex Bay
42°39.778N.	70°43.142W.		Essex Bay
42°39.645N.	70°36.715W.	to	Rockport Harbor
42°39.613N.	70°36.60W.		Rockport Harbor
42°20.665N.	70°57.205W.	to	Boston Harbor
42°20.009N.	70°55.803W.		Boston Harbor
42°19.548N.	70°55.436W.	to	Boston Harbor
42°18.599N.	70°52.961W.		Boston Harbor
42°15.203N.	70°46.324W.	to	Cohasset Harbor
42°15.214N.	70°47.352W.		Cohasset Harbor
42°12.09N.	70°42.98W.	to	Scituate Harbor
42°12.211N.	70°43.002W.		Scituate Harbor
42°09.724N.	70°42.378W.	to	New Inlet
42°10.085N.	70°42.875W.		New Inlet
42°04.64N.	70°38.587W.	to	Green Harbor
42°04.583N.	70°38.631W.		Green Harbor
41°59.686N.	70°37.948W.	to	Duxbury Bay/ Plymouth Harbor
41°58.75N.	70°39.052W.		Duxbury Bay/ Plymouth Harbor
41°50.395N.	70°31.943W.	to	Ellisville Harbor
41°50.369N.	70°32.145W.		Ellisville Harbor
41°45.87N.	70°28.82W.	to	Sandwich Harbor
41°45.75N.	70°28.40W.		Sandwich Harbor
41°44.93N.	70°25.74W.	to	Scorton Harbor
41°44.90N.	70°25.60W.		Scorton Harbor
41°44.00N.	70°17.50W.	to	Barnstable Harbor
41°44.00N.	70°13.90W.		Barnstable Harbor
41°45.53N.	70°09.387W.	to	Sesuit Harbor
41°45.523N.	70°09.307W.		Sesuit Harbor
41°45.546N.	70°07.39W.	to	Quivett Creek
41°45.551N.	70°07.32W.		Quivett Creek
41°47.269N.	70°01.411W.	to	Namskaket Creek
41°47.418N.	70°01.306W.		Namskaket Creek
41°47.961N.	70°0.561W.	to	Rock Harbor Creek
41°48.07N.	70°0.514W.		Rock Harbor Creek
41°48.432N.	70°0.286W.	to	Boat Meadow River
41°48.483N.	70°0.216W.		Boat Meadow River
41°48.777N.	70°0.317W.	to	Herring River
41°48.983N.	70°0.196W.		Herring River
41°55.501N.	70°03.51W.	to	Herring River, inside Wellfleet Harbor
41°55.322N.	70°03.191W.		Herring River, inside Wellfleet Harbor
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41°54.497N.	70°01.182W.		Blackfish Creek/ Loagy Bay
41°55.503N.	70°02.07W.	to	Duck Creek
41°55.753N.	70°02.281W.		Duck Creek
41°59.481N.	70°04.779W.	to	Pamet River
41°59.563N.	70°04.718W.		Pamet River
41°03.601N.	70°14.269W.	to	Hatches Harbor
41°03.601N.	70°14.416W.		Hatches Harbor
41°48.708N.	69°56.319W.	to	Nauset Harbor
41°48.554N.	69°56.238W.		Nauset Harbor
41°40.885N.	69°56.781W.	to	Chatham Harbor
41°40.884N.	69°56.28W.		Chatham Harbor

Table 226.203b

Latitude	Longitude
33°51'N.	at shoreline
33°42'N.	77°43'W.
33°37'N.	77°47'W.
33°28'N.	78°33'W.
32°59'N.	78°50'W.
32°17'N.	79°53'W.
31°31'N.	80°33'W.
30°43'N.	80°49'W.
30°30'N.	81°01'W.
29°45'N.	81°01'W.
29°15'N.	80°55'W.
29°08'N.	80°51'W.
28°50'N.	80°39'W.
28°38'N.	80°30'W.
28°28'N.	80°26'W.
28°24'N.	80°27'W.
28°21'N.	80°31'W.
28°16'N.	80°31'W.
28°11'N.	80°33'W.
28°00'N.	80°29'W.
28°00'N.	at shoreline

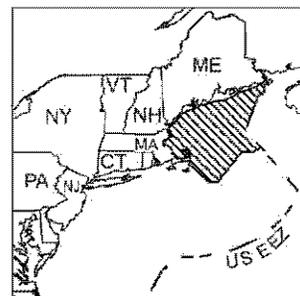
North Atlantic Right Whale Critical Habitat
Northeastern U.S. Foraging Area

Unit 1

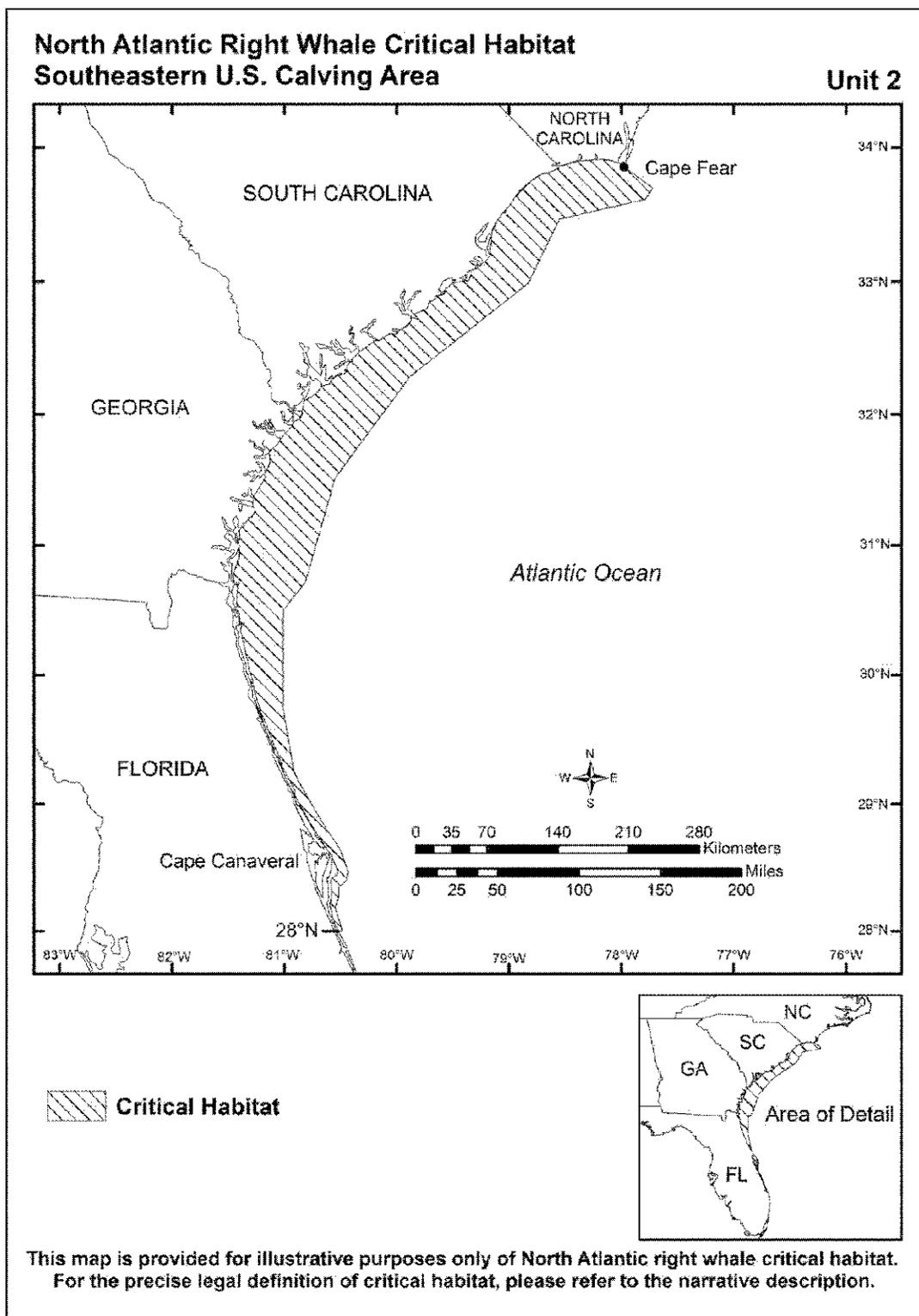


-  Critical Habitat
-  200m Depth Contour

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COAST PILOT 3



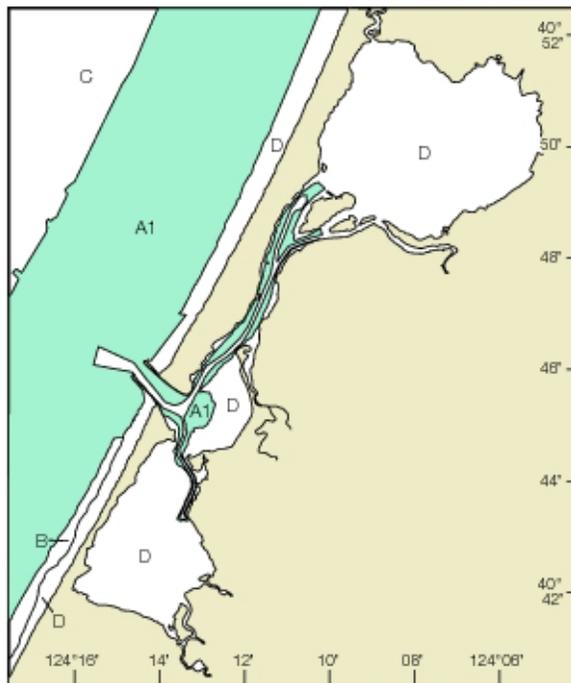
Chapter 1

ZOC CATEGORIES (Refer to Chapter 1, United States Coast Pilot)				
ZOC	DATE	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1	2008-2009	± 16 ft	= 1.6 ft + 1% depth	All significant seafloor features detected
B	1949	± 160 ft	= 3.2 ft + 2% depth	Uncharted features hazardous to surface navigation are not expected but may exist
C	1949	± 1600 ft	= 6.5 ft + 2% depth	Depth anomalies may be expected
D	-	Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected

COAST PILOT 3

Chapter 1

ZOC Source Diagram



COAST PILOT 3

Source Diagrams

Referring to the accompanying sample Source Diagram below and the previous discussion of survey methods over time, transiting from Point X to Point Y, along the track indicated by the dotted line, would have the following information available about the relative quality of the depth information shown on the chart.

Point X lies in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1940-1969 time period. The sounding data would have been collected by continuous recording single beam echo sounder. It is possible that features could have been missed between sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram.

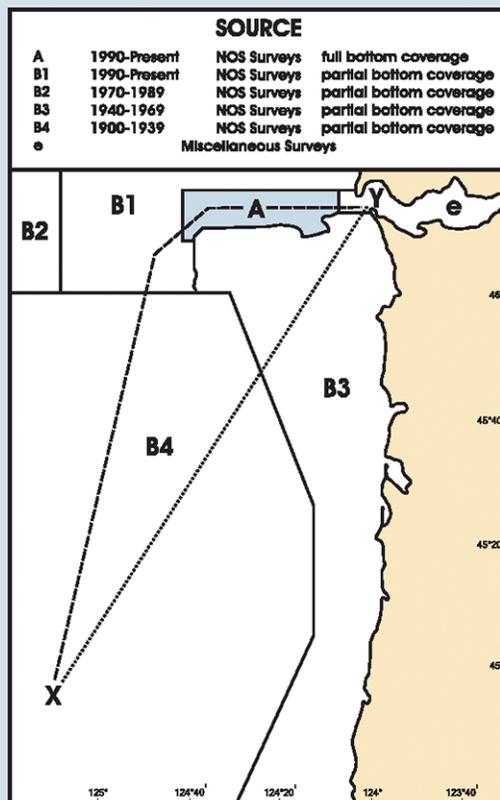
Referring again to the accompanying sample Source Diagram, and the previous discussion of survey methods over time, a mariner could choose to transit from Point X to Point Y, along the track shown with a dashed line.

The transit starts again in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might still exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1990 - present time period, with partial bottom coverage. The data is collected in metric units and acquired by continuous recording single beam echo sounder. It is possible that features could have been missed between the sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit then crosses into an area surveyed by NOAA within the 1990 - present time period, having full bottom coverage. This area of the charted diagram is shaded with a blue screen to draw attention to the fact that full bottom coverage has been achieved. The data would have been collected in metric units and acquired by side scan sonar or multibeam sonar technology. Undetected features in this area, at the time of the survey, would be unlikely.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram. By choosing to transit along the track shown by the dashed line, the mariner would elect to take advantage of survey information that is more recent and collected with modern technology.



Bottom Coverage and Survey Methods

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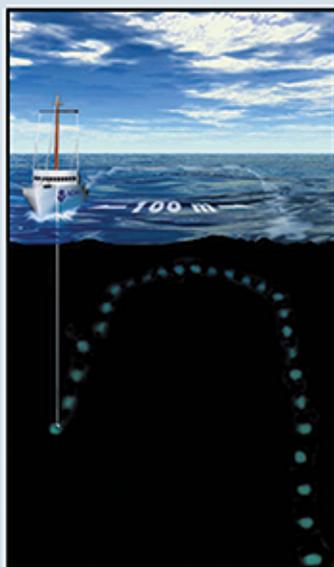
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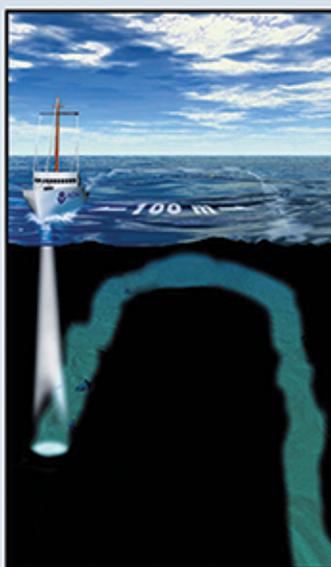
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Single Beam (1940's - 1980's)



Multibeam (1990's - present)

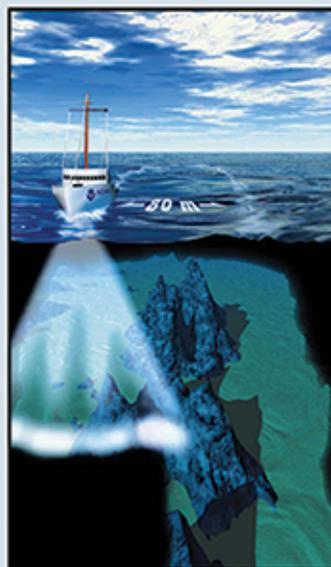


Table 226.203

Latitude	Longitude
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43°41.44'N.	69°45.27'W.
43°36.04'N.	70°03.98'W.
43°31.94'N.	70°08.68'W.
43°27.63'N.	70°17.48'W.
43°20.23'N.	70°23.64'W.
43°04.06'N.	70°36.70'W.
43°02.93'N.	70°41.47'W.
43°02.55'N.	70°43.33'W.

Table 226.203a

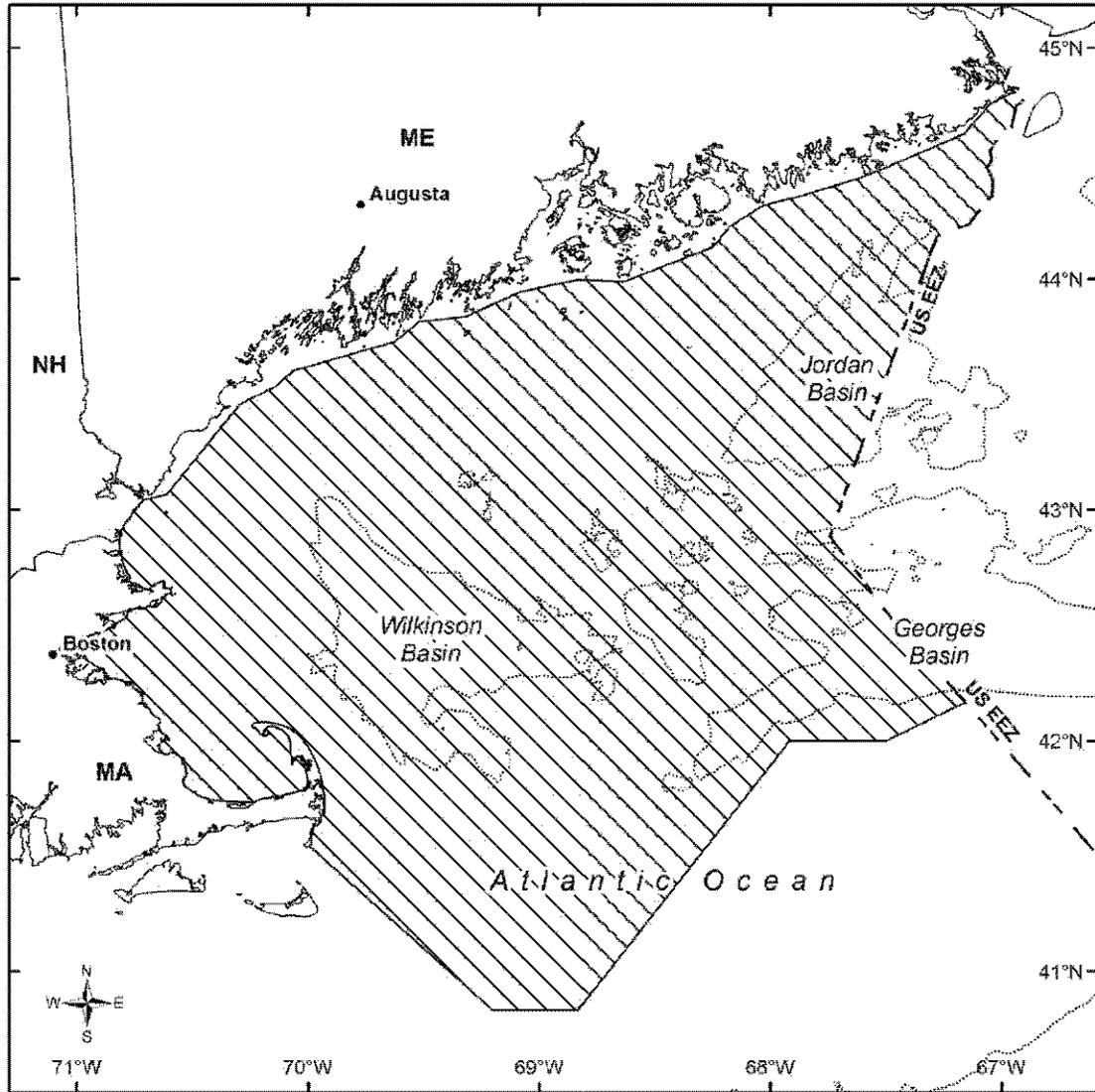
42°59.986N.	70°44.654W.	to	Rye Harbor
42°59.956N.	70°44.737W.		Rye Harbor
42°53.691N.	70°48.516W.	to	Hampton Harbor
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41°48.777N.	70°0.317W.	to	Herring River
41°48.983N.	70°0.196W.		Herring River
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41°59.481N.	70°04.779W.	to	Pamet River
41°59.563N.	70°04.718W.		Pamet River
41°03.601N.	70°14.269W.	to	Hatches Harbor
41°03.601N.	70°14.416W.		Hatches Harbor
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41°40.884N.	69°56.28W.		Chatham Harbor

Table 226.203b

Latitude	Longitude
33°51'N.	at shoreline
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29°45'N.	81°01'W.
29°15'N.	80°55'W.
29°08'N.	80°51'W.
28°50'N.	80°39'W.
28°38'N.	80°30'W.
28°28'N.	80°26'W.
28°24'N.	80°27'W.
28°21'N.	80°31'W.
28°16'N.	80°31'W.
28°11'N.	80°33'W.
28°00'N.	80°29'W.
28°00'N.	at shoreline

**North Atlantic Right Whale Critical Habitat
Northeastern U.S. Foraging Area**

Unit 1

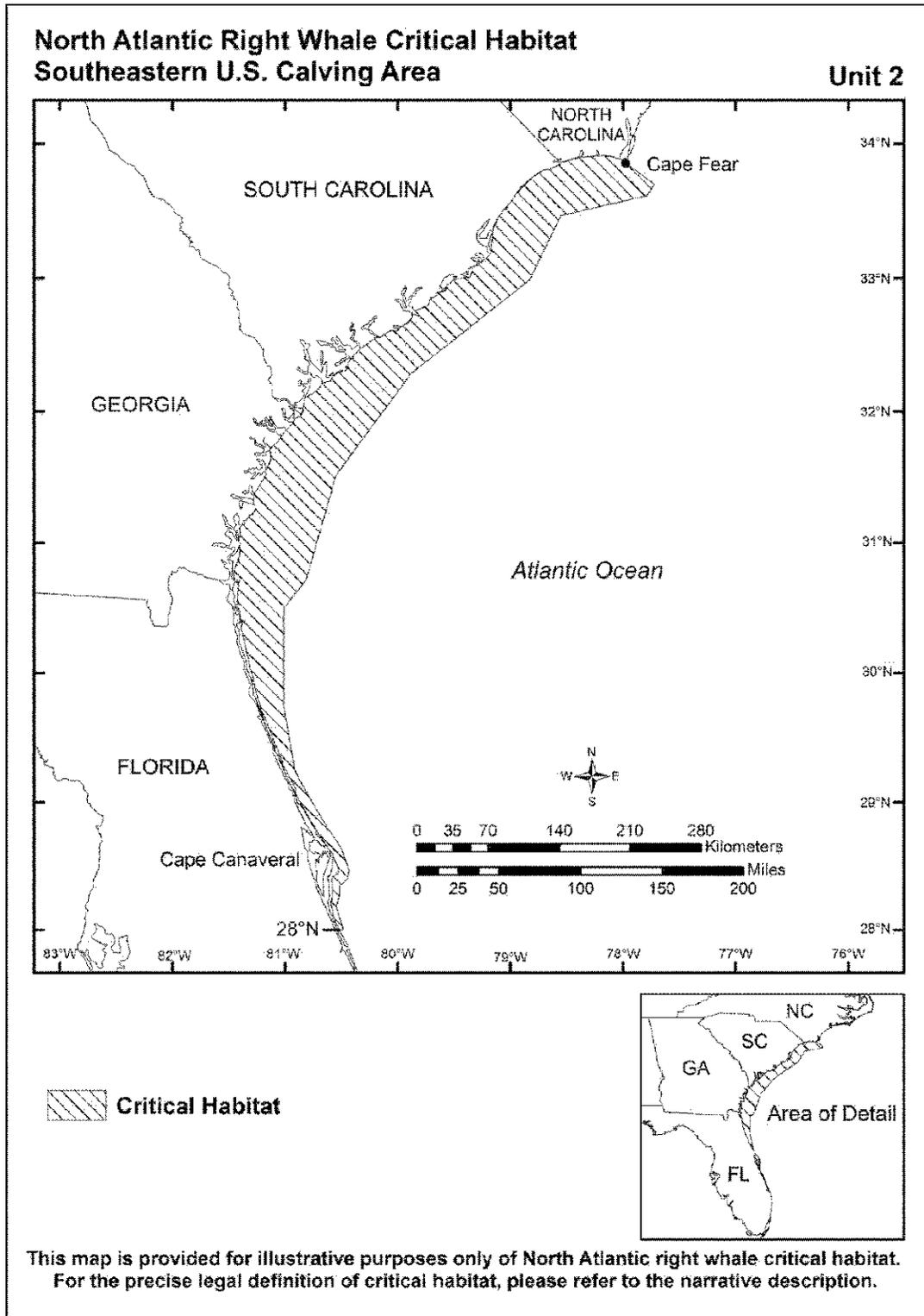


-  Critical Habitat
-  200m Depth Contour

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COAST PILOT 4



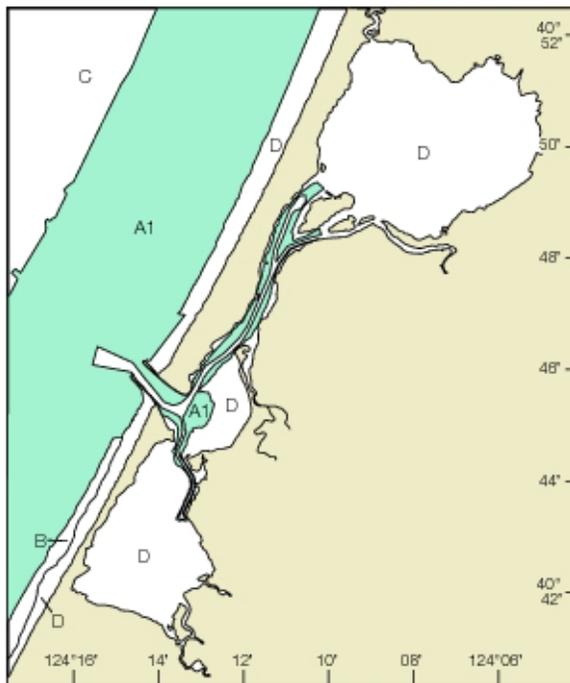
Chapter 1

ZOC CATEGORIES (Refer to Chapter 1, United States Coast Pilot)				
ZOC	DATE	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
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C	1949	± 1600 ft	= 6.5 ft + 2% depth	Depth anomalies may be expected
D	-	Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected

COAST PILOT 4

Chapter 1

ZOC Source Diagram



COAST PILOT 4

Source Diagrams

Referring to the accompanying sample Source Diagram below and the previous discussion of survey methods over time, transiting from Point X to Point Y, along the track indicated by the dotted line, would have the following information available about the relative quality of the depth information shown on the chart.

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The transit then crosses an area surveyed by NOAA within the 1940-1969 time period. The sounding data would have been collected by continuous recording single beam echo sounder. It is possible that features could have been missed between sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

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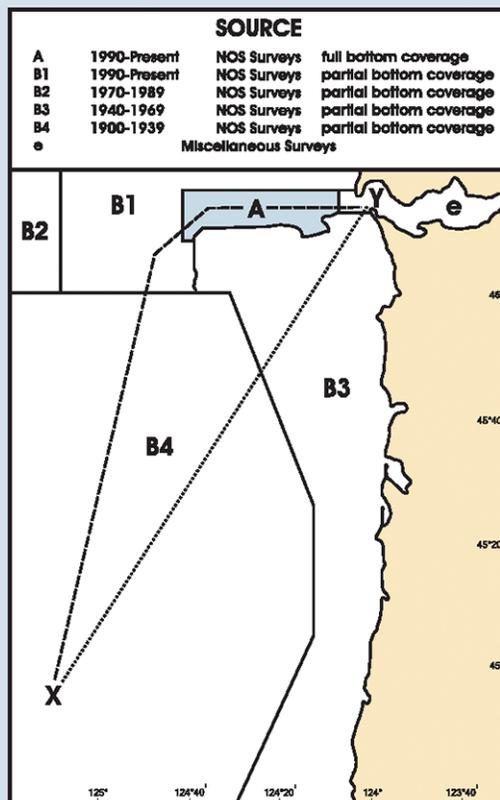
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The transit then crosses into an area surveyed by NOAA within the 1990 - present time period, having full bottom coverage. This area of the charted diagram is shaded with a blue screen to draw attention to the fact that full bottom coverage has been achieved. The data would have been collected in metric units and acquired by side scan sonar or multibeam sonar technology. Undetected features in this area, at the time of the survey, would be unlikely.

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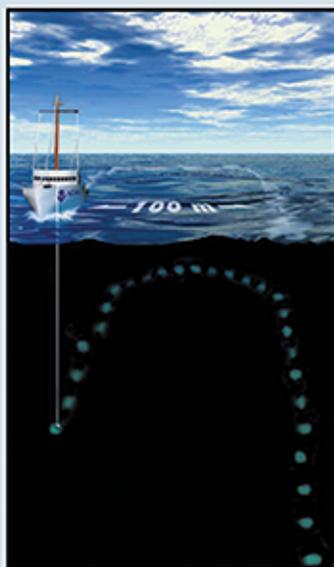
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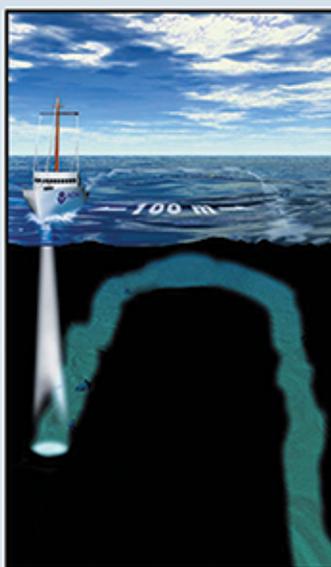
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The spacing of sounding lines required to survey an area using a single beam echo sounder depends on several factors such as water depths, bottom configuration, survey scale, general nature of the area and the purpose of the survey. For example, a 1:10,000-scale survey conducted in an estuary will typically have 100-meter line spacing requirements but may be reduced to 50 meters or less to adequately develop an irregular bottom, shoal or some other feature that may present a hazard to navigation. Also, hydrographic project instructions for surveys may have required line spacing that deviates from these general specifications.

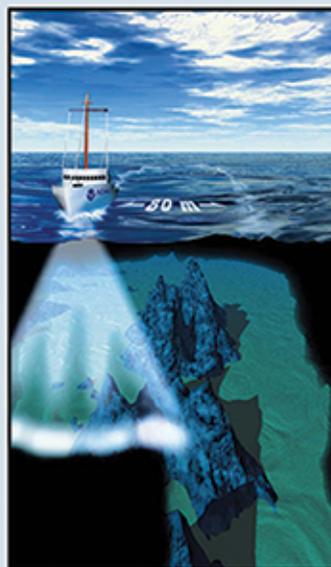
Leadline (pre 1940)



Single Beam (1940's - 1980's)



Multibeam (1990's - present)



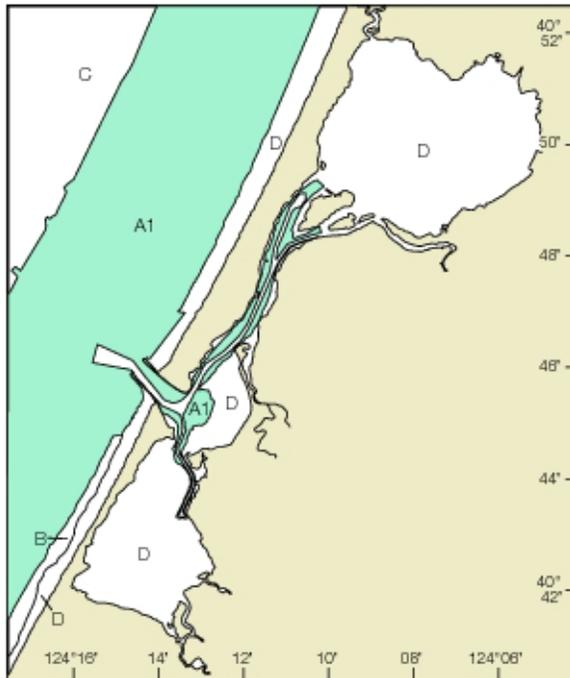
Chapter 1

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COAST PILOT 5

Chapter 1

ZOC Source Diagram



COAST PILOT 5

Source Diagrams

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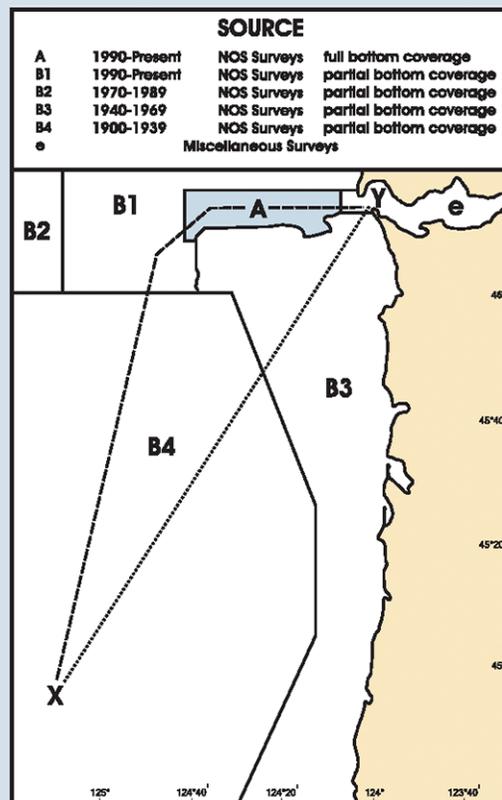
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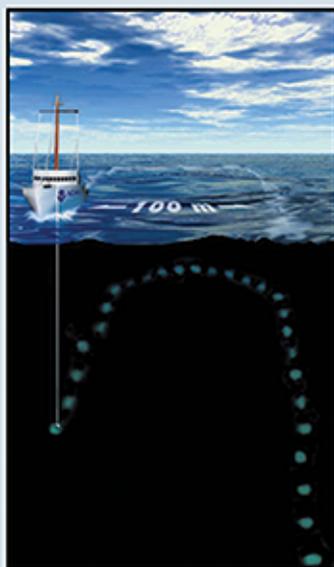
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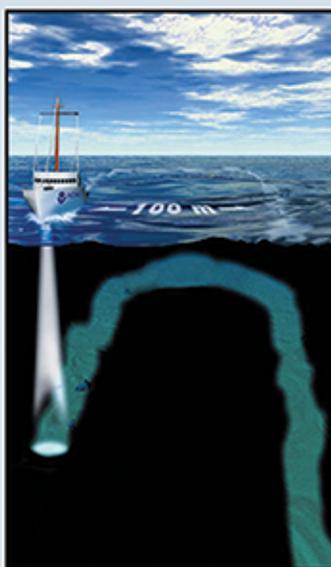
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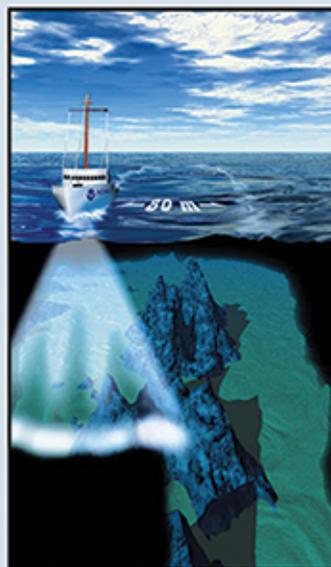
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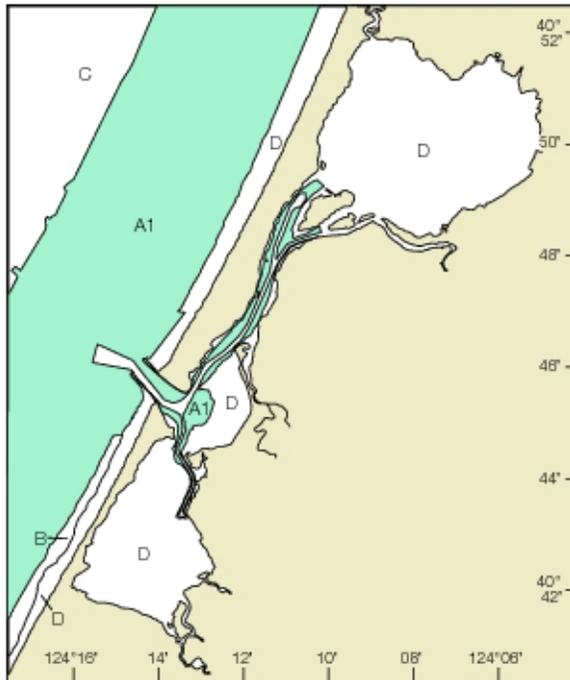


Multibeam (1990's - present)



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ZOC Source Diagram



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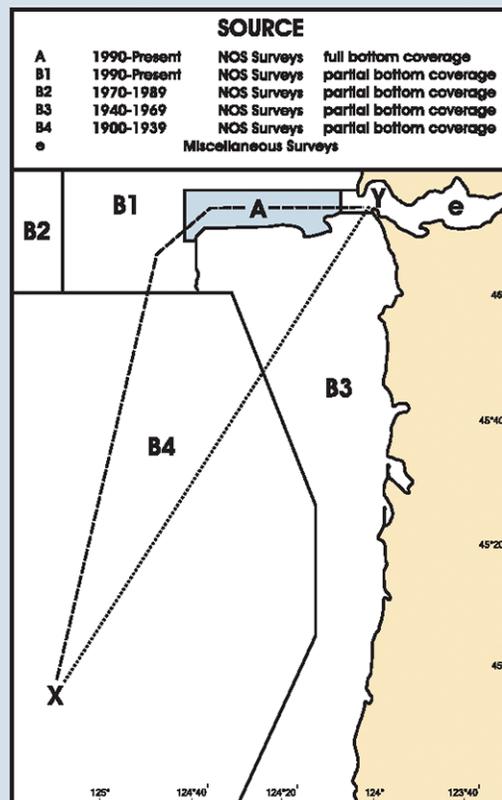
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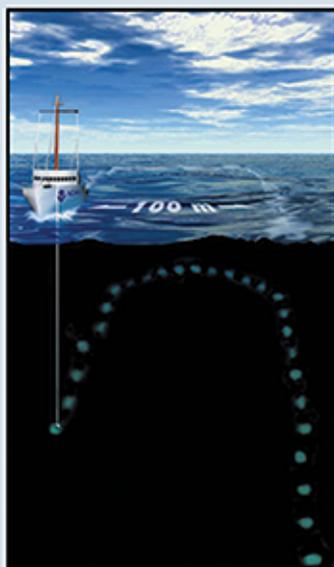
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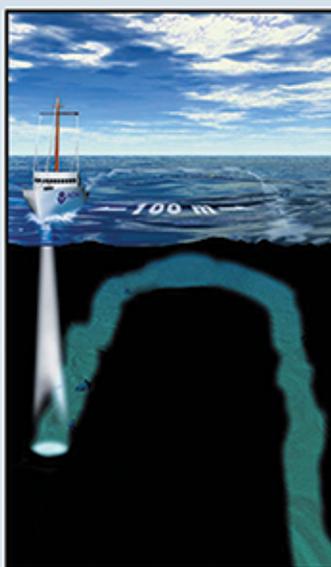
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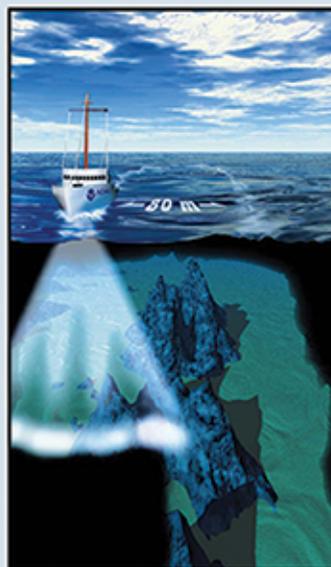
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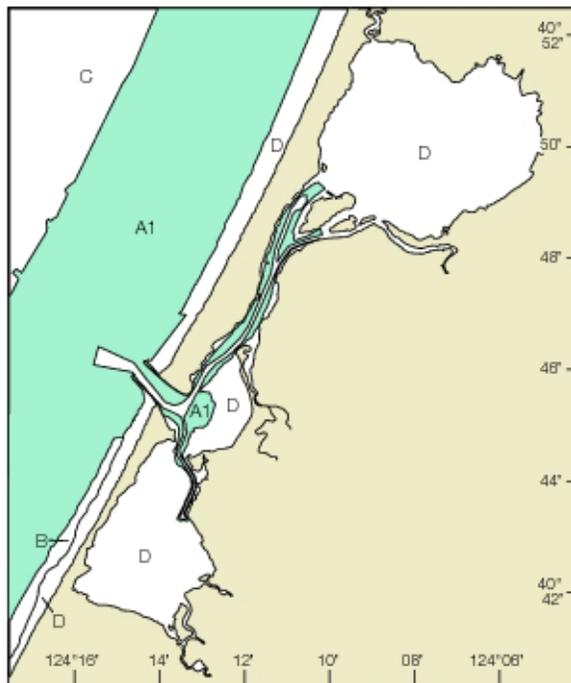
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COAST PILOT 7

Chapter 1

ZOC Source Diagram



COAST PILOT 7

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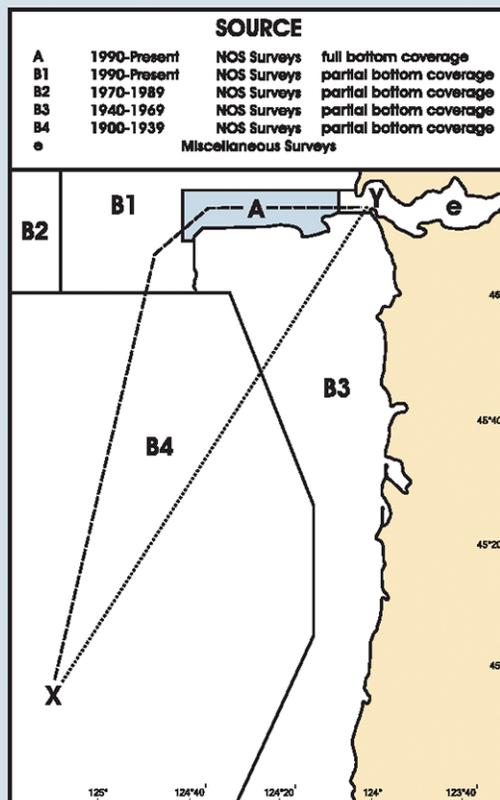
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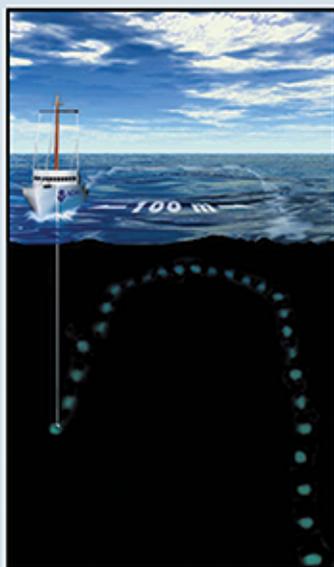
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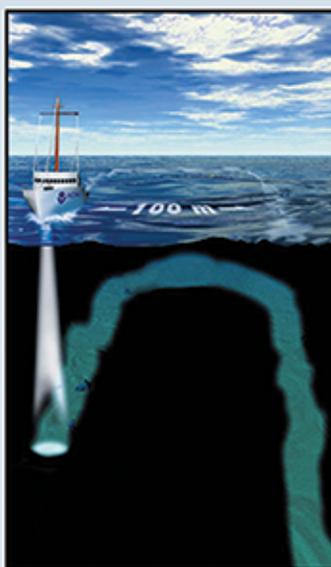
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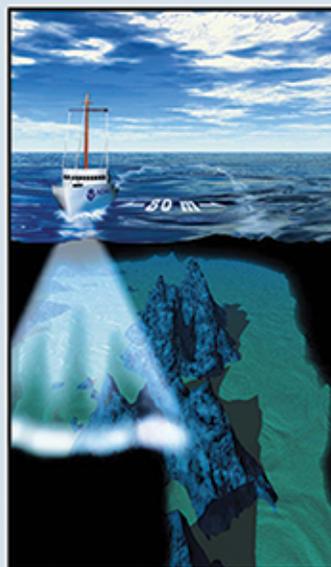
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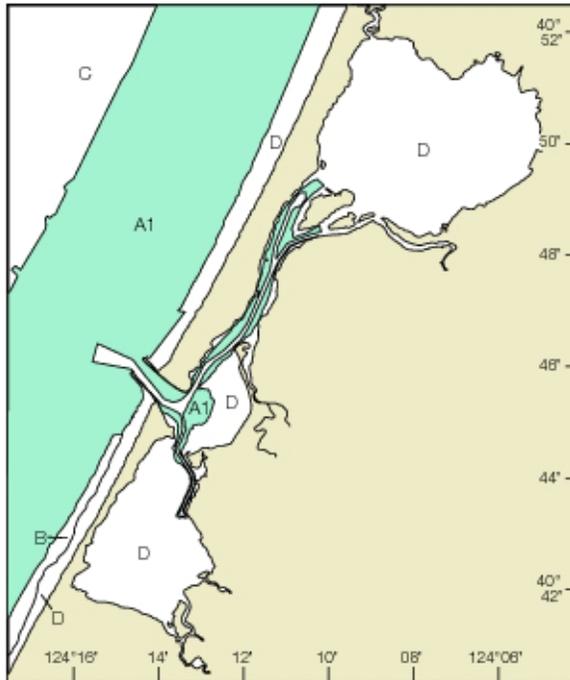
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COAST PILOT 8

Chapter 1

ZOC Source Diagram



COAST PILOT 8

Source Diagrams

Referring to the accompanying sample Source Diagram below and the previous discussion of survey methods over time, transiting from Point X to Point Y, along the track indicated by the dotted line, would have the following information available about the relative quality of the depth information shown on the chart.

Point X lies in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1940-1969 time period. The sounding data would have been collected by continuous recording single beam echo sounder. It is possible that features could have been missed between sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram.

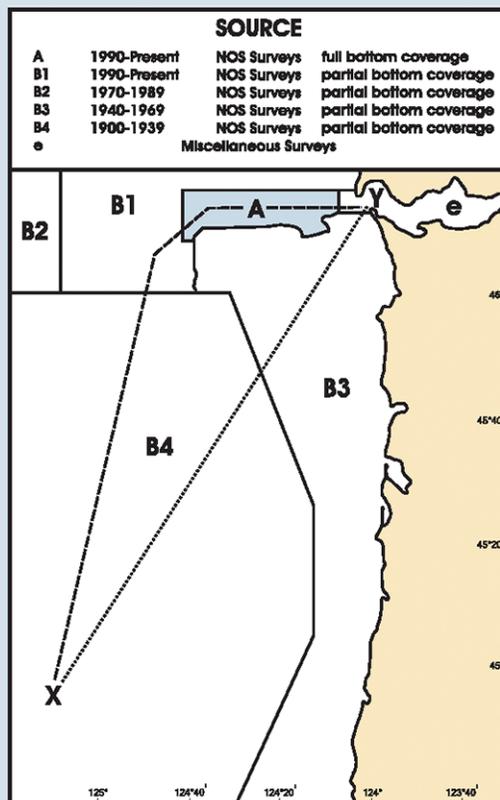
Referring again to the accompanying sample Source Diagram, and the previous discussion of survey methods over time, a mariner could choose to transit from Point X to Point Y, along the track shown with a dashed line.

The transit starts again in an area surveyed by NOAA within the 1900-1939 time period. The sounding data would have been collected by leadline. Depths between sounding points can only be inferred, and undetected features might still exist between the sounding points in areas of irregular relief. Caution should be exercised.

The transit then crosses an area surveyed by NOAA within the 1990 - present time period, with partial bottom coverage. The data is collected in metric units and acquired by continuous recording single beam echo sounder. It is possible that features could have been missed between the sounding lines, although echo sounders record all depths along a sounding line with varying beam widths.

The transit then crosses into an area surveyed by NOAA within the 1990 - present time period, having full bottom coverage. This area of the charted diagram is shaded with a blue screen to draw attention to the fact that full bottom coverage has been achieved. The data would have been collected in metric units and acquired by side scan sonar or multibeam sonar technology. Undetected features in this area, at the time of the survey, would be unlikely.

The transit ends in an area charted from miscellaneous surveys. These surveys may be too numerous to depict or may vary in age, reliability, origin or technology used. No inferences about the fitness of the data can be made in this area from the diagram. By choosing to transit along the track shown by the dashed line, the mariner would elect to take advantage of survey information that is more recent and collected with modern technology.



Bottom Coverage and Survey Methods

Prior to 1940, most survey data was acquired by lead line, and soundings were positioned using horizontal sextant angles. This positioning method is considered to be accurate for near shore surveys. However, lead line surveys only collect discrete single-point depths. The depths between the soundings can only be inferred and undetected shoals and other uncharted features may exist in these areas, especially in areas of irregular relief.

From 1940 to 1990, sounding data acquisition typically used continuous-recording single beam echo sounders as stand-alone survey systems, which resulted in partial bottom sounding coverage. Although the sampling is continuous along the track of the sounding vessel, features such as discrete objects or small area shoals between sounding lines may not have been detected. Positioning of the sounding vessel in this period progressed from horizontal sextant angles, through land based electronic positioning systems, to differentially corrected Global Positioning System (DGPS) satellite fixes.

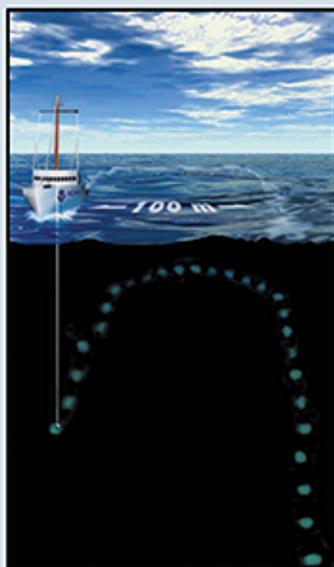
From 1990 to the present, most surveys have been conducted using either multi-beam sonar systems or a combination of side scan sonar and single beam echo sounder systems to achieve full bottom coverage. The term full bottom coverage refers to survey areas in which the field party has acquired continuously recorded, high-resolution sonar data in overlapping swaths. This sonar data, either multi-beam bathymetry or side scan imagery, has been analyzed in an attempt to locate all hazards to navigation within the survey's limits; all position data has been determined using DGPS. NOAA began utilizing airborne light detection and ranging systems (LIDAR) for near shore bathymetric surveying in the late 1990s.

This type of survey method provided sounding data at a lower resolution than sonar systems, thus making small obstructions and hazards difficult to identify. Although LIDAR systems provide continuously recorded swath data, the resulting sounding resolution is not dense enough for the survey to be considered full bottom coverage. However, LIDAR surveys in which significant anomalies have been further investigated using multi-beam sonar are considered adequate for the full bottom coverage designation. Stand-alone LIDAR surveys are depicted on the source diagram as partial bottom coverage areas.

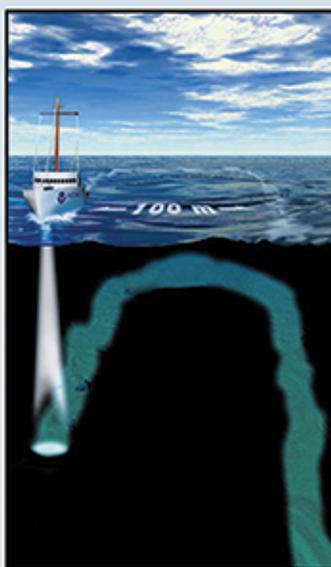
Although full bottom coverage surveys are not feasible in all areas, this method is typically preferred over lead line, single beam echo sounder, and LIDAR technologies. Full bottom coverage surveys typically extend inshore to depths of 4-8 meters (13-26 feet). Due to scaling factors, a full bottom coverage survey area may appear to extend further inshore once depicted on the source diagram. Generally, sounding data in depths of 6 meters (20 feet) and shoaler – 8 meters (26 feet) and shoaler in Alaskan waters – has been acquired using a partial bottom coverage method. Caution and prudent seamanship should be used when transiting these near shore areas.

The spacing of sounding lines required to survey an area using a single beam echo sounder depends on several factors such as water depths, bottom configuration, survey scale, general nature of the area and the purpose of the survey. For example, a 1:10,000-scale survey conducted in an estuary will typically have 100-meter line spacing requirements but may be reduced to 50 meters or less to adequately develop an irregular bottom, shoal or some other feature that may present a hazard to navigation. Also, hydrographic project instructions for surveys may have required line spacing that deviates from these general specifications.

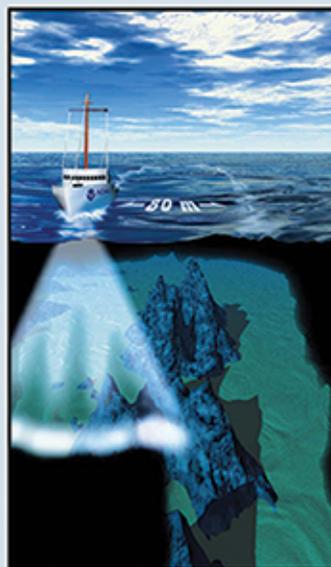
Leadline (pre 1940)



Single Beam (1940's - 1980's)



Multibeam (1990's - present)



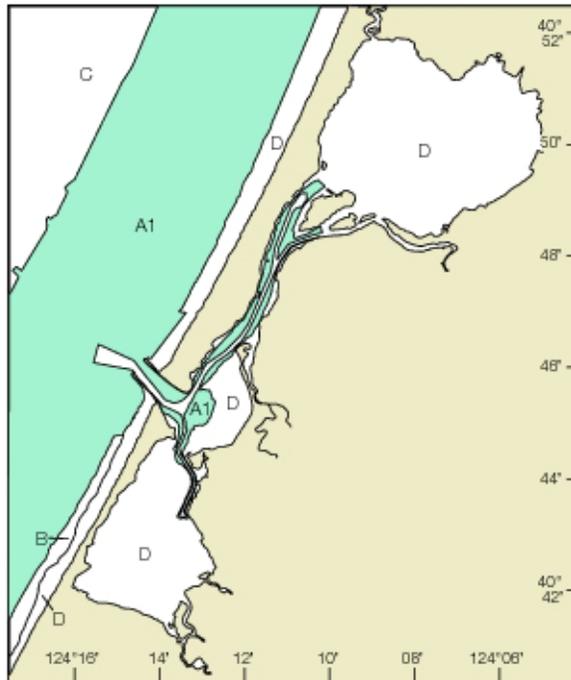
Chapter 1

ZOC CATEGORIES (Refer to Chapter 1, United States Coast Pilot)				
ZOC	DATE	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1	2008-2009	± 16 ft	= 1.6 ft + 1% depth	All significant seafloor features detected
B	1949	± 160 ft	= 3.2 ft + 2% depth	Uncharted features hazardous to surface navigation are not expected but may exist
C	1949	± 1600 ft	= 6.5 ft + 2% depth	Depth anomalies may be expected
D	-	Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected

COAST PILOT 9

Chapter 1

ZOC Source Diagram



COAST PILOT 9

Source Diagrams

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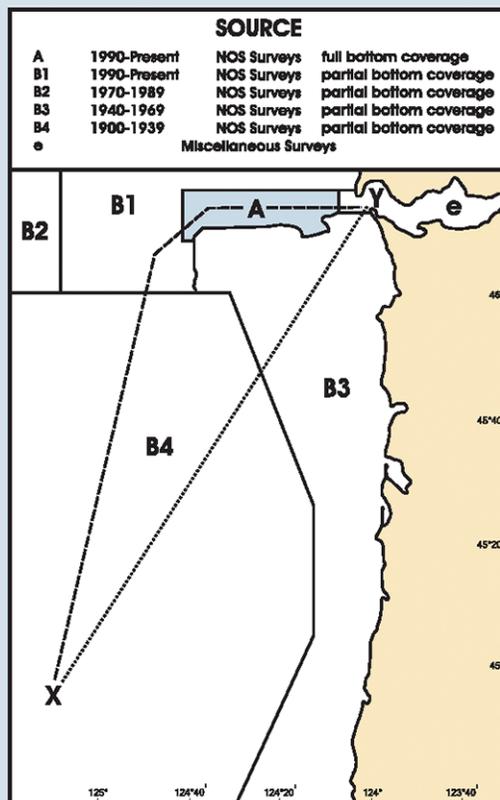
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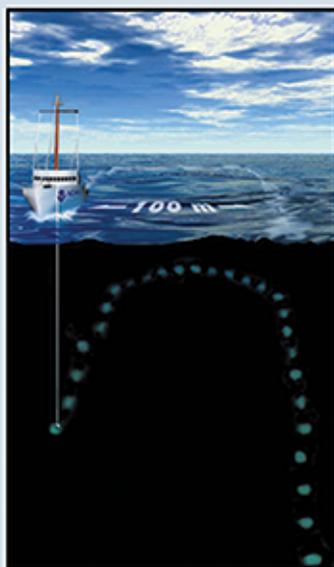
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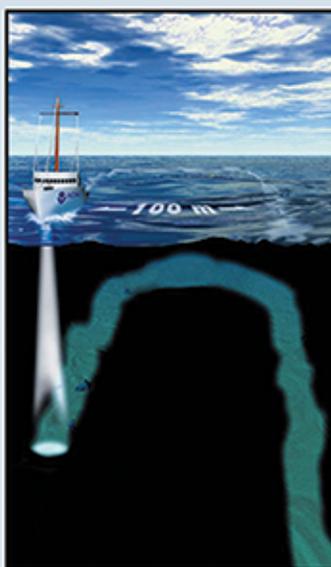
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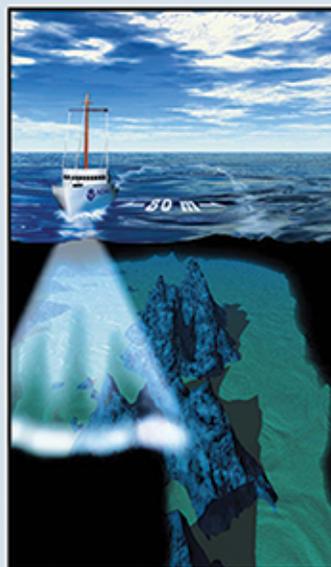
Leadline (pre 1940)



Single Beam (1940's - 1980's)



Multibeam (1990's - present)



SECTION II

CORRECTIONS TO C. G. LIGHT LIST, VOLUME I ATLANTIC COAST, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
560	NOAA Data Lighted Buoy 44018	42-07-10.00N 69-42-00.00W	Fl (4) Y 20s 0.5s fl 2s ec. 0.5s fl 2s ec. 0.5s fl 2s ec. 0.5s fl 12s ec.		7	Yellow.	Maintained by NOAA.
		*					18/16
20005	Lords Passage Lighted Whistle Buoy L	41-17-24.05N 71-54-19.76W	Mo (A) W		4	Red and white stripes with red spherical topmark.	
					*		18/16
34165	- Daybeacon D12						Remove from list.
							*
							18/16
34175	- Daybeacon D16						Remove from list.
							*
							18/16

CORRECTIONS TO C. G. LIGHT LIST, VOLUME II ATLANTIC COAST, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
390	North Chesapeake Entrance Lighted Gong Buoy NCB	36-56-57.54N 75-50-17.04W	Fl Y 6s		6	Yellow.	
					*		18/16
400	North Chesapeake Entrance Lighted Gong Buoy NCD	36-56-24.00N 75-53-42.00W	Fl Y 2.5s		6	Yellow.	
					*		18/16
403	North Chesapeake Entrance Lighted Buoy NCE	36-56-24.00N 75-54-57.00W	Fl Y 6s		6	Yellow.	
					*		18/16
405	Chesapeake Bay Entrance Lighted Whistle Buoy CH	36-56-08.33N 75-57-26.54W	Mo (A) W		6	Red and white stripes with red spherical topmark.	RACON: C(- • - •). AIS: MMSI 993672082.
					*		18/16
455	- Lighted Buoy 9	36-52-11.61N 75-52-15.96W	Q G		6	Green.	
					*		18/16
802	NOAA Lighted Data Buoy (ODAS) 41036						Remove from list.
							*
							18/16
8190	- Lighted Buoy 9	39-11-29.20N 76-28-56.05W	Fl G 4s		5	Green.	Replaced by can when endangered by ice.
					*		18/16
8215	- Lighted Buoy 1M	39-12-02.99N 76-30-46.76W	Q G		5	Green.	Replaced by LIB of reduced intensity when endangered by ice.
					*		18/16
10505	- JETTY LIGHT 3	36-55-58.71N 76-10-35.06W	Q G	25	5	SG on skeleton tower.	
					*		18/16
22160	- Lighted Wreck Buoy WR10	37-45-02.09N 75-46-21.07W	Q R		4	Red.	
		*					18/16
22830	- LIGHT 4	37-58-02.37N 75-53-26.79W	Fl R 4s	19	4	TR on pile.	
		*					18/16
22840	- LIGHT 7	37-57-58.48N 75-52-37.66W	Q G	15	4	SG on pile.	
		*					18/16

Note: Asterisks (*) indicate that column(s) in which a correction has been made or new information added.
Denotes a new entry when preceding the station number.

SECTION II

CORRECTIONS TO C. G. LIGHT LIST, VOLUME II ATLANTIC COAST, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
*26417	- Lighted Buoy 3	38-59-03.47N 76-14-33.44W	FI G 4s		3	Green.	Maintained from Mar. 15 to Dec. 1. 18/16
26420	- LIGHT 4 *	38-59-01.67N 76-14-36.15W	FI R 4s *	15	4	TR on multi-pile structure. *	 18/16
26425	- Warning Daybeacon *	38-59-01.00N 76-14-37.43W	 *			NW on multi-pile structure worded DANGER. *	 18/16
*26437	- Buoy 6A	38-59-47.08N 76-14-29.56W				Red nun.	Maintained from Mar. 15 to Dec. 1. 18/16
28703	- Lighted Buoy 4SF	35-11-50.28N 75-46-31.85W	FI R 2.5s *		3	Red.	 18/16
28707	- Lighted Buoy 6SF	35-11-54.64N 75-46-54.98W	Q R *		3	Red.	 18/16
28732.1	- Channel Lighted Buoy 12A	35-12-11.71N 75-43-56.66W *	FI R 2.5s		3	Red.	 18/16
28750	- Channel Lighted Buoy 16	35-12-08.21N 75-43-29.42W *	FI R 4s		3	Red.	 18/16
28760	- Channel Daybeacon 18	35-12-15.19N 75-43-13.30W *				TR on pile.	 18/16
28765	- CHANNEL LIGHT 19	35-12-15.47N 75-43-16.99W *	FI G 2.5s	15	4	SG on pile.	 18/16
28875	AUSTIN CREEK LIGHT 2	35-12-32.84N 75-42-15.48W	FI R 4s	15	4	TR on pile. *	 18/16
30395	- Channel Lighted Buoy 13A	33-52-50.98N 78-00-30.33W *	FI G 4s		4	Green.	 18/16
36665	- LIGHT 461	38-59-57.09N 74-50-11.60W	FI G 2.5s	15	4	SG-SY on pile. *	 18/16
36675	- LIGHT 465	38-59-04.85N 74-50-20.72W	Q G	15	4	SG-SY on pile. *	 18/16
38350	- Daybeacon 12	34-54-41.16N 76-39-55.30W *				TR-TY on pile.	 18/16
38760	- Daybeacon 3A	34-42-54.15N 76-43-41.55W *				SG-SY on pile.	 18/16

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SECTION II

CORRECTIONS TO C. G. LIGHT LIST, VOLUME III ATLANTIC AND GULF COAST, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
8047	- ENTRANCE LIGHT 5	29-41-45.24N 81-38-53.04W	Fl G 2.5s	16	5	SG on pile.	
					*		18/16
South Bridge Waterway							
*21060.1	- Daybeacon 2	26-56-43.70N 82-02-31.30W				TR on pile.	Private aid.
							18/16
*21060.2	- Daybeacon 3	26-56-44.10N 82-02-27.00W				SG on pile.	Private aid.
							18/16
*21060.3	- Daybeacon 4	26-56-43.60N 82-02-27.00W				TR on pile.	Private aid.
							18/16
*21060.4	- Daybeacon 5	26-56-43.90N 82-02-22.20W				SG on pile.	Private aid.
							18/16
*21060.5	- Daybeacon 6	26-56-43.40N 82-02-22.20W				TR on pile.	Private aid.
							18/16
*21060.6	- Daybeacon 7	26-56-43.90N 82-02-18.80W				SG on pile.	Private aid.
							18/16
*21060.7	- Daybeacon 8	26-56-43.30N 82-02-18.70W				TR on pile.	Private aid.
							18/16
*21060.8	- Daybeacon 9	26-56-43.40N 82-02-14.00W				SG on pile.	Private aid.
							18/16
*21060.9	- Daybeacon 10	26-56-42.90N 82-02-14.90W				TR on pile.	Private aid.
							18/16
*21061	- Daybeacon 12	26-56-42.40N 82-02-14.70W				TR on pile.	Private aid.
							18/16
*21061.1	- Daybeacon 14	26-56-42.40N 82-02-15.40W				TR on pile.	Private aid.
							18/16
*21061.2	- Daybeacon 16	26-56-40.80N 82-02-16.70W				TR on pile.	Private aid.
							18/16
*21061.3	- Daybeacon 17	26-56-39.70N 82-02-18.30W				SG on pile.	Private aid.
							18/16
*21061.4	- Daybeacon 18	26-56-38.90N 82-02-20.10W				TR on pile.	Private aid.
							18/16

CORRECTIONS TO C. G. LIGHT LIST, VOLUME IV GULF OF MEXICO, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
2840	- <i>Lighted Buoy 3</i>	29-37-07.22N 84-57-44.03W	Fl G 2.5s		3	Green can.	Ra ref.
	*	*	*		*	*	18/16
*2842	- <i>Lighted Buoy 5</i>	29-37-19.71N 84-57-50.01W	Fl G 4s			Green can.	
							18/16

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SECTION II

CORRECTIONS TO C. G. LIGHT LIST, VOLUME IV GULF OF MEXICO, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
2845	- Lighted Buoy 4	29-37-07.41N 84-57-42.22W	FI R 2.5s		3	Red nun.	Ra ref.
	*	*	*		*	*	18/16
*2846	- Lighted Buoy 6	29-37-20.19N 84-57-48.11W	FI R 4s		3	Red nun.	
							18/16
*7312	MOBILE BAY NATIONAL ESTUARY DANGER BREAKWATER LIGHT	30-27-00.63N 88-06-28.18W	FI W 2.5s			Marks shoreline restoration breakwater structure.	Private aid.
							18/16
*7312.01	MOBILE BAY NATIONAL ESTUARY DANGER BREAKWATER LIGHT	30-26-59.16N 88-06-25.07W	FI W 2.5s			Marks shoreline restoration breakwater structure.	Private aid.
							18/16
*7312.02	MOBILE BAY NATIONAL ESTUARY DANGER BREAKWATER LIGHT	30-26-55.68N 88-06-23.98W	FI W 2.5s			Marks shoreline restoration breakwater structure.	Private aid.
							18/16
*7312.03	MOBILE BAY NATIONAL ESTUARY DANGER BREAKWATER LIGHT	30-26-51.32N 88-06-23.76W	FI W 2.5s			Marks shoreline restoration breakwater structure.	Private aid.
							18/16
12475	- Daybeacon 19 50 feet outside channel limit.	29-19-14.53N 89-18-54.80W				SG on pile.	Ra ref.
		*					18/16
23020 35605	- Buoy 68	29-58-22.03N 93-50-33.35W				Red nun with yellow square.	
		*					18/16
23050 35575	- LIGHT 74	29-58-44.13N 93-49-21.32W	FI R 4s	17	4	TR-SY on pile.	
		*					18/16
25380	- LIGHT 114B	29-43-57.01N 95-02-37.67W	FI R 4s	17	4	TR on pile.	Ra ref.
		*					18/16
35575 23050	- LIGHT 74	29-58-44.13N 93-49-21.32W	FI R 4s	17	4	TR-SY on pile.	
		*					18/16
35605 23020	- Buoy 68	29-58-22.03N 93-50-33.35W				Red nun with yellow square.	
		*					18/16
39740	- Daybeacon 3	27-41-50.97N 97-13-18.46W				SG-SY on pile.	Ra ref.
	*	*				*	18/16
39750	- LIGHT 5	27-41-25.12N 97-13-24.96W	FI G 6s	17	4	SG-I on pile.	Ra ref.
	*						18/16
*39760	- Daybeacon 6	27-41-18.23N 97-13-31.33W				TR-TY on pile.	Ra ref.
							18/16
*39765	- Daybeacon 7	27-41-03.81N 97-13-31.14W				SG-SY on pile.	Ra ref.
							18/16
39775	- Buoy 9	27-40-38.70N 97-13-37.65W				Green can with yellow square.	
	*						18/16

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SECTION II

CORRECTIONS TO C. G. LIGHT LIST, VOLUME IV GULF OF MEXICO, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
39780	- LIGHT 11	27-40-23.68N 97-13-40.92W	FI G 4s	17	4	SG-SY on pile.	Ra ref.
	*						18/16
39785	- Daybeacon 12	27-40-24.62N 97-13-44.27W				TR-TY on pile.	Ra ref.
	*						18/16
39795	- Daybeacon 13	27-39-55.50N 97-13-48.67W				SG-SY on pile.	Ra ref.
	*	*				*	* 18/16
39805	- LIGHT 15	27-39-21.48N 97-13-56.83W	FI G 2.5s	17	3	SG-SY on pile.	Ra ref.
	*						18/16
39810	- Daybeacon 16	27-39-22.21N 97-14-00.44W				TR-TY on pile.	Ra ref.
	*						18/16
39820	- Daybeacon 17	27-38-53.22N 97-14-04.56W				SG-SY on pile.	Ra ref.
	*	*				*	* 18/16
39830	- LIGHT 19	27-38-25.58N 97-14-11.52W	Q G	17	3	SG-SY on pile.	Ra ref.
	*	*					18/16
39835	- Daybeacon 20	27-38-26.38N 97-14-14.74W				TR-TY on pile.	Ra ref.
	*						18/16

CORRECTIONS TO C. G. LIGHT LIST, VOLUME VI PACIFIC COAST AND PACIFIC ISLANDS, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
360	<i>San Francisco Approach Lighted Whistle Buoy SF</i>	37-44-59.75N 122-41-33.94W	Mo (A) W		4	Red and white stripes with spherical topmark.	RACON: M (— —). AIS MMSI: 993692001.
					*		18/16
17715	MEYDENBAUER YACHT CLUB MOORING PIER LIGHT	47-55-00.00N 122-41-24.00W	F Y			Floating moorage.	Private aid.
				*		*	18/16
18560	- Range A Front Daybeacon	48-00-36.89N 122-13-35.97W				KRB on multi-pile structure.	
		*					18/16
*18726	- Shoal Warning Lighted Buoy B	48-17-11.64N 122-38-14.04W	FI W 6s			White and orange.	Private aid.
							18/16
*18728	- Shoal Warning Lighted Buoy C	48-17-12.60N 122-38-10.20W	FI W 6s			White and orange.	Private aid.
							18/16
*18729	- North Entrance Daybeacon 5	48-17-11.58N 122-38-08.64W				SG on pile.	Private aid.
							18/16
*18729.1	- Shoal Warning Lighted Buoy D	48-17-12.54N 122-38-04.62W	FI W 6s			White and orange.	Private aid.
							18/16
*18729.2	- Shoal Warning Lighted Buoy E	48-17-12.90N 122-38-01.32W	FI W 6s			White and orange.	Private aid.
							18/16

Note: Asterisks (*) indicate that column(s) in which a correction has been made or new information added.
Denotes a new entry when preceding the station number.

SECTION II

CORRECTIONS TO C. G. LIGHT LIST, VOLUME VII GREAT LAKES, 2016

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
5660	<i>Ballast Island Channel Lighted Buoy 6</i>	41-40-25.48N 82-47-09.97W	FI R 2.5s		4	Red nun.	Maintained from May 21 to Nov. 1.
	*		*		*		* 18/16
5665	<i>Ballast Island Channel Lighted Buoy 7</i>	41-40-21.38N 82-47-26.67W	FI G 4s		4	Green can.	Maintained from May 21 to Nov. 1.
	*		*		*		* 18/16
8025	<i>- Lighted Buoy 11</i>	42-09-25.95N 83-09-55.68W	FI G 2.5s		4	Green can.	
		*					18/16

Note: Asterisks (*) indicate that column(s) in which a correction has been made or new information added.
Denotes a new entry when preceding the station number.

SECTION II

CORRECTIONS TO PUB 110, LIST OF LIGHTS, 2016 EDITION							
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
16638 <i>J 6147.5</i>	Punta Yarumal.	8° 06.6' N 76° 44.9' W	Fl.W. period 5s fl. 0.5s, ec. 4.5s	66 20	13	Red and white tower; 59.	
					*		18/16
16639 <i>J 6147.8</i>	Faro de Matuntugo.	8° 08.2' N 76° 50.4' W	Fl.(3)W. period 12s fl. 0.8s, ec. 1.2s fl. 0.8s, ec. 1.2s fl. 0.8s, ec. 7.2s	66 20	10	Metal framework tower, red and white bands.	
		*		*	*		18/16
CORRECTIONS TO PUB 112, LIST OF LIGHTS, 2015 EDITION							
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
*19151.85 <i>P 3612.552</i>	Datu Zhou, SW.	24° 24.2' N 117° 54.4' E	Fl.G. period 4s	26 8	5	STARBOARD (A) G, beacon, topmark; 16.	
							18/16
*19151.86 <i>P 3612.553</i>	Nanxi Kou.	24° 23.7' N 117° 54.9' E	Fl.W. period 3s	23 7	5	White pile; 16.	
							18/16
21013 <i>F 2869.26</i>	-Range, front.						<i>Remove from list.</i>
							*
							18/16
21014 <i>F 2869.261</i>	-Rear, 730 meters 241° from front.						<i>Remove from list.</i>
							*
							18/16
*21015 <i>F 2869.29</i>	-North Approach.	4° 35.5' N 103° 27.4' W	Oc.W.R.G. period 3s	43 13	W. 4 R. 3 G. 3		G. 202°-203°, W.-204°, R.-205°.
							18/16
*24375 <i>F 9536.55</i>	Ardasier Reef.	7° 37.1' N 113° 55.9' E	Fl.R.	33 10		Red beacon.	
							18/16
CORRECTIONS TO PUB 113, LIST OF LIGHTS, 2015 EDITION							
(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
*84.1 <i>A 1873</i>	Le Conquet.	48° 21.6' N 4° 47.0' W	Fl.G. period 2.5s	16 5	6	Green mast; 13.	
							18/16

Note: Asterisks (*) indicate that column(s) in which a correction has been made or new information added. Denotes a new entry when preceding the station number.

SECTION II

CORRECTIONS TO PUB 113, LIST OF LIGHTS, 2015 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
104 <i>A 1874.1</i>	St. Mathieu.	48° 19.8' N 4° 46.3' W	Fl.W. period 15s fl. 0.2s, ec. 14.8s	184 56	24	White truncated conical tower, red top; 121.	Radiobeacon.
			F.W.	177 54	28		Intensified 157°30'-159°30'. Forms range 158° with 84.
					*		18/16
*4214.6 <i>D 2436.74</i>	--N.	36° 10.2' N 5° 22.9' W	Q.G.	13 4	3	Green post, green triangular topmark; 7.	
							18/16
*20827 <i>N 5915.6</i>	--W. jetty, head.	36° 35.6' N 36° 10.4' E	Fl.(2)Y. period 6s	33 10	5		
							18/16
23935 <i>D 2799.3</i>	-Digue de la Esfinge, head.	28° 09.1' N 15° 23.9' W	Q.(4)G. period 10s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 6.5s	52 16	5	Green and white cylindrical tower; 13.	
		*		*		*	*
							18/16
23984 <i>D 2807</i>	---SW. head.	28° 08.2' N 15° 25.2' W	Fl.(2+1)R. period 11s fl. 0.5s, ec. 0.5s fl. 0.5s, ec. 1.5s fl. 0.5s, ec. 7.5s	26 8	3	Red cylindrical tower with green band; 16.	
		*					18/16

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Denotes a new entry when preceding the station number.

BROADCAST WARNINGS

Details concerning the particulars of the broadcasting of radio navigational warnings may be found in Radio Navigational Aids, Pub. 117.

NAVAREA IV

Messages in force 200940Z April 2016:

2012 series	409(14)	545(28)	1084(28)	198(GEN)	290(24)
286(GEN)	836(28)	604(25)	2016 series	206(24,26)	293(28)
610(GEN)	864(24)	805(15,38)	25(26,27)	256(11,28)	295(GEN)
2013 series	1079(24)	806(15,38)	34(26)	261(24)	296(24,25)
286(24)	2015 series	828(26)	49(25)	263(24)	297(14,51)
2014 series	56(24)	839(26)	104(24)	266(11)	300(GEN)
104(28)	259(11)	846(26)	120(24)	279(28)	
116(28)	423(24,26)	893(24)	152(28)	280(28)	
157(28)	443(38)	912(28)	168(24)	281(28)	
407(14)	446(28)	917(24,26)	170(24,25,26)	282(28)	
408(14)	524(27,28)	987(28)	188(24,25,26)	285(28)	

The summary of all NAVAREA IV messages in force as of 16 December 2015 is given in Section III of NM 52/15. Warnings issued during the subsequent quarter are issued in NM 13/16.

NAVAREA IV WARNINGS issued from 130930Z to 200940Z April 2016.

284/16. CANCELED.

285/16(28).

GULF OF MEXICO.

BAY OF CAMPECHE.

1. SEISMIC SURVEY IN PROGRESS UNTIL 13 NOV

BY M/V WESTERN NEPTUNE, M/V WG COLUMBUS,

M/V WESTERN PATRIOT AND M/V GECO EMERALD

TOWING 9300 METER LONG CABLES

IN AREA BOUND BY

19-34-35.8N 092-55-00.4W, 19-44-51.3N 092-38-09.3W,

20-19-11.7N 093-01-31.2W, 20-27-24.7N 092-47-58.9W,

22-03-55.1N 093-54-40.0W, 21-45-12.4N 094-25-16.1W,

19-34-35.7N 092-55-00.4W.

WIDE BERTH REQUESTED.

2. CANCEL NAVAREA IV 180/16.

3. CANCEL THIS MSG 14 NOV 16.

(131735Z APR 2016)

286/16 thru 289/16. CANCELED.

290/16(24).

EASTERN CARIBBEAN SEA.

TRINIDAD AND TOBAGO.

1. HYDROGRAPHIC SURVEY 20 APR THRU 14 MAY

BY M/V GLADYS MC CALL AND M/V BARRACUDA

ALONG TRACKLINES:

A. BETWEEN

10-15.65N 061-58.72W AND 10-18.87N 061-50.40W.

B. JOINING

10-18.87N 061-50.40W, 10-25.48N 061-38.00W,

10-26.94N 061-29.23W.

C. BETWEEN

10-18.87N 061-50.40W AND 10-26.93N 061-29.23W.

WIDE BERTH REQUESTED.

2. CANCEL THIS MSG 15 MAY 16.

(141829Z APR 2016)

291/16 and 292/16. CANCELED.

293/16(28).

GULF OF MEXICO.

BAY OF CAMPECHE.

1. SEISMIC SURVEY IN PROGRESS UNTIL 15 JUN BY

M/V GECO EAGLE AND M/V AMAZON WARRIOR

TOWING 14 10000 METER LONG CABLES

IN AREA BOUND BY

21-34.6N 094-41.0W, 21-08.4N 095-23.0W,

18-39.5N 093-42.6W, 19-08.4N 092-56.2W.

SEVEN MILE BERTH REQUESTED.

2. CANCEL NAVAREA IV 1079/15.

3. CANCEL THIS MSG 16 JUN 16.

(161530Z APR 2016)

294/16. CANCELED.

295/16(GEN).

1. NAVAREA IV WARNINGS IN FORCE 170900Z APR 16.
2012 SERIES: 286(GEN), 610(GEN).
2013 SERIES: 286(24).
2014 SERIES: 104(28), 116(28), 157(28), 407(14),
408(14), 409(14), 836(28), 864(24), 1079(24).
2015 SERIES: 56(24), 259(11), 423(24,26),
443(38), 446(28), 524(27,28), 545(28), 604(25),
805(15,38), 806(15,38), 828(26), 839(26),
846(26), 893(24), 912(28), 917(24,26), 987(28),
1084(28).
2016 SERIES: 25(26,27), 34(26), 49(25), 104(24),
120(24), 152(28), 168(24), 170(24,25,26),
188(24,25,26), 198(GEN), 206(24,26), 256(11,28),
261(24), 263(24), 266(11), 279(28), 280(28),
281(28), 282(28), 285(28), 290(24), 293(28),
294(GEN).
2. THE SUMMARY OF ALL NAVAREA IV WARNINGS IN FORCE
AS OF 16 DEC 2015 IS GIVEN IN SEC III OF NM 52/15.
WARNINGS ISSUED DURING THE SUBSEQUENT QUARTERS
ARE SUMMARIZED IN NM 13/16.
3. CANCEL NAVAREA IV 269/16.

(170905Z APR 2016)

296/16(24,25).

WESTERN NORTH ATLANTIC.
FRENCH GUIANA.
ROCKETS.

1. HAZARDOUS OPERATIONS 2002Z TO 2133Z DAILY
22 APR THRU 22 MAY IN AREAS BOUND BY:
A. 08-44.0N 052-14.0W, 08-10.0N 052-19.0W,
08-11.0N 052-33.0W, 08-46.0N 052-28.0W.
B. 13-14.0N 052-23.0W, 12-13.0N 052-25.0W,
12-13.0N 052-52.0W, 13-14.0N 052-51.0W.
C. 21-34.0N 053-10.0W, 20-07.0N 053-07.0W,
20-05.0N 053-47.0W, 21-32.0N 053-51.0W.
D. 05-23.5N 052-53.8W, 05-38.0N 052-53.8W,
05-33.2N 052-42.9W, 05-16.8N 052-45.9W.
2. CANCEL THIS MSG 222233Z MAY 16.

(170940Z APR 2016)

297/16(14,51).

NORTH ATLANTIC.

1. DERELICT VESSEL ADRIFT IN 38-34N 044-43W AT 171556Z APR.
2. CANCEL THIS MSG 201728Z APR 16.

(171728Z APR 2016)

298/16 and 299/16. CANCELED.

300/16(GEN).

NORTH AMERICAN ICE SERVICE (NAIS) ICEBERG BULLETIN.

1. 200001Z APR ICEBERG LIMIT ALONG TRACKLINE JOINING
47-10N 052-52W, 45-30N 047-30W, 45-30N 044-00W,
46-15N 042-15W, 47-00N 041-45W, 49-30N 042-15W,
53-00N 047-00W.
2. ESTIMATED ICEBERG LIMIT ALONG TRACKLINE JOINING
53-00N 047-00W, 56-00N 049-00W, 56-00N 042-00W,
57-00N 036-00W, 64-00N 033-00W, 66-00N 028-00W.
3. WESTERN ICEBERG LIMIT ALONG TRACKLINE BETWEEN
51-19N 057-59W AND 50-42N 057-23W.
4. SEA ICE LIMIT ALONG TRACKLINES JOINING:
A. 49-15N 053-30W, 49-00N 049-00W, 51-00N 048-00W,
55-40N 050-55W, 56-30N 055-00W, 58-00N 057-00W,
60-00N 058-30W, 63-00N 057-45W.
B. 47-05N 064-50W, 48-55N 063-35W, 49-40N 065-40W,
49-45N 064-05W.
C. 49-55N 064-10W, 50-00N 059-25W, 50-50N 057-50W,
49-05N 058-25W.
5. NOTE THE SIGNIFICANT REDUCTION OF
THE ICEBERG LIMIT SINCE 190001Z APR
BULLETIN DUE TO RECENT RECONNAISSANCE.
6. MOST RECENT RECONNAISSANCE:
INTERIOR ICEBERG FLIGHT 18 APR 16
7. REPORT POSITION AND TIME OF ANY ICEBERGS SEA
ICE OR STATIONARY RADAR TARGETS THAT MAY LIKELY
BE ICE TO THE NEAREST CANADIAN COAST GUARD MARINE
COMMUNICATIONS AND TRAFFIC SERVICE STATION OR
USING INMARSAT CODE 42.
8. CANCEL THIS MSG 210001Z APR 16.

(192140Z APR 2016)

HYDROLANTS

Messages in force 200940Z April 2016:

2011 series	2863(35)	14(54)	701(54,56)	828(51)	911(55)
881(56)	2926(24)	15(54)	704(37)	832(26)	912(55)
2012 series	2942(57)	16(54)	705(54)	836(24)	913(51)
641(35,43)	2971(51)	18(54)	750(35,37,43)	843(37)	914(54,56)
2501(37)	2998(36)	19(54)	754(55)	845(51)	915(52,53,56)
2013 series	3007(24)	20(54)	755(54,56)	861(GEN)	916(35)
1390(55)	3024(37)	34(55)	757(37)	862(53,56)	917(35)
2044(35)	3039(24)	171(24)	764(52,53)	867(24)	918(GEN)
2758(57)	3084(24)	198(24)	771(52,53)	873(37)	919(52,53,56)
2849(35)	3114(36)	235(24)	772(55)	878(52,53,56)	920(52,53,56)
2015 series	3153(24)	313(24)	776(55)	879(24)	922(51)
1056(35)	3191(54)	432(24)	778(35,43)	880(24)	923(35)
1255(57)	3192(54)	468(52)	788(51)	883(24)	924(51)
1291(37,43)	3193(54)	503(55)	791(55)	885(54,56)	925(GEN)
1332(35,43)	3217(24)	567(35)	792(55)	886(52,53)	926(53,54,56)
1333(37,43)	3227(52)	572(24)	793(52,53)	889(55)	927(23,29)
1467(37,43)	3228(52,53)	585(24)	797(51)	892(23,24)	928(55)
1511(36)	2016 series	599(37,43)	802(51)	895(54)	929(55)
2020(35)	5(54)	621(52,53)	809(11)	901(24)	930(24)
2148(36)	7(54)	622(GEN)	812(55)	902(24)	931(24)
2155(37)	8(54)	630(26)	815(35)	904(57)	932(24)
2226(37)	9(54)	658(25)	820(55)	907(23,24)	933(57)
2440(35)	11(54)	671(51)	821(GEN)	908(54)	934(54)
2851(37)	12(23)	698(52)	823(24)	910(55)	

The summary of all HYDROLANTS in force as of 16 December 2015 is given in Section III of NM 52/15. Warnings issued during the subsequent quarter are issued in NM 13/16.

HYDROLANT WARNINGS issued from 130930Z to 200940Z April 2016.

885/16(54,56).

EASTERN MEDITERRANEAN SEA.
HAZARDOUS OPERATIONS.
DNC 10.

1. HAZARDOUS OPERATIONS 0500Z TO 1500Z DAILY
15, 16, 18, 19, 21 AND 22 APR
IN AREA BETWEEN
34-49N 35-08N AND 035-04E 035-27E.
2. CANCEL THIS MSG 221600Z APR 16.

(131240Z APR 2016)

886/16(52,53).

WESTERN MEDITERRANEAN SEA.
STRAIT OF SICILY.
DNC 08. DNC 09.
CABLE OPERATIONS IN PROGRESS UNTIL FURTHER NOTICE
BY CABLESHIP RAYMOND CROZE WITH SUBMERSIBLE:
A. ALONG TRACKLINE JOINING
37-55.0N 011-16.9E, 37-55.1N 011-16.7E,
37-55.7N 011-15.7E, 37-56.0N 011-15.1E,
37-56.3N 011-14.1E, 37-56.4N 011-13.3E,
37-56.4N 011-12.9E.
B. IN 37-52.3N 011-23.1E.
WIDE BERTH REQUESTED.

(131310Z APR 2016)

887/16 and 888/16. CANCELED.

889/16(55).

KERCH STRAIT.
ORDNANCE.
DNC 10.
CHART 55205.

1. UNEXPLODED ORDNANCE IN:
 - A. 45-11.83N 036-33.88E.
 - B. 45-11.70N 036-33.80E.
 - C. 45-11.90N 036-32.70E.
 - D. 45-11.62N 036-26.03E.
 - E. 45-11.87N 036-26.87E.
 - F. 45-11.40N 036-24.53E.
 - G. 45-11.87N 036-32.60E.

- H. 45-11.67N 036-34.18E.
- I. 45-11.87N 036-26.88E.
- J. 45-11.82N 036-26.90E.
- K. 45-11.63N 036-34.30E.
- L. 45-11.82N 036-35.65E.
- M. 45-11.97N 036-27.37E.
- 2. MINES IN:
 - A. 45-11.53N 036-32.73E.
 - B. 45-12.67N 036-29.82E.
 - C. 45-12.07N 036-34.57E.

(131833Z APR 2016)

890/16 and 891/16. CANCELED.

- 892/16(23,24).
 WESTERN SOUTH ATLANTIC.
 URUGUAY.
 DNC 01, DNC 07.
1. UNDERWATER OPERATIONS IN PROGRESS UNTIL 12 MAY BY M/V SARMIENTO DE GAMBOA IN AREA BOUND BY 38-11S 053-09W, 35-53S 056-06W, 34-11S 053-17W, 35-36S 050-11W. ONE MILE BERTH REQUESTED.
 2. CANCEL HYDROLANT 882/16.
 3. CANCEL THIS MSG 13 MAY 16.

(132112Z APR 2016)

893/16 and 894/16. CANCELED.

- 895/16(54).
 ADRIATIC SEA.
 CROATIA.
 GUNNERY.
 DNC 09.
1. GUNNERY EXERCISES 0600Z TO 1300Z DAILY 15, 16 AND 18 THRU 21 APR IN AREA BOUND BY 44-48.5N 013-51.6E, 44-49.0N 013-43.8E, 44-45.0N 013-37.3E, 44-29.6N 013-51.1E, 44-29.6N 013-59.4E, 44-45.6N 013-59.4E.
 2. CANCEL THIS MSG 211400Z APR 16.

(141240Z APR 2016)

896/16 thru 900/16. CANCELED.

- 901/16(24).
 BRAZIL-SOUTH COAST.
 HAZARDOUS OPERATIONS.
 DNC 01.
1. HAZARDOUS OPERATIONS 200700Z TO 201500Z APR IN AREA BOUND BY 23-42.5S 042-43.3W, 23-39.5S 042-29.5W, 23-49.0S 042-27.0W, 23-52.5S 042-40.6W.
 2. CANCEL THIS MSG 201600Z APR 16.

(150030Z APR 2016)

- 902/16(24).
 BRAZIL-SOUTH COAST.
 HAZARDOUS OPERATIONS.
 DNC 01.
1. HAZARDOUS OPERATIONS 201200Z APR TO 201900Z APR IN AREA BETWEEN 23-02.0S 23-17.0S AND 043-22.4W 042-46.5W.
 2. CANCEL THIS MSG 202000Z APR 16.

(150039Z APR 2016)

903/16. CANCELED.

- 904/16(57).
 EASTERN SOUTH ATLANTIC.
 NAMIBIA.
 DNC 01.
1. UNDERWATER OPERATIONS IN PROGRESS UNTIL FURTHER NOTICE BY:
 - A. M/V CORAL SEA IN 28-43.7S 015-54.9E.
 - B. M/V GARIEP IN 28-42.0S 016-09.7E.
 - C. M/V GRAND BANKS IN 28-36.6S 015-52.7E.
 - D. M/V MAFUTA IN 28-43.0S 016-11.0E.
 TWO MILE BERTH REQUESTED.
 2. CANCEL HYDROLANT 749/16.

(150958Z APR 2016)

905/16 and 906/16. CANCELED.

907/16(23,24).

WESTERN SOUTH ATLANTIC.

DNC 01, DNC 07.

1. UNDERWATER OPERATIONS IN PROGRESS UNTIL FURTHER NOTICE BY M/V MAERSK VENTURER VICINITY 36-13.35S 051-33.57W. ONE MILE BERTH REQUESTED.
2. CANCEL HYDROLANT 653/16.

(151834Z APR 2016)

908/16(54).

EASTERN MEDITERRANEAN SEA.

CRETE.

DNC 09.

VESSEL IN NEED OF ASSISTANCE IN 35-11N 022-01E AT 150943Z APR. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MRCC ROME, INMARSAT-C: 424744220, PHONE: 3906 5908 4527, 3906 5908 4409, FAX: 390 6592 2737, 3906 5908 4793, E-MAIL: ITMRCC@MIT.GOV.IT.

(152353Z APR 2016)

909/16. CANCELED.

910/16(55).

BLACK SEA.

UKRAINE.

HAZARDOUS OPERATIONS.

DNC 10.

1. HAZARDOUS OPERATIONS 181000Z TO 192300Z AND 272000Z TO 300300Z APR IN AREA BOUND BY 44-29.7N 032-19.6E, 44-38.2N 032-53.0E, 44-27.8N 033-06.6E, 44-05.4N 032-48.4E.
2. CANCEL THIS MSG 300400Z APR 16.

(160027Z APR 2016)

911/16(55).

BLACK SEA.

UKRAINE.

HAZARDOUS OPERATIONS.

DNC 10.

1. HAZARDOUS OPERATIONS 181600Z TO 200300Z AND 290500Z TO 291300Z APR IN AREA BOUND BY 44-40.0N 032-10.0E, 44-48.0N 032-05.0E, 45-03.0N 032-17.0E, 44-58.1N 032-31.4E, 44-43.8N 032-49.6E, 44-36.0N 032-36.0E.
2. CANCEL THIS MSG 291400Z APR 16.

(160035Z APR 2016)

912/16(55).

BLACK SEA.

UKRAINE.

HAZARDOUS OPERATIONS.

DNC 10.

1. HAZARDOUS OPERATIONS 180500Z TO 182000Z AND 270300Z TO 270700Z APR IN AREA BOUND BY 44-40.5N 033-30.7E, 44-41.1N 033-30.7E, 44-42.2N 033-32.4E, 44-42.2N 033-32.9E, 44-40.5N 033-32.8E.
2. CANCEL THIS MSG 270800Z APR 16.

(160042Z APR 2016)

913/16(51).

EASTERN NORTH ATLANTIC.

DNC 01.

DISTRESS SIGNAL RECEIVED FROM VESSEL RED CEDAR IN 05-05N 014-46W AT 160420Z APR. VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO MRCC GRIS NEZ, TELEX: 42130680, PHONE: 333 2187 2187, FAX: 333 2187 7855, E-MAIL: GRIS-NEZ@MRCCFR.EU.

(160610Z APR 2016)

914/16(54,56).

EASTERN MEDITERRANEAN SEA.
LIBYA.
DNC 09.
VESSEL, 40 PERSONS ON BOARD, REQUESTING ASSISTANCE
IN 33-10N 019-56E AT 161024Z APR. VESSELS
IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO MRCC ROME,
INMARSAT-C: 424744220,
PHONE: 3906 5908 4527, 3906 5908 4409,
FAX: 390 6592 2737, 3906 5908 4793,
E-MAIL: ITMRCC@MIT.GOV.IT.

(161125Z APR 2016)

915/16(52,53,56).

EASTERN MEDITERRANEAN SEA.
LIBYA.
DNC 08, DNC 09.
DISTRESS SIGNAL RECEIVED IN 33-04N 012-56E
AT 160941Z APR. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO MRCC ROME,
INMARSAT-C: 424744220,
PHONE: 3906 5908 4527, 3906 5908 4409,
FAX: 390 6592 2737, 3906 5908 4793,
E-MAIL: ITMRCC@MIT.GOV.IT.

(161215Z APR 2016)

916/16(35).

NORTH SEA.
SCOTLAND-NORTHEAST COAST.
DNC 20.
SURVEY OPERATIONS IN PROGRESS UNTIL FURTHER NOTICE
BY M/V FRANKLIN VICINITY OF TRACKLINE JOINING
57-40.7N 003-01.9W, 58-11.0N 002-34.2W,
58-27.6N 002-52.2W, 58-27.8N 003-02.8W.
WIDE BERTH REQUESTED.

(161255Z APR 2016)

917/16(35).

SEA OF THE HEBRIDES.
LITTLE MINCH.
SCOTLAND-WEST COAST.
DNC 19, DNC 20.
CHART 35093.
1. 60 METER LONG FISHING GEAR LOST
IN 56-55.41N 006-25.83W.
2. CANCEL HYDROLANT 542/16.

(161455Z APR 2016)

918/16(GEN).

1. HYDROLANT WARNINGS IN FORCE 170900Z APR 16. ONLY THOSE
WARNINGS ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN.
2016 SERIES: 567(35), 572(24), 585(24), 599(37,43), 621(52,53),
622(GEN), 630(26), 658(25), 671(51), 698(52), 701(54,56),
704(37), 705(54), 750(35,37,43), 754(55), 755(54,56), 757(37),
764(52,53), 771(52,53), 772(55), 776(55), 778(35,43), 788(51),
791(55), 792(55), 793(52,53), 797(51), 802(51), 809(11),
812(55), 815(35), 820(55), 821(GEN), 823(24), 828(51), 832(26),
836(24), 843(37), 845(51), 861(GEN), 862(53,56), 867(24),
873(37), 878(52,53,56), 879(24), 880(24), 883(24), 885(54,56),
886(52,53), 889(55), 892(23,24), 895(54), 899(23,29), 901(24),
902(24), 903(44), 904(57), 905(51), 906(35,43), 907(23,24),
908(54), 909(54,56), 910(55), 911(55), 912(55), 913(51),
914(54,56), 915(52,53,56), 916(35), 917(35).
2. THE SUMMARY OF ALL HYDROLANT WARNINGS IN FORCE AS OF
18 DEC 2015 IS GIVEN IN SEC III OF NM 52/15.
WARNINGS ISSUED DURING THE SUBSEQUENT QUARTERS
ARE SUMMARIZED IN NM 13/16.
3. CANCEL HYDROLANT 790/16, 796/16, 826/16,
827/16, 850/16, 852/16, 854/16,
855/16, 856/16, 857/16, 859/16,
863/16, 869/16, 875/16, 881/16,
890/16, 900/16.

(170910Z APR 2016)

SECTION III

NM 18/16

919/16(52,53,56).

EASTERN MEDITERRANEAN SEA.
LIBYA.
DNC 08, DNC 09.
VESSEL, NUMEROUS PERSONS ON BOARD, REQUESTING ASSISTANCE
IN 33-08N 012-30E AT 171306Z APR. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO MRCC ROME, INMARSAT-C: 424744220,
PHONE: 3906 5908 4527, 3906 5908 4409,
FAX: 390 6592 2737, 3906 5908 4793,
E-MAIL: ITMRCC@MIT.GOV.IT.

(171348Z APR 2016)

920/16(52,53,56).

EASTERN MEDITERRANEAN SEA.
TUNISIA-EAST COAST.
DNC 08, DNC 09.
F/V SINKING IN 34-32N 012-09E. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO MRCC ROME, INMARSAT-C: 424744220,
PHONE: 3906 5908 4527, 3906 5908 4409,
FAX: 390 6592 2737, 3906 5908 4793,
E-MAIL: ITMRCC@MIT.GOV.IT.

(171607Z APR 2016)

921/16. CANCELED.

922/16(51).

EASTERN NORTH ATLANTIC.
STRAIT OF GIBRALTAR.
MOROCCO.
DNC 08.
1. PIPELINE OPERATIONS IN PROGRESS UNTIL FURTHER
NOTICE BY M/V SEAHORSE IN AREA BETWEEN
35-48.11N 35-50.74N AND 005-58.31W 005-57.91W.
WIDE BERTH REQUESTED.
2. CANCEL HYDROLANT 905/16.

(181645Z APR 2016)

923/16(35).

EASTERN NORTH ATLANTIC.
FAROE ISLAND.
DNC 19.
MAN OVERBOARD FROM F/V LAZURNYY IN 60-14.1N 007-37.0W.
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO MRCC STORNOWAY,
PHONE: 4418 5170 2013.

(181846Z APR 2016)

924/16(51).

EASTERN NORTH ATLANTIC.
DNC 08.
1. SIX METER VESSEL, BLACK AND WHITE HULL, ADRIFT
VICINITY 36-42.5N 012-40W AT 180800Z APR.
2. CANCEL 212215Z APR 16.

(182211Z APR 2016)

925/16(GEN).

GULF OF MEXICO.
FLORIDA TO MEXICO.
DNC 15.
35 FOOT S/V HIGH MAINTENANCE, GREY HULL,
THREE PERSONS ON BOARD, UNREPORTED
GULFPORT (27-45N 082-42W) TO
ISLA MUJERES (21-14N 086-44W). VESSELS
IN VICINITY REQUESTED TO KEEP A SHARP
LOOKOUT, ASSIST IF POSSIBLE. REPORTS
TO RCC MIAMI, PHONE: 305 415 6800,
E-MAIL: RCCMIAMI@USCG.MIL.

(190131Z APR 2016)

926/16(53,54,56).

EASTERN MEDITERRANEAN SEA.
IONIAN SEA.
EGYPT TO ITALY.
DNC 09, DNC 10.
VESSEL, 600 PERSONS ON BOARD, UNREPORTED
EGPYT TO ITALY. LAST KNOWN POSITION VICINITY
34-00N 020-00E ON 15 APR. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST
IF POSSIBLE. REPORTS TO MRCC ROME,
INMARSAT-C: 424744220,
PHONE: 3906 5908 4527, 3906 5908 4409,
FAX: 390 6592 2737, 3906 5908 4793,
E-MAIL: ITMRCC@MIT.GOV.IT.

(190409Z APR 2016)

927/16(23,29).
 WESTERN SOUTH ATLANTIC.
 SCOTIA SEA.
 ICE.
 DNC 01.
 1. ICEBERGS REPORTED IN:
 A. A56, 51-14S 029-12W.
 B. B15X, 55-18S 035-59W.
 C. 50-27S 024-27W.
 2. CANCEL HYDROLANT 921/16.
 3. CANCEL THIS MSG 220431Z APR 16.

(190431Z APR 2016)

928/16(55).
 BLACK SEA.
 UKRAINE.
 GUNNERY. MISSILES.
 DNC 10.
 1. HAZARDOUS OPERATIONS 201500Z TO 221500Z APR
 IN AREA BOUND BY
 45-03.1N 035-43.2E, 45-04.5N 035-45.3E,
 45-03.2N 035-46.9E, 45-01.8N 035-45.2E.
 2. CANCEL THIS MSG 221600Z APR 16.

(191425Z APR 2016)

929/16(55).
 KERCH STRAIT.
 ORDNANCE.
 DNC 10.
 CHART 55205.
 UNEXPLODED ORDNANCE IN:
 A. 45-12.07N 036-30.84E.
 B. 45-12.07N 036-28.72E.
 C. 45-12.11N 036-28.67E.

(191445Z APR 2016)

930/16(24).
 WESTERN NORTH ATLANTIC.
 DNC 01.
 DISTRESS SIGNAL RECEIVED ON 406 MHZ IN
 17-14.3N 047-08.4W AT 191347Z APR.
 VESSELS IN VICINITY REQUESTED TO KEEP
 A SHARP LOOKOUT. ASSIST IF POSSIBLE.
 REPORTS TO MRCC FORT DE FRANCE,
 INMARSAT-C: 422799024, TELEX: 42912008,
 PHONE: 5965 9670 9292, FAX: 5965 9663 2450,
 E-MAIL: ANTILLES@MRCCFR.EU.

(191525Z APR 2016)

931/16(24).
 BRAZIL-NORTHEAST COAST.
 HAZARDOUS OPERATIONS.
 DNC 01.
 1. HAZARDOUS OPERATIONS 1100Z TO 2100Z DAILY
 25 THRU 28 APR IN AREA BOUND BY
 05-49.60S 034-57.55W, 05-45.18S 034-45.60W,
 05-59.92S 034-44.88W, 06-08.35S 034-48.91W,
 06-06.80S 034-51.55W.
 2. CANCEL THIS MSG 282200Z APR 16.

(200043Z APR 2016)

932/16(24).
 BRAZIL-NORTHEAST COAST.
 HAZARDOUS OPERATIONS.
 DNC 01.
 1. HAZARDOUS OPERATIONS 1100Z TO 2100Z DAILY
 25 THRU 28 APR IN AREA BOUND BY
 05-54.13S 035-10.00W, 05-49.60S 034-57.55W,
 06-06.80S 034-51.55W, 05-56.13S 035-10.01W.
 2. CANCEL THIS MSG 282200Z APR 16.

(200058Z APR 2016)

933/16(57).
 GULF OF GUINEA.
 PIRACY.
 DNC 01.
 M/V ATTACKED IN 03-30N 004-50E AT 190800Z APR.
 VESSELS ARE ADVISED TO KEEP CLEAR
 OF THIS POSITION AND TO EXERCISE EXTREME CAUTION.
 REPORTS TO IMB PIRACY REPORTING CENTER,
 PHONE: 603 2031 0014, FAX: 603 2078 5769,
 E-MAIL: IMBKL@ICC-CCS.ORG, PIRACY@ICC-CCS.ORG.

(200805Z APR 2016)

934/16(54).

EASTERN MEDITERRANEAN SEA.

DNC 10.

1. SURVEY OPERATIONS IN PROGRESS UNTIL 01 MAY

BY M/V POSEIDON IN AREA BETWEEN

35-35N 35-15N AND 030-10E 030-40E.

2. CANCEL THIS MSG 02 MAY 16.

(200845Z APR 2016)

SECTION III

NM 18/16

NAVAREA XII

Messages in force 200940Z April 2016:

2015 series	399(22)	78(GEN)	104(21)	107(18)	113(22,83)
42(21)	2016 series	91(18,21)	105(21)	109(18)	
359(21)	55(21)	103(21)	106(21)	112(GEN)	

The summary of all NAVAREA XII messages in force as of 16 December 2015 is given in Section III of NM 52/15. Warnings issued during the subsequent quarter are issued in NM 13/16.

NAVAREA XII WARNINGS issued from 130930Z to 200940Z April 2016.

107/16(18).

EASTERN NORTH PACIFIC.

CALIFORNIA.

HAZARDOUS OPERATIONS.

1. HAZARDOUS OPERATIONS:

A. 180701Z TO 250659Z APR IN AREA BOUND BY

33-08-04N 118-46-02W, 33-05-37N 118-43-34W,

32-58-53N 118-43-31W, 32-47-38N 118-32-19W,

32-36-55N 118-44-54W, 32-36-55N 118-56-57W,

32-54-18N 119-13-29W, 33-08-04N 118-55-31W.

B. 190100Z TO 190500Z, 191400Z TO 200430Z,

201400Z TO 210600Z AND 220100Z TO 220659Z APR

IN AREA BOUND BY

32-55-00N 118-25-00W, 32-55-00N 118-15-00W,

32-40-00N 118-15-00W, 32-40-00N 118-35-00W,

32-45-00N 118-35-00W.

C. 211400Z TO 212359Z, 222300Z TO 230600Z

AND 232300Z TO 240600Z APR IN AREA BETWEEN

32-55-00N 32-45-00N AND 118-25-00W AND 118-15-00W.

D. 211930Z TO 212200Z APR IN AREA BOUND BY

32-50-42N 118-29-18W, 32-47-38N 118-32-19W,

32-55-00N 118-39-40W, 32-55-00N 118-32-49W.

E. 221530Z TO 222030Z APR IN AREA BOUND BY

32-55-00N 118-32-49W, 32-55-00N 118-39-40W,

32-58-53N 118-43-31W, 33-00-42N 118-43-32W,

33-01-38N 118-36-18W.

2. CANCEL THIS MSG 250759Z APR 16.

(141956Z APR 2016)

108/16. CANCELED.

109/16(18).

EASTERN NORTH PACIFIC.

CALIFORNIA.

MISSILES.

1. HAZARDOUS OPERATIONS 1730Z TO 2230Z DAILY

19 THRU 21 APR IN AREA BOUND BY

36-52N 123-10W, 35-21N 122-07W,

35-04N 122-43W, 36-35N 123-45W.

2. CANCEL NAVAREA XII 108/16.

3. CANCEL THIS MSG 212330Z APR 16.

(152103Z APR 2016)

110/16 and 111/16. CANCELED.

112/16(GEN).

1. NAVAREA XII WARNINGS IN FORCE AS OF 170900Z APR 16.

2015 SERIES: 42(21), 359(21), 399(22).

2016 SERIES: 55(21), 78(GEN), 91(18,21), 101(18),

103(21), 104(21), 105(21), 106(21), 107(18), 109(18).

2. THE SUMMARY OF ALL NAVAREA XII WARNINGS IN FORCE

AS OF 16 DEC 2015 IS GIVEN IN SEC III OF NM 52/15.

WARNINGS ISSUED DURING THE SUBSEQUENT QUARTERS

ARE SUMMARIZED IN NM 13/16.

3. CANCEL NAVAREA XII 102/16.

(170915Z APR 2016)

113/16(22,83).

EASTERN PACIFIC.

ROCKETS.

1. HAZARDOUS OPERATIONS 0137Z TO 0254Z DAILY

23 APR THRU 23 MAY IN AREA BOUND BY

03-06N 119-54W, 03-04N 120-45W,

11-46S 117-58W, 11-38S 117-07W.

2. CANCEL THIS MSG 230354Z MAY 16.

(170945Z APR 2016)

HYDROPACS

Messages in force 200940Z April 2016:

2011 series	826(73)	4020(71)	798(92)	987(62)	1108(63)
1561(56)	1014(73)	4068(71)	857(63)	989(63)	1109(63)
3552(96)	1052(73)	4092(63)	859(63)	1035(94,95)	1110(63)
2012 series	1194(71)	4127(63)	863(63)	1039(93)	1115(95,96)
1222(97)	1256(74)	4212(73)	872(63)	1042(61)	1116(71,93)
1555(96)	1413(63)	4264(63)	884(74)	1048(63)	1117(93)
1824(76)	1478(75)	2016 series	887(97)	1049(63)	1118(19)
2013 series	1571(61)	26(74)	888(94,97)	1050(96)	1121(GEN)
899(75)	1588(71)	200(74)	889(94)	1052(62)	1128(96)
3004(63)	1733(63)	246(63)	890(91,94)	1059(74)	1129(81)
2014 series	1755(97)	253(29,61)	891(94)	1060(22)	1130(61)
496(74)	2052(62)	315(63)	895(63)	1067(94)	1134(93)
894(63)	2300(74)	318(63)	899(63)	1068(81,97)	1135(95)
1118(74)	2456(62)	381(61)	900(63)	1077(63)	1136(81)
1368(93)	3068(63)	424(63)	926(74)	1080(75)	1139(62)
1445(22)	3254(63)	438(97)	930(62)	1084(63)	1140(62)
1672(22)	3271(93)	460(61)	942(63)	1091(83)	1141(71)
2130(72)	3287(63)	496(83)	944(63)	1092(75)	1147(93)
3019(63)	3299(22)	727(62)	952(63)	1094(96)	1148(83)
3528(93)	3369(72)	729(GEN)	953(63)	1097(22)	1150(22)
2015 series	3371(63)	734(63)	954(63)	1100(62)	1152(97)
289(62)	3525(71)	759(61,74,75)	961(94)	1102(95)	1153(62)
590(61,71)	3559(93)	773(62)	962(63)	1103(95)	
632(63)	3820(63)	777(63)	963(63)	1104(95)	
728(75)	3944(75)	797(GEN)	966(63)	1107(72,92)	

The summary of all HYDROPACS in force as of 16 December 2015 is given in Section III of NM 52/15. Warnings issued during the subsequent quarter are issued in NM 13/16.

HYDROPAC WARNINGS issued from 130930Z to 200940Z April 2016.

1083/16. CANCELED.

1084/16(63).

ARABIAN SEA.

PAKISTAN.

HAZARDOUS OPERATIONS.

DNC 03.

1. HAZARDOUS OPERATIONS 0200Z TO 1700Z

DAILY 18 THRU 20 APR

WITHIN SIX MILES OF 25-11N 066-45E

BETWEEN 220 DEGREES AND 310 DEGREES.

2. CANCEL THIS MSG 201800Z APR 16.

(131045Z APR 2016)

1085/16 thru 1090/16. CANCELED.

1091/16(83).

SOUTH PACIFIC.

FRENCH POLYNESIA.

DNC 06.

12 METER S/V GEREMIA, WHITE HULL, ONE PERSON

ON BOARD, OVERDUE HIVA OA (09-45-00S 139-00-00W)

TO APATAKI (17-48-22S 140-45-39W). VESSELS IN

VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,

ASSIST IF POSSIBLE. REPORTS TO MRCC PAPEETE,

INMARSAT-C: 582422799192, PHONE: 689 4054 1616,

FAX: 689 4042 3915, E-MAIL: MRCCPAPEETE@MAIL.PF.

(140429Z APR 2016)

1092/16(75).

BASS STRAIT.

TASMANIA-NORTH COAST.

DNC 05.

UNDERWATER OPERATIONS IN PROGRESS UNTIL

FURTHER NOTICE BY CABLESHIP ILE DE RE

IN 40-13.96S 146-52.27E.

2.5 MILE BERTH REQUESTED.

(140435Z APR 2016)

1093/16. CANCELED.

1094/16(96).

WESTERN NORTH PACIFIC.
SEA OF OKHOTSK.
KURIL ISLANDS.
DNC 24.

1. GEOPHYSICAL OPERATIONS 151400Z APR TO 151400Z MAY
IN AREA BOUND BY
48-01-00N 153-02-36E, 48-08-30N 153-01-00E,
48-12-30N 153-06-18E, 48-13-00N 153-15-00E,
48-08-00N 153-25-00E, 48-03-00N 153-26-42E,
47-58-00N 153-23-12E, 47-56-18N 153-12-18E.
2. CANCEL THIS MSG 151500Z MAY 16.

(141359Z APR 2016)

1095/16 and 1096/16. CANCELED.

1097/16(22).

EASTERN SOUTH PACIFIC.
CHILE.
HAZARDOUS OPERATIONS.
DNC 07.

1. HAZARDOUS OPERATIONS 1130Z TO 2030Z
DAILY 19 THRU 21 APR WITHIN
SIX MILES OF 33-00S 071-57W.
2. CANCEL THIS MSG 212130Z APR 16.

(142046Z APR 2016)

1098/16 and 1099/16. CANCELED.

1100/16(62).

RED SEA.
GULF OF ADEN.
DNC 10.

1. CABLE LAYING OPERATIONS 16 APR THRU 04 MAY
BY CABLESHIP ILE DE BREHAT ALONG
TRACKLINE JOINING
16-17.6N 041-30.8E, 15-41.7N 041-43.2E,
14-54.9N 042-17.1E, 14-37.8N 042-37.7E,
14-17.3N 042-44.4E, 13-48.5N 042-55.3E,
12-59.2N 043-16.6E, 12-32.9N 043-28.7E,
12-06.0N 043-34.7E.
ONE MILE BERTH REQUESTED.
2. CANCEL THIS MSG 05 MAY 16.

(150850Z APR 2016)

1101/16. CANCELED.

1102/16(95).

YELLOW SEA.
GUNNERY.
DNC 23.

1. GUNNERY EXERCISES 0001Z TO 0800Z DAILY
18 THRU 22 APR IN AREA BOUND BY
36-34-58N 124-41-19E, 36-35-00N 125-36-00E,
36-05-01N 125-36-04E, 36-04-58N 124-41-23E.
2. CANCEL THIS MSG 220900Z APR 16.

(151308Z APR 2016)

1103/16(95).

YELLOW SEA.
GUNNERY.
DNC 23.

1. GUNNERY EXERCISES 0001Z TO 0800Z DAILY
18 THRU 22 APR IN AREA BOUND BY
35-15-00N 124-41-28E, 35-15-01N 125-36-10E,
34-50-00N 125-36-12E, 34-50-00N 124-41-31E.
2. CANCEL THIS MSG 220900Z APR 16.

(151312Z APR 2016)

1104/16(95).

YELLOW SEA.
GUNNERY.
DNC 23.

1. GUNNERY EXERCISES 0001Z TO 0800Z DAILY
18 THRU 22 APR IN AREA BOUND BY
36-35-00N 125-36-00E, 36-35-00N 124-50-00E,
37-04-21N 124-50-00E, 37-05-08N 125-36-00E.
2. CANCEL THIS MSG 220900Z APR 16.

(151318Z APR 2016)

1105/16 and 1106/16. CANCELED.

1107/16(72,92).

CELEBES SEA.
MALAYSIA.
PIRACY.
DNC 11.
TUG ATTACKED IN 04-31N 119-00E AT 151739Z APR.
VESSELS ARE ADVISED TO KEEP CLEAR OF THIS
POSITION AND TO EXERCISE EXTREME CAUTION.
REPORTS TO IMB PIRACY REPORTING CENTER,
PHONE: 603 2031 0014, FAX: 603 2078 5769,
E-MAIL: IMBKL@ICC-CCS.ORG, PIRACY@ICC-CCS.ORG.

(151408Z APR 2016)

1108/16(63).

BAY OF BENGAL.
ANDAMAN SEA.
NICOBAR ISLANDS.
HAZARDOUS OPERATIONS.
DNC 03.
1. HAZARDOUS OPERATIONS 0430Z TO 1030Z DAILY
21 THRU 23 APR IN AREA BOUND BY
09-01.30N 092-27.03E, 09-22.98N 093-03.40E,
08-51.28N 094-17.75E, 08-14.15N 094-26.08E,
07-31.20N 094-01.53E, 07-13.73N 093-16.53E,
08-04.51N 093-38.18E, 08-32.05N 093-38.51E,
08-45.23N 093-22.31E.
2. CANCEL THIS MSG 231130Z APR 16.

(151937Z APR 2016)

1109/16(63).

ARABIAN SEA.
INDIA-SOUTHWEST COAST.
ROCKETS.
DNC 03.
1. HAZARDOUS OPERATIONS 210530Z TO 210730Z APR WITHIN:
A. FIVE MILES OF 08-31.98N 076-52.05E
BETWEEN 190 DEGREES AND 300 DEGREES.
B. 75 MILES OF 08-31.98N 076-52.05E
BETWEEN 220 DEGREES AND 260 DEGREES.
2. CANCEL THIS MSG 210830Z APR 16.

(151949Z APR 2016)

1110/16(63).

ANDAMAN SEA.
BURMA.
DNC 03.
1. SEISMIC SURVEY BY M/V PGS APOLLO TOWING TEN
8100 METER LONG CABLES:
A. IN PROGRESS UNTIL 20 APR IN AREA BOUND BY
13-30.01N 096-27.62E, 11-59.47N 096-28.88E,
11-59.50N 096-20.85E, 13-29.98N 096-20.01E.
B. 21 APR THRU 02 JUN IN AREA BETWEEN
13-27.00N 12-43.00N AND 096-32.00E 097-18.85E.
WIDE BERTH REQUESTED.
2. CANCEL HYDROPAC 476/16.
3. CANCEL THIS MSG 03 JUN 16.

(152027Z APR 2016)

1111/16 thru 1114/16. CANCELED.

1115/16(95,96).

SEA OF JAPAN.
RUSSIA.
MISSILES.
DNC 23, DNC 24.
1. HAZARDOUS OPERATIONS 2300Z TO 1000Z
COMMENCING DAILY 20 THRU 22 APR
IN AREA BOUND BY
41-38.2N 132-56.0E, 41-49.5N 132-02.0E,
42-04.5N 131-45.0E, 42-40.5N 131-17.0E,
42-47.0N 131-20.3E, 42-53.2N 131-28.1E,
42-49.5N 131-36.6E, 42-46.0N 132-00.0E,
42-07.5N 133-25.5E.
2. CANCEL THIS MSG 231100Z APR 16.

(161155Z APR 2016)

1116/16(71,93).

SOUTH CHINA SEA.
DNC 11.

1. SEISMIC SURVEY IN PROGRESS UNTIL 30 JUN BY
M/V CGG AMADEUS TOWING EIGHT 8000 METER
LONG CABLES IN AREA BETWEEN
07-18.9N 07-52.4N AND 108-40.7E 109-16.9E.
2. CANCEL THIS MSG 01 JUL 16.

(161415Z APR 2016)

1117/16(93).

SOUTH CHINA SEA.
DNC 11.

- DISTRESS SIGNAL RECEIVED ON 406 MHZ IN 13-41.6N 112-45.2E.
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO MRCC HONG KONG,
PHONE: 852 2233 7999, E-MAIL: HKMRCC@MARDEP.GOV.HK.

(162213Z APR 2016)

1118/16(19).

NORTH PACIFIC.
DNC 12.

- DISTRESS SIGNAL RECEIVED ON 121.5 MHZ IN 23-36N 173-47E
AT 162028Z APR. VESSELS IN VICINITY REQUESTED
TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO RCC HONOLULU, TELEX: 392401,
PHONE: 808 535 3333, FAX: 808 541 2123.

(162228Z APR 2016)

1119/16 and 1120/16. CANCELED.

1121/16(GEN).

1. HYDROPAC WARNINGS IN FORCE 170900Z APR 16. ONLY THOSE
WARNINGS ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN.
2016 SERIES: 727(62), 729(GEN), 734(63), 759(61,74,75), 773(62),
777(63), 797(GEN), 798(92), 822(63), 857(63), 859(63), 863(63),
871(71,93), 872(63), 884(74), 887(97), 888(94,97), 889(94),
890(91,94), 891(94), 895(63), 899(63), 900(63), 926(74),
930(62), 942(63), 944(63), 952(63), 953(63), 954(63), 961(94),
962(63), 963(63), 965(63), 966(63), 975(94), 987(62), 989(63),
1017(76), 1035(94,95), 1039(93), 1042(61), 1048(63), 1049(63),
1050(96), 1052(62), 1059(74), 1060(22), 1067(94), 1068(81,97),
1069(97), 1074(76), 1076(22), 1077(63), 1080(75), 1084(63),
1090(22), 1091(83), 1092(75), 1094(96), 1096(61), 1097(22),
1098(82), 1100(62), 1102(95), 1103(95), 1104(95), 1105(95),
1106(94,95), 1107(72,92), 1108(63), 1109(63), 1110(63),
1111(63), 1112(93), 1113(94,97), 1114(62), 1115(95,96),
1116(71,93), 1117(93), 1118(19).
2. THE SUMMARY OF ALL HYDROPAC WARNINGS IN FORCE AS OF
16 DEC 2015 IS GIVEN IN SEC III OF NM 52/15.
WARNINGS ISSUED DURING THE SUBSEQUENT QUARTERS
ARE SUMMARIZED IN NM 13/16.
3. CANCEL HYDROPAC 121/16, 835/16, 864/16,
1000/16, 1034/16, 1051/16, 1064/16,
1078/16, 1085/16, 1093/16.

(170920Z APR 2016)

1122/16 thru 1127/16. CANCELED.

1128/16(96).

SEA OF JAPAN.
DNC 24.

- DISTRESS SIGNAL RECEIVED ON 406 MHZ FROM
VESSEL LIAODONGYU IN 44-36N 137-53E AT
180245Z APR. VESSELS IN VICINITY REQUESTED
TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO MRCC VLADIVOSTOK,
PHONE: 742 3249 5522, 742 3222 7782,
FAX: 742 3249 5895, E-MAIL: VLDVMRCC@VLD.PMA.RU.

(180716Z APR 2016)

1129/16(81).

WESTERN NORTH PACIFIC.
MARIANA ISLANDS.
HAZARDOUS OPERATIONS.
DNC 12.

1. HAZARDOUS OPERATIONS 181500Z TO 202100Z APR
WITHIN 12 MILES OF 16-01-06N 146-03-35E.
2. CANCEL THIS MSG 202200Z APR 16.

(180727Z APR 2016)

- 1130/16(61).
MOZAMBIQUE CHANNEL.
MAYOTTE.
DNC 02.
SIX PERSONS OVERBOARD FROM SEVEN METER VESSEL
VICINITY MAYOTTE (12-50-35S 045-08-18E).
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP
LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO
MRCC LA REUNION, INMARSAT-C: 422799193,
TELEX: 916140F, PHONE: 2622 6243 4343,
FAX: 2622 6271 1595, E-MAIL: REUNION@MRCCFR.EU.
(180937Z APR 2016)
- 1131/16 thru 1133/16. CANCELED.
- 1134/16(93).
SOUTH CHINA SEA.
DNC 11.
F/V DNA 90486-TS, SIX PERSONS ON BOARD, DISABLED
AND ADRIFT DUE TO ENGINE FAILURE IN 13-50N 110-47E
AT 181000Z APR. VESSELS IN VICINITY REQUESTED
TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO MRCC VIETNAM, PHONE: 844 3768 3050,
FAX: 844 3768 3048, E-MAIL: RESCUEVIETNAM@YAHOO.COM.
(190820Z APR 2016)
- 1135/16(95).
YELLOW SEA.
DNC 23.
1. DERELICT VESSEL ADRIFT VICINITY
35-29.8N 125-45.1E AT 190100Z APR.
2. CANCEL THIS MSG 220824Z APR 16.
(190824Z APR 2016)
- 1136/16(81).
WESTERN NORTH PACIFIC.
MICRONESIA.
DNC 12.
CANOE, BLUE HULL, ONE PERSON ON BOARD,
OVERDUE PULAP, CHUUK (07-38.3N 149-25.7E)
AND RETURN. VESSELS IN VICINITY REQUESTED
TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO RCC GUAM, PHONE: 671 355 4824,
E-MAIL: RCCGUAM@USCG.MIL.
(190826Z APR 2016)
- 1137/16 and 1138/16. CANCELED.
- 1139/16(62).
GULF OF SUEZ.
DNC 10.
CHART 62191.
1. ALL NAVIGATIONAL AIDS AT PLATFORM MORGAN 5,
28-13.44N 033-25.30E INOPERATIVE.
2. CANCEL THIS MSG 01 MAY 16.
(191025Z APR 2016)
- 1140/16(62).
PERSIAN GULF.
DNC 10.
UNDERWATER OPERATIONS IN PROGRESS UNTIL
FURTHER NOTICE IN 26-55.87N 052-07.94E.
(191120Z APR 2016)
- 1141/16(71).
SOUTH CHINA SEA.
INDONESIA.
DNC 04, DNC 11.
VESSEL TB KARYA MAKMUR ABADI II SINKING IN
01-02.39S 109-00.31E. TWO PERSONS RESCUED,
FOUR PERSONS REMAIN MISSING. VESSELS IN
VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS RCC PONTIANAK,
PHONE: 625 6172 1234 OR RCC BASARNAS,
PHONE: 6221 6586 7510, FAX: 6221 6586 7512,
E-MAIL: KAGAHAR@YAHOO.COM, KAGAHAR@GMAIL.COM.
(191145Z APR 2016)
- 1142/16 thru 1146/16. CANCELED.

1147/16(93).

SOUTH CHINA SEA.
MALAYSIA.
DNC 03. DNC 11.
DISTRESS SIGNAL RECEIVED FROM VESSEL OCEAN WAVE
IN 06-14N 104-00E AT 191852Z APR.
VESSELS IN VICINITY REQUESTED TO KEEP A
SHARP LOOKOUT, ASSIST IF POSSIBLE, REPORTS
TO SINGAPORE PORT OPERATIONS CONTROL CENTER,
TELEX: 20021, PHONE: 656 226 5539, FAX: 656 227 9971,
E-MAIL: POCC@MPA.GOV.SG.

(192000Z APR 2016)

1148/16(83).

SOUTH PACIFIC.
ILES DE LA SOCIETE..
GUNNERY.
DNC 06.
1. GUNNERY EXERCISES 211930Z TO 212130Z APR
IN AREA BOUND BY
16-57S 149-59W, 16-50S 149-35W,
17-10S 149-35W, 17-13S 149-48W.
2. CANCEL THIS MSG 212230Z APR 16.

(192304Z APR 2016)

1149/16. CANCELED.

1150/16(22).

EASTERN SOUTH PACIFIC.
PERU.
DNC 07.
1. DERELICT F/V ERICK JEFERSON ADRIFT VICINITY
15-00S 076-59W.
2. CANCEL THIS MSG 230120Z APR 16.

(200118Z APR 2016)

1151/16. CANCELED.

1152/16(97).

WESTERN NORTH PACIFIC.
DNC 24.
DISTRESS SIGNAL RECEIVED ON 406 MHZ IN
40-12-10N 158-12-50E AT 200455Z APR.
VESSELS IN VICINITY REQUESTED TO KEEP A
SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO JAPAN COAST GUARD,
PHONE: 811 3427 6172.

(200835Z APR 2016)

1153/16(62).

PERSIAN GULF.
KUWAIT.
DNC 10.
CHART 62580.
NAVIGATION PROHIBITED UNTIL FURTHER NOTICE
IN AREAS BOUND BY:
A. 28-43.22N 048-23.03E, 28-43.24N 048-23.86E,
28-43.49N 048-23.63E, 28-43.96N 048-24.77E,
28-43.92N 048-34.57E, 28-42.82N 048-33.75E,
28-40.83N 048-34.47E, 28-39.62N 048-30.11E,
28-38.77N 048-28.39E, 28-38.72N 048-25.40E,
28-40.92N 048-24.40E, 28-41.53N 048-23.40E,
28-41.88N 048-22.72E.
B. 28-43.21N 048-23.48E, 28-42.83N 048-23.31E,
28-42.33N 048-23.40E, 28-40.97N 048-23.55E,
28-39.76N 048-24.10E, 28-39.85N 048-28.88E,
28-44.28N 048-29.58E.

(200934Z APR 2016)

HYDROARCS

Messages in force 200940Z April 2016:

2010 series	193(15)	270(16)	319(15,38)	2(41,42)	38(42)
56(15)	220(GEN)	2015 series	320(15)	4(42)	39(42)
102(15)	2014 series	164(16,96)	343(15)	18(GEN)	
103(16,41)	131(16)	248(15)	345(15)	28(41,42)	
2012 series	158(15)	264(15)	362(16,96)	31(GEN)	
112(15)	268(16)	312(15)	363(16)	36(42)	
160(15,16)	269(16)	318(15,38)	2016 series	37(15,38)	

The summary of all HYDROARCS messages in force as of 16 December 2015 is given in Section III of NM 52/15. Warnings issued during the subsequent quarter are issued in NM 13/16.

HYDROARCS WARNINGS issued from 130930Z to 200940Z April 2016.

36/16(42).

ARCTIC.

BARENTS SEA.

DNC 22.

1. SEISMIC SURVEY IN PROGRESS UNTIL 23 APR BY
M/V VYACHESLAV TIKHONOV TOWING EIGHT
5100 METER LONG CABLES IN AREA BOUND BY
73-52-28N 045-15-34E, 74-18-17N 048-01-10E,
74-02-22N 048-28-12E, 73-35-44N 045-44-27E.
FOUR MILE BERTH REQUESTED.
2. CANCEL THIS MSG 24 APR 16.

(150759Z APR 2016)

37/16(15,38).

BAFFIN BAY.

DAVIS STRAIT.

ROCKETS.

DNC 28.

1. HAZARDOUS OPERATIONS 2112Z TO 2229Z DAILY
22 APR THRU 22 MAY IN AREA BOUND BY
71-56N 060-17W, 70-28N 059-58W,
70-25N 061-40W, 71-53N 062-07W.
2. CANCEL THIS MSG 222329Z MAY 16.

(171010Z APR 2016)

38/16(42).

ARCTIC.

BARENTS SEA.

WHITE SEA.

MISSILES.

DNC 22.

1. HAZARDOUS OPERATIONS 0500Z TO 1900Z DAILY
22 THRU 25 APR IN AREA BOUND BY
69-24.0N 034-18.0E, 69-35.0N 035-50.0E,
69-00.0N 043-20.0E, 68-49.5N 044-36.0E,
68-32.5N 044-24.0E, 68-18.0N 044-14.0E,
67-45.0N 043-52.0E, 67-51.0N 042-15.0E,
68-10.0N 041-06.0E, 68-46.0N 037-32.0E,
68-44.0N 037-28.0E, 69-18.0N 034-16.0E,
69-19.0N 034-16.0E, 69-22.5N 034-16.0E.
2. CANCEL THIS MSG 252000Z APR 16.

(190841Z APR 2016)

39/16(42).

ARCTIC.

BARENTS SEA.

DNC 22.

1. SEISMIC SURVEY IN PROGRESS UNTIL 29 JUN BY
M/V GEOLOG DMITRIY NALIVKIN TOWING 8100
METER LONG CABLE IN AREA BOUND BY
79-28-52N 053-00-00E, 79-28-52N 061-33-03E,
78-30-10N 060-13-55E, 78-31-59N 058-08-42E,
76-56-38N 057-49-28E, 76-59-38N 054-00-39E,
78-16-42N 050-29-38E.
SIX MILE BERTH REQUESTED.
2. CANCEL THIS MSG 30 JUN 16.

(200853Z APR 2016)

MARAD ADVISORIES

MARAD ADVISORIES rapidly disseminate information on government policy, danger and safety issues pertaining to vessel operations and other timely maritime matters. They are periodically issued by the U.S. Maritime Administration (MARAD) to vessel masters, operators, and other U.S. maritime interests.

The text of all in-force MARAD ADVISORIES may be obtained by accessing the NGA Maritime Safety Web site (<http://msi.nga.mil/NGAPortal/MSI.portal>), by referring to Section I (paragraph 49) of US Notice to Mariners 1/15 for those in-force as of 23 December 2014, or by contacting the Maritime Administration, Office of Security, Code MAR-420, Room W25-308, 1200 New Jersey Avenue S.E., Washington DC 20590, Telephone (202) 366-1883, FAX (202) 366-3954, Cell (202) 641-5071.

MARAD ADVISORIES in force 20 April 2016: 05-1, 10-6, 11-5, 13-2, 13-3, 13-5, 15-1 and 16-2.

SPECIAL WARNINGS

SPECIAL WARNINGS, primarily intended to announce official government proclamations affecting shipping, are broadcast as needed. They are numbered consecutively and further promulgated in the Notice to Mariners.

The text of all in-force SPECIAL WARNINGS may be obtained by accessing the NGA Maritime Safety Web site (<http://msi.nga.mil/NGAPortal/MSI.portal>) or by referring to Section I (paragraph 5) of US Notice to Mariners 1/15 for those in-force as of 23 December 2014.

SPECIAL WARNINGS in force 20 April 2016: 1, 29, 92, 114, 119, 120, 122, 123, 124, 127, 128, 129, 130, 131 and 133.

MARINE INFORMATION

TERMINATION OF PDU PATCH FILES IN THE .RTP FILE FORMAT

Effective 12 March 2016, in response to DoD/IC implemented security policies, the NGA Maritime Safety Office will no longer provide Publication Data Updates (PDU) patch files in the “.rtp” file format, to customers as a means of updating PDF Digital Nautical Publications. Notification of updated Publications will continue to be provided through the email Subscription Service and the weekly Notice to Mariners, and the most current updated PDF version of the Publication will be available for download on the NGA Maritime Safety Website (<http://msi.nga.mil/NGAPortal/MSI.portal>). Although PDU files will not be disseminated via the Maritime Safety Website or the email PDU Subscription Service, upgraded system development is in progress and changes will be promulgated when complete.

NOAA CHART NEW EDITIONS AND THEIR AVAILABILITY

NOAA produces nautical chart products to support Federal chart carriage requirements. These nautical charts are available as Print on Demand (POD) charts through authorized NOAA partners. A list of these approved partners can be found at <http://www.nauticalcharts.noaa.gov>.

DOD and other authorized U.S. Government users may obtain NOAA charts through the Defense Logistics Agency (DLA).

New Editions of Print-on-Demand Charts are available on the Monday after NOAA clears a New Edition for release. The Traditional Chart is available two to eight weeks later. Each is official, should be put into service immediately, and meets Federal chart carriage requirements immediately upon its release. Each should be updated from the dates shown in the lower left corner of the chart. For questions contact NOAA at help@nauticalcharts.gov or call 301-713-1968 x 105. Dates of Latest Editions for charts are listed at <http://nauticalcharts.noaa.gov>.

14916	11 th Ed. Mar 2016 NEW EDITION	NAD 83	(NOS Silver Spring, MD)
	LAKE WINNEBAGO AND LOWER FOX RIVER		Various

NGA CHART NEW EDITIONS AND THEIR AVAILABILITY

NGA standard nautical hardcopy chart products are made available and distributed by three different authorized methods:

- 1) The mailing and shipping of charts to Department of Defense (DoD) customers and other authorized U.S. Government users by the Defense Logistics Agency (DLA)
- 2) The posting of selected new charts (as large pdf print files) to NGA websites for access by Department of Defense (DoD) customers and other authorized U.S. Government users
- 3) The print-on-demand access of all public release NGA charts by the National Ocean Service (NOS) and official NOS chart agents, on behalf of NGA

The posting of selected new NGA charts (as large pdf print files) to NGA websites for access by Department of Defense (DoD) customers and other authorized U.S. Government users is normally made the day after NGA clears the New Edition for release and the chart is sent to be printed in mass quantity for DLA stock. The traditional NGA printed paper chart is then usually available some six to eight weeks later from DLA and sent out on automatic distribution. For those charts set for public sale, they are available a week after NGA release from the National Ocean Service at <http://www.nauticalcharts.noaa.gov/staff/charts.htm>

Regardless of how the NGA chart is obtained by the customer (downloaded from NGA website, distributed from DLA, or obtained through NOS) each is official, should be put into service immediately, and meets all Federal chart carriage requirements immediately upon its release. Each should also be updated from the dates shown in the lower left corner of the chart through the US Notice to Mariners. For questions, contact NGA at mcdepod@nga.mil.

Through a special arrangement between the National Ocean Service and NGA, all NOAA charts are also available (as large pdf print files) on the NGA websites for Department of Defense (DoD) customers and other authorized U.S. Government users. These NOAA chart files are updated every week for all Notice to Mariners (NGA, USCG, and Canadian Coast Guard). The official NGA web sites for downloading selected NGA and NOAA charts are:

- JWICS: <http://www.geoint.nga.ic.gov/products/dnc1/epodsButRachel/index.htm>

- NIPRNet: <https://www.geointel.nga.mil/products/dnc/epods/index.htm>

- SIPRNet: <http://www.geoint.nga.smil.mil/products/dnc1/epods/index.htm>

This week's new editions released by NGA are listed below. These NGA charts are now available for download as large pdf print files at the above mentioned web sites.

53083	9 th Ed. Apr. 16, 2016 NEW EDITION PHARE DU TITAN TO CAP ROUX (Correct through NM 16/16).	WGS	(NGA Springfield, VA) 1:50,000 Limited Distribution
94207	6 th Ed. Apr. 9, 2016 NEW EDITION LUOTOU SHUIDAO TO HANGZHOU WAN (Correct through NM 15/16).	WGS	(NGA Springfield, VA) 1:75,000 Limited Distribution

NGA DIGITAL NAUTICAL PUBLICATIONS-QUARTERLY UPDATE

The Digital Nautical Publications-Quarterly Update (Limited Distribution), First Quarter 2016, is ready for issue. The publications within are corrected to 26 March 2016, including Notice to Mariners No. 13 of 2016*. The Digital Nautical Publications-Quarterly Update is now issued in DVD-ROM format.

The production schedule of Digital Nautical Publications-Quarterly Update coincides with the production schedule of the quarterly Notice to Mariners issues, namely 13, 26, 39, and 52 or 53 of each year.

The DVD-ROM contains updated copies of NGA nautical publications, including all 42 Sailing Directions Enroutes/Planning Guides, The American Practical Navigator (Pub. 9)*, International Code of Signals (Pub. 102), Radio Navigational Aids (Pub. 117)*, World Port Index (Pub. 150), Distances Between Ports (Pub. 151)*, Radar Navigation and Maneuvering Board Manual (Pub. 1310)*, Sight Reduction Tables for Marine Navigation (Pub. 229)*, Sight Reduction Tables for Air Navigation (Pub. 249)*, Fleet Guides (Pub. 940 and Pub. 941), the Summary of Corrections, List of Lights*, Atlas of Pilot Charts, Chart No.1, Notice to Mariners issues 1/2015 through 13/2016, including the associated high-resolution graphic correction files for printing, United States Coast Pilot Series*, NOAA Tide Tables and Tidal Current Tables*, NWS Observing Handbook No. 1, USCG Light List Volumes*, USCG Navigation Rules and Regulations Handbook*, ONI MODU 101 Handbook, Admiralty Sailing Directions NP24 (Black Sea and Sea of Azov Pilot), and Admiralty Rapid Sight Reduction Table AP3270(1).

This disk also includes the Nautical Calculators, digital Chart/Publication Correction Record Cards and hyperlinks to the Web sites of various maritime organizations.

* Those publications marked by an asterisk are still updated via textual corrections published in the weekly Notice to Mariners. Where applicable, the copies of these publications included on the DVD are updated to Notice to Mariners 13/2016, but it is the user's responsibility to examine the Notice to Mariners for corrections between quarters accordingly.

It is important to note that this product is issued and updated quarterly and users must still refer to the Maritime Safety Web site at <http://msi.nga.mil/NGAPortal/MSI.portal> or updates between issues. NGA also offers an e-mail subscription service for Publication Updates, which automatically delivers notification of publication updates as well as announcements of new editions of publications. To subscribe, visit the publication updates subscription page (https://datahost.nga.mil/elist/email_escribe.php?type=C). A confirmation e-mail will be sent to the requesting e-mail address from NGA's service provider. Instructions for discontinuing the subscription service are included in each e-mail.

DoD, U.S. Coast Guard, or any other Executive Branch Agency subscribers of Digital Nautical Publications who have not yet received a copy should contact the Defense Logistics Agency Customer Support at:

Defense Logistics Agency for Aviation Mapping Customer Operations
(DLA Aviation-QAM)
8000 Jefferson Davis Highway
Richmond, VA 23297-5339

Telephone: 804-279-6500

DSN: 695-6500

Toll Free: 800-826-0342

Web site: <http://www.dla.mil/Aviation/Offers/Products/Mapping.aspx>

NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY'S IMPLEMENTATION OF A HARDCOPY TO DIGITAL TRANSITION STRATEGY

Since the mid-1990's, the National Geospatial-Intelligence Agency (NGA) has been working to improve digital navigation product support for the US Navy and other US Government users. The US Navy is transitioning to digital navigation, thus reducing the need for NGA to continue production of hardcopy charts. Therefore, NGA has begun a gradual transition from hardcopy chart production to a digital data maintenance environment. This notice is to advise mariners, chart agents, and other users of this strategy.

During the gradual transition from hardcopy charts to digital charts, NGA will continue to make certain hardcopy charts available only to US Government-approved entities, in accordance with US law or international agreement. These particular charts will be identified as "bilateral charts," since they are the product of international bilateral agreements and are duplicates of foreign copyright charts. Each bilateral chart will carry an NGA chart number, a National Stock Number (NSN), a bar code, and will show the number of any existing NGA chart that it replaces only when the chart is a one-for-one replacement. For those charts that are not a one-for-one replacement, no canceled chart number will appear. In the case where more than one new chart is being introduced to replace a single NGA chart, the existing chart will not be canceled until all new replacement charts have been announced in the Notice to Mariners.

Bilateral charts are the result of NGA international agreements and are duplicates of foreign copyrighted charts. The charts are printed in English, use metric units, refer to WGS-84 datum and are marked as "Distribution Limited." However, certain bilateral charts have not yet been converted to WGS-84 datum, and are of sufficiently large scale (generally larger than 1:50,000) where the difference from WGS-84 datum is noticeable. These exception charts are printed with datum shift values, which must be applied in order to plot GPS-derived positions correctly. The exception charts are scheduled for eventual conversion to WGS-84 datum; until this occurs, their chart numbers will appear bold-faced in the announcement list below.

Bilateral charts will contain references to host nation charts and publications, and may use symbology not yet found in US Chart No. 1. In most cases, NGA will not attempt to change these references to the equivalent US charts, publications or symbology. However, it should be noted that relevant maritime information referenced in a foreign publication can also usually be found within Sailing Directions, Notice to Mariners No. 1 (Special Paragraphs), List of Lights, Radio Navigational Aids, or Chart No. 1.

As the US Navy completes its transition to digital navigation, the use of bilateral charts will be gradually phased out. Until then, Section II of the Notice to Mariners, NGA/DLIS Catalog Corrections, will contain information about specific bilateral charts being announced as well as cancellation of any existing charts that they replace. Update information for bilateral charts will appear in Section I of the Notice to Mariners, Chart Corrections. Standard chart policy remains intact, in that NGA charts are not to be placed in service until their announcement appears in the US Notice to Mariners.

NGA has begun adopting bilateral charts in waters of Australia, Canada, Japan, and the UK, with additional countries to follow. What this further means is that NGA no longer provides certain hardcopy charts (i.e., those replaced by bilateral charts) for public sale. To obtain these hardcopy charts, civilian users will be required to purchase bilateral chart equivalents from their producer nations and their agents. Contact information for purchasing Australian, Canadian, Japanese, and UK charts is listed below:

Australian Hydrographic Service Web site: <http://www.hydro.gov.au>

Australian Distribution Network: <http://www.hydro.gov.au/prodserv/distributors/distributors.htm>

Canadian Hydrographic Service Web site: <http://notmar.com/charts/index.php>

Canadian Sales Agents: <http://www.chs-shc.dfo-mpo.gc.ca/chs/en/Dealers/locate.htm>

Japan Coast Guard and List of Agents Web sites: <http://www1.kaiho.mlit.go.jp/jhd-E.html>

UK Hydrographic Office Web site: <http://www.ukho.gov.uk>

UK Sales Agents: http://www.ukho.gov.uk/list_of_agents.html

NGA issues this notice weekly. It will also appear in the “What’s New @ Maritime” section of the Maritime Safety Web site (<http://msi.nga.mil/NGAPortal/MSI.portal>); however, the following list of announced bilateral charts will only appear in the Notice to Mariners.

NGA bilateral Australian, Canadian, Japanese, and UK charts announced to date:

<i>Former US Chart No.</i>	<i>Current US Chart No.</i>	<i>Foreign Chart No.</i>	<i>Originally Announced in NTM</i>	<i>Later Edition</i>
14002	14ACO14000	Can. 4023	23/04	
14005	14ACO14001	Can. 4012	23/04	
14006	14ACO14334	Can. 4016	9/09	
14009	14ACO14004	Can. 4015	23/04	
14009	14ACO14011	Can. 4047	23/04	
14009	14ACO14012	Can. 4002	29/04	
14009	14ACO14013	Can. 4013	29/04	
14009	14ACO14015	Can. 4045	29/04	
14014	14ACO14013	Can. 4013	29/04	
14040	14ACO14016	Can. 4010	29/04	
14041	14XHA14019	Can. 4011	29/04	
14042	14XHA14020	Can. 4396	1/05	35/12
14043	14AHA14021	Can. 4116	8/05	42/08
14044	14AHA14022	Can. 4117	14/05	36/12
14046	14BHA14023	Can. 4140	14/05	
14062	14XCO14025	Can. 4118	43/04	
14062	14XCO14026	Can. 4243	12/05	
14065	14BHA14027	Can. 4245	12/05	
14066	14XCO14026	Can. 4243	12/05	
14066	14XHA14028	Can. 4230	14/05	
14066	14XGA14029	Can. 4241	14/05	
14066	14XHA14030	Can. 4242	33/05	
14066	14XHA14031	Can. 4210	33/05	
14067	14XHA14029	Can. 4241	14/05	
14067	14XHA14032	Can. 4209	47/05	15/15
14068	14XHA14032	Can. 4209	47/05	15/15
14083	14AHA14035	Can. 4211	18/11	
14083	14AHA14036	Can. 4320	45/05	34/07
14085	14AHA14037	Can. 4328	45/05	
14087	14AHA14039	Can. 4385	46/05	
14088	14AHA14047	Can. 4201	46/05	
14089	14AHA14048	Can. 4202	39/06	
14090	14AHA14049	Can. 4237	6/05	
14091	14AHA14050	Can. 4203	48/06	
14093	14AHA14051	Can. 4236	25/07	
14100	14XHA14052	Can. 4235	25/07	
14100	14XHA14053	Can. 4234	25/07	
14105	14AHA14054	Can. 4321	22/07	
14115	14XCO14058	Can. 4227	29/04	
14121	14XHA14059	Can. 4374	23/07	
14123	14XHA14060	Can. 4375	23/07	
14125	14AHA14064	Can. 4376	22/07	
14133	14XHA14072	Can. 4278	23/07	
14134	14XHA14073	Can. 4279	23/07	
14136	14AHA14075	Can. 4266	25/07	15/15

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<i>Former US Chart No.</i>	<i>Current US Chart No.</i>	<i>Foreign Chart No.</i>	<i>Originally Announced in NTM</i>	<i>Later Edition</i>
14141	14AHA14076	Can. 4462	22/07	
14144	14XHA14143	Can. 4950	38/03	15/15
14145	14AHA14077	Can. 4448	22/07	
14146	14XHA14078	Can. 4404	25/07	15/15
14151	14XHA14079	Can. 4403	23/07	
14156	14BHA14080	Can. 4419	22/07	
14190	14ACO14096	Can. 4905	6/09	
14202	14XHA14193	Can. 1432	38/03	3/16
14202	14XHA14195	Can. 1431	42/03	52/15
14203	14XHA14195	Can. 1431	42/03	52/15
14221	14XHA14209	Can. 1311	32/08	15/15
14221	14XHA14211	Can. 1312	40/03	15/15
14222	14XHA14211	Can. 1312	40/03	15/15
14227	14XHA14215	Can. 1316	39/03	38/12
14240	14XHA14217	Can. 1236	43/03	15/15
14241	14XHA14218	Can. 1233	39/03	14/15
14253	14ACO14004	Can. 4015	23/04	
14340	14ACO14334	Can. 4016	9/09	
14342	14BCO14336	Can. 4626	11/10	
14349	14AHA14339	Can. 4622	10/09	
14350	14AHA14334	Can. 4841	12/10	
14351	14AHA14334	Can. 4841	12/10	
14360	14ACO14348	Can. 4017	12/10	
14364	14AHA14359	Can. 4846	25/09	
14373	14BHA14362	Can. 4847	12/10	
14415	14ACO14377	Can. 4020	12/10	
14812	14XHA14809	Can. 2085	6/09	39/12
15008	15ACO15001	Can. 4730	12/10	
15011	15ACO15002	Can. 7050	16/08	
15017	15ACO15003	Can. 5450	33/07	
15018	15ACO15004	Can. 4700	12/10	
15020	15ACO15005	Can. 7011	12/10	
15041	15ACO15007	Can. 4731	41/08	
15061	15ACO15014	Can. 4732	42/08	
15070	15BHA15024	Can. 5143	6/09	
15080	15BHA15027	Can. 5023	46/07	
15120	15ACO15030	Can. 4775	31/07	
15140	15ACO15031	Can. 4776	12/10	
15160	15ACO15032	Can. 5300	34/08	
15312	15ACO15035	Can. 5400	6/09	
15670	15XCO15672	Can. 7570	44/09	
17008	17ACO17007	Can. 3002	40/08	
17005	17ACO17010	Can. 3001	41/14	
17412	17XHA17410	Can. 3890	40/08	
17413	17ACO17411	Can. 3802	42/08	
17414	17BCO17415	Can. 3854	42/08	
17416	17BCO17417	Can. 3853	41/08	
17438	17BHA17418	Can. 3960	43/08	
17438	17BHA17419	Can. 3959	41/08	
17438	17BHA17440	Can. 3956	12/10	
17441	17BHA17442	Can. 3927	12/07	
17441	17BHA17447	Can. 3746	25/07	
17444	17XHA17448	Can. 3955	32/08	15/15
17445	17BHA17439	Can. 3957	12/10	
17464	17XHA17450	Can. 3724	12/10	

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17465	17XHA17451	Can. 3742	41/08	
17480	17ACO17454	Can. 3744	12/10	
17485	17XHA17456	Can. 3936	44/09	15/15
17486	17XCO17458	Can. 3727	13/09	
17489	17XHA17488	Can. 3598	12/10	
17495	17ACO17493	Can. 3605	6/07	
17513	17XHA17497	Can. 3539	8/05	1/08
17515	17XHA17496	Can. 3513	6/09	
17517	17XHA17498	Can. 3512	44/09	
17518	17BHA17499	Can. 3463	31/07	
17519	17BHA17500	Can. 3526	23/07	
17543	17ACO17501	Can. 3604	1/08	
17546	17XCO17510	Can. 3603	31/10	
17548	17BCO17511	Can. 3671	31/07	
17550	17ACO17514	Can. 3602	24/07	
18401	18BHA18404	Can. 3459	42/08	44/10
18405	18BHA18426	Can. 3493	25/07	49/11
18406	18BHA18435	Can. 3481	23/07	36/12
18407	18BHA18436	Can. 3494	12/07	15/15
18408	18BHA18437	Can. 3495	42/08	15/15
18413	18BHA18442	Can. 3442	31/07	
18414	18XHA18451	Can. 3478	31/07	15/15
18415	18BHA18461	Can. 3441	24/07	
18416	18AHA18462	Can. 3440	24/07	
18418	18AHA18466	Can. 3419	24/07	15/15
18419	18BHA18469	Can. 3412	44/15	
18420	18BHA18467	Can. 3479	12/07	16/08
18475	18XHA18472	Can. 3685	43/08	
35009	35ACO35002	UK 266	19/04	10/16
35009	35ACO35003	UK 268	19/04	
35009	35ACO35004	UK 273	19/04	
35009	35ACO35005	UK 278	23/04	4/07
35009	35ACO35006	UK 1191	24/04	8/13
35009	35ACO35010	UK 1192	28/04	5/16
35009	35ACO35013	UK 1409	23/04	35/13
35009	35ACO35014	UK 1407	23/04	33/09
35016	35ACO35015	UK 2635	26/06	9/16
35022	35ACO35017	UK 1128	16/08	10/16
35023	35ACO35018	UK 1129	37/07	10/16
35031	35ACO35019	UK 1127	4/06	10/16
35032	35ACO35020	UK 1125	7/07	
35036	35ACO35024	UK1123	3/07	20/07
35040	35ACO35006	UK 1191	24/04	8/06
35060	35ACO35010	UK 1192	28/04	
35080	35ACO35014	UK 1407	23/04	33/09
35081	35BHA35035	UK 734	28/04	23/14
35082	35BHA35037	UK 735	31/04	52/15
35084	35BHA35045	UK 1481	32/04	8/13
35086	35BHA35048	UK 736	32/04	34/14
35088	35BHA35050	UK 190	28/04	9/13
35100	35ACO35013	UK 1409	23/04	49/04
35101	35BHA35052	UK 223	33/04	3/12
35120	35ACO35055	UK 115	23/04	34/13
35130	35ACO35056	UK 1942	12/06	35/13
35135	35ACO35057	UK 2249	27/07	5/16

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35136	35ACO35058	UK 2250	27/07	39/10
35141	35ACO35059	UK 2162	21/07	33/09
35144	35XCO35062	UK 2584	27/07	2/16
35150	35ACO35063	UK 1119	27/07	11/13
35155	35ACO35064	UK 1234	27/07	5/16
35159	35ACO35065	UK 3271	30/07	39/10
35160	35ACO35066	UK 1233	27/07	11/13
35163	35ACO35067	UK 3272	27/07	3/16
35166	35ACO35068	UK 3283	27/07	14/16
35169	35ACO35071	UK 3281	29/07	25/13
35170	35ACO35072	UK 3282	30/07	25/13
35200	35ACO35001	UK 1954	28/04	33/09
35205	35ACO35073	UK 2720	27/07	10/13
35210	35ACO35074	UK 1785	27/07	14/16
35220	35ACO35075	UK 2721	37/07	8/13
35230	35ACO35078	UK 1794	24/07	27/13
35236	35AHA35079	UK 2207	28/07	39/10
35237	35AHA35089	UK 2208	30/07	25/13
35239	35AHA35090	UK 2210	28/07	18/13
35243	35BHA35091	UK 3146	37/07	6/08
35246	35ACO35092	UK 1795	21/07	6/16
35247	35AHA35093	UK 1796	28/07	39/10
35248	35BHA35094	UK 2209	38/07	52/15
35250	35BHA35095	UK 2540	29/07	17/13
35255	35AHA35096	UK 2171	30/07	23/14
35256	35AHA35097	UK 2390	24/07	35/13
35260	35ACO35104	UK 2722	27/07	8/13
35265	35ACO35106	UK 1778	27/07	33/09
35270	35AHA35109	UK 2169	29/07	24/14
35272	35ACO35110	UK 1770	12/07	
35277	35BHA35113	UK 2326	22/06	13/16
35278	35BHA35114	UK 2343	4/06	15/16
35279	35BHA35115	UK 2397	29/06	23/14
35295	35BHA35116	UK 2481	22/06	23/14
35296	35BHA35117	UK 2396	25/06	15/16
35298	35BHA35118	UK 2168	7/07	16/16
35299	35ACO35119	UK 2724	26/06	5/07
35300	35ACO35121	UK 2723	18/06	13/16
35302	35ACO35123	UK 2798	46/05	22/14
35307	35ACO35126	UK 2199	5/06	8/13
35308	35ACO35127	UK 2198	25/06	44/12
35310	35ACO35128	UK 2725	27/06	3/16
35350	35ACO35131	UK 2173	12/07	
35380	35ACO35138	UK 2254	30/06	
35390	35ACO35139	UK 2423	22/06	7/16
35400	35ACO35140	UK 2424	5/06	6/16
35420	35ACO35147	UK 2049	18/06	10/13
35421	35AHA35148	UK 1777	46/05	
35423	35AHA35149	UK 1773	46/05	
35424	35AHA35151	UK 1765	46/05	26/10
35011	35XCO35172	UK 219	8/08	17/13
36010	36ACO36000	UK 1121	26/06	
36015	36ACO36001	UK 2649	47/05	
36040	36ACO36002	UK 1410	47/05	
36060	36ACO36006	UK 1141	12/07	6/16

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36061	36BHA36007	UK 1468	20/07	
36062	36BHA36008	UK 1415	4/06	44/12
36063	36BHA36009	UK 1447	12/07	9/13
36081	36BHA36011	UK 1753	7/07	34/14
36098	36AHA36012	UK 2221	47/05	14/16
36103	36BHA36014	UK 2126	9/07	
36104	36BHA36016	UK 2220	6/07	
36106	36BHA36017	UK 2131	47/05	13/16
36108	36BHA36018	UK 2000	4/06	13/12
36110	36BHA36019	UK 2007	8/06	18/11
36115	36BHA36020	UK 1994	3/07	21/14
36116	36AHA36021	UK 1867	23/05	26/10
36117	36BHA36022	UK 1907	11/07	13/16
36118	36BHA36023	UK 2383	25/06	
36119	36BHA36024	UK 2491	4/06	13/16
36120	36ACO36025	UK 1826	13/07	24/13
36127	36BHA36030	UK 3746	32/06	23/14
36128	36BHA36030	UK 3746	32/06	23/14
36137	36AHA36032	UK 1478	39/04	37/13
36138	36AHA36033	UK 3275	39/04	13/16
36139	36BHA36034	UK 3274	39/04	35/13
36140	36ACO36035	UK 1178	39/04	10/13
36141	36BHA36036	UK 2878	41/04	37/13
36161	36BHA36039	UK 1152	52/04	45/12
36162	36BHA36041	UK 1182	1/05	45/12
36163	36BHA36042	UK 1176	1/05	40/13
36165	36BHA36044	UK 1165	17/05	13/16
36180	36ACO36049	UK 2565	27/05	9/13
37043	37AHA37003	UK 1267	15/06	10/16
37044	37AHA37004	UK 30	25/05	39/10
37045	37AHA37006	UK 1901	25/05	34/13
37046	37AHA37007	UK 1613	34/05	25/13
37047	37XHA37008	UK 1902	25/05	9/16
37060	36ACO36050	UK 442	25/05	
37075	37ACO37015	UK 2454	25/08	1/12
37079	37AHA37016	UK 2625	32/05	6/16
37081	37AHA37017	UK 2045	32/05	25/13
37083	37AHA37019	UK 2037	25/05	13/16
37084	37AHA37020	UK 2036	5/06	13/16
37086	37AHA37021	UK 2631	31/05	10/16
37088	37BHA37022	UK 2041	2/16	
37119	37AHA37027	UK 1698	8/06	45/14
37122	37AHA37028	UK 1828	19/05	40/13
37133	37BHA37030	UK 1834	2/16	
37136	37AHA37035	UK 1186	34/04	18/16
37137	37AHA37036	UK 2151	34/04	18/16
37138	37BHA37038	UK 2484	34/04	18/16
37141	37AHA37040	UK 1607	9/05	21/14
37145	37AHA37051	UK 1185	37/04	13/16
37147	37BHA37052	UK 1975	36/04	14/16
37150	37ACO37055	UK 1504	37/04	40/13
37170	37ACO37057	UK 1503	38/04	14/16
37175	37ACO37058	UK 1187	38/04	49/15
37180	37ACO37059	UK 1190	38/04	40/14
37182	37AHA37062	UK 109	38/04	33/09

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37183	37BHA37066	UK 1188	6/05	52/15
74071	74BHA74073	Aus. 616	35/07	
74141	74XHA74142	Aus. 618	35/07	
74141	74XHA74143	Aus. 610	35/07	
74151	74AHA74154	Aus. 809	12/07	
74152	74BHA74150	Aus. 208	8/07	44/10
74153	74BHA74155	Aus. 207	8/07	
74162	74BCO74163	Aus. 811	13/07	
74162	74BCO74164	Aus. 810	13/07	
74183	74AHA74180	Aus. 237	9/07	18/16
74186	74AHA74189	Aus. 238	47/05	17/16
74192	74BHA74213	Aus. 818	9/07	17/16
74201	74BHA74199	Aus. 246	8/07	17/16
74202	74BHA74208	Aus. 247	13/07	
74204	74BHA74209	Aus. 819	14/07	18/16
74205	74BHA74244	Aus. 245	45/10	
74206	74AHA74212	Aus. 244	15/07	17/16
74210	74BCO74245	Aus. 820	13/07	18/16
74221	74BCO74227	Aus. 821	11/07	18/16
74229	74BHA74226	Aus. 250	13/07	
74229	74BCO74246	Aus. 824	16/08	
74229	74BCO74247	Aus. 249	16/08	26/13
74231	74BHA74226	Aus. 250	13/07	
74232	74BHA74216	Aus. 256	10/07	18/16
74234	74BHA74237	Aus. 257	11/07	45/10
74252	74BCO74258	Aus. 263	41/10	
74253	74BCO74262	Aus. 830	13/07	
74271	74BCO74275	Aus. 833	18/07	
74271	74BCO74277	Aus. 280	35/07	17/16
74272	74BHA74267	Aus. 834	13/07	18/16
74287	74BHA74279	Aus. 289	52/06	
74293	74ACO74311	Aus. 839	12/06	25/13
74294	74BCO74300	Aus. 292	47/05	
74294	74ACO74311	Aus. 839	12/06	
74310	74BCO74395	Aus. 302	18/07	
74320	74BCO74313	Aus. 303	18/07	
74330	74BCO74387	Aus. 304	52/06	
74340	74BCO74384	Aus. 305	35/07	
74350	74BCO74383	Aus. 306	35/07	44/10
74376	74BCO74377	Aus. 715	35/07	
74391	74BHA74390	Aus. 720	35/07	
74391	74BHA74396	Aus. 721	35/07	
74393	74BHA74397	Aus. 26	47/06	
74394	74BHA74397	Aus. 26	47/06	
74415	74ACO74416	Aus. 726	35/07	
74430	74ACO74431	Aus. 315	22/08	48/08
74450	74ACO74451	Aus. 319	34/07	48/08
74517	74ACO74031	Aus. 743	12/06	17/16
74521	75AHA75147	Aus. 744	19/06	17/16
74555	74ACO74593	Aus. 334	34/07	
74581	74AHA74585	Aus. 112	18/07	
75010	75ACO75111	Aus. 341	36/07	
75010	75ACO75114	Aus. 342	36/07	
75110	75ACO75111	Aus. 341	36/07	
75120	75ACO75114	Aus. 342	36/07	

<i>Former US Chart No.</i>	<i>Current US Chart No.</i>	<i>Foreign Chart No.</i>	<i>Originally Announced in NTM</i>	<i>Later Edition</i>
75132	75BHA75137	Aus. 137	19/06	42/08
75170	75ACO75166	Aus. 788	14/06	
75170	75ACO75167	Aus. 789	14/06	
75170	75ACO75168	Aus. 790	17/06	
75171	75AHA75164	Aus. 144	44/10	51/15
75171	75AHA75165	Aus. 143	21/06	20/08
75171	75AHA75174	Aus. 158	18/06	25/13
75173	75AHA75174	Aus. 158	18/06	
75175	75AHA75178	Aus. 154	18/06	24/13
75261	75AHA75274	Aus. 808	11/07	
75264	75AHA75269	Aus. 201	12/07	
75264	75AHA75267	Aus. 202	48/06	
75265	75AHA75266	Aus. 197	17/07	
95261	95BCO95263	Jpn. W145	9/12	
95264	95BHA95266	Jpn. W1155A	5/12	21/15
95268	95BHA95122	Jpn. W1162A	52/12	
95258	95BHA95257	Jpn. W1160	23/14	
95271	95BHA95277	Jpn. W1183	5/13	
95272	95BHA95278	Jpn. W1162B	1/13	
95273	95BHA95279	Jpn. W1197	5/12	
95276	95BHA95284	Jpn. W1193	46/10	
95282	95BHA95288	Jpn. W1167	10/11	
95285	95BHA95289	Jpn. W1166	29/12	
95342	95AHA95339	Jpn. W1265	46/12	
96940	96BHA96933	Jpn. W7	51/12	
96941	96BCO96932	Jpn. W28	20/15	
96942	96BHA96931	Jpn. W5	21/11	
96961	96BHA96951	Jpn. W1033A	46/10	21/14
97041	97BHA97044	Jpn. W65	21/11	44/15
97042	97XHA97045	Jpn. W71	46/11	49/15
97043	97XHA97046	Jpn. W1091	45/11	12/12
97060	97ACO97050	Jpn. W54	46/11	1/13
97062	97BHA97053	Jpn. W79	20/15	
97063	97XHA97054	Jpn. W1099	16/13	
97063	97XHA97058	Jpn. W1093	36/13	18/15
97064	97BHA97055	Jpn. W1100	39/12	3/14
97082	97BHA97084	Jpn. W64A	9/12	22/15
97083	97BHA97085	Jpn. W64B	9/12	34/14
97104	97BHA97093	Jpn. W63	26/12	
97108	97BHA97095	Jpn. W1049	38/12	49/15
97141	97BHA97132	Jpn. W1067	52/12	
97143	97AHA97133	Jpn. W1062	11/11	
97144	97AHA97134	Jpn. W1081	9/11	52/12
97146	97AHA97135	Jpn. W1083	46/10	49/15
97148	97XHA97136	Jpn. W1085	18/11	
97149	97AHA97137	Jpn. W66	46/10	3/14
97150	97XHA97139	Jpn. W67	46/10	
97151	97AHA97168	Jpn. W1061	21/11	
97154	97BHA97171	Jpn. W1042	52/11	
97155	97BHA97172	Jpn. W1065	21/11	
97156	97BHA97173	Jpn. W92	49/11	
97158	97AHA97175	Jpn. W1066	21/15	
97181	97BHA97089	Jpn. W1051	42/12	
97182	97BHA97090	Jpn. W1053	21/12	
97183	97BHA97028	Jpn. W95	16/13	21/15

SECTION III

NM 18/16

<i>Former US Chart No.</i>	<i>Current US Chart No.</i>	<i>Foreign Chart No.</i>	<i>Originally Announced in NTM</i>	<i>Later Edition</i>
97184	97BHA97030	Jpn. W1055A	49/11	37/13
97185	97BHA97031	Jpn. W1057B	49/11	
97188	97BHA97033	Jpn. W1052	38/12	
97189	97BHA97034	Jpn. W1055B	49/11	
97201	97XHA97037	Jpn. W75	21/15	
97204	97AHA97191	Jpn. W131	11/11	
97218	97BHA97216	Jpn. W134B	37/13	
97220	97BHA97197	Jpn. W1103	29/12	
97221	97AHA97198	Jpn. W106	11/11	
97225	97AHA97210	Jpn. W150A	46/11	
97226	97XHA97211	Jpn. W1110	3/12	29/14
97227	97XHA97212	Jpn. W1146	30/13	
97228	97AHA97213	Jpn. W123	29/14	
97229	97AHA97214	Jpn. W101A	29/12	
97230	97AHA97215	Jpn. W101B	20/12	
97233	97BHA97252	Jpn. W153	12/11	21/14
97234	97BHA97253	Jpn. W137A	45/11	3/14
97235	97BHA97254	Jpn. W165	27/13	
97236	97BHA97255	Jpn. W137B	46/11	3/14
97237	97BHA97256	Jpn. W1121	6/12	
97241	97BHA97259	Jpn. W1124	21/11	
97251	97BHA97292	Jpn. W128	21/15	
97261	97BHA97293	Jpn. W141	12/11	49/11
97262	97BHA97294	Jpn. W104	12/11	
97263	97BHA97295	Jpn. W132	9/11	
97263	97BHA97965	Jpn. W1361	45/11	50/15
97272	97BHA97306	Jpn. W126	46/11	
97274	97AHA97308	Jpn. W127	9/11	
97277	97AHA97311	Jpn. W1102	40/13	
97280	97BHA97315	Jpn. W1106	45/11	
97285	97AHA97319	Jpn. W1262	11/11	21/15
97286	97AHA97321	Jpn. W1263	11/11	21/15
97287	97AHA97322	Jpn. W1264	11/11	21/14
97303	97BHA97324	Jpn. W110	6/12	49/15
97340	97ACO97327	Jpn. W1221	42/13	
97343	97BHA97330	Jpn. W214A	21/14	
97360	97ACO97333	Jpn. W1222	40/13	
97383	97BHA97337	Jpn. W206	3/12	
97391	97BHA97351	Jpn. W202	21/15	
97410	97XHA97358	Jpn. W166	6/12	
97423	97BHA97363	Jpn. W1227	3/14	
97465	97BHA97370	Jpn. W222A	49/11	
97466	97AHA97371	Jpn. W243	13/12	
97469	97AHA97373	Jpn. W228B	48/11	
97481	97BCO97375	Jpn. W1205	49/11	
97343	97BHA97567	Jpn. 214B	21/14	
97563	97AHA97568	Jpn. W50	4/12	50/15

MARINE INFORMATION REPORT AND SUGGESTION SHEET INSTRUCTIONS

We value your suggestions to improve our products. The Marine Information Report and Suggestion Sheet is provided for users to submit corrective information. Please be complete and accurate in your description/suggestion and include the information as detailed below:

Observer: name(s) of person(s) making observation and rank, rate or title.

Ship/Organization: name of vessel or organization.

Address: complete mailing address. Also include telephone number, fax, and/or e-mail address, if available, in case clarification is required.

Date of Observation: day, month and year at which the observation was made.

Time of Observation: local time at which the observation was made.

Latitude/Longitude: exact position of the observation expressed as accurately as possible.

Datum: horizontal datum to which the observed position is referred (e.g. WGS, NAD83, local foreign datum, etc.).

Navigation System: method used to determine the position of the observation (e.g. radar, GPS, Loran, etc.).

Include details about the equipment used, if deemed pertinent.

Verified by Navigator: indicate whether observation was verified by navigator.

Product(s) Affected: product number(s) and/or name(s) to which the observation applies (e.g. Chart 62400, Sailing Directions Pub. 127, etc.).

Edition: edition number and/or year of affected product.

Latest correction applied: the latest Notice to Mariners to which your copy of affected product has been corrected.

Sounding sensor or method used: equipment or method used to collect soundings. When reporting soundings, please provide an annotated echogram, if available, for verification.

Soundings corrected for draft: indicate whether soundings have been corrected for vessel's draft. If not, please include observed draft along with the details of information reported.

Details of Information Reported: use this space to provide details of the observation/suggestion. When referring to a charted feature, please describe it exactly as it appears on the chart. When referring to a publication, please indicate page number(s) and line number(s) or station number(s) as applicable. Use additional sheets as necessary and include diagrams, photocopies of the product(s) involved and/or photographs to describe observations in greater detail. If possible, include the designation, point of contact, telephone number, fax number and/or e-mail address of the local port authority to enable NGA to update our records and obtain additional or later information.

User Feedback: use this space to provide feedback and suggestions for improving NGA products and services.

Please detach, fold and mail the pre-addressed form and include any other relevant material or supporting information.

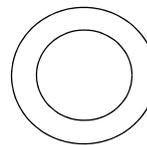
Reports which present an immediate hazard to navigation should be sent to the nearest NAVAREA Coordinator via coast radio stations. In general, these hazards would include major aids to navigation anomalies, discovery of obstructions or shoals with depths of less than 30 meters, floating dangers to shipping, and any situation deemed critical to safety of life at sea. For further information consult Notice to Mariners No. 1, paragraph 43 (Worldwide Navigational Warning Service).

Due to the large volume of information received, NGA cannot acknowledge receipt of every report. Some reports containing useful data are filed for use in the compilation of the next edition of the affected product. Others confirm or clarify previously reported information. Echogram traces are digitized and become part of our Bathymetric Database. Acknowledgment is made by inclusion in the Observer's List of the Notice to Mariners (page ii), or in some cases by letter from the Agency involved.

For additional information about various Hydrographic Reports, consult The American Practical Navigator (Chapter 30).



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HYDROARC REPORT SHEET

Observer _____

Ship/Organization _____

Phone _____ Email Address _____

Describe Hazard (e.g. dredge, buoy, current meter, operations): _____

Is hazard remotely monitored? Yes _____ No _____

If yes, list Internet URL where most recent position will be posted (if any): _____

Depth water column is occupied (e.g. "bottom to surface", "surface to 500m"): _____

Date of Insertion _____ Latitude _____ Longitude _____

Date of Expected Removal _____

Most Recent Observation: Date _____ Time (Local) _____

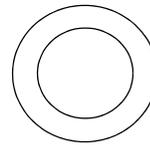
Latitude _____ Longitude _____ Datum _____

Navigation System _____ Verified by Navigator: Yes _____ No _____

Sounding sensor or method used _____

Sounding(s) corrected for draft: Yes _____ No _____

Details of Information Reported (continue on additional sheets as necessary): _____

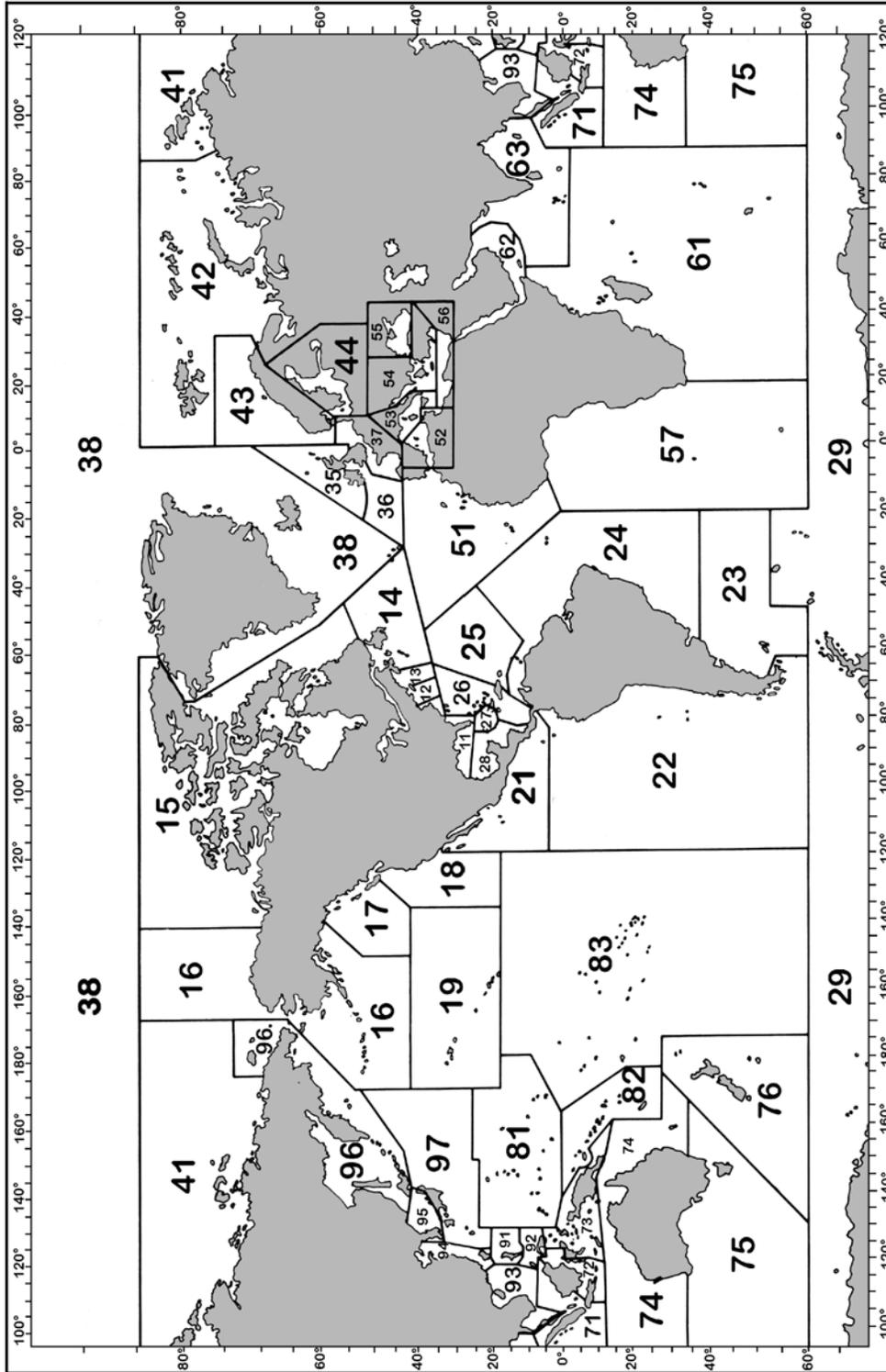


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GEOGRAPHIC LOCATOR



For chart numbering purposes, the world is divided into nine regions, each corresponding to the geographic limits of one of the nine regions in the NGA/DLIS Catalog of Maps Charts and Related Products. Each Region is further subdivided into the numbered Subregions in the above graphic. The first two digits of all five-digit chart numbers indicate the geographic subregion to which the chart pertains. Users can locate corrections in this Notice for charts of their immediate interest by determining the two-digit Subregion number of the pertinent geographic area, and then turning to the page or pages that list the chart numbers beginning with those two digits.

IMPORTANT
NAVIGATIONAL INFORMATION
TIME—DATED



**NOTICE TO
MARINERS**

PLEASE EXPEDITE DELIVERY