No. 1

1 JANUARY 2011

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 5105.40, 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, Sailing Directions, Fleet Guides, USCG Light Lists, NGA List of Lights, Radio Navigational Aids 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:

Name	Telephone	DSN	FAX
Maritime Domain	301-227-3370	287-3370	301-227-4211
World Wide Navigational Warning Service	301-227-3147	287-3147	301-227-3731
Maritime Safety Web site	301-227-3296	287-3296	301-227-4211
Notice to Mariners: Regions 1 and 2	301-227-3122	287-3122	301-227-3175
Notice to Mariners: Regions 3 thru 9	301-227-3146	287-3146	301-227-3175
Sailing Directions, Fleet Guides	301-227-3180	287-3180	301-227-3174
Navigation Publications	301-227-3120	287-3120	301-227-3731
DLA 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 four 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.

Cover Photo: USS SENTRY (MCM-3) is the third mine countermeasure ship of the *Avenger-class*, was built at Peterson Builders, Inc. in Sturgeon Bay, Wisconsin and commissioned 2 September 1989. Mine countermeasure ships are designed as minesweepers/hunter-killers capable of finding, classifying and destroying moored and bottom mines. This is accomplished using the AN/SQQ-32 mine-hunting sonar, and once the target is classified "mine-like", the AN/SLQ-48 Mine Neutralization System (MNS) Vehicle is deployed to identify and destroy bottom mines, or cut the cable of a moored mine. The MNS Vehicle is remotely piloted and controlled by an operator in the Combat Information Center (CIC). Mines can also be swept using a variety of acoustic, magnetic, or mechanical sweep configurations. The ships are of fiberglass sheathed, wooden hull construction. **USS SENTRY** is 224 feet in length, has a beam of 39 feet, and displaces 1,367 tons. She is powered by four diesel engines with two controllable pitch propellers and one bow thruster. The "Sentinel of the Sea" is crewed by six officers and 75 enlisted and homeported in San Diego, CA.

INFORMATION OF SPECIAL INTEREST OR IMPORTANCE TO MARINERS

HYDROGRAM

National Geospatial-Intelligence Agency
Bethesda, MD 20816-5003

SPECIAL ANNOUNCEMENTS
NEW PRODUCTS OR SERVICES
IMPORTANT CHANGES

NM 1/11

1 January 2011

IMPORTANT INFORMATION

THIS NOTICE CONTAINS A VARIETY OF SUBJECTS AMPLIFYING INFORMATION NOT USUALLY FOUND ON CHARTS OR IN NAVIGATIONAL PUBLICATIONS. PARAGRAPHS 1 THRU 73 ARE "SPECIAL NOTICE TO MARINERS PARAGRAPHS" WHICH ARE PROMULGATED ONCE EACH YEAR IN THE INTEREST OF SAFE NAVIGATION. SEE SECTION I. ADDITIONAL ITEMS CONSIDERED OF INTEREST TO THE MARINER WILL BE FOUND IN SECTION III OF THIS NOTICE.

CHANGE TO MARITIME SAFETY INFORMATION WEBSITE ADDRESS (URL)

THE NEW MARITIME SAFETY INFORMATION WEBSITE ADDRESS (URL) IS HTTP://MSI.NGA.MIL. SEE SECTION III FOR MORE INFORMATION.

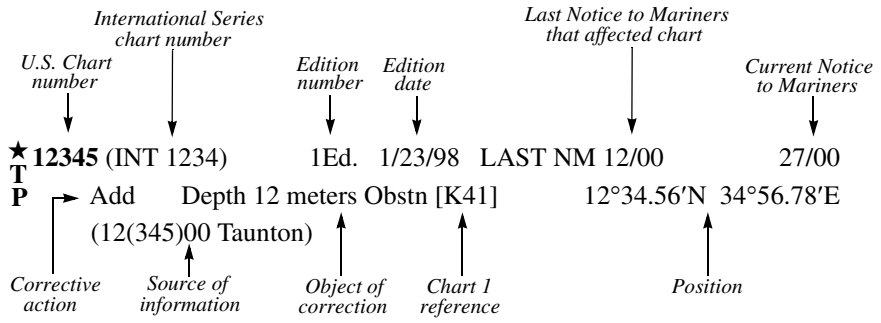
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY'S IMPLEMENTATION OF A HARDCOPY TO DIGITAL TRANSITION STRATEGY

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, Sailing Directions, Fleet Guides, USCG Light Lists, NGA List of Lights, Radio Navigational Aids 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 **M** 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.

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 Sailing Directions, Coast Pilots, Fleet Guides, Radio Navigational Aids (Pub. 117), *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.

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* *Denotes significant change*

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* *Denotes significant change*

(1) THE PRUDENT MARINER.

a. Warning On Use Of Floating Aids To Navigation and on Aids to Navigation in General and Fixing a Navigational Position.

The aids to navigation depicted on charts comprise a system consisting of fixed and floating aids with varying degrees of reliability. Therefore, prudent mariners will not rely solely on any single aid to navigation, particularly a floating aid. An aid to navigation also refers to any device or structure external to a craft, designed to assist in determination of position. This includes celestial, terrestrial, and electronic means, such as Global Positioning System (GPS) and Differential GPS (DGPS). Here, too, the prudent mariner will not rely solely on any single aid to navigation.

The buoy symbol is used to indicate the approximate position of the buoy body and the sinker which secures the buoy to the seabed. The approximate position is used because of practical limitations in positioning and maintaining buoys and their sinkers in precise geographical locations. These limitations include, but are not limited to, inherent imprecisions in position fixing methods, prevailing atmospheric and sea conditions, the slope of and the material making up the seabed, the fact that buoys are moored to sinkers by varying lengths of chain, and the fact that buoy and/or sinker positions are not under continuous surveillance but are normally checked only during periodic maintenance visits which often occur more than a year apart. The position of the buoy body can be expected to shift inside and outside the charting symbol due to the forces of nature. The mariner is also cautioned that buoys are liable to be carried away, shifted, capsized, sunk, etc. Lighted buoys may be extinguished or sound signals may not function as the result of ice or other natural causes, collisions, or other accidents. Many of these factors also apply to articulated lights.

For the foregoing reasons, a prudent mariner must not rely completely upon the position or operation of floating aids to navigation, but will utilize bearings from fixed objects and aids to navigation on shore. Further, a vessel attempting to pass close aboard always risks collision with a yawing buoy or with the obstruction the buoy marks.

b. Use of Foreign Charts.

In the interest of safe navigation, caution should be exercised in the use of foreign charts not maintained through U.S. Notice to Mariners.

Foreign produced charts are occasionally mentioned in NGA Sailing Directions and often times are used by the U.S. Navy when such charts may be of a better scale than U.S. produced charts. Mariners are advised that if or when such foreign charts are used for navigation it is their responsibility to maintain those charts from the Notice to Mariners of the foreign country producing the charts.

The mariner is warned that the buoyage systems, shapes, colors, and light rhythms used by other countries often have a different significance than the U.S. system.

Mariners are further warned about plotting positions, especially satellite-derived positions such as from GPS, onto foreign charts where the datum is unknown or the conversion from WGS-84 is unknown.

c. Chart Notes Regarding Different Datums.

NGA's Digital Nautical Charts (DNC) are all built to WGS-84 standards; however, NGA paper charts have various datums. Particular caution should be exercised during a passage when transferring the navigational plot to an adjacent chart upon a different geodetic datum or when transferring positions from one chart to another chart of the same area which is based upon a different datum. The transfer of positions should be done by bearings and distances from common features.

Notes on hardcopy charts should be read with care, as they give important information not graphically presented. Notes in connection with the chart title include the horizontal geodetic datum which serves as a reference for the values of the latitude and longitude of any point or object on the chart. The latitudes and longitudes of the same points or objects on a second chart of the same area which is based upon a different datum will differ from those of the first chart. The difference may be navigationally significant, particularly when the scale of the chart is large. Additionally, datum changes between chart editions could significantly affect the positions of navigational aids found in the List of Lights and other NGA publications.

Positions obtained from satellite navigation systems, such as from GPS, are normally referred to the World Geodetic System 1984 (WGS-84) Datum. The differences between GPS satellite-derived positions and positions on some foreign charts cannot be determined: mariners are warned that these differences MAY BE SIGNIFICANT TO NAVIGATION and are therefore advised to use alternative sources of positional information, particularly when closing the shore or navigating in the vicinity of dangers.

d. Bilateral Charts

Starting in 2004, NGA commenced the process of adopting certain foreign charts into its paper chart inventory, with new NGA chart numbers applied, as existing NGA coverage is canceled. The resulting product is known as a "bilateral chart" and is marked Distribution Limited, available only to DoD and Government users. Commercial users of NGA paper charts for these areas will need to purchase them from private chart vendors. This process is part of the hardcopy transition strategy and is currently underway in Australia, Canada, Japan and the UK, with other countries to follow. Updated information on bilateral charts is reissued weekly in the U.S. Notice to Mariners and on NGA's Maritime Safety Web site (http://msi.nga.mil/NGAPortal/MSI.portal).

(Supersedes NTM 1(1)10) (NGA/PVM)

(2) NAUTICAL CHART SYMBOLS AND ABBREVIATIONS INFORMATION.

Symbols and abbreviations approved for use on all regular nautical charts published by the National Geospatial-Intelligence Agency and the National Ocean Service are contained in the November 1997 edition of Chart No. 1, United States of America Nautical Chart Symbols, Abbreviations and Terms. This publication is available from the National Geospatial-Intelligence Agency and the National Ocean Service NOAA, and its sales agents and can be found on the NGA Web site. The introduction to this publication includes a number of paragraphs on metric and fathom charts, soundings, drying heights, shorelines, landmarks, buoys, IALA buoyage, heights, conversion scales, traffic separation schemes, and correction dates.

Buoys and Beacons of the IALA Buoyage System Regions A and B are illustrated in the back of Chart No. 1, including light characteristics in full color.

The various sections comprising the Table of Contents follow the sequence presented in The International Hydrographic Organization (IHO) Chart 1 (INT1); therefore, the numbering system in this publication follows the standard format approved and adopted by the IHO. Where appropriate, each page lists separately the current preferred U.S. symbols shown on charts of the National Ocean Service (NOS) and NGA. Also shown in separate columns are the IHO symbols and symbols used on foreign charts reproduced by NGA.

(Repetition NTM 1(2)10) (NGA/PVM)

(3) GEOGRAPHIC NAMES USAGE FOR NGA PRODUCTS.

Wherever possible, names used on NGA charts and in NGA publications are in the form approved by the United States Board on Geographic Names. Generally, local official spellings are used for those features entirely within a single sovereignty, while names of countries and those features which are common to two or more countries or which lie beyond single sovereignty carry Board-approved conventional spellings (i.e. names in common English language usage). When alternate names would be of value to the user, they may be shown for information purposes within parentheses. Important individual name changes are made to all revised charts as the opportunity permits. Geographic names or their spellings do not necessarily reflect recognition of the political status of an area by the United States Government.

(Repetition NTM 1(3)10) (NGA)

(4) INTERNATIONAL ICE PATROL SERVICE.

The United States Coast Guard International Ice Patrol (IIP) monitors the iceberg danger near the Grand Banks of Newfoundland south of 50°N and provides the southwestern, southern and southeastern limits of all known ice to the maritime community when conditions warrant. Icebergs normally pose a threat to ships in the northwest Atlantic Ocean between February and August. Bulletins are broadcast at various times via Voice, SITOR, NAVTEX, and Inmarsat-C SafetyNET, and can be accessed over the Internet from IIP's website www.uscg-iip.org. Ice Charts are broadcast via HF weather fax at 0438Z, 1600Z and 1810Z and can be accessed over the Internet via IIP's website or via email on demand from ftpmail@ftpmail.nws.noaa.gov. Details of IIP product distribution methods and times are contained in Chapter 3 of Radio Navigational Aids, Pub. 117. Ships are encouraged to report their position, weather observations including sea surface temperature, and all ice sightings while operating within the area bounded by latitudes 40°N and 50°N and longitudes 39°W and 57°W. Reports should be made to COMINTICEPAT NEW LONDON CT through INMARSAT, U.S. Coast Guard Communication Stations or Canadian Coast Guard Marine Communications and Traffic Services. Reporting formats and additional reporting procedures are included in Pub. 117.

(Repetition NTM 1(4)10) (USCG)

(5) SPECIAL WARNINGS. (In force 22 December 2010).

SPECIAL WARNING NO. 1.

Navigational warnings broadcast by NGA are normally divided into categories, HYDROLANTS and HYDROPACS, referring respectively to the Atlantic and Pacific Oceans. It has been determined there now exists a need for disseminating information of general interest not covered by the above categories. Therefore, with this message the Special Warnings series is reintroduced. The messages will be transmitted from all U.S. Navy and Coast Guard Stations broadcasting HYDROS.

(May 27, 1948)

SPECIAL WARNING NO. 29.

CUBA.

1. Mariners are advised to use extreme caution in transiting the waters surrounding Cuba. Within distances extending in some cases upwards of 20 miles from the Cuban coast, vessels have been stopped and boarded by Cuban authorities.

(5) SPECIAL WARNINGS. (Continued).

Cuba vigorously enforces a 12-mile territorial sea extending from straight baselines drawn from Cuban coastal points. The effect is that Cuba's claimed territorial sea extends in many cases beyond 12 miles from Cuba's physical coastline.

2. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation, or proclamation so published.

(March 1, 1962, updated January 1, 1982, reviewed November 9, 1994)

SPECIAL WARNING NO. 77.
PAPUA NEW GUINEA—BOUGAINVILLE COAST.

1. Bougainville Island declared unilateral independence from Papua New Guinea May 17, 1990. The government of Papua New Guinea does not recognize the declaration. Consequently, the political situation may be tense in the future.
2. The following Notice to Mariners No. 36/90 issued by the government of Papua New Guinea is quoted in its entirety:
   Quote
   Overseas vessels are advised to stand clear of the islands of Bougainville and Buka and to remain outside of territorial waters extending 12 nautical miles from the coast of Bougainville and immediately adjacent islands but excluding Solomon Islands territory, and excluding the groups of islands or atolls known as Feni, Green, Nuguria, Carteret (Kilinailau), Mortlock (Tauu) and Tasman (Nukumanu). Any vessel entering the waters adjacent to Bougainville or Buka will be subject to stop and search powers. This Notice to Mariners is effective immediately (22nd May 1990 EST) in respect to overseas shipping. Papua New Guinea coastal vessels will be restricted as of midnight local time on 20th May 1990. Restrictions will continue for an indefinite period. Charts affected are BA 214, BA 2766, BA 3419, BA 3420, BA 3830, BA 3994, INT 604 and AUS 4604. Dept. of Transport. Port Moresby. Papua New Guinea.
   Unquote
3. U.S. mariners are advised to exercise extreme caution in entering and transiting the waters of Bougainville.

(Dept. of State) (25 May 1990)

SPECIAL WARNING NO. 81.
LIBYA.

1. Due to unsettled relations between the United States Government and the government of Libya, U.S. mariners are advised to exercise caution in transiting the waters of the Gulf of Sidra south of 32-30N. The United States does not maintain an embassy in Libya and cannot ensure the safety of its citizens.
2. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation or proclamation so published.
3. Cancel Special Warning No. 52.

(Dept. of State) (31 Aug 1990)

SPECIAL WARNING NO. 82.
MOROCCO.

1. U.S. mariners are advised to exercise caution within the territorial waters claimed by Morocco. Moroccan coastal protection warships, while engaged in anti-drug smuggling activities or enforcing territorial fishing rights, have been known to open fire on innocent vessels.
2. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation or proclamation so published.

(Dept. of State) (31 Aug 1990)

SPECIAL WARNING NO. 89.
WEST COAST OF AFRICA—WESTERN SAHARA.

1. Prior to the September 1991 cease-fire between Morocco and the Polisario, unprovoked attacks on shipping off the coast of the Western Sahara by Polisario guerrillas using machine guns, grenades, and mortars occurred, resulting in the loss of life and property.
2. Despite the cease-fire, the potential for violent incidents still exists. Mariners are advised to continue using extreme caution and remain well offshore when transiting the waters off the west coast of Africa between 27-40N 013-11W and Cap-Blanc (Cabo Blanco) (20-47N 017-03W) and particularly between Dakhla (Ad Dakhla) (23-42N 015-56W) and Cape Corbiero (Cabo Corveiro) (21-48N 016-59W).

(5) SPECIAL WARNINGS. (Continued).

3. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigation safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation, or proclamation so published.
4. Cancel Special Warning No. 69.

(Dept. of State) (16 Oct 1992)

SPECIAL WARNING NO. 92.
LIBERIA.

1. Mariners are advised to use caution when sailing near the coast of Liberia.
2. The United Nations Security Council has passed Resolution 788 (November 19, 1992), which says that "All states shall, for the purposes of establishing peace and stability in Liberia, immediately implement a general and complete embargo on all deliveries of weapons and military equipment to Liberia until the Security Council decides otherwise." Resolution 788 also "requests all states to respect the measures established by the Economic Community of West African States (ECOWAS) to bring about a peaceful solution to the conflict in Liberia."
3. Cancel Special Warning No. 90.

(Dept. of State) (03 Dec 1992, revised 29 Oct 1997)

SPECIAL WARNING NO. 107.
SRI LANKA.

1. Sri Lanka has announced that entrance by unauthorized vessels into the waters of Palk Strait and the eastern territorial waters of Sri Lanka is prohibited because of increased acts of terrorism against shipping and Sri Lankan Naval Vessels. Sri Lanka requires that vessels in the vicinity contact the Sri Lankan Command (Tel. 941-42-30-19, Fax: 941-433-986) for authorization if they wish to enter these areas.
2. The government also has established a restrictive zone in coastal waters along the west coast from Kalpitiya to Colombo Port's southern backwaters. Written permission from the Sri Lankan Command is required for entry into these waters as well. Sri Lankan authorities have advised that they will fire on violators.
3. The U.S. Embassy in Colombo reports that between July and September 1997, at least three foreign flag merchant vessels were attacked by the Liberation Tigers of Tamil Eelam (LTTE). One vessel operating as a passenger ferry off Mannar on the northwest coast was set on fire and sunk. A second vessel departing north from the Jaffna Peninsula was hijacked, stripped of equipment, and its crew temporarily held by the terrorists. One crew member was killed during the hijacking. A third vessel was loading a mineral cargo off the northeast coast near Pulmoddai when it was attacked and at least five members of its crew killed.
4. Any anti-shipping activity should be reported to NGA NAVSAFETY, U.S. State Department, or the nearest U.S. Consulate. Refer to NGA Pub. 117, Chapter 4, for instructions on filing a Ship Hostile Action Report (SHAR) or Anti-Shipping Activity Message (ASAM).
5. The publication of this notice is solely for the purpose of advising United States mariners of information relevant to navigational safety and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation or proclamation so published.
6. Cancel Special Warning No. 94.

(Dept. of State) (01 Dec 1997)

SPECIAL WARNING NO. 108.
SUDAN.

1. In January 1996 the Department of State warned all U.S. citizens against travel to Sudan due to ongoing violence within the country. Citing the U.S. Government's suspension of it's diplomatic presence in Sudan, the Department advised that its ability to provide emergency consular services would be severely limited. In August 1998 the State Department again warned U.S. citizens against travel to Sudan "following the recent U.S. air strikes against terrorist facilities and possible threats to Americans and American interests in that country." The latter warning (No. 98-041) remains in effect to date.
2. In November 1997 President Clinton issued Executive Order 13067 imposing a U.S. trade embargo against Sudan. Among the prohibited activities are "any transaction by a United States person relating to transportation of cargo to or from Sudan." "United States person" is defined as any U.S. citizen, permanent resident, entity organized under U.S. law, or person in the United States. The embargo is still in effect.

3.Notwithstanding the pre-existing travel warning and ongoing U.S. trade embargo, the recent U.S. missile attack on a chemical plant in Khartoum has raised concerns of possible retaliation against U.S. citizens and/or commercial interests. U.S. mariners are therefore urged to avoid Port Sudan or other Sudanese ports. U.S. vessels are also advised to remain well

(5) SPECIAL WARNINGS. (Continued).

clear of Sudanese territorial waters in the western Red Sea area.
(Dept. of State) (20 October 1998)

SPECIAL WARNING NO. 113.
YEMEN.

1. The level of risk for foreigners in Yemen remains high. On 12 October 2000, several U.S. citizens were killed and many more were injured in an incident involving a U.S. Navy ship in the port of Aden, Yemen in what may have been a terrorist attack. An explosion in the morning of 13 October 2000 caused minor damage to the British Embassy in Sanaa, Yemen and no casualties. While U.S. and Yemeni officials are still cooperating closely to determine the cause of the tragic explosion, the investigation has only started. Under these circumstances, U.S. mariners should avoid Yemeni ports for the present.
2. In light of this and other recent events, the U.S. Department of State warns U.S. citizens to defer travel to Yemen. U.S. citizens should exercise a very high level of caution and should only travel between cities by air or with an armed escort. They should register with the U.S. Embassy in Sanaa and remain in contact with the Embassy for updated security information at (967) (1) 238-844 through 238-852.

(Dept. of State) (13 October 2000)

SPECIAL WARNING NO. 114.
IRAN.

1. Mariners are advised to exercise extreme caution when transiting the waters of the North Persian Gulf.
2. Iranian-flag speedboats and patrol craft operating in Iranian and international waters have boarded vessels and demanded payment before the vessels are allowed to proceed.
3. Mariners should exercise extreme caution and vigilance when operating in this area, and should obtain and evaluate current warning information broadcasted by the National Geospatial-Intelligence Agency (NGA) via HYDROPAC broadcasts.
4. Any anti-shipping activity should be reported to NGA NAVSAFETY Bethesda MD or navsafety@nga.mil via Ship Hostile Action Report (SHAR) procedures (see NGA Pub. 117-Chapter 4), or directly to the U.S. State Department, or nearest U.S. Embassy or Consulate.
5. The publication of this notice is solely for the purpose of advising U.S. mariners of information relevant to navigation safety, and in no way constitutes a legal recognition by the United States of the validity of any foreign rule, regulation, or proclamation so published.
6. Cancel Special Warning No. 104.

(Dept. of State) (05 February 2001)

SPECIAL WARNING NO. 115.
PERSIAN GULF.

1. In the Persian Gulf, multi-national naval units continue to conduct a maritime operation to intercept the import and export of commodities and products to/from Iraq that are prohibited by UN Security Council Resolutions 661 and 687.
2. Vessels transiting the Persian Gulf and Gulf of Oman can expect to be queried and, if bound for or departing from Iraq or the Shatt-al-Arab waterway, also intercepted and boarded. Safe navigation may require vessels to be diverted to a port or anchorage prior to conducting an inspection.
3. Maritime interception operations in the Red Sea, Strait of Tiran and Strait of Hormuz have ceased. Cargo bound for Aqaba or transshipment from Aqaba may be inspected on shore according to an agreement worked out by the UN Sanctions Committee and Jordanian authorities.
4. Documentation requirements for the naval regime in the Persian Gulf and the shore-based regime in Aqaba are identical and can be found in the most recent HYDRPOACS covering the enforcement of UN sanctions against Iraq.
5. Stowage and other requirements for vessels transiting the Persian Gulf can also be found in the most recent HYDROPACS covering the UN sanctions against Iraq.
6. Ships which, after being intercepted, are determined to be in violation of UN Security Council Resolution 661 will not be allowed to proceed with their planned transit.
7. The intercepting ship may use all available communications, primarily VHF Channel 16, but including International Code of Signals, flag hoists, other radio equipment, signal lamps, loudspeakers, bow shots, and other appropriate means to communicate directions to a ship.
8. Failure of a ship to proceed as directed will result in the use of the minimum level of force necessary to ensure compliance.
9. Any ships, including waterborne craft and armed merchant ships, or aircraft, which threaten or interfere with multinational forces engaged in enforcing a maritime interception may be considered hostile.
10. Cancel Special Warning No. 100.

(Dept. of State) (16 Feb 2001)

(5) SPECIAL WARNINGS. (Continued).

SPECIAL WARNING NO. 116.
PAKISTAN.
1. Mariners calling on Pakistan are advised that levels of sectarian and factional violence remain high. Karachi, the main port, continues to be affected by politically-motivated killings.
2. On March 8, 1995, unknown assailants opened fire on an official U.S. Consulate shuttle in Karachi, killing two embassy employees and wounding a third.
3. Anti-American sentiment can be provoked easily and spontaneously in response to international events that radicals misconstrue as directed against Islam. For example, the UN resolution on sanctions against Afghanistan resulted in sporadic anti-American protests.
4. Port facilities and vessels may offer targets of opportunity for terrorist attacks. U.S. mariners are advised to exercise heightened security awareness and prudent security precautions when in Pakistani ports and waters.
5. Cancel Special Warning No. 102.

(Dept. of State) (05 March 2001)

SPECIAL WARNING NO. 117.
ALGERIA.
1. Due to the potential for domestic unrest and anti-foreign violence, U.S. mariners are advised to exercise extreme caution when in Algerian waters. Although there has only been one attack against foreigners since 1997, the level of risk in Algeria remains high.
2. Attacks against maritime vessels in Algerian ports have taken place several years ago. The U.S. Embassy in Algiers specifically identifies ports, train stations (trains), and airline terminals as terrorist targets. Commercial shipping should remain on maximum alert when in Algerian waters and maintain adequate security precautions.
3. The Department of State recommends that U.S. citizens evaluate carefully the implications for their security and safety before deciding to travel to Algeria, and that Americans in Algeria whose circumstances do not afford them effective (armed) protection depart the country. Americans arriving in the country should not disembark and travel within the country without adequate, including armed, protection immediately upon arrival.
4. Cancel Special Warning No. 103.

(Dept. of State) (05 March 2001)

SPECIAL WARNING NO. 118.
LEBANON.
1. The U.S. Department of State warns U.S. citizens, including U.S. mariners, of the risks of travel to Lebanon and recommends that Americans exercise caution while traveling there. During Lebanon's civil conflict from 1975 to 1990, Americans were targets of numerous terrorist attacks in Lebanon. While there have been very few such incidents in recent years, the perpetrators of these attacks are still present in Lebanon and retain the ability to act.
2. The local security environment can limit the movement of U.S. officials in certain areas of the country. This factor, plus limited staffing, may prevent the U.S. Embassy from performing full consular functions and providing timely assistance to U.S. citizens in Lebanon. Dual nationals and spouses of Lebanese citizens can encounter particular difficulties, and should see the Department of State Consular Information Sheet on Lebanon. U.S. citizens who travel to Lebanon despite this warning should exercise extreme caution. U.S. citizens traveling to Lebanon are encouraged to register at the U.S. Embassy in Beirut.
3. The security situation may change rapidly, and visitors to Lebanon should monitor the news for reports of incidents that might affect their personal safety.
4. Cancel Special Warning No. 71.

(Dept. of State) (09 March 2001)

SPECIAL WARNING NO. 119.
SIERRA LEONE.
1. Mariners are strongly advised not to use any ports in Sierra Leone except for the port of Freetown, which is currently considered to provide safe harborage. Mariners should note that the Department of State warns U.S. citizens against travel to Sierra Leone. Although the security situation in Freetown has improved somewhat, areas outside the capital are still very dangerous.

(5) SPECIAL WARNINGS. (Continued).

2. The Department of State has terminated the ordered departure status of U.S. Government personnel in non-emergency positions. However, the U.S. Embassy in Freetown currently operates with a reduced staff. Only emergency consular services to U.S. citizens are available, and the Embassy's ability to provide these services is limited. U.S. citizens in Sierra Leone should review their own personal security situations in determining whether to remain in the country.
3. Cancel Special Warning No. 109.

(Dept. of State) (16 March 2001)

SPECIAL WARNING NO. 120.
WORLDWIDE.

1. Due to recent events in the Middle East and the American homeland, U.S. forces worldwide are operating at a heightened state of readiness and taking additional defensive precautions against terrorist and other potential threats. Consequently, all aircraft, surface vessels, and subsurface vessels approaching U.S. forces are requested to maintain radio contact with U.S. forces on Bridge-to-Bridge Channel 16, international air distress (121.5 MHz VHF) or MILAIR distress (243.0 MHz UHF).
2. U.S. forces will exercise appropriate measures in self-defense if warranted by the circumstances. Aircraft, surface vessels, and subsurface vessels approaching U.S. forces will, by making prior contact as described above, help make their intentions clear and avoid unnecessary initiation of such defensive measures.
3. U.S. forces, especially when operating in confined waters, shall remain mindful of navigational considerations of aircraft, surface vessels, and subsurface vessels in their immediate vicinity.
4. Nothing in the special warning is intended to impede or otherwise interfere with the freedom of navigation or overflight of any vessel or aircraft, or to limit or expand the inherent self-defense rights of U.S. forces. This special warning is published solely to advise of the heightened state of readiness of U.S. forces and to request that radio contact be maintained as described above.

(Dept. of State) (16 November 2001)

SPECIAL WARNING NO. 121.
PERSIAN GULF.

1. Coalition naval forces may conduct military operations in the Eastern Mediterranean Sea, Red Sea, Gulf of Aden, Arabian Sea, Gulf of Oman, and Arabian Gulf. The timely and accurate identification of all vessels and aircraft in these areas are critical to avoid the inadvertent use of force.
2. All vessels are advised that Coalition naval forces are prepared to exercise appropriate measures in self-defense to ensure their safety in the event they are approached by vessels or aircraft. Coalition forces are prepared to respond decisively to any hostile acts or indications of hostile intent. All maritime vessels or activities that are determined to be threats to Coalition naval forces will be subject to defensive measures, including boarding, seizure, disabling or destruction, without regard to registry or location. Consequently, surface vessels, subsurface vessels, and all aircraft approaching Coalition naval forces are advised to maintain radio contact on Bridge-to-Bridge Channel 16, international air distress (121.5 MHz VHF) or military air distress (243.0 MHz UHF).
3. Vessels operating in the Middle East, Eastern Mediterranean Sea, Red Sea, Gulf of Oman, Arabian Sea, and Arabian Gulf are subject to query, being stopped, boarded and searched by US/Coalition warships operating in support of operations against Iraq. Vessels found to be carrying contraband bound for Iraq or carrying and/or laying naval mines are subject to detention, seizure and destruction. This notice is effective immediately and will remain in effect until further notice.

(Dept. of State) (20 March 2003)

SPECIAL WARNING NO. 122.
EAST AFRICA.

As of early 2005, the United States Government has received unconfirmed information that terrorists may attempt to mount a maritime attack using speedboats against a Western ship possibly in East Africa. This information is unconfirmed and the United States is not aware of additional information on the planning, timing, or intended targets of the maritime attack.

(Dept. of State) (11 March 2005)

SPECIAL WARNING NO. 123.
SOMALIA.

1. Due to continuing conditions of armed conflict and lawlessness in Somalia and waters off its coast, mariners are advised to avoid the Port of Muqdisho (Mogadishu) and to remain at least 200 nautical miles distant from the Somali coast. The U.S. Government does not have an Embassy in Somalia and cannot provide services to US citizens.

(5) SPECIAL WARNINGS. (Continued).

2. Recent vessel hijackings off the east coast of Somalia demonstrate that pirates are able to conduct at sea hijackings from as far south as Kismaayo (Chisimayu) (00-22S) - though vessels are advised to transit no closer than 02-00S - to as far north as Eyl (08-00N), and out to a distance of 170 miles. The first known attempt to hijack a cruise vessel occurred in November 2005. All merchant vessels transiting the coast of Somalia, no matter how far offshore, should increase anti-piracy precautions and maintain a heightened state of vigilance. Pirates are reported to have used previously hijacked ships as bases for further attacks.
3. Another reported pirate tactic has been to issue a false distress call to lure a ship close inshore. Therefore, caution should be taken when responding to distress calls keeping in mind it may be a tactic to lure a vessel into a trap.
4. Victimized vessels have reported two to three (2-3) speedboats measuring six to nine meters (6-9M) in length. Each vessel has a crew of three to six (3-6) armed men with AK-47s and shoulder launched rockets, which are opening fire on vessels in broad daylight in order to intimidate them into stopping.
5. To date, vessels that increase speed and take evasive maneuvers avoid boarding while those that slow down are boarded, taken to the Somali coastline, and released after successful ransom payment, often after protracted negotiations of as much as 11 weeks.
6. Cancel Special Warning number 111.

(Dept. of State) (11 November 2005)

SPECIAL WARNING NO. 124.
NICARAGUA.

1. Mariners operating small vessels such as yachts and fishing vessels should note that Nicaragua has boundary disputes with its neighbors in both its Caribbean and Pacific waters, and should exercise caution.
2. The Caribbean waters lying generally south of the 15th parallel and east of the 82nd up to the 79th meridians are subject to a current dispute between Nicaragua and Colombia.
3. The international court of justice has delimited a new maritime boundary line awarding maritime areas to the government of Nicaragua previously claimed by Honduras above the 15th parallel and apparently east of the 82nd meridian.
4. The Nicaraguan navy is patrolling portions of this maritime space, enforcing the requirement that fishing vessels hold a valid Nicaraguan fishing license, and has seized vessels not in compliance.
5. There have been cases where Nicaraguan authorities have seized foreign-flagged fishing and other vessels off the Nicaraguan coast. The government of Nicaragua imposes heavy fines on parties caught fishing illegally within waters of Nicaragua's jurisdiction.
6. While in all cases passengers and crew have been released within a period of several weeks, in some cases the ships have been searched, personal gear and navigational equipment has disappeared, and Nicaraguan authorities have held seized vessels for excessive periods.
7. Prompt U.S. embassy consular access to detained U.S. citizens on Nicaragua's Caribbean coast may not be possible because of delays in notification due to the relative isolation of the region.
8. There have been reported incidents of piracy in Caribbean and Pacific waters off the coast of Nicaragua, but the Nicaraguan Navy has increased its patrols and no recent incidents have been reported.
9. Cancel Special Warning number 95.

(Dept. of State) (10 June 2008)

SPECIAL WARNINGS FOOTNOTE.
In January 1977, DMA now NGA commenced issuing warnings as NAVAREAS IV and XII broadcasts in addition to the HYDROLANT and HYDROPAC series.
(Repetition NTM 1(5)10) (NGA/DEPT. OF STATE)

(6) TRADE WITH CUBA.

The President of the United States proclaimed an embargo February 7, 1962 on all trade with Cuba. Except as authorized by Department of Treasury regulations or license, all dealings in property in which Cuba or a Cuban national has an interest (including all financial transactions in Cuba) by any person subject to U.S. jurisdiction are prohibited. Unless otherwise authorized by the Department of Treasury, it is unlawful for any person subject to the jurisdiction of the United States to transport, import, or otherwise deal in or engage in any transaction with respect to any merchandise outside the United States if such merchandise: (1) is of Cuban origin; (2) is or has been located in or transported from or through Cuba; or (3) is made or derived in whole or part from any Cuban growth, produce, or manufacture. It is also unlawful for any person subject to U.S. jurisdiction to engage in any transportation of goods or merchandise from anywhere to Cuba unless the following conditions are met: (1) such transportation is licensed or otherwise authorized by Treasury; and (2) if U.S. goods or merchandise are

(6) TRADE WITH CUBA. (Continued).

involved, the exportation is itself licensed or otherwise authorized by the Department of Commerce under the provisions of the Export Administration Act of 1979, as amended. Licenses or authorizations to engage in such trade will not normally be granted. Certain exceptions exist for trade in informational materials. Unless licensed by Treasury, no vessel may enter a U.S. port for any purpose including bunkering or the acquisition of ship's stores if there are on board goods or passengers coming from, or going to, Cuba, or goods in which Cuba or a Cuban national has an interest. Unless licensed by Treasury, no vessel which enters a port or place in Cuba to engage in the trade of goods or services may, within 180 days of such vessel's departure from such port or place in Cuba, load or unload freight at any place in the United States. Persons who violate these restrictions may be subject to criminal or civil sanctions, or both, and vessels involved in such trade contrary to law may be subject to seizure and forfeiture (reviewed November 12, 1998).
(Repetition NTM 1(6)10) (DEPT. OF STATE)

(7) AMVER.

The Internet Web site for Amver is: www.amver.com. The Amver system, maintained and administered by the United States Coast Guard, with the cooperation of coast radio stations of many nations, is a global ship reporting system for search and rescue (SAR) which provides important aid to the development and coordination of SAR efforts in the offshore areas of the world. Vessels of all nations, on the high seas, are encouraged to voluntarily send movement (sailing) reports and periodic position reports to the Amver Center located in Martinsburg, West Virginia, via selected radio stations and coast earth stations.

Information from these reports is entered into a computer database which is used to generate and maintain dead reckoning positions. Characteristics of vessels which are valuable for determining SAR capability are also entered into the computer from available sources of information. Information concerning the predicted location and SAR characteristics of each vessel estimated to be in the search area of interest is made available, upon request and only to recognized SAR agencies of any nation, or vessels needing assistance. Predicted locations are only disclosed for reasons related to maritime safety.

Messages sent within the Amver system are at no cost to the ship owner. Benefits to shipping include: improved chances of aid in emergencies, reduced number of calls for assistance by vessels not favorably located to assist, and reduced time lost by vessels responding to calls for assistance. An Amver participant is under no greater obligation to render assistance during an emergency than a vessel that is not participating.

Instructions on participation in the Amver system are available on the Web site in the following languages: Chinese, Danish, Dutch, English, French, German, Greek, Italian, Japanese, Korean, Norwegian, Philippine, Polish, Portuguese, Russian, Serbo-Croatia, Spanish, and Swedish. Additional information is available from:

Amver Maritime Relations Office
USCG Battery Park Building
1 South Street
New York, NY 10004-1499
U.S.A.

Telephone: (212) 668-7762
Fax: (212) 668-7684
E-mail: benjamin.m.strong@uscg.mil
Web site: http://www.amver.com

In addition to its Internet Web site, other sources of information on Amver include U.S. Coast Guard Area and District Offices or Captain of the Port Offices.

Amver reports can be sent at no cost to the ship if sent via Inmarsat-C using the Amver/SEAS software and designated Vizada land earth stations. Necessary equipment includes: a Windows based PC with an operating system of Windows 2000, Windows NT, Windows 98, Windows 95 (works best with 200 MHz Pentium or better); video card that supports 800 x 600 pixels, with 65K colors or better; 10 MB of free hard disk space, and a 3.5 inch floppy disk drive. Additionally, an Inmarsat Standard C transceiver with a 3.5 inch floppy disk drive and capability to transmit a binary file is required as well. Amver/SEAS software is available through the National Oceanic and Atmospheric Administration (NOAA) Web site at:
http://seas.amverseas.noaa.gov/seas/.
(Supersedes NTM 1(7)10) (USCG)

(8) INTERNATIONAL AERONAUTICAL AND MARITIME SEARCH AND RESCUE (IAMSAR) MANUAL.

The International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, Volume III, Mobile Facilities is to be carried onboard Safety Of Life At Sea (SOLAS)-compliant merchant vessels and is intended to be carried aboard other vessels, aircraft, and rescue units to help with performance of a search, rescue or on-scene coordinator function, and with aspects of search and rescue that pertain to their own emergencies. This Manual can be purchased directly from the International Maritime Organization (IMO) or from selected book sellers around the world as provided under "Publication Bookshop" on IMO Web site: www.imo.org. It is available in the English, French, and Spanish languages and will also be published in Russian, Chinese, and Arabic languages by the IMO or other sources. Amendments have been issued to this publication and can be obtained through the IMO. A consolidated edition containing previous amendments was published in 2010 and new consolidated editions will be published every three years.
(Supersedes NTM 1(8)10) (USCG)

(9) SPECIAL REPORTING INSTRUCTIONS FOR U.S. FLAG VESSELS, VESSELS CARRYING WAR RISK INSURANCE, AND CERTAIN OTHER DESIGNATED VESSELS (Formerly USMER Vessels).

According to a U.S. Maritime Administration regulation effective 1 August 1983, U.S. flag vessels and foreign-flag "War Risk" vessels must report and regularly update their voyages to the Amver Center.

Who Must Report

A. U.S.-flag vessels of one thousand gross tons or more, operating in foreign commerce.
B. Foreign-flag vessels of one thousand gross tons or more, for which an Interim War Risk Insurance binder has been issued under the provisions of Title XXI, Merchant Marine Act, 1936.

Who May Report

Other merchant vessels, when approved by MARAD, whose owners may have chosen to participate and to have voyage information forwarded to MARAD. (Other merchant vessels may participate in Amver, but information provided by them will be released only for safety purposes or to satisfy certain advance arrival notification requirements of Title 33, Code of Federal Regulations.)

When to Report

A. Sailing plans may be sent days or even weeks prior to departure, but no later than departure.
B. Departure Report must be sent as soon as practicable upon leaving port.
C. Position Report must be sent within twenty-four hours of departure, and subsequently no less frequently than every forty-eight hours until arrival.
D. Arrival Report must be sent immediately prior to or upon arrival at the Port of Destination.
E. Reports are to be sent during the Radio Officer's normal duty hours, but no later than the above schedule.
F. At the discretion of the vessel, reports may be sent more frequently than the above schedule, as, for example, in heavy weather or under other adverse conditions.

(Repetition NTM 1(9)10) (USCG)

(10) URGENCY AND SAFETY SIGNALS.

The radiotelephone urgency signal, which is the group of words PAN PAN (pronounced "Pahn-Pahn") spoken three times, is provided for use in cases in which a ship making a call has a very urgent message to transmit concerning the safety of a ship, aircraft, or other vehicle, or the safety of a person, but it does not necessarily imply that the ship is in imminent danger or requires immediate assistance. The call has priority over all other communications except distress calls and it should be used in all urgent cases in which the sending out of the SOS or MAYDAY signal is not fully justified.

The urgency signal and message may be addressed to all stations or to a specific station. The urgency signal may also be used when the Master of a ship desires to issue a warning that circumstances are such that it may become necessary for him to send out the distress signal at a later stage. The message must be canceled as soon as any action is no longer necessary.

The radiotelephone SAFETY signal "SECURITE" (pronounced "SAY-CUR-E-TAY") spoken three times, is provided for reporting hazards to navigation or meteorological warnings including dangers regarding ice, derelicts, tropical storms, etc. Transmissions bearing the safety signal preface are accorded priority over all other transmission less those bearing the distress or urgency preface.
(Supersedes NTM 1(10)10) (USCG)

(11) SUBMARINE EMERGENCY IDENTIFICATION SIGNALS AND HAZARD TO SUBMARINES.

1. U.S. submarines are equipped with signal ejectors which may be used to launch identification signals, including emergency signals. Two general types of signals may be used: smoke floats and flares or stars. A combination signal which contains both smoke and flare of the same color may also be used. The smoke floats, which burn on the surface, produce a dense, colored smoke for a period of fifteen to forty-five seconds. The flares or stars are propelled to a height of three hundred to four hundred feet from which they descend by small parachute. The flares or stars burn for about twenty-five seconds. The color of the smoke or flare/star has the following meaning:
   a) GREEN-Used under training exercise conditions only to indicate that a torpedo has been fired or that the firing of a torpedo has been simulated.
   b) YELLOW-Indicates that submarine is about to come to periscope depth from below periscope depth. Surface craft terminate antisubmarine counter-attack and clear vicinity of submarine. Do not stop propellers.
   c) RED-Indicates an emergency condition within the submarine and that it will surface immediately, if possible. Surface ships clear the area and stand by to give assistance after the submarine has surfaced. In case of repeated red signals, or if the submarine fails to surface within reasonable time, she may be assumed to be disabled. Buoy the location, look for submarine buoy and attempt to establish sonar communications. Advise U.S. Naval authorities immediately.
   d) WHITE-Two white flares/smoke in succession indicates that the submarine is about to surface, usually from periscope depth (non-emergency surfacing procedure). Surface craft should clear the vicinity of the submarine.
2. A Submarine Marker Buoy consists of a cylindrically shaped object about 3 feet by 6 feet with connecting structure and is painted international orange. The buoy is a messenger buoy with a wire cable to the submarine; this cable acts as a downhaul line for a rescue chamber. The buoy may be accompanied by an oil slick release to attract attention. A submarine on the bottom in distress and unable to surface will, if possible, release this buoy. If an object of this description is sighted, it should be investigated and U.S. Naval Authorities advised immediately.
3. A Submarine Emergency Position Indicating Radio Buoy (SEPIRB) is a serialized signal identifying the submarine and hatch from which to conduct rescue operations.
4. Transmission of the International Distress Signal (SOS) will be made on the submarine's sonar gear independently or in conjunction with the red emergency signal as conditions permit.
5. Submarines may employ any or all of the following additional means to attract attention and indicate their position while submerged:
   a) Release of dye marker.
   b) Ejection of oil.
   c) Release of air bubble.
   d) Pounding on the hull.
6. United States destroyer-type vessels in international waters will, on occasion, stream a towed underwater object at various speeds engaged in naval maneuvers. All nations operating submarines are advised that this underwater object in the streamed condition constitutes a possible hazard to submerged submarines.

(Repetition NTM 1(11)10) (U.S. NAVY)

(12) RULES, REGULATIONS AND PROCLAMATIONS ISSUED BY FOREIGN GOVERNMENTS.

The National Geospatial-Intelligence Agency, as a means of promoting maritime safety, includes in its publications rules, regulations, and proclamations affecting navigation as issued by foreign nations.

In this connection, it should be clearly understood that the publication of such material is solely for information relative to the navigational safety of shipping, and in no way constitutes a legal recognition by the United States of the international validity of any rule, regulation, or proclamation so published. While every effort is made to publish all such information, the National Geospatial-Intelligence Agency cannot assume any liability for failure to publish any particular rule, regulation, proclamation, or the details thereof.

(Repetition NTM 1(12)10) (NGA/PVM)

(13) WARNING-DANGER FROM SUBMARINE CABLES AND PIPELINES.

Submarine cables or pipelines pass beneath various navigable waterways throughout the world. Installation of new submarine cables and pipelines may be reported in the Notice to Mariners; their locations may or may not be charted. Where feasible, warning signs are often erected to warn the mariners of their existence. In view of the serious consequences resulting from damage to submarine cables and pipelines, vessel operators should take special care when anchoring, fishing or engaging in underwater operations near areas where these cables or pipelines may exist or have been reported to exist.

(13) WARNING-DANGER FROM SUBMARINE CABLES AND PIPELINES. (Continued).

Certain cables carry high voltages; many pipelines carry natural gas under high pressure or petroleum products. Electrocution, fire or explosion with injury or loss of life or a serious pollution incident could occur if they are penetrated.

Vessels fouling a submarine cable or pipeline should attempt to clear without undue strain. Anchors or gear that cannot be cleared should be slipped; no attempt should be made to cut a cable or pipeline.

(Repetition NTM 1(13)10) (USCG)

(14) CAUTION-CLOSE APPROACH TO MOORED OFFSHORE AIDS TO NAVIGATION.

Courses should invariably be set to pass these aids with sufficient clearance to avoid the possibility of collision. Errors of observation, current and wind effects, other vessels in the vicinity, and defects in steering gear may be, and have been, the cause of collisions. Experience shows that buoys cannot be safely used as leading marks to be passed close aboard, and should always be left broad off the course whenever sea room permits.

It should be borne in mind that most large buoys are anchored to a very long scope of chain and, as a result, the radius of their swinging circle is considerable. The charted position is the approximate location. Furthermore, under certain conditions of wind and current, they are subject to sudden and unexpected sheers which are certain to hazard a vessel attempting to pass close aboard.

Further warning on use of floating aids to navigation for position taking is contained in paragraph 1 of this Notice. When approaching an offshore light structure, large navigational buoy, or a station on a submarine site, on radio bearings, the risk of collision will be lessened by ensuring that the radio bearing does not remain constant.

(Repetition NTM 1(14)10) (USCG)

(15) PIPELINE LAYBARGES AND JETBARGES.

With the increased number of pipeline laying operations in the Gulf of Mexico and other areas, operators of all types of vessels should be aware of the dangers of passing close aboard, close ahead, or close astern of a jetbarge or pipelaying barge. Pipelaying barges and jetbarges usually move at 1/2 knot or less and have anchors which extend out approximately 3500-5000 feet in all directions, and may be marked by lighted anchor buoys. The exposed pipeline behind the pipelaying barge and the areas in the vicinity of anchors are hazardous to navigation and should be avoided. The pipeline and anchor cables also represent a submerged hazard to navigation. It is suggested, if safe navigation permits, for all types of vessels to pass well ahead of the pipelaying barge or well astern of the jetbarge. The pipelaying barge, jetbarge, and attending vessels may be contacted on VHF-FM Channel 16 for passage instructions.

(Repetition NTM 1(15)10) (USCG)

(16) REQUIRED REPORTING OF DAMAGED U.S. AIDS TO NAVIGATION.

It frequently occurs that aids to navigation are collided with, causing damage and displacement, or complete loss, without the knowledge of the Coast Guard District Commander. The replacement or repair of such aids is consequently often not made as promptly as desired. This situation results in diminished protection for marine traffic, and is attributable in large part to the failure of vessel operators to furnish notice of these collisions to the nearest local or district office of the U.S. Coast Guard, or to Coast Guard Headquarters, as required by law and regulation. The prompt submission of notice of any marine casualty or accident, including damage or destruction of aids to navigation, is required by the Marine Investigation Regulations, Section 4.05-20 of Title 46, Code of Federal Regulations, with penalty for noncompliance.

(Repetition NTM 1(16)10) (USCG)

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS.

International Convention for the Prevention of Pollution by Ships - MARPOL 73/78: In 1973, the International Maritime Organization (IMO) adopted the International Convention for the Prevention of Pollution by Ships and subsequently modified it by Protocol in 1978. The Convention is widely known as MARPOL 73/78. Its objective is to limit ship-borne pollution by restricting operational pollution and reducing the possibility of accidental pollution. MARPOL specifies standards for stowing, handling, shipping, and transferring pollutant cargoes, as well as standards for discharge of ship-generated operational wastes. Acceptance of the convention by national government obliges them to make the requirements part of domestic law.

MARPOL 73/78 consists of six separate Annexes, each set out regulations covering the various sources of ship-generated pollution. Annex I and II are mandatory for all signatory nations to MARPOL while Annexes III, IV, V, and VI are optional.

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS. (Continued).

Currently, the U.S. is signatory to Annexes I, II, III, V, and VI. Annexes I, II, V, and VI have been incorporated into U.S. law by the Act to Prevent Pollution from Ships (APPS) and implemented within 33 USC 1901 and 33 CFR 151. The U.S. incorporates Annex III by the Hazardous Materials Transportation Act (HMTA) implemented within 46 USC 2101 and 49 CFR 171-174 and 176. Although the U.S. has not ratified Annex IV, the U.S. has equivalent regulations for the treatment and discharge standards of shipboard sewage – the Federal Water Pollution Control Act (FWPCA) as amended by the Clean Water Act and implemented by 33 USC 1251 and 33 CFR 159.

The table below indicates each Annex by pollution source, its title, U.S. signatory status, and implementing legislation, law, and/or regulations and applicable Coast Guard guidance. A brief discussion of the major provisions of each MARPOL Annex follows.

International Convention for the Prevention of Pollution by Ships (MARPOL 73/78)

Annex	Pollution Source	Title	U.S. Signatory	Implementing Legislation/Regulations
I	Oil	Regulations for the Prevention of Pollution by Oil	Yes	Act to Prevent Pollution from Ships of 1980 (APPS) 33 U.S.C. § 1901 – 1912 33 CFR Parts 151,155, 156, 157 Marine Safety Manual (MSM) Vol. II NVIC 6-94 CG-3PCV Policy Ltr 06-09 G-MOC Policy Ltr 04-011, Rev. 1 G-PCV Policy Ltr 06-01
II	NLS	Regulations for the Control of Pollution by Noxious Liquid Substances (NLS) in bulk	Yes	APPS 33 U.S.C. § 1901 – 1912 33 CFR Parts 151 MSM, Vol. II NVIC 03-06, 03-04
III	Packaged Substances	Regulations for the Prevention of Pollution by Harmful Substances in Packaged Form	Yes	Hazardous Materials Transportation Act of 1974 (HMTA) 49 U.S.C. § 1801 – 1813 46 CFR 148 49 CFR Parts 171-174 & 176 MSM, Vol. II
IV	Sewage	Regulations for the Prevention of Pollution by Sewage from Ships	No	Federal Water Pollution Control Act (FWPCA) as amended by the Clean Water Act (CWA) 33 U.S.C. § 1251 33 CFR 159 MSM, Vol. II NVIC 01-09
V	Garbage	Regulations for the Prevention of Pollution by Garbage from Ships	Yes	APPS 33 U.S.C. § 1901 – 1912 33 CFR Parts 151 MSM, Vol. II
VI	Air	Regulations for the Prevention of Air Pollution from Ships	Yes	APPS 33 U.S.C. § 1901 – 1912 EPA Engine Emissions: 40 CFR 94 CG-543 Policy Ltr 09-01

Annex I addresses oil pollution prevention. Annex I is applicable to oceangoing tankers over 150 gross tons and all other oceangoing ships over 400 gross tons. Requirements include oily waste discharge limitations, oily-water separating equipment, monitoring and alarm systems for discharges from cargo areas, cargo pump rooms and machinery space bilges, construction of cargo and ballast tanks, crude oil washing and inert gas systems, as well Shipboard Oil Pollution Emergency Plans (SOPEP).

The U.S. implements MARPOL 73/78 Annex II by the Act to Prevent Pollution from Ships (APPS), codified within 33 USC 1901. The implementing regulations are in 33 CFR 151.

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS. (Continued).

Ships to which Annex I MARPOL 73/78 is applicable are also required to have an International Oil Pollution Prevention (IOPP) Certificate. Annex I, Chapter 2 and 33 CFR 151.19. Issuance of the IOPP Certificate verifies that the vessel is in compliance with the requirements of Annex I and that any required equipment is on board and operational.

Annex I also requires each vessel to maintain an Oil Record Book to record all oil transfers and discharges. Annex I, Regulation 17 & 36, 33 CFR 151.25. The Coast Guard's most recent update to the Oil Record Book was in 2007. A copy is available to all U.S. vessel owners and operators subject to the Oil Record Book requirements through any local Captain of the Port/Officer in Charge, Marine Inspection. Vessel operators are encouraged to obtain and use the latest edition of the Oil Record Book (Rev 01-07).

Regulation 12A - Oil fuel tank protection. Regulation 12A establishes design requirements for protectively located fuel tanks for all ships with an aggregate oil fuel capacity of 600 cubic meters (m3) and above which are delivered on or after August 1, 2010, as defined in new regulation 1.28.9 of Annex I. (The text of Regulation 12A is found in Resolution MEPC.141 (54) or in the MARPOL - Consolidated Edition 2006 on page 419.)

CG-543 and the Marine Safety Center have received questions from Coast Guard field offices and from the marine industry as to the extent ships must meet regulation 12A that undergo a major conversion as defined in regulation 1.28.9 of Annex I.

Under the MARPOL Annex I regulatory framework found in regulations 12A and 1.28.9, a ship that undergoes a major conversion is treated the same as a vessel delivered on or after August 1, 2010, irrespective of what provision in regulation 1.28.9 triggers the major conversion determination. Therefore, a ship that undergoes a major conversion is treated the same as a new vessel for regulation applicability, in which all fuel tanks - both new/modified and existing shall comply with the provisions of regulation 12A.

U.S. ships that are required to hold an IOPP certificate, such as ships that engage in voyages to ports or offshore terminals under the jurisdiction of other parties to MARPOL and ships enrolled in the Alternate Compliance Program, regulation 12A applies to all fuel tanks on ships delivered on or after August 1, 2010 as defined in regulation 1.28.9, as well as to both new/ modified and existing fuel tanks on ships that undergo a major conversion on or after the dates defined in regulation 1.28.9 of Annex I.

U.S. ships that are not required to hold an IOPP certificate need not presently comply with regulation 12A, but are encouraged to comply in light of the coast guard's intention to revise domestic regulations that will implement regulation 12A.

Annex I, Chapter 8, Regulations 40, 41, and 42 – Prevention of Pollution During Transfer of Oil Cargo Between Oil Tankers at Sea (Ship-to- Ship Operations) – On July 17, 2009 MEPC.186(59) created new Ship-to-Ship (STS) oil cargo transfer operational requirements and will enter-into-force on January 1, 2012. These regulations apply to oil tankers of 150 gross tons and above engaged in the transfer of oil cargo between oil tankers at sea (STS operations) and their STS operations conducted on or after April 1, 2012. These regulations also require oil tankers conducting STS operations to hold a STS operations plan which is approved by the Administration, as well as abide by certain notification requirements.

Annex II addresses discharge criteria and measures for controlling pollution caused by Noxious Liquid Substances (NLS) carried in bulk. Annex II is applicable to oceangoing vessels and non-self propelled oceangoing ships that carry NLS cargos. These regulations limit at-sea discharges of NLS residue. It requires vessels to discharge its NLS residues to reception facilities, except under specified conditions. The Annex II requirements include discharge restrictions for various classes of cargo residues; the maintenance of a Cargo Record Book for recording all NLS cargo and residue transfers and discharges; and a Procedures and Arrangements Manual describing the correct procedures for off loading and pre-washing cargo tanks.

The U.S. implements MARPOL 73/78 Annex II by the Act to Prevent Pollution from Ships (APPS), codified within 33 USC 1901. The implementing regulations are in 33 CFR 151.

Since April of 1987, Annex II NLS cargoes have been classified in one of four categories: A, B, C, or D. As of January 1, 2007, the IMO revised Annex II to incorporate new classification rules that changed the criteria for assigning values for both the ship type and pollution category. For further details of these new classifications and vessel compliance, see Navigation and Vessel Inspection Circular (NVIC) 03-06.

The existing pollution categories A, B, C, D, and III have been replaced by X, Y, Z and Other Substances (OS). Category X has the most severe pollution hazards, category Y has moderate pollution hazards, category Z has low pollution hazards and category OS has no hazards when discharged from tank cleaning or de-ballasting operations. Category X and other substances that tend to solidify in tanks must be pre-washed in port under the supervision of a Pre-wash Surveyor prior to departure from the off loading terminal. Authorized vessel discharges of NLS residue at sea must be below the water line. Tanks that carry Category Y and Z NLS cargos must be tested to ensure that after tank stripping only a minimal amount of residues will remain. Reception facilities must be able to assist in cargo stripping operations by reducing backpressure during the final stages of off loading.

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS. (Continued).

Terminals and ports receiving oceangoing tankers, or any other oceangoing ships of 400 GT or more, carrying residues and mixtures containing oil, or receiving oceangoing ships carrying NLS cargos, are required to provide adequate reception facilities for the wastes generated. Coast Guard Captains of the Port issue a Certificate of Adequacy to terminals or ports to show that they comply with federal reception facility requirements.

Resolution A.673 (16) for Offshore Supply Vessels:

As discussed above, on October 15, 2004, the Marine Environmental Protection Committee (MEPC) of the International Maritime Organization (IMO) adopted revisions to Annex II and the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code). Those amendments entered into force January 1, 2007.

The 2004 revisions to Annex II included changes to Regulation 11. The revised language of Regulation 11.2 of Annex II requires that for the carriage of NLS cargoes listed in Chapter 17 of the IBC Code by those vessels other than chemical tankers or liquefied gas carriers, Flag Administrations shall establish appropriate measures to minimize the uncontrolled discharge of NLS cargoes into the sea. Furthermore, Regulation 11.2 states that each Flag Administration's measures shall be based upon "Guidelines" developed by the IMO. In the associated footnote to the term "Guidelines," reference is made specifically to Resolution A.673 (16).

Resolution A.673 (16) was adopted on October 19, 1980, and later amended by Resolution MSC.236 (82) on December 1, 2006. It provides an alternative to the IBC Code for the design, construction, and operation of OSVs. It is intended to permit limited quantities of NLS substances to be transported in bulk in OSVs with minimum risk to the vessel, its crew, and the environment. The basic philosophy of Resolution A.673 (16) is to apply standards contained in the IBC Code to the extent that that is practicable and reasonable, taking into account the unique design features and service characteristics of these vessels, as well as to limit the quantity of hazardous and noxious liquid substances carried onboard OSVs.

The U.S. implementation of A.673 (16) is found in CG-522 Policy Letter 09-01. This policy has been developed by the Coast Guard, in consultation with the OSV industry, to provide guidance to owners, operators, and designers for the design, construction, and operation of U.S. flagged OSVs. It is intended to resolve any conflicts until such time as relevant U.S. regulations are more completely harmonized with the revised international standards.

Annex III applies to all ships carrying harmful substances in packaged forms, or in freight containers, portable tanks or road and rail tank wagons. Annex III requires standards on packaging, marking, labeling, documentation, stowage, quantity limitations, exceptions and notifications for preventing or minimizing pollution by harmful substances.

The U.S. implements MARPOL 73/78 Annex III under the Hazardous Materials Transportation Act (HMTA), codified within 46 USC 2101. The implementing regulations are in 49 CFR 171 -174 and 176.

For the purpose of Annex III, "harmful substances" are those substances which are identified as marine pollutants in the International Maritime Dangerous Goods Code (IMDG Code), also defined in U.S. domestic regulations under 49 CFR 171.4 and 171.8. On 5 November 1992, the U.S. Research and Special Programs Administration (RSPA) amended the Hazardous Materials Regulations (HMR, 49 CFR 100-177) to list and regulate these marine pollutants in all modes of transportation. Under the HMR, marine pollutants are listed in a separate appendix, (Appendix B to 49 CFR 172.101 – List of Marine Pollutants). In accordance with 49 CFR 172.322, "marine pollutant mark" is required for those materials. The marine pollutant mark is in addition to any existing labels or placards designating a hazardous substance.

Annex IV applies to discharges of sewage into the sea. Annex IV applies to all ships over 400 gross tons engaged in international voyages or to ships less than 400 gross tons certified to carry more than 15 persons. The Annex requires the installation of holding tanks or approved sewage treatment devices.

The U.S. did not ratify Annex IV. Rather, the U.S. has equivalent regulations for the treatment and discharge standards of shipboard sewage – the Federal Water Pollution Control Act (FWPCA) as amended by the Clean Water Act codified in 33 USC 1251. The U.S. considers the implementing regulations of 40 CFR 140 and 33 CFR 159 as equivalent to the sewage treatment requirements of Annex IV. For more information on this equivalency and vessel compliance, see NVIC 01-09.

Section 312 of FWPCA, as amended, requires the installation of a Marine Sanitation Device (MSD), a sewage treatment device to prevent the discharge of untreated or inadequately treated sewage into U.S. waters. The Act requires every vessel that operates in U.S. waters and equipped with an installed toilet to have a certified and operable MSD. A vessel with no installed toilet is not subject to the provisions of section 312. Installed toilets that are not equipped with a certified MSD, and that discharge raw sewage directly over the side are illegal. Section 312(g)(2) of the FWPCA directs the Coast Guard to certify MSDs and 33 CFR 159 sets out equipment construction and operation requirements.

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS. (Continued).

Since the U.S. has not ratified MARPOL 73/78 Annex IV, the Coast Guard will not enforce its provisions aboard foreign vessels during Port State Control examinations, even if the vessel is under the flag of an Annex IV signatory country. Foreign vessels must meet the requirements of 33 CFR 159 when operating in U.S. waters. However, since the U.S. considers Annex IV equivalent to 33 CFR 159, Coast Guard Port State Control officers shall accept foreign vessels that comply with Annex IV. A foreign flag vessel that has a "Certificate of Type Test" under MARPOL Annex IV indicating that its sewage treatment plant meets the test requirements of Resolution MEPC.2(VI) of the International Maritime Organization (IMO) will be accepted by the Coast Guard as being in compliance with 33 CFR 159.7(b) or (c). The Coast Guard considers such treatment plants as fully equivalent to a Coast Guard certified Type II MSD (NVIC 9-82, CH-1, dated 8 October 1988) as long as the unit is in operable condition. U.S. registered vessels will continue to be required to have Coast Guard certified MSDs per 33 CFR 159.

Annex V applies to ship-generated garbage, and aims to reduce the amount of garbage - both plastics and other persistent wastes - that ships dump into the oceans. Annex V defines "garbage" broadly, and includes nearly any kind of waste generated during a ship's normal operations. This Annex requires terminals to provide reception facilities at ports and terminals to receive plastics and other garbage from visiting vessels. Annex V includes a general ban on dumping plastics and synthetic materials at sea – it prohibits all ships from dumping plastics into the marine environment anywhere in the world.

Annex V also specifically designates places where dumping other garbage is prohibited and sets conditions for dumping other garbage at sea (see the table below – Appendix A to 33 CFR 151-151.77). Dunnage, lining and packing materials that float may be disposed of beyond 25 miles from the nearest land. Other garbage that will not float may be disposed of beyond 12 miles of land, except that garbage, which can pass through a 25mm mesh screen (approximately 1 square inch), may be disposed of beyond 3 miles. More restrictive disposal regimes apply in waters designated "Special Areas."

The U.S. implements MARPOL 73/78 Annex V under the Marine Plastic Pollution Research and Control Act of 1987 (MPPRCA), codified within 33 U.S.C. § 1901 *et seq.* The implementing regulations are in 33 CFR 151.51 – 79. These requirements require adequate waste reception facilities at U.S. ports; that manned ships of certain sizes to display pollution prevention placards; for certain ships to develop a waste management plan; and that certain manned ships maintain waste disposal records. MPPRCA and 33 CFR 151.51 is applicable to all recreational, fishing, uninspected and inspected vessels, and foreign flag vessels on the navigable waters and all other waters subject to the jurisdiction of the United States, out to and including the Exclusive Economic Zone (200 miles).

APPENDIX A TO §§ 151.51 THROUGH 151.77—
SUMMARY OF GARBAGE DISCHARGE RESTRICTIONS

Garbage Type	All Vessels Except Fixed or Floating Platforms and Associated Vessels		Fixed or Floating Platforms & Assoc. Vessels [3] (33 CFR 151.73)
	Outside special areas (33 CFR 151.73)	In special areas [2] (33 CFR 151.71)	
Plastics—includes synthetic ropes and fishing nets and plastic bags.	Disposal prohibited (33 CFR 151.67).	Disposal prohibited (33 CFR 151.67).	Disposal prohibited (33 CFR 151.67).
Dunnage, lining and packing materials that float.	Disposal prohibited less than 25 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited (33 CFR 151.71).	Disposal prohibited.
Paper, rags, glass, metal bottles, crockery and similar refuse.	Disposal prohibited less than 12 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited (33 CFR 151.71).	Disposal prohibited.
Paper, rags, glass, etc. comminuted or ground.[1]	Disposal prohibited less than 3 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited (33 CFR 151.71).	Disposal prohibited.
Victual waste not comminuted or ground.	Disposal prohibited less than 12 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited less than 12 miles from nearest land.	Disposal prohibited

Victual waste comminuted or ground.[1]	Disposal prohibited less than 3 miles from nearest land and in the navigable waters of the U.S.	Disposal prohibited less than 12 miles from nearest land.	Disposal prohibited less than 12 miles from nearest land and in the navigable waters of the U.S.
Mixed garbage types.	See Note 4.	See Note 4.	See Note 4.

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS. (Continued).

Note 1: Comminuted or ground garbage must be able to pass through a screen with a mesh size no larger than 25 mm. (1 inch) (33 CFR 151.75)

Note 2: Special areas under Annex V are the Mediterranean, Baltic, Black, Red, and North Seas areas and the Gulfs area. (33 CFR 151.53)

Note 3: Fixed or floating platforms and associated vessels includes all fixed or floating platforms engaged in exploration, exploitation or associated offshore processing of seabed mineral resources, and all ships within 500m of such platforms.

Note 4: When garbage is mixed with other harmful substances having different disposal or discharge requirements, the more stringent disposal restrictions shall apply.

Annex VI outlines international requirements for vessel air emissions and shipboard air pollution prevention measures. Annex VI entered into force for the United States on January 8, 2009. Starting on that date, U.S. ships operating anywhere and foreign-flag ships operating in United States waters must comply with the requirements set out in MARPOL Annex VI. (33 U.S.C. 1901(a) (4) & (5), 1902(a)(1)&(5), and 1907 (a), as amended by the Maritime Pollution Prevention Act of 2008 (MPPA), Pub.L. 110-280, 122 Stat 2611).

Annex VI sets limits on sulphur oxide (SOx) and nitrogen oxide (NOx) emissions from ship exhausts and prohibits deliberate emissions of ozone-depleting substances. These regulations include a global cap of 4.5% m/m on the sulphur content of fuel oil and calls on IMO to monitor the worldwide average sulphur content of fuel. A mandatory NOx Technical Code defines how vessels can achieve the set limits on NOx emissions.

Additionally, certain regions may be declared as Sulfur Emission Control Areas (SECA). In these areas, the sulphur content of fuel oil used on board ships must not exceed 1.5% m/m. Alternatively, ships must fit an exhaust gas cleaning system or use other technological methods to limit SOx emissions. The Baltic Sea and North Sea Areas have already been designated as SECAs.

Annex VI prohibits deliberate emissions of ozone depleting substances, which include halons and chlorofluorocarbons (CFCs). New installations containing ozone-depleting substances are prohibited. But existing installations containing hydro-chlorofluorocarbons (HCFCs) are permitted until 1 January 2020. The Annex also prohibits the incineration on board ships of certain products, such as contaminated packaging materials and polychlorinated biphenyls (PCBs). Coast Guard guidelines for ensuring compliance with Annex VI can be found in CG-543's Policy Letter 09-01 located on Homeport (http://homeport.uscg.mil - Missions > Domestic Vessels > Domestic Vessel Policy > Office of Vessel Activities Policy Letters).

Oil Spill Reporting. Article 8 and Protocol I of MARPOL 73/78 requires the immediate reporting of any un-permitted discharges of oil, NLS substances, or harmful substance in package form to the party in which the vessel is located. For any discharge that occurs within the waters under U.S. jurisdiction, the reporting requirements are found in 33 CFR 153, Subpart B – Notice of the Discharge of Oil or a Hazardous Substance.

33 CFR 153.203 states that any person in charge of a vessel or of an onshore or offshore facility shall, as soon as they have knowledge of any discharge of oil or a hazardous substance shall immediately notify the National Response Center (NRC), NRC's toll free telephone number is (800) 424–8802, fax number is (202) 372–2920.

If direct reporting to the NRC is not practicable, notice of discharge may be made to the Coast Guard or EPA predesignated On-Scene Coordinator (OSC) for the geographic area where the discharge occurs. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or the predesignated OSC immediately, reports may be made immediately to the nearest Coast Guard unit, provided that the person in charge of the vessel or onshore or offshore facility notifies the NRC as soon as possible.

Any person who fails to notify the appropriate agency of the United States Government immediately of a discharge is, upon conviction, fined in accordance with 18 U.S. Code, or imprisoned for not more than 5 years, or both (33 CFR 153.205).

Penalties for Violation. As stated in 33 CFR 151.04, a person who violates MARPOL 73/78, the Act to Prevent Pollution from Ships (APPS)(33 USC 1901-1911), or the implementing regulations (33 CFR 151), is liable for civil or criminal penalties. Civil penalties carry a fine not to exceed $40,000 for each violation. A person who makes a false, fictitious statement or fraudulent representation in any matter in which a statement or representation is required to be made to the Coast

(17) REGULATIONS FOR THE PREVENTION OF POLLUTION FROM SHIPS. (Continued).

Guard under MARPOL 73/78, the Act, or the implementing regulations, is liable for a civil penalty of $8,000 for each statement or representation, as provided by 33 U.S.C. 1908(b)(2). A person who knowingly violates MARPOL 73/78, the Act, or the regulations of this subpart commits a class D felony. 18 U.S.C. 1355 *et seq.*

Vessel owners or operators that discharge oil or hazardous substances into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, may be subject to civil penalties. Civil penalties carry a fine of not more than $15,000 per violation and a maximum amount not exceed $190,000. 33 U.S.C. 1321 *et seq.*

Vessel General Permit (VGP): NPDES Vessel General Permit, MOU with EPA under development: NPDES stands for National Pollution Discharge Elimination System, which is a matter within the authority of our federal Environmental Protection Agency under the Clean Water Act. As the result of a court decision in 2005, vessels lost the exclusion to the requirements which they had long enjoyed. The VGP incorporates existing CG regulations for ballast, bilge and gray water and dry cargo residue runoff, and in most cases imposes permitting requirements that exceed these standards. It established requirements for 26 types of general discharges, as well as for corrective actions, inspections, monitoring, recordkeeping and reporting. A formal MOU between EPA and USCG is under development. The EPA has the primary responsibility for enforcing the provisions of the VGP and specific questions should be directed to them. Although EPA would like CG to enforce all elements of the VGP on their behalf, we envision that the final MOU will have the CG spot checking some elements of VGP compliance and refer enforcement to EPA. Further information on the VGP is provided on the Coast Guard's Homeport web page http://homeport.uscg.mil/ selecting the following tabs: Missions > Domestic Vessels > Domestic Vessel General > EPA Vessel General Permit (VGP) or on the EPA web page at http://www.epa.gov/npdes/vessels or CG web page at http://www.uscg.mil/hq/cg5/cg522/cg5224/vgp.asp.

(Supersedes NTM 1(17)10) (USCG)

(18) COMPLIANCE WITH THE ACT TO PREVENT POLLUTION FROM SHIPS.

Widely known as the London Dumping Convention, the 1972 International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter entered into force on August 30, 1975. This Convention addresses the unregulated dumping of non-ship generated waste materials into ocean waters, and creates a regime to prevent or strictly limit dumping that degrades or endangers human health or the marine environment. The Convention bans the dumping of certain hazardous materials and requires permits for the dumping of other identified materials and other wastes or matter. "Dumping" is defined as the deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms, or other man-made structures. In addition, the Convention controls the incineration of wastes on board ships, sets out criteria for the selection of dumping and incineration sites at sea, and has provisions to promote regional cooperation.

The Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA or the Ocean Dumping Act) is codified at 33 U.S.C. §1401 *et seq.* MPRSA implements the 1972 London Dumping Convention under U.S. law. MPRSA was amended in 1988 by Public Law 100-688, Title I of which is the Ocean Dumping Ban Act of 1988, and Title IV of which is the Shore Protection Act.

The purpose of MPRSA is to regulate the transportation of material from the U.S. or by U.S. vessels, aircraft, or agencies for the purpose of dumping the material into ocean waters, and the dumping of material transported by any person from a location outside the U.S. if the dumping occurs in the territorial sea or the contiguous zone of the U.S.

MPRSA establishes the statutory authority to regulate ocean dumping beyond the territorial sea line (three mile limit) from U.S. flag vessels and of material from the U.S.; and regulate dumping by any vessel in the U.S. territorial sea and contiguous zone.

Under MPRSA, no dumping is allowed in U.S. waters except some sewage, sludge, dredge materials, and fish wastes. The EPA may issue a permit for dumping of other materials under extraordinary circumstances.

Various federal agencies share certain responsibilities under the MPRSA. The EPA issues ocean dumping permits, and the U.S. Army Corps of Engineers (USACE) issues permits for the dumping of dredge materials. NOAA monitors the effects of waste dumping. The Coast Guard is responsible to conduct surveillance and other appropriate enforcement activity to prevent unlawful transportation of material for dumping, or unlawful dumping.

One of the Coast Guard's activities under the MPRSA includes enforcement of regulations relating to safe transportation of municipal and commercial waste (33 CFR 151.1000). Here, the regulations state that a vessel may not transport municipal or commercial waste in coastal waters without a conditional permit issued by the Coast Guard. 33 CFR 151.1009 and 1012 describe the transportation of municipal or commercial waste requirements and the application process for obtaining a conditional permit.

(Repetition NTM 1(18)10) (USCG)

(19) INTERNATIONAL SAFETY MANAGEMENT CODE ENFORCEMENT.

Compliance with the ISM Code is mandatory for passenger ships, cargo ships, bulks carriers, and oil and chemical tankers, gas carriers, as well as high speed craft and MODUs over 500 GT engaged on international voyages. To demonstrate compliance, vessels must present copies of approved Documents of Compliance and Safety Management Certificates to Coast Guard Port State control Boarding Officers during routine compliance examinations. ISM compliance demonstrates that vessel operators have safety and environmental policies, emergency response procedures, designated accident and code non-conformity reporting procedures, and on board maintenance and operating manuals. If inbound vessels are not in compliance with the ISM Code, they will be denied entry into U.S. waters (SOLAS Chapter IX and 33 CFR 96).
(Repetition NTM 1(19)10) (USCG)

(20) BALLAST WATER MANAGEMENT FOR CONTROL OF NONINDIGENOUS SPECIES.

Every day, large quantities of ballast water from all over the world are discharged into United States waters. Carried in this ballast water from ships are plants, animals, bacteria, and pathogens. These organisms range in size from microscopic to large plants and free-swimming fish. These organisms have the potential to become aquatic nuisance species (ANS). ANS may displace native species, degrade native habitats, spread disease, and disrupt human social and economic activities that depend on water resources. Any ship carrying ballast water is a potential invasion source.

In recent years, there has been increased international focus on Ballast Water Management (BWM) due to the ecological, economic, and potential health threats caused by the spread of ANS from ballast water. The United States Coast Guard is responding to these concerns through a comprehensive national BWM program. This program applies to all vessels equipped with ballast water tanks that operate in U.S. waters and are bound for ports or places in the U.S.

Highlights of the BWM program include:

(a) Requires mandatory ballast water management practices for all vessels that operate in U.S. waters;
(b) Establishes additional practices for vessels entering U.S. waters after operating beyond the EEZ; and
(c) Requires the reporting and record keeping of ballasting operations by all vessels.

The BWM program regulations maybe found in 33 CFR Part 151 Subparts C and D. These regulations implement the provisions of the Non indigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA, 16 USC 4701 – 4751) as amended by the National Invasive Species Act of 1996 (NISA).

The Coast Guard provides guidance on the BWM program in NVIC 07-04, CH 1 and NVIC 01-04. The Coast Guard's Aquatic Nuisance Species web page provides an additional guidance on the BWM program: http://www.uscg.mil/hq/cg5/cg522/cg5224/ and http://www.uscg.mil/hq/cg5/cg522/cg5224/bwm.asp.
(Supersedes NTM 1(20)10) (USCG)

(21) VESSEL SECURITY REGULATIONS: MTSA AND ISPS CODE.

In December 2002, the International Maritime Organization (IMO) amended the International Convention of Safety of Life at Sea (SOLAS) by implementing Chapter IX-2: Special measures to enhance maritime security. SOLAS IX-2 implements the International Ship & Port Facility (ISPS) Code, which established a set of international security-oriented regulations relating to vessel and port facilities. ISPS is applicable to all cargo vessels over 500 International Gross Tons engaged on international voyages.

On October 22, 2003, the U.S. Coast Guard implemented domestic security regulations for maritime security under the authority of the. The requirements of the MTSA align, where appropriate, with the security requirements in the SOLAS IX-2 and the ISPS Code. MTSA implementing regulations are found in 33 CFR 101 – 106. Regulations issued under MTSA require the owner of each vessel covered by regulation to comply with an approved Vessel Security Plan (VSP). SOLAS vessels must comply with a similar plan called a Ship Security Plan (SSP).

To ensure vessels subject to MTSA and/or ISPS are in compliance, the Coast Guard conducts annual security plan verification (SPV) exams on all U.S. flag inspected and uninspected vessels and onboard foreign vessels operating in U.S. waters. In verifying compliance with this plan, the inspector has three tasks: ensure that the vessel or facility complies with the approved plan, ensure that the plan and assessment adequately addresses the security vulnerabilities, and verify that the measures accomplish the intended function.

The Coast Guard conducts SPV exams on inspected vessels during the vessel's normal inspection process. After the initial SPV exam, uninspected vessels subject to MTSA undergo subsequent SPV exams once every 5 years, while vessels subject to both MTSA and ISPS undergo subsequent exams twice every 5 years, to align with the requirements for the International Ship Security Certificate (ISSC). The Coast Guard conducts SPV exams on foreign vessels under its Port State Control program.

(21) VESSEL SECURITY REGULATIONS: MTSA AND ISPS CODE. (Continued).

Further guidance on the Coast Guard's vessel security program for vessels subject to MTSA/ ISPS is found in NVIC 04-03, change 1 and at the Coast Guard's MTSA-ISPS web page at: http://cgweb.comdt.uscg.mil/g-mp/helpdesk.htm.
(Supersedes NTM 1(21)10) (USCG)

(22) WARNING-POSSIBLE DANGER FROM UNLABELED INTERMODAL CONTAINERS AND DRUMS.

With the many exotic chemicals being transported in inter-modal freight containers and in drums as deck cargo, increasingly more reports are received regarding the loss overboard of these potentially dangerous cargo-carrying units. Empty containers and drums may contain residues which may be extremely hazardous to touch or smell, and vapors emanating from these packages may be explosive.

When encountering derelict inter-modal containers and drums, whether afloat or from the sea bottom, the dangers listed above should be considered. Identifying labels will give adequate warning, but containers and drums are more likely to be found with caution labels washed away. All inter-modal freight containers have unique identifying numbers, which should be included in any sighting report if visible from a safe distance. Avoid direct contact and notify U.S. Coast Guard of any sightings in U.S. coastal waters (24 HR TOLL FREE reporting number 1-800-424-8802), or government authorities of the nearest port state if sighting is near any foreign shores.
(Repetition NTM 1(22)10) (USCG)

(23) REPORTING OF DANGERS TO NAVIGATION.

Mariners will occasionally discover uncharted shoals, malfunctions of important navigational aids or other dangerous situations that should be made known to other navigators. Those items that can be classified as urgent should be reported by any rapid means to the closest responsible charting authority. The general criterion for important data is "that information, without which, a mariner might expose his vessel to unnecessary danger." Reports to the U.S. Coast Guard and to foreign authorities can be made via radio using voice, SITOR and Digital Selective Calling (DSC), via TELEX, or via satellite using telephone and fax. Reports to NGA in Bethesda, MD can be made via Defense Messaging System (DMS) (NGA NAVSAFETY) message, TELEX, telephone, fax and e-mail.

Guidance in preparing reports of dangers to navigation and specific radio frequencies, addresses and telephone numbers are contained in NGA Pub. 117, Radio Navigational Aids. Reports should be brief, but must contain:

What - Description of danger
When - GMT and date
Where - Latitude and Longitude (Reference chart in use.)
Who - Reporting vessel and observer

Additionally, mariners are requested to notify NGA of discrepancies in charts and publications, using the Marine Information Report and Suggestion Sheet found in the back of each Notice to Mariners.
(Repetition NTM 1(23)10) (NGA/PVM)

(24) VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE REGULATIONS.

APPLICATION: These regulations (33 CFR 26) contain watch and equipment requirements for VHF-FM Radiotelephone. The regulations apply to the following vessels (including recreational, commercial, public, and military vessels) while underway on the navigable waters of the United States, including internal rivers and tributaries and seaward out to *twelve* nautical miles off the coast:

(1) Power-driven vessels 20 meters or greater in length;
(2) Vessels 100 gross tons or more carrying one or more passengers for hire (and vessels carrying more than 6 passengers for hire on the Great Lakes);
(3) Towing vessels 26 feet or more in length while towing; and
(4) Dredges and Floating Plants near a channel or fairway.

(24) VESSEL BRIDGE-TO-BRIDGE RADIOTELEPHONE REGULATIONS. (Continued).

EQUIPMENT REQUIRED: Vessels subject to these regulations must have two separate VHF-FM radios. Either a single radio, provided that it has two separate receivers; two multi-channel radios; or a single channel radio set to bridge-to-bridge frequency, and a separate multi-channel receiver (multi-channel radios should be capable of transmitting and receiving on VHF-FM Channels 13 (156.65 MHz) or 67 (156.375 MHz), 16 (156.8 MHz), 22A (157.1 MHz), and, the designated Vessel Traffic Service (VTS) frequency as denoted in 33 CFR Table 161.12(c) and NTM 1(25)07, i.e. Channels 5A (156.250 MHz), 11 (156.550 MHz), 12 (156.600 MHz), or 14 (156.700 MHz). A single scanning, or sequential monitoring radio (often referred to as "dual watch" capability) will not meet the requirements for both radios. Hand-held, portable radios may be used to meet these requirements, however, this radio must be permanently associated with the vessel and it must have a connection for an external antenna. Foreign vessels entering into U.S. waters must also meet these provisions, however, may use portable radios brought aboard by a pilot, yet, not permanently associated with the vessel.

WATCH ON CHANNEL 13: The *master, operator, or whomever is designated to pilot the vessel* must, while underway, maintain a listening watch on the designated bridge-to-bridge frequency–Ch. 13 or Ch. 67 (on the Lower Mississippi River). The person maintaining the watch must also be able to communicate in English.

WATCH ON CHANNEL 16: In *addition* to the Ch. 13 watch, vessels must keep a continuous listening watch on Ch. 16 (International Distress and Calling Channel), except when transmitting or receiving traffic on other VHF-FM channels (e.g. vessels may switch to other channels for port operations, to pass traffic, listen to weather reports or safety broadcasts, etc.) or when participating in and monitoring the assigned VTS channel. Note, vessels not required to have a VHF-FM radio onboard, but do, must also maintain a watch on Ch. 16.

MORE INFORMATION: The Vessel Bridge-to-Bridge Radiotelephone regulations are denoted in Title 33, Code of Federal Regulations, Part 26 and can also be found in the U.S. Coast Guard publication Navigation Rules: *International-Inland*, (COMDTINST M16672.2D) or at http://www.navcen.uscg.gov/mwv/. Additional VHF-FM Radiotelephone requirements and regulations can be found in Title 47, CFR Part 80–Stations in the Maritime Services. For inquiries or questions mail: Commandant (CG-5413), U.S. Coast Guard, 2100 2nd Street SW, Washington, DC 20593-0001; telephone: (202) 372-1563, e-mail: cgnav@uscg.mil.

(Repetition NTM 1(24)10) (USCG)

(25) VESSEL TRAFFIC SERVICES AND VESSEL MOVEMENT REPORTING SYSTEM CENTER, CALL SIGNS, DESIGNATED FREQUENCIES, AND MONITORING AREAS.

Center *Call Sign* **-- MMSI** [1]	**Designated frequency (Channel designation)** *- purpose* [2]	**Vessel Traffic Service and Vessel Movement Reporting System Monitoring area** [3, 4]
Berwick Bay *Berwick Traffic* -- 003669950	156.550 MHz (Ch. 11)	The waters south of 29°45'N., west of 91°10'W., north of 29°37'N., and east of 91°18' W.
Buzzards Bay *Buzzards Bay Control* [5]	156.600 MHz (Ch. 12)	The waters east and north of a line drawn from the southern tangent of Sakonnet Point, Rhode Island, in approximate position latitude 41°27.2' N, longitude 70°11.7' W, to the Buzzards Bay Entrance Light in approximate position latitude 41°23.5' N, longitude 71°02.0' W, and then to the southwestern tangent of Cuttyhunk Island, Massachusetts, at approximate position latitude 41°24.6' N, longitude 70°57.0' W, and including all of the Cape Cod Canal to its eastern entrance, except that the area of New Bedford harbor within the confines (north of) the hurricane barrier, and the passages through the Elizabeth Islands, is not considered to be "Buzzards Bay".
Houston-Galveston -- 003669954		The navigable waters north of 29°N., west of 94°20'W., south of 29°49'N., and east of 95°20'W.

(25) VESSEL TRAFFIC SERVICES AND VESSEL MOVEMENT REPORTING SYSTEM CENTER, CALL SIGNS, DESIGNATED FREQUENCIES, AND MONITORING AREAS. (Continued).

Center *Call Sign* **-- MMSI** [1]	**Designated frequency (Channel designation)** *- purpose* [2]	**Vessel Traffic Service and Vessel Movement Reporting System Monitoring area** [3, 4]
Houston Traffic	156.550 MHz (Ch. 11) 156.250 MHz (Ch. 5A) *- Sailing Plans only.*	The navigable waters north of a line extending due west from the southern most end of Exxon Dock #1 (20°43.37'N., 95°01.27'W.).
Houston Traffic	156.600 MHz (Ch. 12) 156.250 MHz (Ch. 5A) *- Sailing Plans only.*	The navigable waters south of a line extending due west from the southern most end of Exxon Dock #1 (29°43.37'N., 95°01.27'W.).
Los Angeles/Long Beach: MMSI/To be determined		
San Pedro Traffic	156.700 MHz (Ch.14)	*Vessel Movement Reporting System Area:* The navigable waters within a 25 nautical mile radius of Point Fermin Light (33°42.3'N., 118°17.6'W.).
Louisville: Not applicable		
Louisville Traffic	156.650 MHz (Ch. 13)	The waters of the Ohio River between McAlpine Locks (Mile 606) and Twelve Mile Island (Mile 593), only when the McAlpine upper pool gauge is at approximately 13.0 feet or above.
Lower Mississippi River -- 0036699952		
New Orleans Traffic	156.550 MHz (Ch. 11)	The navigable waters of the Lower Mississippi River below 29°55.3’N 089°55.6’W (Saxonholm Light) at 86.0 miles Above Head of Passes (AHP), extending down river to Southwest Pass, and, within a 12 nautical mile radius around 28°54.3’N 089°25.7’W (Southwest Pass Entrance Light at 20.1 miles Below Head of Passes.)
New Orleans Traffic	156.600 MHz (Ch. 12)	The navigable waters of the Lower Mississippi River bounded on the north by a line drawn perpendicular on the river at 29°55'30"N and 090°12'46"W (Upper Twelve Mile Point) at 109.0 miles AHP and on the south by a line drawn perpendicularly at 29°55.3’N 089°55.6’W (Saxonholm Light) at 86.0 miles AHP.
New Orleans Traffic	156.250 MHz (Ch. 05A)	The navigable waters of the Lower Mississippi River below 30°38.7’N 091°17.5’W (Port Hudson Light) at 254.5 miles AHP bounded on the south by a line drawn perpendicular on the river at 29°55'30"N and 090°12'46"W (Upper Twelve Mile Point) at 109.0 miles AHP.
New York -- 003669951	1	

(25) VESSEL TRAFFIC SERVICES AND VESSEL MOVEMENT REPORTING SYSTEM CENTER, CALL SIGNS, DESIGNATED FREQUENCIES, AND MONITORING AREAS. (Continued).

Center *Call Sign* **-- MMSI** [1]	**Designated frequency (Channel designation)** *- purpose* [2]	**Vessel Traffic Service and Vessel Movement Reporting System Monitoring area** [3, 4]
New York Traffic	156.550 MHz (Ch. 11) - Sailing Plans only 156.600 MHz (Ch. 12) - For Vessels at anchor	The area consists of the navigable waters of the Lower New York Bay bounded on the east by a line drawn from Norton Point to Breezy Point; on the south by a line connecting the entrance buoys at the Ambrose Channel, Swash Channel, and Sandy Hook Channel to Sandy Hook Point; and on the southeast including the waters of Sandy Hook Bay south to a line drawn at latitude 40°25'N; then west in the Raritan Bay to the Raritan River Railroad Bridge, then north into waters of the Arthur Kill and Newark Bay to the Lehigh Valley Draw Bridge at latitude 40°41.9'N; and then east including the waters of the Kill Van Kull and the Upper New York Bay north to a line drawn east-west from the Holland Tunnel ventilator shaft at latitude 40°43.7'N, longitude 74°01.6'W, in the Hudson River; and then continuing east including the waters of the East River to the Throgs Neck Bridge, excluding the Harlem River.
New York Traffic	156.700 MHz (Ch. 14)	The navigable waters of the Lower New York Bay west of a line drawn from Norton Point to Breezy Point; and north of a line connecting the entrance buoys of Ambrose Channel, Swash Channel, and Sandy Hook Channel, to Sandy Hook Point; on the southeast including the waters of the Sandy Hook Bay south to a line drawn at latitude 40°25'N; then west into the waters of Raritan Bay East Reach to a line drawn from Great Kills Light south through Raritan Bay East Reach LGB #14 to Comfort PT, NJ; then north including the waters of the Upper New York Bay south of 40°42.40'N (Brooklyn Bridge) and 40°43.70'N (Holland Tunnel Ventilator Shaft); west through the KVK into the Arthur Kill north of 40°38.25'N (Arthur Kill Railroad Bridge); then north into the waters of the Newark Bay, south of 40°41.95'N (Lehigh Valley Draw Bridge).
New York Traffic	156.600 MHz (Ch. 12)	The navigable waters of the Raritan Bay south to a line drawn at latitude 40°26'N; then west of a line drawn from Great Kills Light south through the Raritan Bay East Reach LGB #14 to Point Comfort, NJ; then west to the Raritan River Railroad Bridge; and north including the waters of the Arthur Kill to 40°28.25'N (Arthur Kill Railroad Bridge); including the waters of the East River north of 40°42.40'N (Brooklyn Bridge) to the Throgs Neck Bridge, excluding the Harlem River.
Port Arthur[6] -- 003669955		
Sabine Traffic	To be determined.	The navigable waters south of 30°10'N., east of 94°20'W., west of 93°22'W, and, north of 29°10'N.
Prince William Sound -- 003669958		
Valdez Traffic	156.650 MHz (Ch. 13)	The navigable waters south of 61°05'N., east of 147°20'W., north of 60° N., and west of 146°30'W.; and, all navigable waters in Port Valdez.

(25) VESSEL TRAFFIC SERVICES AND VESSEL MOVEMENT REPORTING SYSTEM CENTER, CALL SIGNS, DESIGNATED FREQUENCIES, AND MONITORING AREAS. (Continued).		
Center *Call Sign* **-- MMSI [1]**	**Designated frequency (Channel designation)** *- purpose* **[2]**	**Vessel Traffic Service and Vessel Movement Reporting System Monitoring area [3, 4]**
Puget Sound[7]		
Seattle Traffic -- 003669957	156.700 MHz (Ch. 14)	The waters of Puget Sound, Hood Canal and adjacent waters south of a line connecting Nodule Point and Bush Point in Admiralty Inlet and south of a line drawn due east from the southernmost tip of Possession Point on Whidbey Island to the shoreline.
Seattle Traffic -- 003669957	156.250 MHz (Ch. 5A)	The waters of the Strait of Juan de Fuca east of 124°40'W. excluding the waters in the central portion of the Strait of Juan de Fuca north and east of Race Rocks; the navigable waters of the Strait of Georgia east of 122°52'W.; the San Juan Island Archipelago, Rosario Strait, Bellingham Bay; Admiralty Inlet north of a line connecting Nodule Point and Bush Point and all waters east of Whidbey Island north of a line drawn due east from the southernmost tip of Possession Point on Whidbey Island to the shoreline.
Tofino Traffic -- 003160012	156.725 MHz (Ch. 74)	The waters west of 124°40'W. within 50 nautical miles of the coast of Vancouver Island including the waters north of 48°N., and east of 127°W.
Victoria Traffic -- 003160010	156.550 MHz (Ch. 11)	The waters of the Strait of Georgia west of 122°52'W., the navigable waters of the central Strait of Juan de Fuca north and east of Race Rocks, including the Gulf Island Archipelago, Boundary Pass and Haro Strait.
San Francisco -- 003669956		
San Francisco Traffic	156.700 MHz (Ch. 14)	The navigable waters of the San Francisco Offshore Precautionary Area, the navigable waters shoreward of the San Francisco Offshore Precautionary Area east of 122°42.0'W. and north of 37°40.0'N. extending eastward through the Golden Gate, and the navigable waters of San Francisco Bay and as far east as the port of Stockton on the San Joaquin River, as far north as the port of Sacramento on the Sacramento River.
San Francisco Traffic	156.600 MHz (Ch. 12)	The navigable waters within a 38 nautical mile radius of Mount Tamalpais (37°55.8'N., 122°34.6'W.) west of 122°42.0'W. and south of 37°40.0'N and excluding the San Francisco Offshore Precautionary Area.
St. Marys River -- 003669953		
Soo Traffic	156.600 MHz (Ch. 12)	The waters of the St. Marys River between 45°57'N. (De Tour Reef Light) and 46°38.7'N. (lle Parisienne Light), except the St. Marys Falls Canal and those navigable waters east of a line from 46°04.16'N. and 46°01.57'N. (La Pointe to Sims Point in Potagannissing Bay and Worsley Bay).

(25) VESSEL TRAFFIC SERVICES AND VESSEL MOVEMENT REPORTING SYSTEM CENTER, CALL SIGNS, DESIGNATED FREQUENCIES, AND MONITORING AREAS. (Continued).

[1] Maritime Mobile Service Identifier (MMSI) is a unique nine-digit number assigned that identifies ship stations, ship earth stations, coast stations, coast earth stations, and group calls for use by a digital selective calling (DSC) radio, an INMARSAT ship earth station or AIS. AIS requirements are set forth in §§ 161.21 and 164.46 of this subchapter. The requirements set forth in §§ 161.21 and 164.46 of this subchapter apply in those areas denoted with a MMSI number.

[2] In the event of a communication failure, difficulties or other safety factors, the Center may direct or permit a user to monitor and report on any other designated monitoring frequency or the bridge-to-bridge navigational frequency, 156.650 MHz (Channel 13) or 156.375 MHz (Ch. 67), to the extent that doing so provides a level of safety beyond that provided by other means. The bridge-to-bridge navigational frequency, 156.650 MHz (Ch. 13), is used in certain monitoring areas where the level of reporting does not warrant a designated frequency.

[3] All geographic coordinates (latitude and longitude) are expressed in North American Datum of 1983 (NAD 83).

[4] Some monitoring areas extend beyond navigable waters. Although not required, users are strongly encouraged to maintain a listening watch on the designated monitoring frequency in these areas. Otherwise, they are required to maintain watch as stated in 47 CFR 80.148.

[5] In addition to the vessels denoted in section 161.16 of this chapter, requirements set forth in subpart B of 33 CFR part 161 also apply to any vessel transiting VMRS Buzzards Bay required to carry a bridge-to-bridge radiotelephone by part 26 of this chapter.

[6] Until rules regarding VTS Port Arthur are published, vessels are exempted of all VTS and VMRS requirements set forth in 33 CFR Part 161, except those set forth in §§ 161.21 and 164.46 of this subchapter.

[7] A Cooperative Vessel Traffic Service was established by the United States and Canada within adjoining waters. The appropriate Center administers the rules issued by both nations; however, enforces only its own set of rules within its jurisdiction. Note, the bridge-to-bridge navigational frequency, 156.650 MHz (Ch. 13), is not so designated in Canadian waters, therefore users are encouraged and permitted to make passing arrangements on the designated monitoring frequencies.
(Supersedes NTM 1(25)10) (USCG)

(26) SEISMIC SURVEYS.

Details of seismic surveys may be broadcast to mariners via HYDROLANT, HYDROPAC, NAVAREA IV and NAVAREA XII broadcast systems. Surveys can be conducted without prior notification or broadcast warnings.

Survey vessels may operate alone or in company with other surface vessels or submersibles. Survey vessels may be towing cables in excess of 2 miles astern. Cables may be marked by buoys and may be towed on the surface or submerged.

During a survey, repeated shock waves are created by using explosive charges, compressed air, mechanical vibrators or by electrical means at any level from the bottom to the surface. Vessels surveying may be underway but sometimes are stopped for extended periods.

Seismic survey vessels which are unable to maneuver are required to carry the lights and signals described in Rule 27 of International Regulations for Preventing Collisions at Sea. These vessels should be given a wide berth.

Charges may be contained in a variety of cylinders, tubes, or bags which may not be marked as dangerous. No attempt to recover such items should be made. Any suspicious charge-like containers inadvertently taken aboard by trawls or any other means should be carefully handled and jettisoned immediately if possible.
(Repetition NTM 1(26)10) (NGA/PVM)

(27) UNITED STATES-CAUTION REGARDING SUBMARINE OPERATIONS.

Boundary limits and designations of submarine operating areas are shown on the charts in magenta or purple lines. As submarines may be operating in these areas, vessels should proceed with caution. During torpedo practice firing, all vessels are cautioned to keep well clear of naval target vessels flying a large red flag where it may best be seen.

During the past a number of potentially dangerous incidents have occurred. Ships have entered Fleet Operating Areas in which UDT (Underwater Demolition Teams) or SEAL (Sea, Air, and Land) Teams were conducting scheduled operations from a submerged submarine. These operations were being conducted in a specific area assigned for that purpose. These submerged operations ordinarily involve transferring swimmers in and out of a submarine while submerged. In this situation, movements of the submarine must be restricted in course, speed, and depth. Furthermore, emergency surfacing could prove hazardous and result in loss of life to swimmers. Therefore, when conducting operations of this type the submarine and swimmer detachment are relatively immobile and are helpless to evade approaching ships passing through their area. There is also a real danger that a well-intentioned ship, unaware of these operations, might turn in the submarine's direction to investigate rubber raft, swimmers, or submarine periscope.

(27) UNITED STATES-CAUTION REGARDING SUBMARINE OPERATIONS (Continued).

Notice of date and time prior to any subsurface operations should be provided to Commander Submarine Force, U.S. Atlantic Fleet, 7958 Blandy Rd., Norfolk, VA 23551-2492.
(Repetition NTM 1(27)10) (U.S. NAVY)

(28) SPECIAL RULES WITH RESPECT TO ADDITIONAL STATION AND SIGNAL LIGHTS FOR NAVY SHIPS.

1. Man overboard lights.-Naval vessels may display, as a means of indicating man overboard, two pulsating, all around red lights in a vertical line located on a mast from where they can best be seen.
2. Yard arm signaling lights.-Naval vessels may display, as a means of visual signaling, white all around lights at the end of the yardarms. These lights will flash in varying sequences to convey the intended signal.
3. Aircraft warning lights.-Naval vessels may display, as a means of indicating the presence of an obstruction to low flying aircraft, one or two all around red lights on each obstruction.
4. Underway replenishment contour lights.-Naval vessels may display, as a means of outlining the contour of the delivery ship during night time underway replenishment operations, red or blue lights at deck edge extremities. These lights are being converted to blue, vice red, therefore either color may be seen until conversion is complete.
5. Minesweeping station keeping lights.-Naval vessels engaged in minesweeping operations may display, as an aid in maintaining a prescribed interval and bearing, two white lights in a vertical line visible from 070 through 290 degrees relative.
6. Submarine identification light.-Submarines may display, as a distinctive means of identification, an intermittently flashing amber beacon located where it can best be seen, as near as practicable, all around the horizon.
7. Special operations lights.-Naval vessels may display, as a means of coordinating certain operations, a revolving beam colored red, green or amber, located on either yardarm or mast platform from where it can be seen all around the horizon.
8. Convoy operations stern light.-Naval vessels may display, during periods of convoy operations, a blue light located near the stern, with the same characteristics as, but in lieu of, the normal white stern light.
9. Wake illumination light.-Naval vessels may display a white light located near the stern to illuminate the wake.
10. Flight operations lights.-Naval vessels engaged in night flight operations may display various arrangements of light systems containing combinations of different colored lights as a means of assisting in the launch and recovery of aircraft and enhancing flight safety. These light systems will be located at various points on the vessels, depending on the vessel type and nature or the flight operations being conducted.
11. Amphibious operations lights.-Naval vessels engaged in night amphibious operations may display various arrangements of light systems containing combinations of different colored lights as a means of assisting in the launch and recovery of assault craft and enhancing the safety of the amphibious operation. These light systems will be located at various points on the vessels, depending on the vessel type and the nature of the amphibious operations being conducted.
12. Minesweeping polarity signal lights.-Naval vessels engaged in minesweeping operations may display either a red or green light on each side of vessel.
13. Replenishment-at-sea floodlights.-Naval vessels engaged in replenishment-at-sea operations may display various arrangements of floodlights of different colors for general illumination of equipment, work areas, and cargo being transferred between ships. These lights will be located at various points on the vessels, depending on the vessel type and location of the replenishment-at-sea handling areas.
14. Replenishment-at-sea cargo transfer signal lights.-Naval vessels engaged in replenishment-at-sea operations may display one or more red light signal devices on the delivery side of the vessels. These devices display various combinations of lights to indicate type of cargo being transferred.
15. Replenishment-at-sea truck light.-Naval vessels engaged in replenishment-at-sea operations may display one or more red all-round light(s) located on a mast to assist the receiving vessel in approaching the delivery vessel.
16. Replenishment-at-sea lights.-Naval aircraft carriers and similar type vessels may display two all-round lights installed along the forward starboard flight deck edge to indicate the fore-and-aft axis when the aircraft carrier or similar type vessel is the delivery vessel.

(Repetition NTM 1(28)10) (U.S. NAVY)

(29) UNITED STATES NAVAL VESSELS-NAVIGATIONAL LIGHT WAIVERS-DISTINCTIVE LIGHTS AUTHORIZED FOR NAVAL VESSELS.

1. All ships are warned that, when U.S. Naval vessels are met on the high seas or on navigable waters of the United States during periods when navigational lights may be displayed; certain navigational lights of some naval vessels may vary from the requirements of the Regulations for Preventing Collisions at Sea, 1972, and rules applicable to the navigable waters of the United States, as to number, position, range of visibility or arc of visibility. These differences are necessitated by reasons of military function or special construction of the naval ships. An example is the aircraft carrier where the two masthead lights are considerably displaced to starboard from the center or keel line of the vessel when viewed from ahead. Certain other naval vessels cannot comply with the horizontal separation requirements of the masthead lights, and the two masthead lights on even larger naval vessels, such as some cruisers, will thus appear to be crowded together when viewed from a distance. Other naval vessels may also have unorthodox navigational light arrangements or characteristics when seen either underway or at anchor.
2. Naval vessels may also be expected to display certain other lights. These lights include, but are not limited to, different colored recognition light signals, and aircraft landing lights. These lights may sometimes be shown in combination with navigational lights.
3. During naval maneuvers, naval ships, alone or in company, may also dispense with showing any lights, though efforts will be made to display lights on the approach of shipping.
4. Naval vessels, except for aircraft carriers, may dispense with showing the masthead lights during operations or maneuvers in which the vessels are restricted in ability to maneuver.

(Repitition NTM 1(29)10) (CNO)

(30) TRAFFIC SEPARATION SCHEMES, AREAS TO BE AVOIDED, RECOMMENDED TRACKS, AND OTHER ROUTING MEASURES.

To increase the safety of navigation, particularly in converging areas of high traffic density, routes incorporating traffic separation schemes have been adopted by the IMO in certain areas of the world. Certain maritime nations have also adopted their own non-IMO approved traffic separation schemes. In the interest of safe navigation, it is recommended that through traffic use these schemes, as far as circumstances permit, by day and by night and in all weather conditions.

An area to be avoided (ATBA) is a routing measure comprising an area within defined limits, in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties, and which should be avoided by all ships, or certain classes of ships.

Recommended tracks are routes, generally found to be free of dangers, which ships are advised to follow to avoid possible hazards nearby.

The International Maritime Organization (IMO) is recognized as the only international body responsible for establishing and recommending measures on an international level concerning ships' routing. In deciding whether or not to adopt or amend a traffic separation scheme, IMO will consider whether the scheme complies with the design criteria for traffic separation schemes and with the established methods of routing. IMO also considers whether the aids to navigation proposed will enable mariners to determine their position with sufficient accuracy to navigate the scheme in accordance with Rule 10 of the International Regulations for Preventing Collisions at Sea (72 COLREGS).

General principles for navigation in traffic separation schemes are as follows:

1. A ship navigating in or near a traffic separation scheme adopted by IMO shall in particular comply with Rule 10 of the 72 COLREGS to minimize the development of risk of collisions with another ship. The other rules of the 72 COLREGS apply in all respects, and particularly the steering and sailing rules if risk of collision with another ship is deemed to exist.
2. Traffic separation schemes are intended for use by day and by night in all weather, in ice-free waters or under light ice conditions where no extraordinary maneuvers or assistance by icebreaker(s) is required.
3. Traffic separation schemes are recommended for use by all ships unless stated otherwise. Bearing in mind the need for adequate underkeel clearance, a decision to use a traffic separation scheme must take into account the charted depth, the possibility of changes in the sea-bed since the time of last survey, and the effects of meteorological and tidal conditions on water depths.
4. A deep water route is an allied routing measure primarily intended for use by ships which require the use of such a route because of their draft in relation to the available depth of water in the area concerned. Through traffic to which the above consideration does not apply should, if practicable, avoid following deep water routes. When using a deep water route mariners should be aware of possible changes in the indicated depth of water due to meteorological or other effects.
5. The arrows printed on charts merely indicate the general direction of traffic; ships should not set their courses strictly along the arrows.
6. Vessels should, so far as practicable, keep clear of a traffic separation line or separation zone.

(30) TRAFFIC SEPARATION SCHEMES, AREAS TO BE AVOIDED, RECOMMENDED TRACKS, AND OTHER ROUTING MEASURES. (Continued).

7. Vessels should avoid anchoring in a traffic separation scheme or in the area near its termination.
8. The signal "YG" meaning "You appear not to be complying with the traffic separation scheme" is provided in the International Code of Signals for appropriate use.
   NOTE.-Several governments administering traffic separation schemes have expressed their concern to IMO about the large number of infringements of Rule 10 of the 72 COLREGS and the dangers of such contraventions to personnel, vessels and environment. Several governments have initiated surveillance of traffic separation schemes for which they are responsible and are providing documented reports of vessel violations to flag states. As in the past, the U.S. Coast Guard will investigate these reports and take appropriate action. Mariners are urged to comply at all times with the 72 COLREGS and, in particular, Rule 10 when operating in or near traffic separation schemes.
9. Notice of temporary adjustments to traffic separation schemes for emergencies or for accommodation of activities which would otherwise contravene Rule 10 or obstruct navigation may be made in Notices to Mariners. Temporary adjustments may be in the form of a precautionary area within a traffic lane, or a shift in the location of a lane.
10. The IMO approved routing measures which affect shipping in or near U.S. waters are:

UNITED STATES TRAFFIC SEPARATION SCHEMES

In the Approaches to Portland, Maine
In the Approach to Boston, Massachusetts
In the Approaches to Narragansett Bay, Rhode Island and Buzzards Bay, Massachusetts
Off New York
Off Delaware Bay
In the Approaches to Chesapeake Bay, including a deep water route
In the Approaches to the Cape Fear River
In the Approaches to Galveston Bay
In the Approaches to Los Angeles-Long Beach
In the Santa Barbara Channel
Off San Francisco
In the Strait of Juan de Fuca and its Approaches
In Puget Sound and its approaches
In Haro Strait, Boundary Pass, and the Strait of Georgia
In Prince William Sound, Alaska

UNITED STATES AREAS TO BE AVOIDED

In the region of Nantucket Shoals
In the vicinity of Northeast Gateway Energy Bridge Deepwater Port
In the vicinity of Neptune Deepwater Port
In the Great South Channel
Off the Florida Coast (Adjacent to Florida Keys)
At Louisiana Offshore Oil Port (LOOP) in the Gulf of Mexico
Off the California Coast (In the region of the Channel Islands)
Off Washington Coast
In the region of the Northwest Hawaiian Islands

UNITED STATES NO ANCHORING AREAS

In the vicinity of Northeast Gateway Energy Bridge Deepwater Port
In the vicinity of Neptune Deepwater Port
Flower Garden Banks
Tortugas Ecological Reserve and the Tortugas Bank in the Florida Keys
West Cameron area of Northwestern Gulf of Mexico

UNITED STATES RECOMMENDED TRACKS

Off the California Coast (Off Monterey Bay for vessels 300 gross tons or more and vessels carrying hazardous cargo in bulk)

UNITED STATES TWO-WAY ROUTE
In the Strait of Juan de Fuca
(Supersedes NTM 1(30)10) (IMO/USCG/NGA)

(31) FIRING DANGER AREAS.

Firing and bombing practice exercises take place either occasionally or regularly in numerous areas established for those purposes along the coast of practically all maritime countries.

In view of the difficulty in keeping these areas up to date on the charts, and since the responsibility to avoid accidents rests with the authorities using the areas for firing and/or bombing practice, these areas will not as a rule be shown on NGA charts.

National Ocean Service Charts show firing and bombing practice areas as defined by Code of Federal Regulations (Title 33, Part 334) in United States waters.

Any permanent aid to navigation that may be established to mark a danger area, or any target, fixed or floating, that may constitute a danger to navigation, will be shown on the appropriate charts.

Warning signals, usually consisting of red flags or red lights, are customarily displayed before and during the practice, but the absence of such warnings cannot be accepted as evidence that a practice area does not exist. Vessels should be on the lookout for local warnings and signals, and should, whenever possible, avoid passing through an area in which practice is in progress, but if compelled to do so should endeavor to clear it at the earliest possible moment.
(Repetition NTM 1(31)10) (NGA/PVM)

(32) LORAN INFORMATION.

In accordance with the Department of Homeland Security Appropriations Act, the U.S. Coast Guard (USCG) terminated the transmission of all U.S. Loran-C signals effective 2000Z 08 Feb 2010. At that time, the U.S. Loran-C signal became unusable and permanently discontinued. In addition, the USCG terminated the transmission of Russian-American Loran-C signals effective 2000Z 01 Aug 2010 and terminated the transmission of Canadian-American Loran-C signals effective 1700Z 03 Aug 2010.
(Supersedes NTM 1(32)10) (USCG/NGA)

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD.

National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS), Office of Protected Resources has advised that several species of endangered and threatened sea turtles and endangered whales occur along the U.S. eastern seaboard; all are vulnerable to collisions with ships.

Sea Turtles. Sea turtles are highly susceptible to vessel collisions because they regularly surface to breathe and often rest at or near the surface. Leatherback turtles commonly feed on jellyfish near the surface; areas where concentrations of jellyfish are readily visible should be avoided or traversed slowly as turtles are likely to be present and actively feeding. Sea turtles can be difficult to see, especially in choppy or rough seas. Sea turtles are commonly found along the U.S. eastern seaboard from Maine to Florida and throughout the Caribbean. Critically important nesting beaches and associated near shore habitat occurs from North Carolina to Florida, and adult turtles migrate to and from these areas from April through September. These are particularly important times and areas for adults, but sea turtles (both adults and juveniles) are found year-round in waters along the eastern seaboard and care should be taken at all times to avoid collisions.

North Atlantic Right Whales. The North Atlantic right whale is one of the world's most endangered large whale species. North Atlantic right whales are found primarily in continental shelf waters between Florida and Nova Scotia. The species is listed as "endangered" under the Endangered Species Act of 1973, and protected under the Marine Mammal Protection Act of 1972. Intentionally approaching within 500 yards of right whales is prohibited and is a violation of U.S. federal law.

These whales migrate annually along the east coast between the feeding grounds off New England and Canada and the southern calving grounds off Florida, Georgia and South Carolina. Because right whales mate, rest, feed and nurse their young at the surface, and often do not move out of the way of oncoming ships, they are highly vulnerable to being struck. Pregnant females and females with nursing calves appear to be particularly vulnerable to collisions with ships.

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD. (Continued).

Right whales are large baleen whales. Adults are generally 45 to 55 feet in length and can weigh up to 70 tons. The body is mostly black, but irregularly shaped white patches may be present on the underside. The best field identifiers are a broad back with no dorsal fin, irregular bumpy white patches on the head, and a distinctive two-column V-shaped blow when viewed from directly behind or in front of the whale. The whales have broad, paddle-shaped flippers and a broad, deeply notched tail. Right whales are slow moving and seldom travel faster than 5 or 6 knots. They can stay submerged for 10 to 20 minutes and may appear suddenly when surfacing to breathe. They are often seen alone or in small groups. At times, right whales form large courtship groups of 20 to 30 animals.

The following table describes the seasonal occurrence of North Atlantic right whales. However, in any given year oceanographic variability may affect the seasonal distribution of right whales. There are three areas in U.S. waters designated as critical habitats for right whales, Coastal Florida and Georgia (Sebastian Inlet, Florida, to the Altamaha River, Georgia), the Great South Channel (east of Cape Cod), and Cape Cod Bay extending into Massachusetts Bay. The northern critical habitat areas are feeding and nursery grounds, while the southern area contains a calving area. The waters off South Carolina, Georgia and northern Florida are the only known calving area for North Atlantic right whales.

Location	Season	Comments
Central Gulf of Maine (Jordan Basin, Cashes Ledge)	April-June, October-December	
Cape Cod Bay	December-May	
Great South Channel, Northern Edge of Georges Bank	March-July	
Bay of Fundy, Scotian Shelf (Browns Bank, Roseway Basin)	July - October	Most of the population can be found in this area during this time
Jeffreys Ledge	October-December	Whales are frequently sighted in this area
Stellwagen Bank National Marine Sanctuary	Year-round	Peak sightings occur in the early spring with infrequent sightings in the summer
New York to North Carolina	November-April	The migration corridor between right whale habitats is within 30 miles of the Atlantic coast
South Carolina, Georgia and Florida Calving Area	November-April	Calving right whales have been sighted as far north as Cape Fear, NC and as far south as Miami, FL with rare sightings in the Gulf of Mexico

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD. (Continued).

To address the problem of vessel strikes with right whales the following recommendations and regulations have been established:

As of December 2008, vessels greater than or equal to 65 ft in overall length are subject to mandatory speed restrictions of 10 knots or less in seasonal management areas (SMA) along the U.S. East Coast during times when right whales are likely to be present. The Northeastern SMA speed restrictions are in place from January 1 through May 15 in Cape Cod Bay, from March 1 through April 30 off Race Point, and from April 1 through July 31 in the Great South Channel. Speed restrictions in the U.S. Mid-Atlantic SMAs are in place from November 1 to April 30, and include Block Island Sound, entry into the Ports of New York/New Jersey, Delaware Bay, Entrance to Chesapeake Bay, and the Ports of Morehead City and Beaufort, NC, and within a continuous area approximately 20 nautical miles from shore around the major ports of Wilmington, NC, Charleston, SC and Savannah, GA. Speed restrictions are in place in the Southeastern U.S. SMA from November 15 to April 15, this area extends from shore approximately 30 nautical miles eastward and contains the major ports of Brunswick, GA, Fernandina Beach, FL and Jacksonville, FL. NOAA Fisheries may also establish voluntary Dynamic Management Areas (DMAs) when right whales are present in areas and times not covered by the SMAs. Information about established DMAs will be announced over NOAA's customary maritime communication media. Mariners are encouraged to avoid DMAs or reduce speeds to 10 knots or less while transiting through DMAs. Additional information on SMA locations and exemptions to this law in addition to printed compliance guides and information on how to obtain an interactive CD for mariners that identifies ways to reduce the probability of collisions with whales can be found at the following websites: http://nmfs.noaa.gov/pr/shipstrike, http://nero.noaa.gov/shipstrike, http://rightwhalessouth.nmfs.noaa.gov.

As weather and conditions permit, a dedicated seasonal program of aerial and vessel surveys are conducted in the Northeast and Southeast to provide whale sighting information to mariners. Surveys typically occur in the following locations at the specified times: a) Cape Cod Bay from December through May and year-round in the Gulf of Maine (including the Great South Channel); b) South Carolina/North Carolina border south to Crescent Beach, FL from December through March. Survey planes occasionally use VHF-FM channel 16 to contact ships directly if whales have been spotted in close proximity to that vessel. However, many right whales go undetected by surveys. Right whale advisories are broadcast periodically for these and surrounding areas by Coast Guard Broadcast Notice to Mariners, NAVTEX, NOAA Weather Radio, Cape Cod Canal Vessel Traffic Control, the Bay of Fundy Vessel Traffic Control, and are included in the return message from the Right Whale Mandatory Ship Reporting (MSR) systems. Sighting information may be obtained by sending an email to ne.rw.sightings@noaa.gov (Northeast) or se.rw.sightings@noaa.gov (Southeast).

In addition to the requirements identified above, NOAA National Marine Fisheries Service recommends the following precautionary measures be taken to avoid adverse interactions with North Atlantic right whales:

1. Before entering right whale habitat, check sources for recent right whale sighting reports. Local ship pilots also have information on whale sightings and safe local operating procedures.
2. Review right whale identification materials and maintain a sharp watch with lookouts familiar with spotting whales. Even though right whales are very large, they can be difficult to spot because of their dark color and lack of a dorsal fin.
3. Avoid transiting through the right whale critical habitats and areas where right whales have recently been sighted. If transiting between ports within critical habitats, minimize transit distance. Route around observed or recently reported right whales and anticipate delays due to whale sightings. Vessels should avoid transits at night or during periods of low visibility.
4. If a right whale is sighted from the ship or reported along the intended track of the ship, mariners should exercise caution, post a lookout and reduce speed to 10 knots when consistent with safe navigation. If a right whale is sighted, a vessel must steer a course away from the right whale and immediately leave the area at slow safe speed. Do not assume right whales will move out of the way of an approaching vessel.

Any whale accidentally struck, any dead whale carcass, and any sighting of an injured or entangled whale should be reported immediately to the Coast Guard or NOAA National Marine Fisheries Service noting the precise location, date, and time of the accident or sighting. In the case of an accidental strike other information such as the speed and course of the vessel, vessel specifications such as size and propulsion, water depth, environmental conditions such as visibility, wind speed and direction, description of the impact, fate of the animal, and species and size, if known should be provided. Reports to NOAA for dead, ship struck or injured whales can be made to +1-978-281-9351 in the Northeast U.S. and +1-877-443-8299 in the Southeast U.S.

(33) ENDANGERED SPECIES (WHALES AND SEA TURTLES) EASTERN SEABOARD. (Continued).

Recommended Two-Way Routes were developed for vessels entering and transiting through Cape Cod Bay and arriving and departing the ports of Brunswick, GA, Fernandina Beach, FL and Jacksonville, FL. In July 2007, the northern leg of the Boston Traffic Separation Scheme (TSS) was shifted to direct ship traffic away from an area of high whale density. In order to significantly reduce the risk of ship strikes to the North Atlantic right whale, an area to be avoided was established in the Great South Channel, east of the Boston Harbor traffic lanes. Ships of 300 gross tons and above should avoid the area between the period of April 1st through July 31st. The area is bounded by 41°44′08″N, 69°34′50″W; 42°10′00″N, 68°31′00″W; 41°24′53″N, 68°31′00″W; and 40°50′28″N, 68°58′40″W. Information on these can be found at http://www.nmfs.noaa.gov/pr/shipstrike/.

Mandatory Ship Reporting (MSR) Systems areas have also been established for two areas off the east coast of the United States. The system in the northeastern U.S. operates year round and the system in the southeast U.S. operates from November 15 to April 16. The systems require all commercial ships 300 gross tons or greater to report to a shore-based station when entering the areas. In return, ships will receive an automated message indicating precautionary measures mariners can take to reduce the possibility of striking right whales and recent sighting locations. The reporting system requires reporting only and will affect no other aspect of vessel operation. Reports to the Mandatory Ship Reporting Systems can be sent by email: RightWhale.MSR@noaa.gov or Telex: 48156090. Additional information on MSR locations and reporting procedures may be obtained in the U.S. Coast Pilots or at the following Web site: http://www.nmfs.noaa.gov/pr/shipstrike/msr/.

Example Report to MSR North:

WHALESNORTH// (Reporting system area, WHALESSOUTH is the other area)
M/487654321// (Vessel INMARSAT number)
A/CALYPSO/NRUS// (Vessel name and call sign)
B/031401Z APR// (Day, time and month of report)
E/345// (True course)
F/15.5// (Speed in knots and tenths)
H/031410Z APR/4104N/06918W// (Date, time and point of entry into system)
I/BOSTON/032345Z APR// (Destination and ETA)
L/WP/4104N/06918W/10.0//
L/WP/4210N/06952W/10.0//
L/WP/4230N/07006W/10.0//

Route information can be reported as a set of waypoints (WP) and intended speed shown above or a rhumb line to port and intended speed shown below:

L/RL/10.0

(Supersedes NTM 1(33)10) (NOAA)

(34) REPORTING DEPTH INFORMATION.

The many ships presently equipped with reliable depth recorders constitute a potential wealth of sounding data desired by charting agencies for the purpose of confirming charted depths or charting heretofore unknown depths. While oceanographic survey vessels remain the primary source of bathymetric data, depth recordings submitted by navy, coast guard and merchant vessels will make an important contribution to the vital task of charting the oceans.

Mariners are encouraged to obtain and report soundings whenever bridge routine and equipment capabilities will allow. The American Practical Navigator (Bowditch) (NVPUB9), Sections 2911-2916 describes the bathymetric requirements and provides some guidance for observing and reporting sonic soundings. However, soundings must be correlated to positions and accompanied by supportive data such as:

(a) Detailed position/time information.
(b) Mariner's own evaluation of positional accuracy (type of navigational system used and frequency of fixes).
(c) Ship's course and speed with time of changes noted.
(d) Echogram scales in use and graduated scales provided, with time of scale changes.
(e) Draft of vessel and whether zero reference is corrected for draft.
(f) Regular annotations of date/time marks on echograms to enable correlation with positions.
(g) State of the tide and weather conditions.
(h) Other related information considered appropriate.

(34) REPORTING DEPTH INFORMATION. (Continued).

An uncharted depth of 15 fathoms/28 meters or less should be considered an urgent danger to navigation, and should be reported via radio without delay. Follow up with substantiating evidence, including the echogram, track chart and/or position log and all relevant navigational data and forward to NGA at the earliest opportunity.

Charts submitted to amplify a sounding report will be replaced, on request, with a new chart, except that foreign charts will be replaced with the equivalent U.S. chart, if available. Data reports and charts should be sent to the National Geospatial-Intelligence Agency, Attn: PVM, MS D-44, 4600 Sangamore Road, Bethesda, MD 20816-5003, either directly by mail or via any U.S. Consulate.

(Repetition NTM 1(34)10) (NGA/PVM)

(35) WARNING-MINED AREAS.

Mines of various types and ages pose a threat to navigation in many parts of the world. Once mined, an area can never be certified to be completely danger free. Sweeping produces only statistical probability of protection. Mines may still remain, having failed to respond to orthodox sweeping methods. Some swept areas have not been covered by modern surveys and may contain uncharted wrecks, shoals or other dangers to navigation.

Prudent seamanship in former mine fields, swept channels and swept areas includes:

(a) Transit using only established routes or buoyed channels.
(b) Avoid shallow water. Sweeping techniques often preclude sweeping in restricted waters.
(c) Avoid fishing, trawling or any other form of submarine or seabed activity.
(d) Mariners are advised to anchor with caution only in established anchorages.
(e) Consult local authorities and regulations.

(Repetition NTM 1(35)10) (U.S. NAVY)

(36) MINED AREAS REPORTED.

Minefields-Tarabulus, Libya.

In early 1973 Libya reported that the following areas had been mined. Although these areas are probably no longer a mine threat, they still represent a potential hazard to navigation. The areas reported by Libya are bounded by lines joining the following positions:

1. (a) 32°52'48"N., 13°24'30"E.
   (b) 32°57'42"N., 13°24'30"E.
   (c) 32°°57'42"N., 13°18'00"E.
   (d) 32°53'48"N., 13°22'18"E.
2. (a) 32°53'42"N., 13°20'36"E.
   (b) 32°55'54"N., 13°18'00"E.
   (c) 32°55'54"N., 13°15'00"E.
   (d) 32°54'30"N., 13°15'00"E.

(Repetition NTM 1(36)09) (U.S. NAVY)

(37) MINESWEEPING-CAUTION-ATTENTION IS CALLED TO THE FOLLOWING INSTRUCTIONS.

Minesweeping Operations:

(a) United States vessels engaged in minesweeping operations or exercises are hampered to a considerable extent in their maneuvering powers. Other Vessels Must Keep Clear of Minesweepers (COLREGS 1972).
(b) With a view to indicating the nature of the work on which they are engaged, these vessels will show the signals hereinafter mentioned. For the public safety, all other vessels, whether steamers or sailing craft, must endeavor to keep out of the way of vessels displaying these signals and not approach them inside the distances mentioned herein, especially remembering that it is dangerous to pass between the vessels of a pair or group sweeping together.
(c) All vessels towing sweeps are to show:
BY DAY.-A black ball at the fore mast and a black ball at the end of each fore yard.
BY NIGHT.-All around green lights instead of the black balls, and in a similar manner.
(d) Vessels or formations showing these signals are not to be approached nearer than 1,000 meters on either beam and vessels are not to cross astern closer than 1,000 meters. Under no circumstances is a vessel to pass through a formation of minesweepers.
(e) Minesweepers should be prepared to warn merchant vessels which persist in approaching too close by means of any of the appropriate signals from the International Code of Signals.

(37) MINESWEEPING-CAUTION-ATTENTION IS CALLED TO THE FOLLOWING INSTRUCTIONS (Continued).

(f) In fog, mist, falling snow, heavy rainstorms, or any other conditions similarly restricting visibility, whether by day or night, minesweepers while towing sweeps when in the vicinity of other vessels will sound signals for a vessel towing (1 prolonged blast followed by 2 short blasts).

Helicopters Conducting Minesweeping Operations:

(a) The United States is increasingly employing helicopters to conduct minesweeping operations or exercises. When so engaged, helicopters, like vessels, are considerably hampered in their ability to maneuver. Accordingly, surface craft approaching helicopters engaged in minesweeping operations should take safety precautions similar to those described in (b) and (d) above with respect to minesweeping vessels.
(b) Helicopters towing minesweeping gear and accompanying surface escorts, if any, will use all available means to warn approaching ships of the operations or exercises being conducted. Also, measures will be taken where practicable to mark or light the gear or objects being towed.
(c) Minesweeping helicopters are equipped with a rotating beacon which has selectable red and amber modes. The amber mode is used during towing operations to notify/warn other vessels that the helicopter is towing. While towing, the helicopter's altitude varies from 15 to 95 meters above the water and speeds vary from 0 to 30 knots.
(d) General descriptions and approximate dimensions for towed minesweeping gear currently being used in conjunction with helicopters are as follows:
   (1) Mechanical sweep gear consisting, in part, of large lengths of submerged cables and explosive cutters. The only items normally visible on the surface are three to five international orange floats, depending upon the quantity of gear in use, which generally define the dimensions of the tow. The maximum width is 100 meters and the maximum distance behind the helicopter is 600 meters.
   (2) Acoustical sweep device weighing approximately 70 pounds. This device is towed behind the helicopter on a 250-meter orange polypropylene tow cable. When dead in the water, the gear will rise to the surface, supported by a yellow float.
   (3) A hydrofoil platform containing equipment used for magnetic influence sweeping. The platform is towed on the end of a 140-meter cable and trails electrodes in the water which extend 185 meters behind the platform. Very often, the aforementioned acoustical sweep device is towed in conjunction with this platform by attaching it to the end of one of the electrodes by a 30-meter polypropylene tow line. In this configuration, the total length of the tow is 215 and 350 meters, respectively, behind the hydrofoil platform and helicopter. Special care must be exercised when crossing astern of the hydrofoil platform as the towed cable is barely visible, and the attached acoustic device is submerged just beneath the surface and is not visible to surface vessels.
   (4) Helicopters employed in minesweeping operations and their tows may function during the day, and in various types of weather conditions. The major danger to any surface vessel is getting the various cables wrapped in its screws. Small craft also are subject to the risk of collision with the hydrofoil platform.

(Repetition NTM 1(37)10) (U.S. NAVY)

(38) UNITED STATES-EXPLOSIVE ORDNANCE-WARNING-GENERAL.

The continental shelf of the United States contains many forms of unexploded ordnance (military weapons), and while some ordnance hazard areas are designated, many unexploded ordnance locations are not known. The types most likely to be encountered are underwater ordnance (weapons) such as torpedoes, mines, depth charges, and aerial bombs, but other ordnance items may be found. In general, any metallic object having fins, vanes, propellers, horns, or possibly plates screwed or bolted to an external surface should be regarded as dangerous. This warning is published for all shipmasters, trawlers, fishermen, divers or persons conducting operations on or near the ocean bottom, and provides instructions on the action to be taken when ordnance items or suspicious objects are encountered:

(1) OBJECTS SNAGGED OR NETTED: Any object which cannot be immediately identified as a non-explosive (inert) item MUST BE TREATED AS AN EXPLOSIVE ITEM. If in any doubt about its identity, TREAT IT AS EXPLOSIVE. Non-explosive naval ordnance items such as practice torpedoes and practice mines will normally be painted bright orange, for ready identification. Any object which is not painted orange may be dangerous and possibly can explode if brought on board or bumped in any way. If an object is brought to the surface of the water and it cannot be immediately identified as an inert item, DO NOT ATTEMPT TO BRING IT ON BOARD OR ALONGSIDE. If possible, release the object immediately and radio the nearest Navy or Coast Guard activity giving position and description of the object. If the object cannot be released, or freed by cutting net or line, the following actions are advised:

(38) UNITED STATES-EXPLOSIVE ORDNANCE-WARNING-GENERAL. (Continued).

(a) stream object as far aft as possible;
(b) notify nearest Navy or Coast Guard activity and stand by for instructions or help;
(c) position crew at forward end of vessel, keeping deckhouse between them and the object astern; exposed personnel should remain under cover if possible;
(d) maintain steerageway as necessary to stay in the area until help or instructions arrive.

If unable to stand by while waiting for instructions because of deteriorating weather or sea conditions or other uncontrollable factors, keep the Navy or Coast Guard activity informed of your vessel's position AND AVOID POPULATED AREAS, OTHER VESSELS, OR SHORE- OR SEA-BASED STRUCTURES.

(2) OBJECTS BROUGHT ON BOARD: If a suspected explosive object is not detected until trawl or net contents have been discharged on board the vessel, take the following actions:
(a) avoid any bump or shock to the object;
(b) secure it in place against movement;
(c) keep it covered up and wet down;
(d) radio nearest Navy or Coast Guard activity and standby for instructions.

If unable to stand by while waiting for instructions because of deteriorating weather or sea conditions or other uncontrollable factors, keep the Navy or Coast Guard activity informed of your vessel's position AND AVOID POPULATED AREAS, OTHER VESSELS, OR SHORE-OR SEA-BASED STRUCTURES.

(3) FLOATING OBJECTS: If a floating object cannot be readily identified as non-explosive, IT MUST BE CONSIDERED TO BE EXPLOSIVE. DO NOT APPROACH, OR ATTEMPT TO RECOVER OR BRING ON BOARD. Report location immediately to the nearest Navy or Coast Guard activity and warn all other ships or craft in the vicinity. Try to keep the object in sight until instructions are received.

(4) NAVAL MINES: Naval mines constitute a risk to shipping, fishing, underwater exploration, and other maritime interests. The different types of mines, the conditions under which they are most likely to be sighted, and the recommended action are as follows:

FLOATING MINES- Consider all floating mines to be live and dangerous. DO NOT TOUCH OR APPROACH. The possibility of drifting mines being camouflaged with seaweed or other innocent appearing floating objects should be borne in mind and avoiding action taken. The following procedures and precautions are recommended:

GROUND MINES- ON THE HIGH SEAS. Report the location of the mine by the most rapid means as soon as circumstances permit, this report is to be similar to that required for any hazard to navigation (See para 5). Mines sighted in anchorage areas or other patrolled water should, if circumstances permit, be kept under observation and reported to the nearest Navy or Coast Guard activity (See para 5). The recovery or handling of the mine should be done only by qualified explosive ordnance disposal personnel. If a mine is drifting down on a vessel at anchor and it cannot be avoided by other means, it is recommended that a stream of water from a fire hose be played near the mine to force it away from the vessel. WARNING: Mines may explode if a stream of water is played near them. Exposed personnel should remain under cover until danger is past.

MOORED MINES- Moored mines may sometimes be seen several feet under the surface if the water is clear, or the mine may be floating on the surface. Often several mines or even a long row of the mines can be seen. Usually the sighting of one or more such mines indicates the presence of a minefield. Approaching the general vicinity of such mines is dangerous and should not ordinarily be undertaken by vessels. When mines are sighted, the location of the mines should be determined as accurately as possible, the area should be buoyed if this is feasible, all ships in the vicinity should be warned, and the appropriate Navy or Coast Guard activity should be notified immediately. Ground mines are normally laid in water so deep that they will not be seen unless the water is very clear. However, in very clear water with a hard white sand bottom, even a camouflaged mine can often be located because of the long, regular shadow it casts. The sighting of such a mine may indicate a minefield in the neighborhood. Approaching the general vicinity of such a mine is very dangerous. If a mine is sighted, the location should be determined as accurately as possible and buoyed, all ships in the vicinity should be warned, and the appropriate Navy or Coast Guard activity should be notified immediately.

BEACHED MINES- Any of the above types of mine may be found on the beach, either thrown up by the waves or mislaid by aircraft. Any mine found beached or floating close inshore should be reported at once to the nearest Navy, Coast Guard, military, or civil authority, and the mine should be kept under guard until the arrival of responsible authorities. No person except qualified explosive ordnance disposal personnel should be allowed closer than 400 yards.

(38) UNITED STATES-EXPLOSIVE ORDNANCE-WARNING-GENERAL. (Continued).

(5) REPORTING OF SUSPICIOUS OBJECTS RESEMBLING MINES: Ships frequently report objects resembling mines but give insufficient information to properly evaluate the reports. As a result, needless time and expense is incurred only to find that they are not mines but other floating objects. HOWEVER, VESSELS SHOULD NOT ATTEMPT TO RECOVER OBJECTS RESEMBLING MINES OR PASS CLOSE ABOARD FOR POSITIVE IDENTIFICATION-KEEP WELL CLEAR. Since mines are a danger to life and property at sea, masters of ships sighting unidentified or suspicious objects are requested to furnish the following information to the nearest Navy or Coast Guard radio station or activity:

(a) Position of object, and how closely it was approached.
(b) Size, shape, condition of painting, and the presence of marine growth.
(c) Whether or not horns or rings are attached.
(d) Whether or not definite identification possible.

(Repetition NTM 1(38)10) (U.S. NAVY)

(39) CAUTION-OIL WELL STRUCTURES IN WATERS CONTIGUOUS TO THE U.S. AND ITS TERRITORIES.

Caution should be exercised when navigating in the waters contiguous to the U.S. and its territories particularly in the Gulf of Mexico, Santa Barbara Channel, California, and Cook Inlet, Alaska, in order to avoid collision with oil well structures and their associated mooring piles, anchor and mooring buoys, etc.

In general, oil well structures can be identified at night by the display of one or more quick flashing white or red lights, however, ships can expect to encounter unlighted structures as well. Structures may be equipped with a fog signal consisting of a horn sounding one 2-second blast every 20 seconds. Submerged wells may be marked by lighted or unlighted buoys.

Shipping safety fairways have been established through the concentration of oil wells in the Gulf of Mexico and Santa Barbara Channel. Mariners are encouraged to use these fairways and should avoid anchoring within a safety fairway. Certain areas adjacent to shipping safety fairways have been charted as fairway anchorages.

(Repetition NTM 1(39)10) (USCG)

(40) CAUTION REGARDING APPROACH OF SINGLE VESSELS TOWARD NAVAL FORMATIONS AND CONVOYS.

A formation of warships or a convoy is more difficult to maneuver than a single ship. Therefore, the attention of masters is called to the danger of all concerned which is caused by a single vessel approaching a formation of warships or convoy so closely as to involve risk of collision, or attempting to pass ahead of, or through such a formation or convoy. All ships are therefore cautioned to employ the customary manners of good seamanship and, where there is ample sea room, adopt early measures to keep out of the way of a formation of warships or convoy. The fact that in the interests of safety a single vessel should keep out of the way of a formation or convoy does not entitle vessels sailing in company to proceed without regard to the movements of the single vessel. Vessels sailing in formation or convoy should accordingly keep a careful watch on the movements of any single vessel approaching the squadron or convoy and should be ready, in the case the single vessel does not keep out of the way, to take such action as will best aid to avert collision.

(Repetition NTM 1(40)10) (U.S. NAVY)

(41) NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY DISTRIBUTION SYSTEM.

GENERAL INFORMATION AND CUSTOMER ORDERING GUIDANCE.

DEFENSE SUPPLY CENTER RICHMOND-MAPPING CUSTOMER OPERATIONS (DSCR-FAN).

The DSCR Mapping Customer Operations (DSCR-FANB) is available to assist customers during normal duty hours, Monday through Friday, 0630 to 1700 EST. After hours messages are recorded for processing on the next business day. The office can respond to inquires regarding catalog usage, ordering procedures, product availability, disposition of excess stock, subscriptions and many other GGI&S related activities and interests.

Mailing Address:

Defense Supply Center Richmond
Mapping Customer Operations
ATTN: DSCR-QAM
8000 Jefferson Davis Highway
Richmond, VA 23297-5339

(41) NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY DISTRIBUTION SYSTEM. (Continued).

Message Address:
DSCR RICHMOND VA//DSCR-FAN//
DSN: 695-6500; Fax: 695-6510
Tel: (804) 279-6500; Fax: (804) 279-6510
Toll Free: 1-800-826-0342
E-mail: acctmgr@dla.mil
Web site: www.dscr.dla.mil/rmf/
After Normal Duty Hours and Crisis Support
Pager-DSCR-QAM Duty Officer: Tel. (804) 279-6500
DSN 695-6500
Toll Free 1-800-826-0342

Through a special arrangement betwen the National Ocean Servcie and NGA, all NOAA charts are also available in the ePOD-M format (large PDF print files) for government use. These files are updated every week for all Notice to Mariners (NGA, USCG, and Canadian Coast Guard). The websites for downloading NOAA charts are:

- NIPRNet: https://www.geointel.nga.mil/products/dnc/epods/index.htm
- SIPRNet: http://www.geoint.nga.smil.mil/products/dnc1/epods/index.htm

NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY (NGA) CUSTOMER HELP DESK.
The NGA Customer Help Desk is available to assist customers with general questions about NGA products and services. U.S. customers may call from 0600 to 1800 CST, Monday through Friday, toll free at 1-800-455-0899. U.S. and OCONUS customers may call DSN: 693-4864; DSN: Fax: 693-4875, Tel: Fax: (314) 263-4875; E-mail: chdesk@nga.mil.

OBTAINING NGA NAUTICAL CHARTS AND PUBLICATIONS.
DoD customers should refer to the ordering procedures contained in the Catalog of Maps, Charts and Related Products. Requests for NGA products from non-DoD U.S. Government Agencies are on a reimbursable basis.

(1) CHARTS
Commencing in 2011, the public sale of NGA nautical charts will be performed by the National Ocean Service and the official NOS chart agent(s) identified below:

OceanGrafix
276 East Fillmore Avenue
St. Paul, MN 55107
651-726-5600
Web site: www.OceanGrafix.com

(2) PUBLICATIONS
New editions of NGA publications, announced in the Notice to Mariners, are available through electronic access at the Maritime Safety Web site (http://msi.nga.mil/NGAPortal/MSI.portal).

Although most NGA navigational publications are no longer offered in printed form from U.S. Government sources, authorized reproductions of these publications can still be purchased from commercial vendors. Known commercial vendors of authorized reproductions are listed below:

ProStar Publications Inc. (http://www.prostarpublications.com/b1/index.php)
Maryland Nautical (http://www.mdnautical.com/nauticalbooks.htm)
American Nautical Services (http://www.amnautical.com/cgi-local/webcat/products_page.cgi?cond=BO)
Landfall Navigation (http://www.landfallnavigation.com/govpub.html)
Waypoint (http://www.waypoints.com/noaangapubs.html)
Islamorada Internacional (Panama Canal) (http://www.islamorada.com/english/nautical_publications/)
Horizon Nautical, Inc. (http://www.horizon-usa.net)
Celestaire (http://celestaire.com/Books/software.html)
W.T. Brownley Company (http://www.brownley-nautical.com)

(41) NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY DISTRIBUTION SYSTEM. (Continued).

This directory represents only that these vendors may offer sale of NGA publications. It is neither exclusive nor exhaustive, and in no way constitutes an endorsement by NGA of the listed vendors, nor the services or products they provide. Vendors of authorized NGA publications that wish to be included in this directory should notify the NGA Maritime Products and Services Domain by e-mail to webmaster_nss@nga.mil or by telephone at 301-227-3120.

For additional information, visit the Products Catalog page at the Maritime Safety Web site (http://msi.nga.mil/NGAPortal/MSI.portal.
(Supersedes NTM 1(41)10) (NGA/NOAA)

(42) INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO).

The International Hydrographic Organization (IHO) was originally established in 1921 as the International Hydrographic Bureau (IHB), the present name having been adopted in 1970 as a result of a revised international agreement between the member nations. However, the former name, International Hydrographic Bureau, was retained for the IHO's administrative body of three Directors and a small Staff at the Organization's headquarters in Monaco.

The IHO sets forth hydrographic standards as they are agreed upon by the member nations. All Member States are urged and encouraged to follow these standards in their surveys, nautical charts and publications. As these standards are uniformly adopted, the products of the world's hydrographic and oceanographic offices become more uniform. Much has been done in the field of standardization since the Bureau was founded.

The principal work undertaken by the IHO is:

(a) To bring about a close and permanent association between national hydrographic offices;
(b) To study matters relating to hydrography and allied sciences and techniques;
(c) To further the exchange of nautical charts and documents between hydrographic offices of Member Governments;
(d) To circulate the appropriate documents;
(e) To tender guidance and advice upon request, in particular to countries needing technical assistance while engaged in setting up or expanding their hydrographic service;
(f) To encourage coordination of hydrographic surveys with relevant oceanographic activities;
(g) To extend and facilitate the application of oceanographic knowledge for the benefit of navigators;
(h) To cooperate with international organizations and scientific institutions which have related objectives.

During the 19th century, many maritime nations established hydrographic offices to provide means for improving the navigation of naval and merchant marine vessels by providing nautical publications, nautical charts and other navigational services. Non-uniformity of hydrographic procedures, charts and publications was much in evidence. In 1889, an International Marine Conference was held at Washington, D.C., and it was proposed to establish a "permanent international commission." Similar proposals were made at the sessions of the International Congress of Navigation held at St. Petersburg in 1908 and again in 1912.

In 1919 the hydrographers of Great Britain and France cooperated in taking the necessary steps to convene an international conference of hydrographers. London was selected as the most suitable place for this conference and on July 24, 1919, the First International Conference opened, attended by the hydrographers of 24 nations. The object of the conference was clearly stated in the invitation to attend. It read, "To consider the advisability of all maritime nations adopting similar methods in the preparation, construction, and production of their charts and all hydrographic publications; of rendering the results in the most convenient form to enable them to be readily used; of instituting a prompt system of mutual exchange of hydrographic information between all countries; and of providing an opportunity for consultations and discussions to be carried out on hydrographic subjects generally by the hydrographic experts of the world." In general, this is still the purpose of the International Hydrographic Organization. As a result of the conference, a permanent organization was formed and statutes for its operations were prepared. The International Hydrographic Bureau, now the International Hydrographic Organization, began its activities in 1921 with 18 nations as members. The Principality of Monaco was selected as the headquarters because of its easy communication with the rest of the world and also because of the generous offer of Prince Albert I of Monaco to provide suitable accommodations for the Bureau in the Principality. The IHO, including the 3 Directors and their staff, is housed in its own headquarters which were built and are maintained by the Government of Monaco.

Officers and enlisted men of naval vessels and masters, mates or navigating personnel of merchant ships, including pleasure craft, are welcome to visit the Bureau's Office at 4 quai Antoine 1er, Monte-Carlo.

(42) INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO). (Continued).

The works of the IHO are published in both French and English and distributed through various media. Many of the publications are available to the general public, and a discount of 30 percent is offered to naval or merchant marine officers of any of the member nations. Inquiries as to the availability of the publications should be made directly to the International Hydrographic Bureau, 4 quai Antoine 1er, B.P. 445, MC 98011 MONACO CEDEX, Principality of Monaco, phone: 377 93 10 81 00, fax: 377 93 10 81 40, e-mail: info@ihb.mc, web site: htp://www.iho-ohi.net.

In order that the work of the IHO may be reviewed and future plans developed, conferences are held every five years. They are attended by delegates from member nations.

Presently, the following nations are Member States of the International Hydrographic Organization:

Algeria
Argentina
Australia
Bahrain
Bangladesh
Belgium
Brazil
*Bulgaria
Burma
Canada
*Cameroon
Chile
China
Colombia
Congo, Democratic Republic of the
Croatia
Cuba
Cyprus
Denmark
Dominican Republic
Ecuador
Egypt
Estonia
Fiji
Finland
France
Germany
Greece
Guatemala
*Haiti
Iceland
India
Indonesia
Iran
Ireland
Italy
Jamaica
Japan
Kuwait
Latvia
Malaysia
*Mauritania
Mauritius
Mexico
Monaco
*Montenegro
Morocco
Mozambique
Netherlands
New Zealand
Nigeria
North Korea
Norway
Oman
Pakistan
Papua New Guinea
Peru
Philippines
Poland
Portugal
Qatar
Romania
Russia
Saudi Arabia
Serbia
*Sierra Leone
Singapore
Slovenia
South Africa
South Korea
Spain
Sri Lanka
Suriname
Sweden
Syria
Thailand
Tonga
Trinidad and Tobago
Tunisia
Turkey
Ukraine
United Arab Emirates
United Kingdom
United States
Uruguay
Venezuela

* Membership of IHO pending

(Supersedes NTM 1(42)10) (IHO)

(43) INTERNATIONAL DISTRESS SIGNALS.

1. All seamen should be familiar with the international distress signals and procedures, both for recognition purposes and for self-reliance in the event of distress where captain and officers may have been incapacitated.

2. Short range distress signals, limited to range of visibility or audibility are:
   (a) “SOS” signal made by any audio or visual means.
   (b) International Code of Signals “NC”.
   (c) Hoisting any square flag with a ball or anything resembling a ball, above or below it.

(43) INTERNATIONAL DISTRESS SIGNALS. (Continued).

(d) Flames made visible (as a burning oil barrel).
(e) A rocket parachute flare or hand held flare showing a red light.
(f) Rockets or shells, throwing red stars fired one at a time at short intervals.
(g) Orange smoke, as emitted from a distress flare.
(h) A gun or other explosive signal fired at intervals of about one minute.
(i) A continuous sounding of any fog-signal apparatus.
(j) Slowly and repeatedly raising and lowering arms outstretched to each side.

3. Radio distress signals via radiotelephone:
(a) For MF Radiotelephone. Set transmitter to 2182 kHz (USB) and transmit the radiotelephone alarm signal (if available) briefly wait and then transmit the distress message as outline in (c) below.
(b) For VHF FM Radiotelephone. Set transmitter to VHF FM Channel 16 and transmit the distress message as outlined in (c) below.
(c) Transmit the distress message consisting of the word MAYDAY repeated three times followed by the vessel's identification repeated three times. Immediately continue by giving the position; nature of distress; number of people on board; nature of assistance required and any other information which may facilitate rescue authorities. Pause to await acknowledgement and if none heard within one minute, repeat the same again until acknowledged. Speak the distress message clearly and calmly.

4. Radio distress signals via satellite:
(a) For satellite terminals equipped with a distress button. Activate the button and follow displayed menu instructions.
(b) For satellite terminals without a distress button. Place a call to nearest Rescue Coordination Center or system operator and provide identification, position, nature of distress, number of persons on board and type of assistance requested.

5. Radio distress signals via Digital Selective Calling: The distress call should be composed to include ship's position information, the time at which the position was taken, and the nature of distress. If the DSC radio is connected to a navigation receiver, position and time-of-position should already be included. The distress call should be transmitted on VHF Channel 70 (156.525 MHz), 2187.5 kHz, or the HF frequencies 4207.5, 6312, 8414.5, 12577 and 16804.5 kHz. An acknowledgment of the distress call should be received on the DSC frequency. Once an acknowledgment has been received, the radio distress procedures via radiotelephone (above) should be followed on the associated voice channel: VHF Channel 16 (156.800 MHz), 2182, 4125, 6215, 8291, 12290 and 16420 kHz. For DSC distress calls on VHF Channel 70 and 2187.5 kHz, the radio distress procedures via radiotelephone should be followed on the associated voice channel if an acknowledgment is not received after 5 min.

6. Simple to follow instructions for the operation of auto alarms, radiotelephone, DSC and satellite communications equipment should be conspicuously posted in the radio rooms of all ships. Procedures outlined here are purposely brief. Complete information on emergency radio procedures is contained in Chapter 4 of Radio Navigational Aids (Pub. 117).

7. Procedures for canceling false distress alerts: If a distress alert is inadvertently transmitted, the following steps shall be taken to cancel the distress alert:
(a) VHF Digital Selective Calling:
(1) Reset the equipment immediately;
(2) Set to Channel 16; and
(3) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and MMSI, and cancel the false distress alert.
(b) MF Digital Selective Calling:
(1) Reset the equipment immediately;
(2) Tune for radiotelephony transmission on 2182 kHz; and
(3) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and MMSI, and cancel the false distress alert.
(c) HF Digital Selective Calling:
(1) Reset the equipment immediately;
(2) Tune for radiotelephony on the distress and safety frequency in each band in which a false distress alert was transmitted; and

(43) INTERNATIONAL DISTRESS SIGNALS. (Continued).

(3) Transmit a broadcast message to "All stations" giving the ship's name, call sign or registration number, and MMSI, and cancel the false distress alert frequency in each band in which a false distress alert was transmitted.

(d) INMARSAT ship earth station: Immediately notify the appropriate rescue coordination center that the alert is cancelled by sending a distress priority message by way of the same land earth station through which the false distress alert was sent. Provide ship name, call sign or registration number, and INMARSAT identity with the cancelled alert message.

(e) EPIRB: Once an EPIRB is switched on, whether accidental or intentionally, the user should make every reasonable attempt to communicate with SAR authorities by other means to advise them of the situation before turning the EPIRB off.

(f) General and other distress alerting systems: Notwithstanding paragraphs (a) through (e) of this section, ships may use additional appropriate means available to them to inform the nearest appropriate U.S. Coast Guard rescue coordination center that a false distress alert has been transmitted and should be cancelled.

(Supersedes NTM 1(43)10) (IMO/USCG)

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE (WWNWS).

The Worldwide Navigational Warning Service (WWNWS) was established in 1977 through the joint efforts of the International Hydrographic Organization (IHO) and the International Maritime Organization (IMO). The WWNWS is a coordinated global service for the promulgation by satellite of information on hazards to navigation which might endanger international shipping.

The objective of the WWNWS is the timely promulgation by satellite of information of concern to the ocean-going navigator. Such information includes the following: failure and/or changes to major navigational aids, newly discovered wrecks or natural hazards including icebergs in or near main shipping lanes, hazardous military operations and areas where search and rescue, anti-pollution operations, acts of piracy and cable-laying or other underwater activities are taking place.

For purposes of the WWNWS, the world has been divided into 21 Navigation Warning Areas (NAVAREAS) (see graphic page, I-1.47). A NAVAREA is a geographical sea area established for the purposes of coordinating the broadcast of navigational warnings.

Within each NAVAREA one national authority, designated the NAVAREA Coordinator, has assumed responsibility for the coordination and promulgation of the warnings. Designated "National Coordinators" of other coastal states in a NAVAREA are responsible for collecting and forwarding information to the NAVAREA Coordinator. In the Baltic, a Sub-Area Coordinator has been established to filter information prior to passing to the NAVAREA Coordinator.

NAVAREA Coordinators are responsible for the exchange of information as appropriate with other coordinators, including that which should be further promulgated by charting authorities in Notice to Mariners

The International Maritime Organization (IMO), the International Hydrographic Organization (IHO), and the World Meteorological Organization (WMO) have announced the establishment of five (5) new Arctic NAVAREA/METAREAs as part of the expansion of the IMO/IHO World-Wide Navigational Warning Service (WWNWS) into Arctic waters.

Effective 01 July 2010, an International SafetyNET Service for broadcasting navigational warnings and meteorological warnings and forecasts in the English Language has been declared to be in an "Initial Operational Capability" (IOC) for Arctic waters with a transition to "Full Operational Capability" (FOC) on 01 June 2011.

During the IOC period, these Arctic NAVAREA/METAREAs will be providing navigational warnings and meteorological warnings and forecasts on an intermittent and test basis. The broadcasting of SafetyNET messages to the new Arctic NAVAREA/METAREAs will be addressed to rectangular area(s) until the SafetyNET receiver modifications with the inclusion of the NAVAREA/METAREAs boundary limits and its identification are in place. Reception of rectangular addressed messages should be automatic providing the ship's position is inside the addressed area. However, mariners are advised to check their manufacturer's operation manuals to obtain information on the setting of their EGC receivers to receive relevant SafetyNET messages.

Broadcast schedules appear in an Annex to the International Telecommunication Union "List of Radio-determination and Special Service Stations," Volume II, and in the lists of radio signals published by various hydrographic authorities (in the U.S., Pub. 117). Transmissions usually occur frequently enough during the day to fall within at least one normal radio watch period, and the information is repeated with varying frequency as time passes until either the danger has passed or the information on it has appeared as a Notice to Mariners. Transmission of information over the WWNWS will continue to be affected by the advent of services such as NAVTEX.

A document giving guidance and information on the WWNWS is available free from the International Hydrographic Bureau, 4 quai Antoine 1er, B.P. 445, MC 98011 MONACO CEDEX, Principality of Monaco.

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE (WWNWS). (Continued).

NAVAREA I (United Kingdom)
United Kingdom National Hydrographer
United Kingdom Hydrographic Office
Admiralty Way
TAUNTON
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England
Phone: 44 1823 353 448
Fax: 44 1823 322 352
E-mail: navwanings@btconnect.com

Baltic Sea Sub-Area Coordinator
Swedish Maritime Administration
BALTICO
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Sweden
Tel: +46 11 19 10 45
FAX: +46 11 23 89 45
Email: ntm.baltico@sjofartsverket.se
Web site: http://www.sjofartsverket.se/baltico

NAVAREA II (France)
Department "Information et Ouvrages Nautiques"
Service hydrographique et océanographique de la marine
13 Rue du Chatellier
CS 92803
29228 BREST CEDEX 2
France
Tel: +33 (0)2 98 22 15 99 (Chief of Department, Office Hrs, Mon to Fri)
Tel: +33 (0)2 98 22 16 67 (Duty Officer, H24)
Fax: +33 (0)2 98 22 14 32
Telex : FRANAUT 940861 F
E-mail: coord.navarea2@shom.fr
Web site: http://www.shom.fr
http://www.shom.fr/navarea/NavareaIIenVigeur.txt

NAVAREA III (Spain)
Director del Instituto Hidrográfico de la Marina
Instituto Hidrográfico de la Marina
Plaza de San Severiano, 3
11007 CÁDIZ
Spain
POC: Head of Navigational Section
Tel: +34 956 599409/599414
Fax: +34 956 599396/545347
E-mail: ihmesp@fn.mde.es
avisosihm@fn.mde.es
Web site: http://www.armada.mde.es/ihml/

NAVAREA IV AND XII (United States)
Maritime Domain
ATTN: PVM (Mail Stop D-44)
4600 Sangamore Road
Bethesda,
Maryland 20816-5003
United States of America
Tel: +1 301 227 3147
Fax: +1 301 227 3731
E-mail: navsafety@nga.mil
Web site: http://msi.nga.mil/NGAPortal/MSI.portal

NAVAREA V (Brazil)
Director
Diretoria de Hidrografia e Navegacão
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Ponta d'Areìa
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Brazil
Tel: +55 21 2189-3023, +55 21 2189-3210
Fax: +55 21 2189-3210, +55 21 2620-0073
E-mail: segnav@chm.mar.mil.br
Web site: http://www.mar.mil.br/dhn/dhn/index.html

NAVAREA VI (Argentina)
Head of Maritime Safety Department
Servicio Hidrografía Naval
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BUENOS AIRES
ARGENTINA
C1270ABV
Tel: +54 11 4301 0061 / 67 ext 4028
Fax: +54 11 4301 2249
E-mail: snautica@hidro.gov.ar
shn_orgint@hidro.gov.ar
Web site: http://www.hidro.gob.ar/Nautica/radioav.asp

NAVAREA VII (Republic of South Africa)
The Hydrographer, S.A. Navy
Hydrographic Office
Private Bag X1, Tokai
7966 CAPE TOWN
South Africa
Tel: +27 21 787 2408
FAX: +27 21 787 2228
Email: hydrosan@iafrica.com
Web site: http://www.sanho.co.za

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE (WWNWS). (Continued).

NAVAREA VIII (India)
The Chief Hydrographer
Attn: Joint Director of Hydrography (Maritime Safety Information Services)
National Hydrographic Office
107-A, Rajpur Road
P.B.No. 75,
Dehradun, Uttarakhand
India
Pin 248 001
Phone: 91 135 2747365
Fax: 91 135 2748373
E-mail: msis-inho-navy@nic.in
inho-navy@nic.in
Web site: http://www.hydrobharat.nic.in

NAVAREA IX (Pakistan)
Hydrographer of the Pakistan Navy
PN Hydrographic Department
11, Liaquat Barracks
Karachi, 75530
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Phone: 92 21 48506152/56636151
Fax: 92 21 9201623/9203246
E-mail: hydropk@paknavy.gov.pk
Web site: http://www.paknavy.gov.pk/hydro/index.asp

NAVAREA X (Australia)
Senior Search and Rescue Officer (Maritime)
RCC AUSTRALIA
Emergency Response Division
Australian Maritime Safety Authority
GPO Box 2181
Canberra ACT 2601
Australia
Phone: 61 2 6230 6811
Fax: 61 2 6230 6868
E-mail: rccaus@amsa.gov.au
Web site: http://www.amsa.gov.au/Search_and_Rescue/Distress_and_Safety_Communications/Maritime_Safety_Information.asp

NAVAREA XI (Japan)
Director General
Hydrographic and Oceanographic Department
Japan Coast Guard
3-1, Tsukiji 5-chome
Chuo-ku, TOKYO 104-0045
Japan
Phone: 81 3 3541 3817
Fax: 81 3 3542 7174
E-mail: tuho@jodc.go.jp
keiho-tsuuhou@kaiho.mlit.go.jp
Web site: http://www1.kaiho.mlit.go.jp/jhd-E.html

NAVAREA XIII (Russian Federation)
Chief, Notice to Mariners Division
Department of Navigation and Oceanography
Ministry of Defense
8, 11 Liniya, B-34
ST. PETERSBURG 199034
Russian Federation
Phone/Fax: 7 812 717 59 00
E-mail: navarea13@gunio.ru
Web site: none

NAVAREA XIV (New Zealand)
NZ Hydrographic Authority
Land Information New Zealand
National Office, Lambton House
160 Lambton Quay,
Private Box 5501
WELLINGTON
New Zealand
Phone: 64 4 460 0110
Fax: 64 4 460 0161
E-mail: NAVAREAXIV@linz.govt.nz
Web site: http://www.linz.govt.nz/hydro/ntms/index.aspx

NAVAREA XV (Chile)
Director, Hydrographic and Oceanographic Service of the Chilean Navy
Errazuriz 254
Playa Ancha
VALPARAISO
Chile
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Fax: 56 32 226 6542
E-mail: shoa@shoa.cl
infonav@shoa.cl
Web site: http://www.shoa.mil.cl

NAVAREA XVI (Peru)
Direccion de Hidrografia y Navegacion
Avda. Gamarra No. 500
Chucuito
CALLAO 1
Peru
Phone: 51 1 465 8312/6136749/6136767 ext 6457
Fax: 51 1 6136759
E-mail: dihidronav@dhn.mil.pe
jnavegacion@dhn.mil.pe
jvaldez@dhn.mil.pe
Web site: http://www.dhn.mil.pe

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE (WWNWS). (Continued).

NAVAREA XVII AND XVIII (Canada)
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Ottawa, Ontario, K1A 0E6
Canada
Phone: 1 613 990 3031
Fax: 1 613 996 8902
E-mail: mctsctmottawa@dfo-mpo.gc.ca

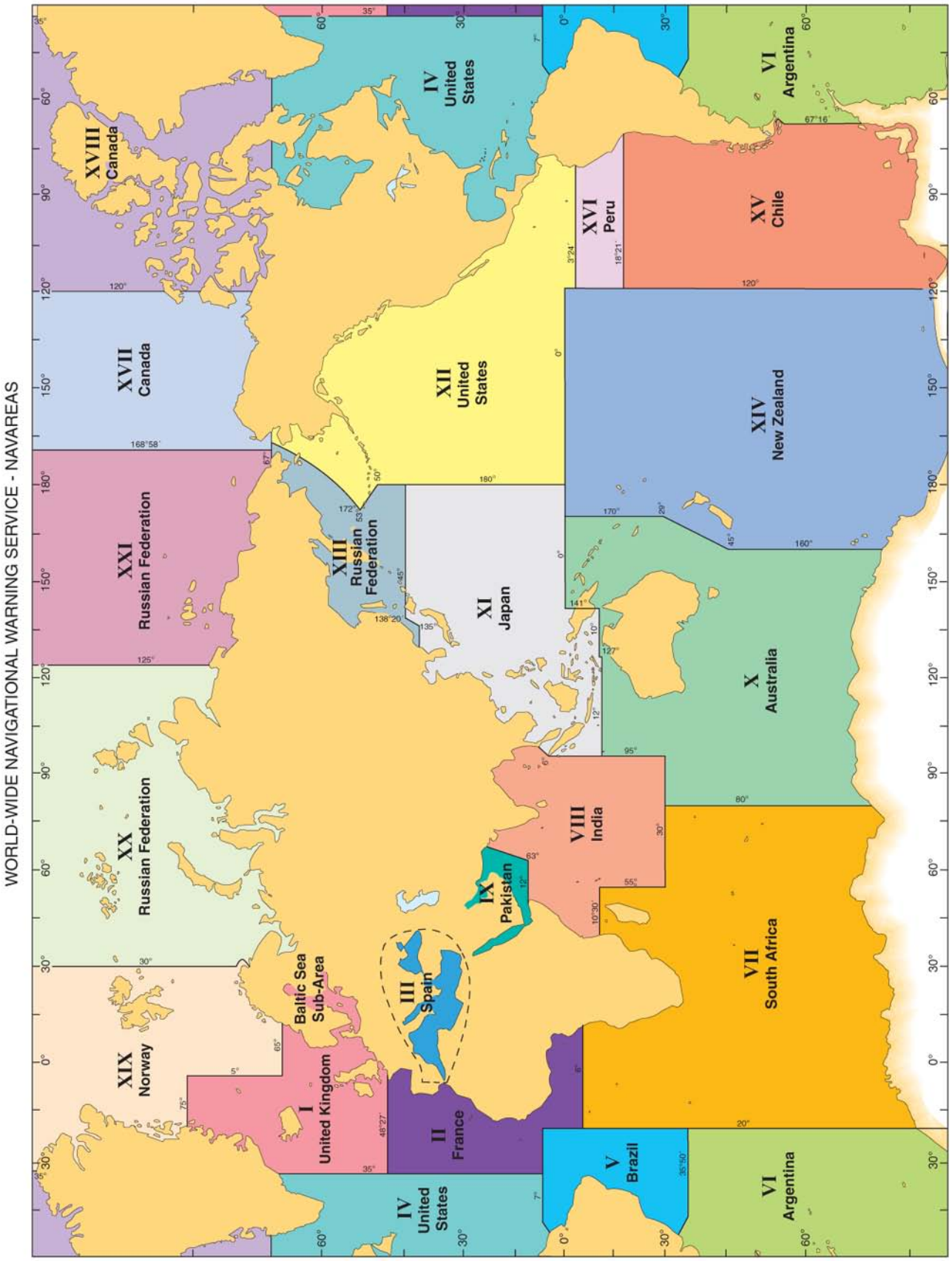
NAVAREA XIX (Norway)
Department of Maritime Safety
Norwegian Coastal Administration
PO Box 1502
6025 Alesund
Norway
Phone: 47 33 034808/Direct: 47 70 231064
Fax: 47 70 231008
E-mail: trond.ski@kystverket.no

NAVAREA XX AND XXI (Russian Federation)
Chief of MSI Division
Federal State Unitary Hydrographic Department
Ministry of Transport
Russian Federation
Phone: 7 812 570 3466
Fax: 7 812 570 3466
E-mail: ibm@hydrograph.spb.su

Chairman, IHO Worldwide Navigational Warning Service
Mr. Peter Doherty
4600 Sangamore Road
Bethesda, MD 20816-5003
Telephone: 011 301 227 7646
Fax: 011 301 227 3731
E-mail: Peter.M.Doherty@nga.mil

(Supersedes NTM 1(44)10) (IHO/IMO/NGA)

(44) WORLDWIDE NAVIGATIONAL WARNING SERVICE (WWNWS). (Continued).



(45) WEATHER OBSERVATION REPORTS.

All ships are encouraged to participate in the international Voluntary Observing Ship (VOS) program. For information, and to arrange assistance from a U.S. National Weather Service Port Meteorological Officer (PMO) contact:

Voluntary Observing Ship Program
NOAA/NWS National Data Buoy Center (W/OPS51)
Building 3203
Stennis Space Center, MS 39529-6000
Telephone: (228) 688-1457
Fax: (228) 688-3923
E-mail: vos@noaa.gov
Web site: http://www.vos.noaa.gov

Details on the coding and transmission of weather observations may be found in "Observing Handbook No. 1" provided to ships participating in the U.S. VOS program. The U.S. VOS program also makes available a PC software program known as Amver/SEAS which greatly assists in coding and transmitting VOS observations and Amver position reports.

Detailed information on the dissemination of National Weather Service marine products including radiofax, such as frequency and scheduling information may be found in NGA Publication 117, the British Admiralty List of Radio Signals Volume 3(2), and at http://www.nws.noaa.gov/om/marine/home.htm (includes links to products).

GENERAL INSTRUCTION FOR REPORTING WEATHER OBSERVATIONS

CODED WEATHER MESSAGES: All weather report messages by radio or Inmarsat will be coded in World Meteorological Organization (WMO) ship synoptic code FM13-IX.

STANDARD SYNOPTIC OBSERVATION TIMES: The regular synoptic hours for reporting are 0000, 0600, 1200, and 1800 UTC. However, watch schedules and other ship functions sometimes make it impractical to meet the synoptic weather reporting schedule. Weather observations may also be submitted at the intermediate hours of 0300, 0900, 1500, and 2100 UTC. These should be reported as soon as possible, but no later than three (3) hours after the synoptic observation time.

TIMELINESS AND REPORT VALUE: All weather reports should be transmitted as soon as possible to the National Weather Service. Weather reports can be ingested by computer forecast models for only for a limited time after the reporting hour. Major computer programs are run at all synoptic hours and a few programs are run every three (3) hours. Forecasters look at, and use, all timely reports in making their forecasts and warnings.

SPECIAL WEATHER OBSERVATIONS

TROPICAL STORMS/HURRICANES: Hurricane season has been designated May 15 through November 30 because of the number of tropical storms and hurricanes during the period. Many special programs are in operation during this season and it is requested that the observation schedule, when in the vicinity of a tropical storm or hurricane, be set to transmit weather reports at least every three (3) hours (00, 03, 06, 09, etc.). Hourly reports when within a storm (winds over 48 knots) would be very helpful, if ship routine permits.

SPECIAL REQUESTS FOR OBSERVATIONS: The U.S. National Weather Service may request ships located in areas of suspected storm development to take special observations at more frequent intervals than the routine six (6) hourly synoptic observation times. If your ship happens to be in such an area, your report will be helpful even though conditions may not appear bad enough to warrant a special observation.

OBSERVATIONS DURING STORM CONDITIONS: Whenever TROPICAL STORM, TYPHOON, or HURRICANE conditions are encountered anywhere, "SAFETY OF LIFE AT SEA CONVENTION," Chapter V, requires all ships to take special observations and transmit the report to the closest national meteorological service via the most convenient radio or Inmarsat station. In addition to this requirement, it is highly desirable that weather reports be transmitted hourly, if possible; but in any case, not less frequently than every three (3) hours.

EXTRATROPICAL STORMS: Submit a weather report message as soon as the average wind equals or exceeds 48 knots. Report at least every three (3) hours when under STORM conditions.

COASTAL REPORTS: The weather starts changing as soon as the air moves from land out over the water. Ship weather reporting should continue as close to the coast as ship routine permits. When within 200 miles of the U.S. or Canadian coastlines, reports are requested every three (3) hours.

TRANSMISSION OF WEATHER REPORTS

Below is a summary of the primary means by which VOS observations are transmitted to the National Weather Service. Details on these and other available transmission services may be found in "Observing Handbook No. 1."

(45) WEATHER OBSERVATION REPORTS. (Continued).

INMARSAT-B: Follow the instructions with your Inmarsat terminal for sending a telex message. Use the Special Access Code 41 (except when using the Amver/SEAS software in compressed binary format with Inmarsat-C terminals), and do not request a confirmation when sending. No cost is involved with this transmission. Below is a typical procedure for using an Inmarsat-B transceiver:

1. Select appropriate Land Earth Station Identity (LES-ID). (See table below.)
2. Select routine priority.
3. Select duplex telex channel.
4. Initiate the call. Wait for the GA+ signal.
5. Select the dial code for meteorological reports, 41+.
6. Upon receipt of our answerback, NWS OBS MHTS, transmit the weather message starting with BBXX and the ship's call sign. The message must be ended with 5 periods. Do not send any preamble. Example:

GA+
41+
NWS OBS MHTS
BBXX WLXX 29003 99131 70808 41998 60909 10250 2021/ 4011/ 52003 71611 85264 22234 00261
20201 31100 40803.....

The 5 periods indicate the end of the message, and must be included after each report. Do not request a confirmation.

INMARSAT-C: All major Inmarsat-C terminals have the ability to transmit the encoded weather observation (BBXX) with the Special Access Code 41. No cost is involved with this transmission. Do not request a confirmation when sending. The detailed instructions necessary to setup and address the Code 41 message and transmission instructions according to the different manufacturers are listed on the VOS Web site at http://www.vos.noaa.gov/vos_resource.shtml.

Land-Earth Station Identity (LES-ID) of U.S. Inmarsat Stations
Accepting Ships Weather (BBXX) and Oceanographic (JJYY) Reports

Operator	Service	Station ID			
		AOR-W	AOR-E	IOR	POR
VIZADA	B	04	04	04	04
VIZADA	C	004	104	304	204
VIZADA	C (Amver/SEAS)	004	104	304	204

Use abbreviated dialing code 41. Do not request a confirmation.

Some common mistakes include: (1) failure to end the message with 5 periods when using Inmarsat-B, (2) failure to include BBXX in the message preamble, (3) incorrectly coding the Date, Time, Latitude, Longitude, or quadrant of the globe, (4) requesting a confirmation (which increases cost to NWS).

If your ship's Inmarsat terminal does not contain a provision for using abbreviated dialing code 41, telex address 0023089406 may be used via Vizada. Please note that the ship will incur telecommunication charges for any messages sent to telex address 0023089406 using any Inmarsat earth station other than Vizada.

EMAIL TRANSMISSIONS: In the event that your ship's Inmarsat equipment fails or you are not mandated to have an Inmarsat system onboard your vessel, weather observations can be e-mailed directly into the NWS gateway system. Send your e-mailed observations to: shipobs@noaa.gov. Place your observation in the body of the message and endyour encoded observation with an equal sign (=). This tells the computer to end transmission. Detailed instructions on setup, addressing, and transmitting the message are listed on the VOS Web site at http://www.vos.noaa.gov/vos_resource.shtml.
The ship is responsible for paying email transmission costs.
(Supersedes NTM 1(45)10) (NOAA/NWS)

(46) RADAR BEACONS (RACONs).

Radar beacons (RACONs) are radar responder devices designed to produce a distinctive image on the screens of ship's radar sets, thus enabling the mariner to determine his position with greater certainty than would be possible using a normal radar display alone.

(46) RADAR BEACONS (RACONs). (Continued).

The U.S. Coast Guard operates approximately 80 radar beacons (RACONs) as maritime navigational aids in the Great Lakes, off the Atlantic, Pacific, and Gulf coasts, and on the North Slope of Alaska. RACONs are used to mark and identify points on shore; channel separation, LNB, and other buoys; channel entrances under bridges; and uncharted hazards to navigation (the Morse letter "D", dash-dot-dot, has been reserved for this purpose). RACON marks displayed on a radar screen are Morse characters typically of length 1 to 2 miles, always start with a dash, and always extend radially outward from the radar target marked by the beacon. RACON locations and identifications are included on most marine navigation charts.

RACONs should be visible to most commercial shipboard radar systems on vessels 6-20 miles from the RACON installation, regardless of radar size. No additional receiving equipment is required. Some precautions are necessary, however, if use of RACONs is desired. Radars that operate in the 10 cm band (2900-3100 MHz) are usually installed as a second radar on larger vessels, and may not respond to RACONs. The Coast Guard now installs dual band (3 cm and 10 cm) RACONs in most locations. In addition, rain clutter control switches on radars must be switched off or, if necessary, on low to ensure that the RACON is visible. Finally, most RACONs operating in the U.S. are frequency agile RACONs. Pulse correlation circuitry (interference or clutter rejection on some radars) installed on most newer radars, if on, may prevent the radar from displaying some RACONs. This circuitry should be switched off.

(Repetition NTM 1(46)10) (USCG)

(47) NAVTEX.

NAVTEX is an international automated medium frequency (518 kHz) direct-printing service for promulgation of navigational and meteorological warnings and forecasts, as well as urgent marine safety information to ships. It was developed to provide a low-cost, simple, and automated means of receiving this information aboard ships at sea within approximately 200 nautical miles of shore. NAVTEX receivers may be user adjusted to screen incoming messages to not print certain categories of messages of no interest to a particular user and prevent printing of messages previously received. Mariners who do not have NAVTEX receivers but have SITOR radio equipment can also receive these broadcasts by operating it in the FEC mode and tuning to 518 kHz. Internationally, NAVTEX may also broadcast on the alternate NAVTEX frequencies of 490 and 4209.5 kHz.

The Coast Guard broadcasts NAVTEX messages from:

BOSTON, MA (NMF): Identification (B_1): F
Schedule (UTC): 0045, 0445, 0845[1], 1245, 1645, 2045[1]

CHESAPEAKE, VA (NMN): Identification (B_1): N
Schedule (UTC): 0130, 0530, 0930[1], 1330, 1730, 2130[1]

CHARLESTON, SC: (NMN) Identification (B_1): E
Schedule (UTC): 0040, 0440, 0840[1], 1240, 1640, 2040[1]

MIAMI, FL (NMA): Identification (B_1): A
Schedule (UTC): 0000, 0400, 0800[1], 1200, 1600, 2000[1]

ISABELLA (SAN JUAN), PR (NMR): Identification (B_1): R
Schedule (UTC): 0200[1], 0600, 1000, 1400[1], 1800, 2200

NEW ORLEANS, LA (NMG): Identification (B_1): G
Schedule (UTC): 0300[1], 0700, 1100, 1500[1], 1900, 2300

KODIAK, AK (NOJ): Identification (B_1): J
Schedule (UTC): 0300, 0700, 1100[1], 1500, 1900, 2300[1]

(47) NAVTEX. (Continued).

KODIAK, AK (NOJ)[2]: Identification (B_1): X
Schedule (UTC): 0340, 0740, 1140[1], 1540, 1940, 2340[1]

ASTORIA, OR (NMC): Identification (B_1): W
Schedule (UTC): 0130, 0530, 0930[1], 1330, 1730, 2130[1]

POINT REYES, CA (NMC): Identification (B_1): C
Schedule (UTC): 0000, 0400[1], 0800, 1200, 1600[1], 2000

CAMBRIA, CA (NMC): Identification (B_1): Q
Schedule (UTC): 0045, 0445[1], 0845, 1245, 1645[1], 2045

HONOLULU, HI (NMO): Identification (B_1): O
Schedule (UTC): 0040, 0440, 0840[1], 1240, 1640, 2040[1]

GUAM (NRV): Identification (B_1): V
Schedule (UTC): 0100, 0500, 0900, 1300, 1700, 2100

[1] Routine weather forecasts are broadcast four times per day with these being the normal times when repeats of Notices to Mariners are broadcast in lieu of weather. Weather warnings may be broadcast at any time.

[2] Kodiak also broadcasts weather forecasts during time slots initially allocated to Adak.

Information broadcast over NAVTEX includes weather forecasts, offshore marine advisory warnings, search and rescue information, and navigational information that applies to waters from the line of demarcation (separating Inland Rules waters from COLREG Rules waters) to 200NM offshore. Navigational information that affects the safety of navigation of deep draft (15 feet or more) vessels within U.S. Inland Rules waters will also be included.

NAVAREA IV/XII, HYDROLANT/HYDROPAC and ice information broadcasts are issued over HF SITOR/NBDP (Simplex Telex Over Radio/Narrow Band Direct Printing) from Coast Guard Stations in Boston, Point Reyes, Honolulu and Guam. Broadcasts are made on 6314 kHz, 8416.5 kHz, 12579 kHz, 16806.5 kHz and 22376 kHz. See NGA Pub. 117, Radio Navigational Aids, for schedules.

(Supersedes NTM 1(47)10) (USCG)

(48) SATELLITE DETECTION OF DISTRESS SIGNALS.

The Cospas-Sarsat System is an international cooperative program using satellites to detect distress beacons carried by vessels, aircraft, and persons in distress. This system uses a number of different satellite constellations including low earth-orbiting (LEO) and geostationary (GEO) satellites. Together, these satellites enable distress signals to be received by the system from anywhere on the planet, 24 hrs a day, 7 days a week, in many cases nearly instantaneously.

When a satellite receives a distress signal, it is relayed to a network of ground stations and Mission Control Centers (MCCs). The USMCC (operated by the National Oceanic and Atmospheric Administration, or NOAA) processes signals originating in the United States areas of responsibility, and sends alert information to the appropriate Rescue Coordination Center (RCC)--either a U.S. Coast Guard RCC or the U.S. Air Force RCC (AFRCC). There are three types of distress beacons: EPIRBs (Emergency Position Indicating Radio Beacons) for use in the Maritime Community, ELTs (Emergency Locator Transmitters) found on aircraft and PLBs (Personal Locator Beacons) for individual use. Some EPIRBs and all ELTs are capable of automatic activation, where PLBs can only be activated manually.

EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB).

The Emergency Position Indicating Radio Beacon (EPIRB) is an emergency radio transmitting device used for maritime distress alerting and locating. Table 1 provides an overview of the different categories of EPIRBs currently authorized for use in the U.S. It should be noted that classes A, B, and S EPIRBs are no longer permitted for use within the United States as of January 1, 2007. These EPIRBs should be replaced by Cat I or Cat II 406 MHz Satellite EPIRBs. Some EPIRBs also have GPS chips installed, or allow GPS units to be integrated into the distress signal. This GPS-encoded position dramatically

(48) SATELLITE DETECTION OF DISTRESS SIGNALS. (Continued).

improves the location accuracy down to the 100-meter level. As of February 1, 2009 the Cospas-Sarsat System ceased processing of all 121.5/243.0 MHz beacon signals. For current carriage requirements refer to Navigation and Vessel Inspection Circular No. 3-99; any questions concerning requirements to carry EPIRBs or other safety equipment should be referred to the U.S. Coast Guard Lifesaving and Fire Safety Division, telephone (202) 372-1385.

TABLE 1

CLASS	FREQUENCY	DESCRIPTION	DETECTION
Cat I	406 MHz with 121.5 MHz homing signal	Float free automatically activated beacon	Polar orbiting and geostationary satellites
Cat II	406 MHz with 121.5 MHz homing signal	Manually activated	Polar orbiting and geostationary satellites

PERSONAL LOCATOR BEACON (PLB)

The Personal Locator Beacon (PLB) is a portable, individual use distress beacon that operates much the same as an EPIRB or ELT. These beacons are designed to be carried by an individual person instead of on a boat or aircraft. Unlike ELTs and some EPIRBs, they can only be activated manually and operate exclusively on 406 MHz. And like EPIRBs and ELTs all PLBs also have a built-in, low-power homing beacon that transmits on 121.5 MHz. This allows rescue forces to home in on a beacon once the 406 MHz satellite system has gotten them “in the ballpark” (about 2-3 miles). Some PLBs also have GPS chips installed in which the position can be integrated into the distress signal. This GPS-encoded position dramatically improves the location accuracy down to the 100-meter level. In the United States, PLBs became permitted for nationwide use when the FCC granted authorization in 2003.

FALSE ALERTS

Distress beacon false alarms are a major problem. The EPIRB user must be aware of how false activations can quickly overburden search and rescue resources. Inadvertent EPIRB and PLB activations should be reported immediately to the nearest U.S. Coast Guard Rescue Coordination Center (RCC) to protect system integrity and prevent costly false alarm response. Minimize false alarms with proper handling and storage of EPIRBs and PLBs; understand and comply with manufacturer’s operating instructions for your particular EPIRB and tune a radio to 121.5 or 243.0 MHz to monitor the frequency/detect any inadvertent activation. EPIRBs with two-condition, automatic activation switches (e.g. out of bracket and in water) have significantly demonstrated a reduction in false alert rates with no adverse impact on automatic distress performance. Again, report inadvertent activations immediately.

MAINTENANCE

EPIRB and PLB owners should test their beacons in accordance with manufacturer instructions, and examine them for water tightness, battery expiration date and registration expiration date.

406 MHz beacons can be tested at any time using the beacon’s self-test switch only. The 121.5 MHz homer can be detected by an FM radio tuned to 99.5 MHz or an AM radio tuned to any vacant frequency and located close to an EPIRB or PLB.

BEACON REGISTRATION

406 MHz beacon registration has been mandatory since 13 September 1994 by Federal Communications Commission regulations. All U.S. coded 406 MHz emergency beacons MUST be registered with the National Oceanic and Atmospheric Administration (NOAA) which maintains the U.S. beacon registration database. Registration is free of charge, and must be renewed every two (2) years. When a 406 MHz alert is received, the system automatically checks the data base for an ID match and appends vital registration information (when available) to the alert message that is sent to the responsible RCC.

Registration information can be used in conjunction with geostationary satellite’s immediate alerting capability to allow a SAR response 45-90 minutes sooner than otherwise possible - a significant response advantage. In rare circumstances where the Cospas-Sarsat System is not able to calculate a distress position, registration data may provide the only link to rescue. It is therefore imperative that the information in NOAA’s registration database is verified by the beacon owner. Updates or corrections can be made at any time by using the contact information below.

(48) SATELLITE DETECTION OF DISTRESS SIGNALS. (Continued).

If you purchase a new or a used U.S. coded 406 MHz EPIRB or PLB, you MUST register it with NOAA. If you change any contact information (such as your phone number, address, or your emergency contact information), you MUST update your registration data with NOAA.

You may register or update your beacon information online at http://www.beaconregistration.noaa.gov. You may also submit a 406 MHz beacon registration form via mail or fax to:

NOAA SARSAT Beacon Registration
NSOF, E/SP3
4231 Suitland Road
Suitland, MD 20746

Fax: (301) 817-4565
Web site: http://www.beaconregistration.noaa.gov

Call (301) 817-4515 or toll-free (888) 212-SAVE for further information on registering EPIRBs or PLBs.

Once a beacon is registered, NOAA will send a proof-of-registration to the beacon to confirm registration and as ready evidence of compliance. NOAA also contacts all registered beacon owners on a two year schedule to maintain database accuracy. This service is free of charge. Please keep your registration current - IT MAY SAVE YOUR LIFE.

Mariners are reminded that as of 1 January 2007, the operation of 121.5MHz EPIRBs is prohibited and that the Cospas-Sarsat System ceased monitoring of the 121.5 MHz and 243.0 MHz frequencies on 1 February 2009.

(Supersedes NTM 1(48)10) (USCG/NOAA)

(49) HF AND VHF RADIOTELEPHONE AND RADIOTELEX MARINE SAFETY BROADCASTS.

Urgent and routine broadcasts of marine safety information are announced on VHF Channel 16 (156.8 MHz) and made on Channel 22A (157.1 MHz), the ship station transmit frequency portion of Channel 22, of Appendix 18 of the International Telecommunications Union (ITU) Radio Regulations.

The Coast Guard normally broadcasts selected coastal navigational warnings, local major navigational warnings, and local minor navigational warnings on VHF Channel 22A. NAVTEX broadcasts normally include only coastal navigational warnings and weather information. Medium frequency radiotelephone broadcasts can include coastal or selected coastal and local major navigational warnings. These single sideband voice broadcasts are announced on 2182 kHz and are made on 2670 kHz.

Questions and comments concerning VHF marine safety broadcasts should be addressed to the local Coast Guard District staff, or to:

Commandant (CG-652)
U. S. Coast Guard STOP 7101
Washington, DC 20593-7101
Internet: http://www.navcen.uscg.gov

(Supersedes NTM 1(49)10) (USCG)

(50) MARAD ADVISORIES. (In force 22 December 2010).

MARAD Advisories rapidly disseminate information on government policy, danger and safety issues pertaining to vessel operations, and other timely maritime matters. MARAD Advisories are periodically issued by the U.S. Maritime Administration (MARAD) to vessel masters, operators and other U.S. maritime interests. The texts of MARAD Advisories are published in weekly Notice to Mariners No. 1, and can be accessed through the National Geospatial-Intelligence Agency's Maritime Safety Web site (http://msi.nga.mil/NGAPortal/MSI.portal) and through the MARAD Web site (http://marad.dot.gov).

MARAD ADVISORY NO. 00-07 (221500Z NOV 00)
SUBJECT: YEMEN
TO: ALL OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROL VESSELS

1. The National Geospatial-Intelligence Agency (NGA) requested that the Maritime Administration MARAD) issue HYDROPAC 1694/00(62) as a MARAD Advisory to ensure wider dissemination to the maritime community. Below is HYDROPAC 1694/00(62) in its entirety.

(50) MARAD ADVISORIES. (Continued).

2. Due to recent events in Yemen, mariners are advised to use increased caution when approaching or entering Yemen waters. Special warning 113 is still in effect. See U.S. Notice to Mariners 45/2000 dated November 4, 2000 or the NGA Maritime Safety Web site at http://msi.nga.mil/NGAPortal/MSI.portal.

MARAD ADVISORY NO. 05-01 (221817Z JUL 05)
SUBJECT: THREAT INFORMATION AND MARITIME INDUSTRY REPORTING OF SUSPECTED/ACTUAL TERRORIST INCIDENTS
TO: OPERATORS OF U.S. FLAG AND EFFECTIVE U.S. CONTROLLED VESSELS AND OTHER MARITIME INTERESTS
This MARAD Advisory updates and reiterates information to the maritime industry and vessels regarding sources of threat information and reporting of hostile incidents.

1. The Coast Guard's National Response Center (NRC) should be notified of any suspected domestic terrorist incident, particularly those affecting transportation systems in addition to oil and hazardous substance releases. All reports of suspected or actual incidents are to be reported to the NRC at 800-424-8802 or 202-267-2675. Suspicious activity should also be reported to the local FBI office. The following Web site lists telephone numbers for all the FBI field offices: http://www.fbi.gov/contact/fo/fo.htm.
2. Hostile actions directed at merchant shipping are a present and growing problem. These hostile actions include piracy, theft and terrorism. In order to establish a reliable database of incidents to define the area and degree of the problem, a database has been instituted by the National Geospatial-Intelligence Agency (NGA) as the Anti-Shipping Activity Messages (ASAM) file. This file can be accessed via the internet at NGA's Maritime Safety Web site: http://msi.nga.mil/NGAPortal/MSI.portal. Another excellent threat assessment report produced weekly by the Office of Naval Intelligence (ONI) is the ONI Worldwide Threat to Shipping. This report is also available on the NGA Web site.
3. NGA has also established Ship Hostile Action Report (SHAR) procedures to rapidly disseminate information within the U.S. Government on hostile actions against U.S. merchant ships. The procedures for sending SHAR reports are detailed in NGA Publication 117, Radio Navigational Aids, Edition 2005, on page 4-15. The Maritime Administration (MARAD) urges all vessels to carry Pub 117, which can also be downloaded from NGA's above listed Web site.
4. It should be noted that neither the ASAM nor SHAR reports are a distress message. U.S. and effective U.S. controlled (EUSC) vessels under attack or threat of attack may request direct assistance from U.S. naval forces by following the emergency call-up procedures in Chapter 4, Part II of Pub 117.
5. All U.S.-flag vessels required by MARAD regulation, agreement, or those who voluntarily file Amver position reports, are reminded of the importance in filing voyage and update reports. Those ships operating in the north Arabian Sea, Gulf of Oman, Persian Gulf, Gulf of Aden, Red Sea and the Suez Canal are reminded to file Amver position update reports every 24 hours vice every 48 hours.
6. All U.S.-flag operators are requested to forward this Advisory to their ships by the most expedient means. This Advisory will subsequently be listed in NGA's Web site, as well as MARAD's Web site: http://www.marad.dot.gov/headlines.
7. This Advisory cancels and replaces MARAD Advisories 01-07, 02-05, 02-07 and 03-04.
8. For further information regarding this Advisory, contact the Maritime Administration, Office of Ship Operations, Code MAR-613, Room 2122, 400 7th Street, Washington, DC 20590; Telephone 202-366-5735, or by e-mail to opcentr1.marad@dot.gov.

MARAD ADVISORY NO. 06-01 (281900Z JUL 06)
SUBJECT: ACTIVATION OF THE NATO SHIPPING CENTER IN SUPPORT OF MERCHANT SHIPPING ON THE EASTERN MEDITERRANEAN SEA
TO: OPERATORS OF U.S.-FLAG VESSELS AND OTHER MARITIME INTERESTS

1. The NATO Shipping Center (NSC) in Northwood, UK continues to support NATO Naval forces deployed in the Eastern Mediterranean and has recently activated the NSC due to the recent incidents between Israel and Hezbollah. The NSC was activated to provide advice and guidance to NATO nation merchant ships.
2. The purpose of activating the NSC is to collect and distribute information relevant for the safe passage of vessels in the area off the coast of Lebanon and the Eastern Mediterranean. NSC will compile a situational plot and contribute this information to the NATO Military Commander in the area. Reporting of shipping data is on a voluntary basis.
3. Until further notice, the NSC will be manned continuously to provide better service for ships' masters, owners or managers. The NSC will provide information to ships on the following main communication media:
   - E-mail: shippingcentre@manw.nato.int
   - NSC Web site: http://shipping.manw.nato.int
   - Direct email communication with ships taking part in Operation ACTIVE ENDEAVOUR (OAE) voluntary reporting program.

(50) MARAD ADVISORIES. (Continued).

- Phone: +44 1923 843574
- Fax: +44 1923 843575

4. Since the area of concern coincides with the reporting area for Operation ACTIVE ENDEAVOUR, no additional reporting for ships will be established.
5. For further general information regarding this Advisory, contact the Maritime Administration, Office of Ship Operations, Division of Operations Support, Code MAR-613 Room 2121, 400 Seventh Street SW, Washington, DC 20590; Telephone (202) 366-1875, Fax (202) 366-3702.
6. This Advisory cancels MARAD Advisory 02-02 (03 Jun 02).

MARAD ADVISORY NO. 07-01 (051511Z FEB 07)
SUBJECT: REPLACEMENT OF ATP 2 VOL II NAVAL CONTROL OF SHIPPING - ALLIED GUIDE TO MASTERS
TO: OPERATORS OF U.S.-FLAG AND OTHER MARITIME INTERESTS

1. NATO has released a non-classified publication "ATP - 2(B) Vol II - Naval Co-operation and Guidance for Shipping Manual (NCAGS) - Guide to Owners, Operators, Masters and Officers." This publication replaces "ATP-2, Vol II, Allied Naval Control of Shipping Manual - Guide to Masters" and "ATP-2, Vol II, Bridge Supplement." Both of these publications should be destroyed. The new publication can be downloaded from www.ncags.com as listed below from the Norwegian Shipowners' Association, Circular Letter to Members.
2. "Following NATO's operations policy review for merchant shipping, the concept "Naval Co-operation And Guidance for Shipping" (NCAGS) was developed. The concept (approved by the North Atlantic Council on 1 October 2003) replaced the previous cold-war Naval Control of Shipping (NCS).
   Since then NATO's Shipping Working Group (NSWG) has developed the Allied Tactical Publication (ATP) titled "ATP - 2(B) Vol II - Naval Co-operation and Guidance for Shipping Manual (NCAGS) - Guide to Owners, Operators, Masters and Officers" the purpose of which is to provide information to owners and operators, masters and officers regarding the interaction between naval forces and commercial shipping in a military operations area. The publication lists NCAGS principles and procedures and seeks to advance the safety of shipping in times of tension, crisis and conflict.
   The new publication supersedes the previous "ATP-2, Vol II, Allied Naval Control of Shipping Manual - Guide to Masters" which shall be destroyed.
   As the aim of the NCAGS concept is to facilitate seamless interaction in a military operations area, it is in the industry's own best interest. All shipping companies engaged in international trading are therefore recommended to acquire the document which can be downloaded from www.ncags.com.
   It is also available in electronic format (CD) or hard copy from:
   FLO/F/MS/EF/PUBL & BILDE/SJO, Boks 63 Haakonsvern, 5886 Bergen, Norway
   e-mail: grishaug@mil.no or idavanger@mil.no
   www.ncags.com contains a link to NATO Shipping Center which you may find useful."
3. For further general information regarding this Advisory, contact the Maritime Administration, Office of Ship Operations, Division of Operations Support, Code MAR-613 Room 2122, 400 Seventh Street SW, Washington, DC 20590; Telephone (202) 366-5752, Fax (202) 366-3702 or e-mail to opcentr1@marad.dot.gov.

MARAD ADVISORY NO. 10-03 (091953Z MAR 10)
SUBJECT: VESSELS TRANSITING THE BAB-AL-MANDAB STRAIT, RED SEA, AND THE GULF OF ADEN ALONG THE COAST OF YEMEN.

1. This MARAD advisory provides guidance for vessels transiting the Bab-al-Mandab Strait, Red Sea and the Gulf of Aden along the coast of Yemen.
2. Information suggests that Al-Qaeda remains interested in maritime attacks in the Bab-al-Mandab Strait, Red Sea and the Gulf of Aden along the coast of Yemen. Although it is unclear how they would proceed, it may be similar in nature to the attack against the USS COLE in October 2000 or the M/V Limberg in October 2002, where a small to mid-size boat laden with explosives was detonated in the vicinity of the targeted ships. However, it cannot be ruled out that the extremists may be capable of other more sophisticated methods of targeting, such as the use of missile or projectiles to target ships such as the mortars used to target a navy ship in Jordan in 2005. Although the time and location of such an attack is unknown, it is likely that ships in the Bab-al-Mandab Strait, Red Sea and the Gulf of Aden along the coast of Yemen are at the greatest risk of becoming targets of such an attack.
3. All vessels transiting the waters in the vicinity of Yemen are urged to operate at a heightened state of readiness and should maintain strict 24 hour visual and radar watches and regularly report their position / course / speed to the UKMTO. Vessels are at greatest risk in areas of restricted maneuverability and while in port or at anchor.

(50) MARAD ADVISORIES. (Continued).

4. Merchant vessels are requested to report any suspicious activity to the UKMTO Dubai, phone: 97 150 552 3215, e-mail: ukmto@eim.ae or IMB PRC at phone: 6 032 031 0014, e-mails: imbkl@icc-ccs.org and piracy@icc-ccs.org. Reports can also be relayed to MSCHOA at e-mail: opscentre@mschoa.org.
5. For further information regarding this advisory, contact Robert Ford, Maritime Administration, Office of Security, Code: MAR-420, Room W25-207, 1200 New Jersey Ave, S.E., Washington, DC 20590, phone: 202 366 0223, fax: 202 366 3954, TLX II: 710 822 9426 (MARAD DOT WSH), or e-mail: maradsecurity@dot.gov.

MARAD ADVISORY NO. 10-06 (291725Z MAR 10)
SUBJECT: GUIDANCE TO VESSELS TRANSITING HIGH RISK WATERS

1. This MARAD advisory provides guidance to vessels transiting the high risk waters of the Gulf of Aden, Red Sea, the Indian Ocean and waters off the Horn of Africa (Somalia).
2. This advisory will be published on the MARAD web site at www.marad.dot.gov under the Horn of Africa piracy portal and on the U.S. Coast Guard Homeport site at homeport.uscg.mil/piracy. Other pertinent information is also posted on these web sites.
3. U.S. flag operators with ships in the affected areas are requested to forward this advisory to their ships by the most expeditious means.
4. U.S. flag ships operating in high risk waters are required to comply with U.S. Coast Guard maritime security (MARSEC) Directive 104-6 (current version). Guidance, advisories and links to assist U.S. flag vessels in complying with the MARSEC Directive and in combating piracy may be accessed on homeport at http://homeport.uscg.mil/piracy. Questions may be directed to LCDR James Fogle, U.S. Coast Guard, at phone: 202 372 1038 or e-mail: james.t.fogle@uscg.mil. None of the guidance in this notice is meant to supersede MARSEC Directive 104-6 (current version) or supporting port security advisories.
5. Non U.S. flag vessels, to which the U.S. Coast Guard MARSEC Directive does not apply, should be aware and consider measures directed to U.S. flag vessels. This guidance is available in U.S. Coast Guard port security advisory (PSA) 2-09 on http://homeport.uscg.mil/piracy.
6. The Maritime Security Centre (Horn of Africa) (MSC-HOA), run by the E.U. Naval Force (EUNAVFOR) is a coordination centre tasked to safeguard merchant shipping operating in the region by preventing and deterring acts of piracy in the Gulf of Aden, off the Horn of Africa and in the Somali basin. Vessels should register for access to MSCHOA website at http://www.mschoa.org/. This site provides information and guidance for the shipping community transiting the high risk waters.
7. Combined Maritime Forces (CMF) in cooperation with the European Union Naval Force (EUNAVFOR) Atalanta and the United Kingdom Maritime Trade Office (UKMTO) established the Internationally Recommended Transit Corridor (IRTC) through the GOA. This revised corridor was intended to deconflict commercial transit traffic with Yemini fishermen, provide a measure of traffic separation and allow maritime forces to conduct deterrent operations in the GOA with a greater degree of flexibility. Detailed information on the IRTC can be found at http://www.mschoa.org/. CMF established the Maritime Security Patrol Area (MSPA) in the region. The MSPA was established in support of the International Maritime Organization's (IMO) ongoing efforts to ensure the safety of ships and mariners at sea. The MSPA is a naval military term for use by warships when communicating with each other positioned to maximize deployment of available forces in areas of high risk. Coalition forces patrol the MSPA on a routine basis. Neither the IRTC nor MSPA are marked or defined by visual navigational means. The IRTC is not intended to be a dedicated traffic separation scheme.
8. In accordance with the MARSEC Directive and Port Security Advisory (PSA) 2-09, unless otherwise directed or advised by on-scene military forces, all U.S. flag ships navigating through the GOA shall plan voyages using the IRTC and follow the GOA Group Transit (GT) if speed ranges from 10 to 18 knots. Vessels that make less than 10 knots shall contact UKMTO for routing guidance. Information on IRTC and GOA GT can be found on the MSC-HOA web site.
9. In addition to communications required by the Coast Guard MARSEC Directive, masters should remain in contact with the United Kingdom Maritime Trade Operations (UKMTO) and the United States Maritime Liaison Office (MARLO) to the maximum extent possible. The E.U. has established a web-based resource for ships to receive the latest alerts and to register vessels prior to transiting high risk areas in the region. In accordance with the MARSEC Directive, owners and operators of U.S. flag vessels that operate in the HOA/GOA shall register with the Maritime Security Centre-Horn of Africa (MSC-HOA), at www.mschoa.org. Additionally, they shall establish contact by e-mail or phone with UKMTO at ukmto@eim.ae.
10. In accordance with the U.S. Coast Guard MARSEC directive, U.S. flag vessels that operate in high risk waters must consider supplementing vessel's crew with armed or unarmed security personnel. If transiting the HOA/GOA, all vessels shall supplement vessel's crew with armed or unarmed security personnel based on a piracy-specific vessel threat assessment conducted by the operator. Supplemental security personnel should meet the minimum training requirements and guidelines set forth in PSA (5-09) (Rev. 1).

(50) MARAD ADVISORIES. (Continued).

11. In accordance with the U.S. Coast guard MARSEC Directive and PSA 2-09, as soon as the master thinks a threat is developing, contact UKMTO, phone: 971 50 552 3215. If attacked or boarded, masters should activate the Ship Security Alert System (SSAS). Broadcast attacks immediately on all available radio circuits, adjust speed and maneuver and activate all available defensive measures. Do not immediately surrender upon approach of suspected pirate boats. Attacks have been thwarted in many cases where defensive measures were used and the vessels became difficult targets. An attack has even been successfully thwarted when pirates were able to board a ship but were unable to gain access to the superstructure due to the careful preparations of the crew in securing all access points.
12. Additional guidance regarding practices recommended for mariners operating in vicinity of high risk areas has been published by International Maritime Organization (IMO) revised Maritime Safety Committee (MSC) circulars. These documents can be accessed via IMO website at the following internet address: www.imo.org/safety/mainframe.asp?topic_id=1147.
13. All vessels are advised to check in with UKMTO at least 96 hours prior to entering the IRTC through the GOA. Check in again upon entering the corridor and check out upon exiting the corridor. While in high risk waters off the Horn of Africa it is recommended to report vessel positions to UKMTO a minimum of every six hours.
14. The following is the UKMTO report format:
    a. Ship name:
    b. IRCS:
    c. IMO #:
    d. Cargo:
    e. Last port:
    f. Noon position (GMT):
    g. Next port:
    h. Additional ports:
    i. Security team aboard (y/n):
    j. Reporting via AMVER?:
    k. Publication 117 aboard?:
    l. Present position:
15. Escort service may be requested for vessels by contacting MARLO Bahrain, phone: 973 973 3927 or by e-mail: marlo.bahrain@me.navy.mil
16. If attacked or boarded by pirates, communications must be limited to distress calling and response coordination per the vessel security plan. In accordance with the MARSEC Directive and PSA 2-09, information about the vessel's movement, capabilities or the incident itself should be considered sensitive security information and should not be released to family, friends or the media
17. For further information, contact Maritime Liaison Office (MARLO) Bahrain, phone: 973 1785 3925 or 973 3940 1395 for after hours emergencies (if in doubt of the time, call both until you reach a person) or e-mail: marlo.bahrain@me.navy.mil or the UK Maritime Trade Organization (UKMTO), phone: 971 50 552 3215 or e-mail: ukmto@eim.ae or MSC-HOA phone: 44 0 1923 958545 or e-mail: postmaster@mschoa.org.
18. For further information regarding this advisory, contact Captain Robert Ford, Maritime Administration, Office of Security, Code: MAR-420, Room W25-207, 1200 New Jersey Ave, S.E., Washington, DC 20590, phone: 202 366 0223, fax: 202 366 3954, telex: 7108229426 (MARAD DOT WSH), e-mail: marad.security@dot.gov.
19. For further information on the U.S. Coast Guard MARSEC Directive and PSA 2-09, contact LCDR James Fogle, phone: 202 372 1038 or e-mail: james.t.fogle@uscg.mil.

MARAD ADVISORY NO. 10-07 (281900Z JUL 10)
SUBJECT: HIGH RISK WATERS OF THE GULF OF GUINEA

1. This MARAD Advisory provides guidance to vessels transiting territorial waters of the Gulf of Guinea.
2. This advisory will be published on the MARAD web site at www.marad.dot.gov.
3. U.S. flag operators with ships in the affected areas are requested to forward this advisory to their ships by the most expeditious means.
4. Armed groups that operate in the region have carried out attacks on vessels with automatic weapons. Attackers have taken the master and other crewmembers off the vessel and demanded a ransom in exchange for their safe return. Vessels operating in close proximity of the oil platforms in Nigerian waters stand greater risk from armed attacks.
5. Robbers armed with knives have boarded vessels in subject waters and have robbed crew and ship equipment. Most events occur close to shore or at anchorages. Armed robbers come onboard looking for valuables and equipment they can steal.
6. U.S. flag operators with ships in the subject High Risk Waters (HRW) should transit with extreme caution and vigilance.

(50) MARAD ADVISORIES. (Continued).

7. Vessels transiting subject waters must comply with U.S. Coast Guard MARSEC Directive 104-6 (Rev. 3) and accordingly, should conduct a pre-voyage risk assessment and incorporate appropriate protective measures into their vessel security plan.
8. For further information, contact Captain Robert Ford, Maritime Administration, Office of Security, Code: MAR-420, Room W25-207, 1200 New Jersey Ave, S.E., Washington, DC 20590, phone: 202 366 0223, fax: 202 366 3954, TLX II: 710.822.9426 (MARAD DOT WSH), e-mail: maradsecurity@dot.gov.
9. For further information on the U.S. Coast Guard MARSEC Directive contact LCDR James Fogle, phone: 202 372 1038, e-mail: james.t.fogle@uscg.mil.
10. Cancel MARAD Advisory 2008-01.

MARAD ADVISORY NO. 10-09 (051902Z OCT 10)
SUBJECT: RISK TO VESSELS TRANSITING HIGH RISK WATERS

1. This MARAD Advisory provides information on the risk to vessels transiting the high risk waters of the Gulf of Aden (GOA), Red Sea, the Indian Ocean and waters off the Horn of Africa (Somalia).
2. This advisory will be published on the MARAD web site at www.marad.dot.gov under the Horn of Africa piracy portal and on the US Coast Guard homeport site at homeport.uscg.mil/piracy. Other pertinent information is also posted on these web sites.
3. U.S. flag operators with ships in the affected areas are requested to forward this advisory to their ships by the most expeditious means.
4. U.S. flag ships operating in high risk waters are required to comply with US Coast Guard Maritime Security (MARSEC) Directive 104-6 (current version). Guidance, advisories and links to assist US-flag vessels in complying with the MARSEC directive and in combating piracy may be accessed on homeport at http://homeport.uscg.mil/piracy. Questions may be directed to LCDR James Fogle, US Coast Guard, at phone: 202 372 1038, e-mail: james.t.fogle@uscg.mil. None of the guidance in this notice is meant to supersede MARSEC Directive 104-6 (current version) or supporting port security advisories.
5. Pirates are attacking vessels transiting in the Gulf of Aden, off the Somali coast, and the Western Indian Ocean, including attacks exceeding 1000 nautical miles off the Somali coast. Attacks have taken place off the Kenyan and Tanzanian coasts, Southern Red Sea, Seychelles, and Maldives. These pirates are firing automatic weapons and rocket propelled grenades (RPG) in an attempt to board and hijack vessels. Once the attack is successful and the vessel hijacked, the pirates direct the vessel to the Somali coast and thereafter demand a ransom for the safe release of the vessel and crew.
6. Despite the increase in presence and effectiveness of naval forces in the region, as well as the effectiveness of defensive and protective measures, pirate activity has continued and commercial and civilian ships continue to be attacked and seized.
7. Vessel operators should anticipate an increase in piracy attacks from October through early December when weather conditions allow for small boat activity in the region.
8. Vessels should register for access to MSCHOA website at http://www.mschoa.org/ to obtain up to date information of the circumstances and conditions in the region.
9. For further information regarding this advisory, contact Captain Robert Ford, Maritime Administration, Office of Security, Code: MAR-420, Room W25-207, 1200 New Jersey Ave, S.E., Washington, DC 20590, phone: 202 366 0223, fax: 202 366 3954, e-mail: maradsecurity@dot.gov.
10. Cancel MARAD 2010-05.

MARAD ADVISORY NO. 10-10 (192108Z NOV 10)
SUBJECT: VESSELS TRANSITING IN THE STRAIT OF HORMUZ, SOUTHERN ARABIAN GULF, AND WESTERN GULF OF OMAN

1. This MARAD advisory provides guidance to vessels transiting subject waters.
2. Government and industry sources can confirm that the claim by the Abdullah Azzam Brigades (AAB) that the group had attacked the tanker M. Star is valid. The group remains active and can conduct further attacks on vessels in areas in the Strait of Hormuz, Southern Arabian Gulf, and Western Gulf of Oman.
3. Recommend all ships transiting the subject waters exercise increased vigilance and caution, particularly during night transits with increased monitoring of small vessel/boat activity.
4. U.S. flag vessels that observe suspicious activity in the area are advised to report such suspicious activity or any hostile or potentially hostile action to COMUSNAVCENT Battlewatch Captain at phone: 011 973 1785 3879. All suspicious activities and events are also to be reported to the U.S. Coast Guard National Response Center in accordance with 33 CFR Part 101.305. In addition, a Ship Hostile Action Report (SHAR) should be sent to the National Geospatial-Intelligence Agency (NGA) as soon as possible following the incident/suspicious activity, including apparent surveillance being conducted by small vessels/boats. E-mail: navsafety@nga.mil or ref: NGA Pub 117 for further guidance.

(50) MARAD ADVISORIES. (Continued).

5. Vessels transiting high risk waters designated by U.S. Coast Guard MARSEC Directive 104-6 (current version) must comply with its security requirements accordingly, should conduct a pre-voyage risk assessment and incorporate appropriate protective measures into their vessel security plan. Additionally, U.S. flag operators should have their protective measures implemented prior to entering high risk waters.
6. For further information, contact Captain Robert Ford, maritime administration, office of security, Code: MAR-420, Room W25-207, 1200 New Jersey Ave., S.E., Washington, DC 20590, phone: 202 366 0223, fax: 202 366 3954, TLX II: 710 822 9426 (MARAD DOT WSH), e-mail: maradsecurity@dot.gov.
7. For further information on the U.S. Coast Guard MARSEC Directive contact LCDR James Fogle, phone: 202 372 1038, e-mail: james.t.fogle@uscg.mil.
8. U.S. flag operators with ships in the affected areas are requested to forward this advisory to their ships by the most expeditious means.
9. This advisory will be published on the MARAD Web site at www.marad.dot.gov.
10. Cancel Advisories 2010-08, 2010-04.
11. To determine maritime advisories that remain in force, consult the maritime administration web site at http://www.marad.dot.gov or the most recent U.S. Notice to Mariners at http://msi.nga.mil.

(Supersedes NTM 1(50)10) (U.S. MARITIME ADMINISTRATION)

(51) NAVIGATION RULES, INTERNATIONAL-INLAND.

The latest edition of the Coast Guard publication Navigation Rules was promulgated in March 1999. This book contains the International Regulations for Preventing Collisions at Sea, commonly called the 72 COLREGS, and the Inland Navigation Rules which supersede the old Inland Rules, Western Rivers Rules, Great Lakes Rules, and other Pilot rules. The book also includes sections on COLREGS demarcation lines, penalty provisions, alternative compliance, the Vessel Bridge-to-Bridge Radiotelephone Regulations, and Vessel Traffic Services.

PENALTIES: All vessel operators, whether recreational or commercial, are required to understand and follow these Navigation Rules. Violation of the Navigation Rules or negligent operation of a vessel may result in civil penalties up to $5000.

CARRIAGE REQUIREMENT: The operator of each self-propelled vessel 12 meters or more in length is required to carry on board and maintain for ready reference a copy of the Inland Navigation Rules (contained in this publication).

HOW TO ORDER: The Navigation Rules: International-Inland is available from the Government Printing Office for $23.00. To order by telephone using VISA, MasterCard or Discover Card call 1-866-512–1800 or in Washington, DC call (202) 512-1800, ask for the book by name and give GPO stock number 050–012–00407–2, or mail check or money order payable to Superintendent of Documents, to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The book can also be ordered online at http://bookstore.gpo.gov. COMDTINST M16672.2D (Navigation Rules, International-Inland) is available online for free download at http://www.navcen.uscg.gov/mwv/navrules/download.htm.

CHANGES: Changes are published, as they occur, in the Notice to Mariners and appear in Summary of Corrections (Volume 5). For questions concerning the Navigation Rules please write to:

Commandant (CG-5533)
U.S. Coast Guard
2100 2nd Street SW Stop 7580
Washington, D.C. 20593–7580
Telephone: (202) 372–1544.

You may also submit your questions to the USCG Web site http://www.navcen.uscg.gov/mwv/navrules/navrules.htm.

(Supersedes NTM 1(51)10) (USCG)

(52) IMPROPER USE OF STROBE LIGHTS, SEARCHLIGHTS AND DANGEROUS CARGO LIGHT.

STROBE LIGHTS: The Coast Guard has received reports of the use of white strobe lights as “anticollision” lights and as fishing net markers. A white strobe light is a distress signal in Inland Waters and prohibited under International Rules (except for use as a distress signal on life jackets). Misuse of these lights may result in civil penalties up to $5000.

SEARCHLIGHTS: Fishing vessels using searchlights while setting and recovering gear, and other vessels using searchlights, are reminded that improper use of searchlights violates both Inland and International Navigation Rules. Examples of violations include: (a) leaving searchlights lit constantly while underway, so as to interfere with visibility of navigation lights and (b) shining at other vessels so as to embarrass them and impair the night vision of other mariners.

(52) IMPROPER USE OF STROBE LIGHTS, SEARCHLIGHTS AND DANGEROUS CARGO LIGHT. (Continued).

DANGEROUS CARGO LIGHT: Warning: foreign vessels operating in the Far East, specifically in the Straits of Malacca, commonly use an all around red light to indicate carriage of a dangerous cargo. In addition, these vessels often use deck security lighting underway to deter piracy; this may obscure the vessel's running lights. U.S. vessels transiting these areas should be aware of these practices and plan accordingly.

NOTE: This notice does not prohibit vessels from using additional lights so long as they cannot be confused with or obscure navigation lights. Mariners are cautioned that all types of high intensity lights, when used at sea, must be properly directed or adequately screened so as to not embarrass another vessel or be misinterpreted. When these lights are not being used for a specific task they should be extinguished.

(Repetition NTM 1(52)10) (USCG)

(53) GUIDELINES FOR WGS DATUM CONVERSION.

1. The following information is provided to assist navigators in converting geographic positions from World Geodetic System 1972 (WGS 72) to World Geodetic System 1984 (WGS 84) and vice versa:
   a. Positions obtained from satellite navigation systems or measured from charts referred to the World Geodetic System 1972 must be moved 0.01 minute eastward and 0.00 minute northward to be placed on the World Geodetic System 1984.
   b. Positions obtained from satellite navigation systems (or charts) referred to the World Geodetic System 1984 must be moved 0.01 minutes westward and 0.00 minutes southward to be placed on the World Geodetic System 1972.
2. Individuals who need somewhat more precise values may use the following tables to minimize the error due to the truncation of transformed coordinates.
3. Users with a need for the most accurate transformation from WGS 72 to WGS 84 may use the following transformation equations:

Latitude Shift $= (4.5 \cos Ø / a \sin 1") + (f \sin 2 Ø / \sin 1")$
$= 0.1455 \cos Ø + 0.0064 \sin 2 Ø$ seconds northward
Longitude Shift $= 0.554$ seconds eastward
Where: $Ø$= latitude
f = difference in flattening of the ellipsoids = 0.3121057×10^7
a = semi-major axis of WGS 72 ellipsoid = 6,378,135 meters.

The datum shift from WGS 84 to WGS 72 is computed using the same equation but the direction of the computed shift is reversed–e.g. the latitude shift is southward and the longitude shift is westward.

4. Since the maximum shift only amounts to approximately 17 meters in longitude and 4 meters in latitude on the ground, the shift need not be used to plot positions on charts at scales smaller than 1:50,000.

POSITIONS REFERRED TO WORLD GEODETIC SYSTEM 1972 MUST BE MOVED AS INDICATED TO BE IN AGREEMENT WITH WORLD GEODETIC SYSTEM 1984

90N	0.0000	MINUTES NORTH AND	0.0092	MINUTES EAST
85N	0.0002	MINUTES NORTH AND	0.0092	MINUTES EAST
80N	0.0005	MINUTES NORTH AND	0.0092	MINUTES EAST
75N	0.0007	MINUTES NORTH AND	0.0092	MINUTES EAST
70N	0.0009	MINUTES NORTH AND	0.0092	MINUTES EAST
65N	0.0011	MINUTES NORTH AND	0.0092	MINUTES EAST
60N	0.0013	MINUTES NORTH AND	0.0092	MINUTES EAST
55N	0.0015	MINUTES NORTH AND	0.0092	MINUTES EAST
50N	0.0017	MINUTES NORTH AND	0.0092	MINUTES EAST
45N	0.0018	MINUTES NORTH AND	0.0092	MINUTES EAST
40N	0.0020	MINUTES NORTH AND	0.0092	MINUTES EAST
35N	0.0021	MINUTES NORTH AND	0.0092	MINUTES EAST
30N	0.0022	MINUTES NORTH AND	0.0092	MINUTES EAST
25N	0.0023	MINUTES NORTH AND	0.0092	MINUTES EAST
20N	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST
15N	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST
10N	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST
5N	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST
0N	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST

(53) GUIDELINES FOR WGS DATUM CONVERSION. (Continued).

5S	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST
10S	0.0024	MINUTES NORTH AND	0.0092	MINUTES EAST
15S	0.0023	MINUTES NORTH AND	0.0092	MINUTES EAST
20S	0.0022	MINUTES NORTH AND	0.0092	MINUTES EAST
25S	0.0021	MINUTES NORTH AND	0.0092	MINUTES EAST
30S	0.0020	MINUTES NORTH AND	0.0092	MINUTES EAST
35S	0.0019	MINUTES NORTH AND	0.0092	MINUTES EAST
40S	0.0018	MINUTES NORTH AND	0.0092	MINUTES EAST
45S	0.0016	MINUTES NORTH AND	0.0092	MINUTES EAST
50S	0.0015	MINUTES NORTH AND	0.0092	MINUTES EAST
55S	0.0013	MINUTES NORTH AND	0.0092	MINUTES EAST
60S	0.0011	MINUTES NORTH AND	0.0092	MINUTES EAST
65S	0.0009	MINUTES NORTH AND	0.0092	MINUTES EAST
70S	0.0008	MINUTES NORTH AND	0.0092	MINUTES EAST
75S	0.0006	MINUTES NORTH AND	0.0092	MINUTES EAST
80S	0.0004	MINUTES NORTH AND	0.0092	MINUTES EAST
90S	0.0000	MINUTES NORTH AND	0.0092	MINUTES EAST

POSITIONS REFERRED TO WORLD GEODETIC SYSTEM 1984 MUST BE MOVED AS INDICATED TO BE IN AGREEMENT WITH WORLD GEODETIC SYSTEM 1972

90N	0.0000	MINUTES SOUTH AND	0.0092	MINUTES WEST
85N	0.0002	MINUTES SOUTH AND	0.0092	MINUTES WEST
80N	0.0005	MINUTES SOUTH AND	0.0092	MINUTES WEST
75N	0.0007	MINUTES SOUTH AND	0.0092	MINUTES WEST
70N	0.0009	MINUTES SOUTH AND	0.0092	MINUTES WEST
65N	0.0011	MINUTES SOUTH AND	0.0092	MINUTES WEST
60N	0.0013	MINUTES SOUTH AND	0.0092	MINUTES WEST
55N	0.0015	MINUTES SOUTH AND	0.0092	MINUTES WEST
50N	0.0017	MINUTES SOUTH AND	0.0092	MINUTES WEST
45N	0.0018	MINUTES SOUTH AND	0.0092	MINUTES WEST
40N	0.0020	MINUTES SOUTH AND	0.0092	MINUTES WEST
35N	0.0021	MINUTES SOUTH AND	0.0092	MINUTES WEST
30N	0.0022	MINUTES SOUTH AND	0.0092	MINUTES WEST
25N	0.0023	MINUTES SOUTH AND	0.0092	MINUTES WEST
20N	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
15N	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
10N	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
5N	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
0N	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
5S	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
10S	0.0024	MINUTES SOUTH AND	0.0092	MINUTES WEST
15S	0.0023	MINUTES SOUTH AND	0.0092	MINUTES WEST
20S	0.0022	MINUTES SOUTH AND	0.0092	MINUTES WEST
25S	0.0021	MINUTES SOUTH AND	0.0092	MINUTES WEST
30S	0.0020	MINUTES SOUTH AND	0.0092	MINUTES WEST
35S	0.0019	MINUTES SOUTH AND	0.0092	MINUTES WEST
40S	0.0018	MINUTES SOUTH AND	0.0092	MINUTES WEST
45S	0.0016	MINUTES SOUTH AND	0.0092	MINUTES WEST
50S	0.0015	MINUTES SOUTH AND	0.0092	MINUTES WEST
55S	0.0013	MINUTES SOUTH AND	0.0092	MINUTES WEST
60S	0.0011	MINUTES SOUTH AND	0.0092	MINUTES WEST
65S	0.0009	MINUTES SOUTH AND	0.0092	MINUTES WEST
70S	0.0008	MINUTES SOUTH AND	0.0092	MINUTES WEST
75S	0.0006	MINUTES SOUTH AND	0.0092	MINUTES WEST

(53) GUIDELINES FOR WGS DATUM CONVERSION. (Continued).

80S	0.0004	MINUTES SOUTH AND	0.0092	MINUTES WEST
90S	0.0000	MINUTES SOUTH AND	0.0092	MINUTES WEST

(Repetition NTM 1(53)10) (NGA)

(54) ANTI-SHIPPING ACTIVITIES MESSAGE.

The Anti-Shipping Activities Message (ASAM) database, a part of the Maritime Safety Web site is a National Geospatial-Intelligence Agency service for mariners providing reports of hostile actions directed against ships. The ASAM database was developed at the request of the U.S. Interagency Working Group on Piracy and Maritime Terrorism. It contains random reports of various forms of aggression against shipping around the world. Events are categorized by date and by geographic area and are based on the NGA subregion system. The user can submit an ASAM, with the full particulars of an incident to be reported, or search the existing ASAM database by user-defined queries via the Maritime Safety Web site (http://msi.nga.mil/NGAPortal/MSI.portal). Upon receipt of the ASAM at NGA, the text is reviewed and evaluated for further action, edited, and stored in the ASAM database for access by all customers. The database can be used as a voyage planning tool by providing cautionary information to ship owners and masters concerning security conditions in and near ports and narrow channels around the world. Examples of ASAM Reports in this file include the ACHILLE LAURO incident, robberies of ships transiting the Malacca Straits, attacks on fishing boats and merchants ships coasting off Western Sahara, and certain events occurring in and around the Persian Gulf. When sending a hostile action report the user of ASAM should provide NGA with as much of the following information as is possible:

1. Date of Occurrence;
2. Geographic Location;
3. Known or Suspected Aggressor;
4. Victim (Ship's) Name;
5. A detailed description of the occurrence being reported.

For further information on the ASAM database, users may contact (301) 227-3147 or write:

MARITIME DOMAIN
ST D 44
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY
4600 SANGAMORE ROAD
BETHESDA, MD 20816-5003

Recent reports have stated there are 700 identifiable terrorist groups who have committed more than 8000 major acts of political violence since 1962. In one recent year there were 450 such actions against ships around the globe. Subregions that cover the crossroads of the world are more active with anti-shipping activities than some remote areas. **Note that the ASAM file is only an indicator of hostile actions reported to NGA and is not a complete listing of all hostile actions that have occurred worldwide.** NGA strongly urges the mariner to assist in the population of the ASAM database by sending reports of hostile actions.

(Repetition NTM 1(54)10) (NGA/PVM)

(55) CAUTION ON ANNOUNCEMENT OF NEW CHARTS AND PUBLICATIONS.

CAUTION: DO NOT USE A NEW CHART OR PUBLICATION UNTIL IT IS ANNOUNCED IN NOTICE TO MARINERS. There may be occasions when a new edition of a chart or publication is received prior to the official announcement of its release being published in Notice to Mariners. Since Notice to Mariners corrections are for specific editions of products, it is imperative that the user neither discard the previous edition nor use the new edition until this official announcement is received. Further, since Notice to Mariners corrections are for specific editions of products, it is critical that the user update only the specifically-referenced product edition. Additionally, users of the NGA Web site are advised that announcements of new editions in this system appear approximately one week ahead of the date of the published Notice to Mariners.

CAUTION: ANNOUNCEMENT OF ELECTRONIC CHARTS WILL OCCUR SOME SIX TO EIGHT WEEKS BEFORE THE NEW PRINTED VERSION IS AVAILABLE. NGA recognizes two paper nautical chart products:
- the Enterprise Product on Demand-Maritime (ePOD-M) chart, and
- the traditional NGA paper chart distributed by the Defense Logistics Agency.

(55) CAUTION ON ANNOUNCEMENT OF NEW CHARTS AND PUBLICATIONS. (Continued).

The Enterprise Product on Demand-Maritime (ePOD-M) chart is available the day after NGA clears a New Edition for release and is available to Department of Defense (DoD) customers and other authorized U.S. Government users. The traditional paper chart is available six 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 NGA at mcdepod@nga.mil.

Through a special arrangement betwen the National Ocean Servcie and NGA, all NOAA charts are also available in the ePOD-M format (large PDF print files) for government use. These files are updated every week for all Notice to Mariners (NGA, USCG, and Canadian Coast Guard). The websites for downloading NOAA charts are:

- NIPRNet: https://www.geointel.nga.mil/products/dnc/epods/index.htm
- SIPRNet: http://www.geoint.nga.smil.mil/products/dnc1/epods/index.htm

(Supersedes NTM 1(55)10) (NGA/PVM)

(56) GLOBAL POSITIONING SYSTEM (GPS) AND DIFFERENTIAL GPS (DGPS) INFORMATION.

The Global Positioning System (GPS) is a satellite-based radionavigation system with continuous worldwide coverage. It provides navigation, position, and timing information to air, marine, and land based users. GPS is operated and controlled by the Department of Defense (DoD) under Air Force management. Although originally intended for military use only, federal radionavigation policy has established that the GPS Standard Positioning Service (SPS) will be available for civil use.

The U.S. Department of Transportation is the Government's interface for civil users of GPS and works closely with the U.S. Coast Guard to disseminate information to the public. The Coast Guard established the Navigation Information Service (NIS), as a part of the Coast Guard Navigation Center (NAVCEN) located in Alexandria, Virginia, to meet the needs of the civil user. The information provided includes planned, current or recent satellite outages, constellation changes, user instructions and tutorials, system status, information about Coast Guard provided radionavigation systems, and information about federal radionavigation policy and systems.

Whenever possible, advance notice of GPS satellite outages will be provided by the DoD and made available by the U.S. Coast Guard. The DoD must provide at least 48-hour advance notice for any planned disruption of the Standard Positioning Service (SPS) in peacetime. The NIS advisory services are updated whenever new information is received.

NIS services are described below:

1. Watchstanders are available 24 hours to answer phones (703) 313-5900, email TIS-PF-NISWS@uscg.mil and fax (703) 313-5920. The NIS 24 hour voice recording provides access to a 90-second message of the current system status. Forecasted outages, historical outages, and other changes in the GPS are included as time permits. The NIS 24-hour voice recording phone number is (703) 313-5907.
2. The Department of Commerce transmits recorded time information on WWV/WWVH 2.5, 5, 10, 15, and 20 MHz frequencies. During the 40–second interval between time ticks, navigation information is announced by voice. Listen at minute 14 and 15 on WWV and minute 43 and 44 on WWVH for GPS status and current or forecasted outages. Internet access is available from the World Wide Web at http://www.navcen.uscg.gov.
3. The NIS disseminates GPS Advisory Broadcast Messages through USCG broadcast stations using VHF-FM voice, HF-SSB voice, and NAVTEX broadcasts. The broadcasts provide the GPS user in the marine environment with the current status of the GPS satellite constellation, as well as any planned/unplanned system outages that could affect GPS navigational accuracy. Information is provided in message format via an established system of message dissemination. NIS provides the GPS Operational Advisory Broadcast information to NGA for broadcast in NAVAREA, HYDROLANT, or HYDROPAC messages. These messages are generally geared to the deep draft mariner. NGA also publishes a Weekly Notice to Mariners (NTM) containing USCG Marine Information Broadcasts and NGA broadcast warnings for a seven–day period.

To comment on any of these services or ask questions about GPS status, contact the NIS at:

COMMANDING OFFICER, NAVCEN
NAVCEN MS 7310
7323 TELEGRAPH ROAD
ALEXANDRIA, VA 20598-7310
NIS Phone: (703) 313-5900
Fax: (703) 313-5920

(56) GLOBAL POSITIONING SYSTEM (GPS) AND DIFFERENTIAL GPS (DGPS) INFORMATION. (Continued).

The Civil GPS Service Interface Committee (CGSIC) was established to address issues and problems that relate to the civil use of GPS. The CGSIC is the official interface between civil GPS users and the GPS operators (DoD). The CGSIC consists of a General Committee, an Executive Panel, and three Subcommittees:

1. Timing Information
2. International Information
3. U.S. States and localities

The U.S. Department of Transportation, Research and Innovation Technology Administration (RITA), chairs the CGSIC. The U.S. Coast Guard Navigation Center (NAVCEN) is the deputy chair and administrator. Points of contact are:

CGSIC EXECUTIVE SECRETARIAT
COMMANDING OFFICER CGSIC
NAVCEN MS 7310
7323 TELEGRAPH ROAD
ALEXANDRIA, VA 20598-7310
Phone: (703) 313-5930
Fax: (703) 313-5920
E-mail: Stephen.R.Hamilton@uscg.mil

NAVCEN operates the Coast Guard Maritime Differential GPS (DGPS) Service and the developing Nationwide DGPS Service, consisting of two control centers and over 80 remote broadcast sites. DGPS is an all-weather system that broadcasts correction signals on marine radio-beacon frequencies to improve the accuracy and integrity of GPS-derived positions. In all established coverage areas, the Coast Guard DGPS Service provides 10-meter (2 dRMS) accuracy and GPS/DGPS out-of-tolerance alarms within 10 seconds of detection. Typically, the positional error of a DGPS position is 1 to 3 meters, greatly enhancing harbor entrance and approach navigation. The combined Maritime and Nationwide DGPS services provide single coverage for approximately 92% of the lower 48 states and dual coverage for 65%, which includes service of the continental U.S., the Great Lakes, Puerto Rico, portions of Alaska and Hawaii, and a greater part of the Mississippi River Basin. Many foreign nations are implementing standard DGPS services modeled after the U.S. Coast Guard's system to significantly enhance maritime safety in their critical waterways.

Information concerning DGPS status, including planned/unplanned system outages, is disseminated through local USCG Broadcast Notice to Mariners, NAVTEX broadcasts, and internet access at http://www.navcen.uscg.gov.

(Repetition NTM 1(56)10) (USCG)

(57) DIGITAL SELECTIVE CALLING DISTRESS ALERT.

Digital Selective Calling (DSC) is a capability offered with some VHF and HF maritime radios, intended to initiate calls and provide distress alert information to the U.S. Coast Guard and other rescue coordination centers. DSC is a major element of the Global Maritime Distress and Safety System (GMDSS), an International Maritime Organization-mandated telecommunications system required on vessels subject to the provisions of the Safety of Life at Sea Convention (SOLAS). All vessels should interconnect their GPS with their DSC radios to provide an accurate position in the event of sending a distress alert. The interconnection of the DSC radio with the GPS is required for SOLAS vessels and is required by the International Telecommunications Union for non-SOLAS vessels.

Coast Guard Communications Stations and other select Coast Guard Stations operate VHF, MF and HF DSC, and can be reached using the Maritime Mobile Service Group Identity (MMSI) 003669999. The United States has not declared GMDSS Sea Areas A1 or A2 effective. Continue listening on the working channel to ensure communications between the Coast Guard and ship in distress is established. In the event communications are not heard between the vessel in distress and the Coast Guard, advise the Coast Guard by any means available.

(Supersedes NTM 1(58)09) (USCG)

(58) VESSEL SQUAT IN SHALLOW WATER.

The following discussion is primarily aimed towards mariners who are navigating ocean-going commercial vessels on approaches to ports, where water depths are beginning to shoal (less than 3 times the ship's draft). The discussion describes the phenomenon of "squat" and is intended to help mariners recognize circumstances where it could significantly affect the navigational draft of their vessels.

(58) VESSEL SQUAT IN SHALLOW WATER. (Continued).

In August 1992, a 950-foot passenger liner ran aground in an area where the charted depth of 39 feet was more than 7 feet greater than the vessel's maximum calculated draft. One major contributing factor was that neither the master nor the pilot adequately judged the considerable squatting effect (sinkage & trim) caused by the high-speed transit (24.5 knots) in relatively shallow water (which was about 1.22 times the ship's draft).

DISCUSSION OF SQUAT: The term "squat" describes the combination of sinkage (overall settling of the hull) and trim (the bow up/down rotation of the hull). This phenomenon occurs in waters of any depth, but is particularly affected by the proximity to the sea floor. Therefore, the effects of squat become more pronounced in shallow and/or restricted waters (such as canals or dredged channels). As a ship moves forward, water must quickly flow around and under the hull to fill the void left behind. This accelerated water flow affects the pressure distribution along the hull. Consequently, the vessel squats, effectively increasing its draft and trim. Depending upon the vessel's speed and hull form, the ship may trim by either the bow or the stern. Generally, full-bodied hulls (where C_b>0.7, such as tankers) tend to trim by the bow, whereas fine-bodied hulls (such as container ships) tend to trim by the stern.

SHALLOW WATER EFFECTS: Shallow water affects a ship in two manners: squat (which increases the effective draft at bow and/or stern), and maneuverability (which reduces maneuvering responses compared to open, deep water performance). Also, the faster the vessel's speed, the greater the magnitude of the effects.

CALCULATION OF SQUAT: Squat is a function of the vessel's speed through the water, the ratio of ship draft to water depth, the ratio of cross-sectional areas of the hull and channel, the block coefficient of the hull, and other factors. Formulas for predicting squat for any particular ship are complex and may not be practical for direct use by mariners. However, a useful "rule of thumb" can be used as long as mariners understand its limitations, as discussed below.

In general, shallow water effects can begin to appear when water depth is less than 3 times the vessel's draft, and can become significant by the time water depth is less than 1.5 times the draft. For a ship in unrestricted shallow water (i.e., not within the confines of a dredged channel or canal), a conservative rule-of-thumb for estimating squat is:

$S = 0.033C_bV^2$

[where: s = squat (*ft*), V = ship speed, including any head current (*knots*), and C_b = block coefficient of hull]. For example: at 15 knots, the squat for a container ship (C_b = 0.60) proceeding against a 1-knot head current would be approximately 5.1 feet and for a tanker (C_b = 0.85) would be approximately 7.2 feet.

The estimated squat should be added to the deepest calculated draft of the vessel (bow or stern). This rule-of-thumb conservatively overestimates the squat of a ship and is therefore considered to be safe for operational decisions.

However, the above rule-of-thumb is valid only when the ship's speed is less than:

V<2.52 x *SQRT(d)*

[where V = ship speed (*kts*), and *SQRT(d)* = square root of the water depth *"d"* (*ft*)]. For example: in 50 feet of water, the above squat estimate is valid only if the ship's speed is less than 17.8 knots. As the ship moves into shallower water, the limiting speed will decrease. For example, in 30 feet of water, the limiting speed for the rule-of-thumb decreases to 13.8 knots. If the ship's speed is faster than the limiting speed, then the squat prediction is no longer reliable and a greater squat should be assumed. Therefore, if the ship maintains a constant speed as it proceeds into shallower water, it may eventually exceed the limiting speed and experience a significant increase in squat.

If the block coefficient C_b is not known, it may be approximated as follows:

C_b = 35Disp/(LBT)

[where Disp = full-load displacement (*long tons*), L = length between perpendiculars (*ft*), B = beam (*ft*), and T = full load draft (*ft*)]. For example, the block coefficient C_b of a container ship 810'L x 106'B x 36'T with a full-load displacement of 51,710 Ltons is approximately 0.59.

UNDERKEEL CLEARANCE: When evaluating the underkeel clearance in shallow waters, mariners are advised to also take into account the wave-induced motions of the ship (heave and pitch), the uncertainty within their own draft & trim calculations, as well as a prudent margin for uncertainty in the charted water depths (even modern hydrographic surveys may not locate all sea floor obstructions or the shallowest depths). In particular, sudden changes in water depth (such as passing over a shoal area) can cause transient squat effects that can be more substantial than predicted. Similarly, sudden changes in ship speed (acceleration or deceleration) can also cause transient changes in squat. For broad-beamed ships with a relatively "tender" rolling periods (such as modern, post-Panamax container ships), rolling motions can significantly increase drafts at the bilges, in addition to the effects of squat.

(58) VESSEL SQUAT IN SHALLOW WATER. (Continued).

MANEUVERABILITY: In addition to squat, the mariner should also be aware that shallow water may increase turning diameter. Modeling of tankers has shown an increase in turning diameter of 60% to 100% in water less than 1.25 times the ship's draft. Hydrodynamic effects such as yawing and sheering should also be taken into account in shallow and restricted waters, especially when passing another vessel. Also, the vessel will require substantially more revolutions to maintain the same speed (during sea trials with a 270-foot destroyer drawing 8 feet of water, the ship required 400 rpm to reach 22 knots in 100 feet of water, but nearly 500 rpm to maintain the same speed in 45 feet of water).

RESTRICTED WATERS: When the ship is transiting shallow restricted waters (such as a dredged channel within a shallow bay), the hydrodynamic flow around the hull is confined by the banks of the channel, creating a different pressure distribution and aggravating the squat condition (usually by increasing the stern squat). The squat estimated by the above "rule of thumb" should be doubled. Maneuverability is also further degraded; which is of particular concern when passing (meeting or overtaking) another vessel in the waterway or when maneuvering near banks or in channel curves.

RECOGNIZING SHALLOW WATER EFFECTS: Signs that a ship has entered shallow water conditions can include one or more of the following:

- Vibration increases suddenly,
- Engine loads down and revolutions decrease,
- Wavemaking increases, especially at the bow,
- Ship becomes more stable and slower to respond to controls,
- Echo sounders indicate a change in clearance or depth,
- The shaft horsepower (shp) speed decreases at the same engine revolutions,
- Water flow around the ship changes, and water color darkens (possibly indicating entrained mud).

REGULATIONS: The Code of Federal Regulations (CFR) requires that the person directing the movement of the vessel set the vessel's speed with consideration for the tendency of the vessel underway to squat and suffer impairment of maneuverability when there is small underkeel clearance [33 CFR 164.11(p)(3)]. In addition, the International Maritime Organization recommends that

ships be provided with a bridge poster, a pilot card, and a maneuvering booklet. These should include information on the squat and maneuvering characteristics for that particular vessel [see also USCG Navigation Safety Inspection Circular 7-89].

For more information, contact:

Commandant, U.S. Coast Guard
Naval Architecture Division (CG-5212)
2100 Second Street SW
Washington, D.C. 20593-2967
Telephone: (202) 372-1372

(Repetition NTM 1(59)10) (USCG)

(59) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS.

The purpose of this information is to provide mariners with the details of the promulgation of Maritime Safety Information (MSI) via the Global Maritime Distress and Safety System (GMDSS) by U.S. information providers, namely the National Geospatial-Intelligence Agency (NGA), the U.S. Coast Guard (USCG), and the National Weather Service (NWS).

The equipment needed to receive MSI is a GMDSS type-approved Inmarsat-C transceiver for SafetyNET broadcasts via Inmarsat satellites and a NAVTEX receiver for Coastal Warnings. SafetyNET is an international service for the broadcast and automatic reception of MSI by means of direct printing through Inmarsat's Enhanced Group Call (EGC) system. NAVTEX is an internationally coordinated system for the automatic reception of MSI via MF 518 kHz or 490 kHz or 4209.5 kHz in other countries). The area of coverage for the United States is NAVAREA/METAREA IV and XII for SafetyNET and for NAVTEX, approximately 200 nautical miles from each NAVTEX station (see graphic, page I-1.70). Additionally, the NWS is providing further coverage for NAVAREA/METAREA XVI (Peru) for weather forecasts and warnings.

(59) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS. (Continued).

The major categories of MSI in the United States for both SafetyNET and NAVTEX are:

a. navigational warnings (including electronic navigation system messages such as GPS)
b. meteorological warnings
c. ice reports
d. search and rescue information
e. meteorological forecasts

The following table details the scheduled times for the U.S. information providers and what types of broadcasts are being sent.

In order to ensure that all relevant SafetyNET MSI is received before sailing, it is recommended that the Inmarsat-C receiver remain in operation while the ship is in port. To receive SafetyNET traffic automatically, the ship's receiver must be set up properly at the start of the voyage:

a. select the appropriate satellite (AOR-W, AOR-E, POR, IOR)
b. enter extra NAVAREA/METAREA codes in addition to the one that the vessel is currently in, if desired
c. key in the ship's position and ensure a periodic update (at least every 12 hours is recommended). This determines the NAVAREA/METAREA that will be monitored. If the position is not updated for more than 12 hours, ONLY geographically addressed messages with priorities greater than routine within the entire ocean region will be printed out.

In order to ensure that all relevant NAVTEX MSI is received before sailing, it is recommended that the NAVTEX receiver remain in operation while the ship is in port. To receive MSI automatically via NAVTEX, the ship's NAVTEX receiver must be programmed with the desired NAVTEX stations and subject identifiers.

Within the U.S., it is intended that all NAVTEX weather be broadcast with subject indicator "B," for forecasts containing meteorological warnings, which cannot be rejected by the NAVTEX receiver, and "E" for routine forecasts. The prudent mariner, however, should include subject indicator "E" in order to be assured of receiving all weather forecasts and warnings via NAVTEX, and thereby maintaining greater situational awareness.

The repetition rates of SafetyNET and NAVTEX messages vary, depending on the type of broadcast and situation. Routine weather forecasts via NAVTEX are broadcast four times per day (no repeats) and repeats of Notices to Mariners are broadcast in lieu of weather in the remaining time slots. SafetyNET weather forecast messages from the NWS normally are sent once unless an unscheduled warning is being issued, in which case an echo is used. The echo is rebroadcast six minutes after the initial transmission to give vessels which are transmitting at the time of the initial broadcast another opportunity to receive the message.

NGA promulgates all of its SafetyNET messages (which do not have a known cancellation within 24 hours of the initial broadcast) once each day until canceled. Those messages canceling others and those with a known expiration within 24 hours are sent only once.

For search and rescue, the USCG determines the repetition of the broadcast depending upon the type of incident, area of the incident, and known potential rescue vessels.

During the ice season the USCG's International Ice Patrol sends SafetyNET messages concerning the status of ice in the Atlantic Ocean, once.

All type-approved Inmarsat SafetyNET and NAVTEX receivers are designed to suppress redundant copies of correctly copied messages.

Meteorological warnings and meteorological forecasts for the Hudson Bay area are not yet transmitted via GMDSS SafetyNet or NAVTEX. The U.S. high seas forecast for METAREA IV is currently limited to the western part of the North Atlantic Ocean eastwards of the North American coast to 35°W, from 7°N to 67°N, including the Gulf of Mexico and Caribbean Sea. For further information, contact marine.weather@noaa.gov

For further discussion of GMDSS and its many aspects, users are encouraged to read the appropriate chapter in The American Practical Navigator (Bowditch) and/or in Publication 117, Radio Navigational Aids. Pub. 117 also lists in-depth worldwide GMDSS coverage. Other valuable GMDSS reference sources include:

IMO Newsletters
NOAA Mariners Weather Log (http://www.vos.noaa.gov)
USCG Amver Bulletins
USCG Local Notice to Mariners
British Admiralty List of Radio Signals, Volumes 3 and 5
Many commercial maritime magazines

(59) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS. (Continued).

SCHEDULED BROADCAST TIMES

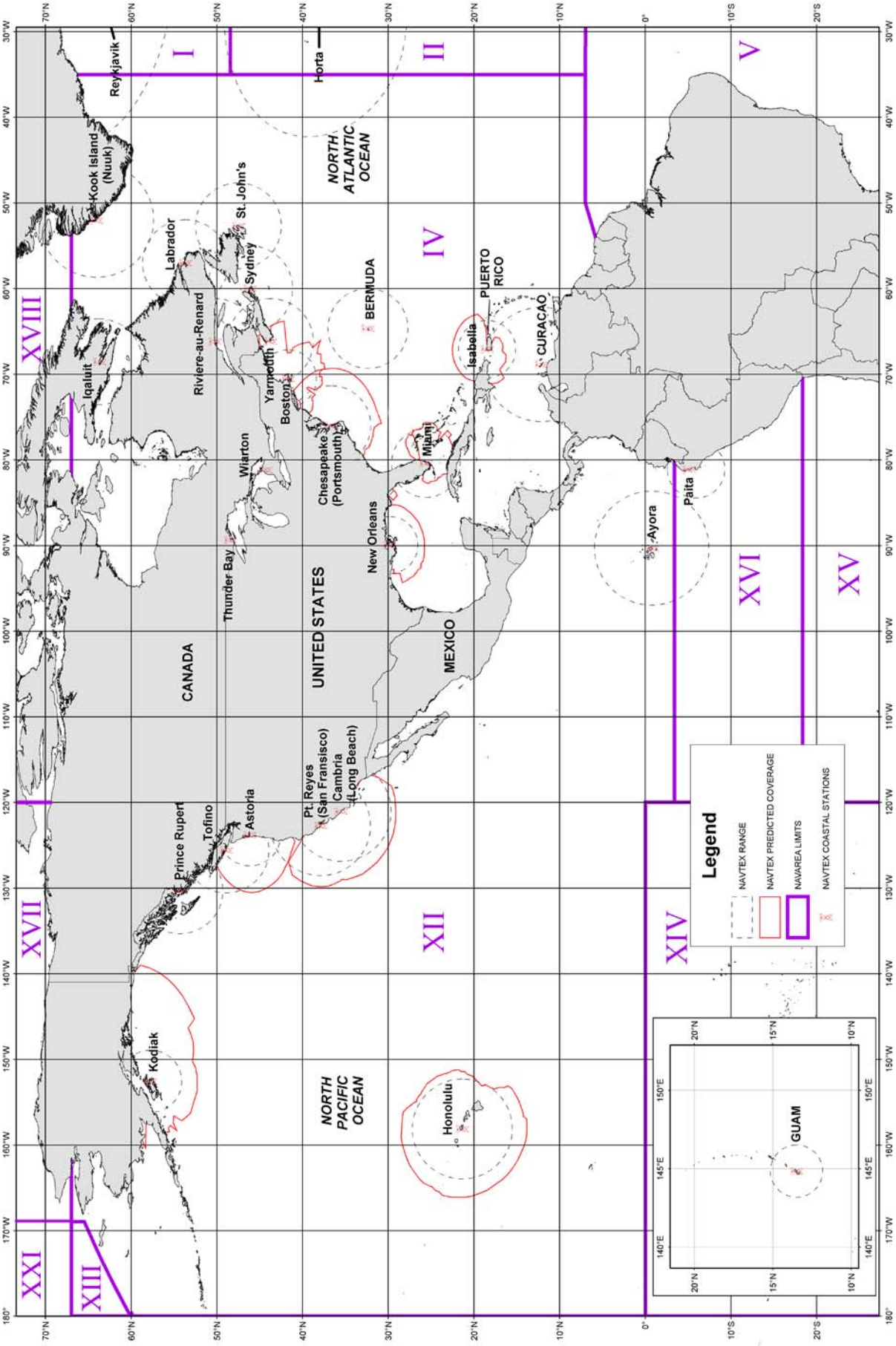
WHAT	WHO	WHEN (UTC)	HOW	NAVAREA/ METAREA	SATELLITE
High seas warnings and forecasts	NWS	0430, 1030, 1630, 2230	SafetyNET	IV	AOR-W
High seas warnings and forecasts	NWS	0545, 1145, 1745, 2345	SafetyNET	XII	AOR-W/POR
High seas warnings and forecasts	NWS	0515, 1115, 1715, 2315	SafetyNET	XVI	AOR-W
Hurricane advisories West Atlantic	NWS	as required	SafetyNET	IV	AOR-W
Hurricane advisories East Pacific	NWS	as required	SafetyNET	XII	POR/AOR-W
Hurricane advisories Central Pacific	NWS	as required	SafetyNET	XII	POR
Pacific Tsunami warnings	NWS	as required	SafetyNET	XII	POR/AOR-W/ AOR-E
Hawaii Tsunami warnings	NWS	as required	SafetyNET	XII	POR
West Coast, Canada, Tsunami warnings	NWS	as required	SafetyNET	XII	POR/AOR-W
East Coast, Canada, Puerto Rico, Virgin Is., Tsunami warnings	NWS	as required	SafetyNET	IV	AOR-W/AOR-E
Caribbean Tsunami warnings	NWS	as required	SafetyNET	IV	AOR-W/AOR-E
Long range navigational warnings	NGA	1000, 2200	SafetyNET	IV	AOR-W
Long range navigational warnings	NGA	1030, 2230	SafetyNET	XII	POR/AOR-W
Long range search and rescue	USCG	upon receipt	SafetyNET	IV/XII	AOR-W/POR

(59) PROMULGATION OF MARITIME SAFETY INFORMATION BY U.S. INFORMATION PROVIDERS. (Continued).

WHAT	WHO	WHEN (UTC)	HOW	NAVAREA/ METAREA	SATELLITE
Coastal MSI	USCG	4 to 6 times daily for routine traffic; upon receipt for distress	NAVTEX	Generally, within 200 miles of the coastline	None; see Pub 117 for stations and times
Status of ice* in North Atlantic Ocean	USCG	1200	SafetyNET	IV	AOR-W

*Ice information is also broadcast via various other means. The Commander, International Ice Patrol announces complete broadcast information at the commencement of each North Atlantic Ice Patrol Season.

(Supersedes NTM 1(60)10) (USCG/NGA)


Reykjavik
Horta
Kook Island (Nuuk)
NORTH ATLANTIC OCEAN
St. John's
Labrador
Sydney
BERMUDA
PUERTO RICO
Isabella
CURACAO
Iqaluit
Riviere-au-Renard
Yarmouth
Boston
Chesapeake (Portsmouth)
Miami
Wiarton
Thunder Bay
New Orleans
Ayora
Paita
CANADA
UNITED STATES
MEXICO
Pt. Reyes (San Fransisco)
Cambria
(Long Beach)
Prince Rupert
Tofino
Astoria
Kodiak
NORTH PACIFIC OCEAN
Honolulu
GUAM
I
II
IV
V
XVI
XV
XIV
XII
XVII
XVIII
XXI
XIII
Legend
NAVTEX RANGE
NAVTEX PREDICTED COVERAGE
NAVAREA LIMITS
NAVTEX COASTAL STATIONS

(60) COAST GUARD SAFETY INFORMATION AVAILABLE ON INTERNET.

The United States Coast Guard Navigation Information Service (NIS), operated by the USCG Navigation Center, provides information for all radionavigation and maritime telecommunications systems. The NIS is staffed 24 hours a day, 7 days a week, providing general information and as appropriate current operational status, and effective policies for Global Positioning System (GPS), Differential GPS (DGPS), Universal Shipborne Automatic Identification System (AIS), and the Global Maritime Distress and Safety System (GMDSS), including NAVTEX, Digital Selective Calling (DSC), Inmarsat SafetyNET, and other Maritime Safety Information (MSI) broadcasts. Access to this information can be made directly, at no charge, via the Internet at http://www.navcen.uscg.gov.

The NIS also disseminates Safety Broadcasts (BNM), Local Notice to Mariners (LNM) and the latest Notice Advisory to Navstar Users (NANU). NANU notices can also be obtained via e-mail subscription through the USCG Navigation Center Web site (http://cgls.uscg.mil/mailman/listinfo/nanu). LNMs can also be obtained via e-mail subscription through the USCG Navigation Center Web site at htp://www.navcen.uscg.gov/?pageName=LNMlistRegistration or via an RSS Feed at http://www.navcen.uscg.gov/index.php?pageName=feeds. In addition, the NIS investigates all reports of degraded or loss of GPS, DGPS, AIS, or LRIT service. Mariners are encouraged to report all degradation, outages, or other incidents or anomalies of radionavigation services to the NIS via any of the following: Phone: 703-313-5900, E-mail: TIS-PF-webmasternavcen@uscg.mil. You can also contact the the NIS on the World Wide Web at http://www.navcen.uscg.gov/?pageName=contact.

(Supersedes NTM 1(61)10) (USCG)

(61) NATIONAL OCEAN CLAIMS.

The following list shows national claims of maritime jurisdiction. Publication of this material is solely for information relative to the navigational safety of shipping and in no way constitutes legal recognition by the United States. The information has been compiled from the best available sources.

Country	Territorial Sea	Fisheries or Economic Zone	Contiguous Zone	Continental Shelf
Albania	12*	12	---	200m or E
Algeria	12*	32-52	24	equidistant
Angola	12	200	24	200NM or CM
Antigua and Barbuda**	12*	200	24	200NM or CM
Argentina	12* (1)	200	24	200NM or CM
Australia	12 (2)	200	24	200NM or CM
Bahamas, The**	12	200	---	200m or E
Bahrain	12	---	24	---
Bangladesh	12*	200	18 (3)	CM
Barbados	12*	200	---	200NM or CM
Belgium	12	--- (4)	24	--- (4)
Belize	12 (5)	200	---	---
Benin	200 (82)	200 (82)	---	200 (82)
Bosnia and Herzegovina	--- (6)	---	---	---

(61) NATIONAL OCEAN CLAIMS. (Continued).

Brazil	12* (7)	200 (7)	24	200NM or CM
Brunei	12	200 (8)	---	200NM or CM (83)
Bulgaria	12 (9)	200	24	200m or E (9)
Burma	12* (10)	200	24 (10)	200NM or CM
Cambodia	12*	200	24 (11)	200NM
Cameroon	12	--- (12)	24	200NM or CM
Canada	12 (13)	200	24	200NM or CM
Cape Verde**	12*	200	24	200NM
Chile	12	200	24	200/350NM (14)
China	12*	200 (15)	24 (15)	200NM or CM
Colombia	12	200	---	200NM
Comoros**	12	200	---	---
Congo (Brazzaville)	200*	200	---	---
Congo (Kinshasa)	12	200 (24)	---	---
Cook Islands	12	200	---	200NM or CM
Costa Rica	12	200 (17)	---	200NM or CM
Côte d'Ivoire	12	200	---	200NM or CM
Croatia	12*	200 (18)	---	200m or E
Cuba	12 (19)	200	24	200m
Cyprus	12	200	24	200m or E
Denmark	12* (20)	200	24	200m or E
Djibouti	12 (21)	200	24	---
Dominica	12	200	24	---
Dominican Republic**	12 (22)	200	24	200NM or CM
Ecuador	200 (23)	200	---	--- (23)
Egypt	12* (24)	200	24 (24)	200m or E
El Salvador	12 (25)	200	24	200NM
Equatorial Guinea	12	200	---	200NM or CM

(61) NATIONAL OCEAN CLAIMS. (Continued).

Eritrea	12 (26)	---	---	---
Estonia	12 (27)	Defined by coordinates	---	Defined by coordinates
Fiji**	12	200	---	200m or E
Finland	12*(28)	Defined by coordinates	14	200m or E
France	12 (29)	200 (29)	24	200m or E
Gabon	12	200	24	200NM or CM
Gambia, The	12	200	18	200NM or CM
Georgia	12	--- (30)	24	--- (30)
Germany	12	200	---	200m or E
Ghana	12	200	24	200NM or CM
Greece	6 (31)	---	---	200m or E
Grenada	12*	200	---	200NM
Guatemala	12 (32)	200	---	200m or E
Guinea	12	200	---	200NM or CM
Guinea-Bissau	12	200	---	200NM or CM
Guyana	12*	200	---	200NM or CM
Haiti	12 (33)	200	24 (33)	E
Honduras	12 (34)	200	24	200NM or CM
Iceland	12	200	---	200NM or CM
India	12*	200	24 (35)	200NM or CM
Indonesia**	12 (36)	200	--- (84)	200NM or CM
Iran	12*	--- (37)	24 (37)	--- (37)
Iraq	12	---	---	(not specified)
Ireland	12	200	24	Partially defined by coordinates
Israel	12	---	---	E
Italy	12 (38)	---	---	200m or E
Jamaica**	12	200	24	200NM or CM

(61) NATIONAL OCEAN CLAIMS. (Continued).

Japan	12 (39)	200	24	200NM or CM
Jordan	3	---	---	---
Kenya	12 (40)	200	---	200m or E
Kiribati**	12	200	---	200NM
Korea, North (DPRK)	12* (41)	200	50 (41)	200NM
Korea, South (ROK)	12* (42)	200	24	200NM or CM
Kuwait	12	---	---	Defined by coordinates
Latvia	12 (43)	200	---	200m or E
Lebanon	12	Defined by coordinates	---	---
Liberia	200	---	---	200m or E
Libya	12* (44)	74	---	CS
Lithuania	12	(45)	Defined by coordinates	---
Madagascar	12	200	24	200NM (46)
Malaysia	12 (47)	200	---	200m or E
Maldives**	12*	200	24	---
Malta	12*	25	24	200m or E
Marshall Islands**	12	200	24	---
Mauritania	12 (48)	200	24	200NM or CM
Mauritius	12*	200	24	200NM or CM
Mexico	12 (49)	200	24	200NM or CM
Micronesia, Federated States of	12	200	---	200NM or CM
Monaco	12	12	---	---
Montenegro	(50)	---	---	---
Morocco	12	200	24	200m or E
Mozambique	12	200	24	200NM or CM
Namibia	12	200	24	200NM or CM

(61) NATIONAL OCEAN CLAIMS. (Continued).

Nauru	12	200	24	---
Netherlands	12* (51)	defined by coordinates	24	200NM or CM
New Zealand	12 (52)	200 (52)	24	200NM or CM
Nicaragua	12*	200	24	200m or CM
Nigeria	12*	200	---	200m or E
Niue	12	200	---	---
Norway	12 (53)	200	24 (53)	200NM or CM
Oman	12*	200	24	200NM or E
Pakistan	12* (54)	200	24 (54)	200NM or CM
Palau	12	200	24	200NM or CM
Panama	12(55)	200	24	200NM or CM
Papua New Guinea**	12	200	---	200m or E
Peru	200 (56)	200	---	200
Philippines**	--- (57)	200	---	E
Poland	12 *(58)	200 (58)	---	---
Portugal	12 (59)	200	24	200m or E
Qatar	12	--- (60)	24	CS
Romania	12*	200	24	200m or E
Russia	12 (61)	200	24	200NM or CM
Saint Kitts and Nevis	12	200	24	200NM or CM
Saint Lucia	12	200	24	200NM or CM
Saint Vincent and the Grenadines**	12*	200	24	200m
Samoa	12	200	24	200m
Sao Tome and Principe**	12	200	---	200NM or CM
Saudi Arabia	12 (62)	---	18 (62)	CS
Senegal	12	200	24	200NM or CM
Seychelles**	12*	200	24	200NM or CM

(61) NATIONAL OCEAN CLAIMS. (Continued).

Sierra Leone	12	200	24	200NM or CM
Singapore	12(63)	(63)	---	---
Slovenia	12* (64)	---	---	---
Solomon Islands**	12	200	---	200NM or CM
Somalia	200*	200	---	200NM or CM
South Africa	12	200	24	200NM or CM
Spain	12 (65)	200 (65)	24	200NM or CM
Sri Lanka	12* (66)	200	24 (66)	200NM or CM
Sudan	12*	---	18 (67)	200m or E
Suriname	12	200	---	---
Sweden	12 (68)	Equidistant	---	200m or E
Syria	12*	200	24	200m or E
Tanzania	12	200	---	---
Thailand	12 (69)	200	24	---
Timor-Leste	12	200	24	200NM or CM
Togo	30	200	---	200NM or CM
Tonga	12 (70)	200	---	200m or E
Trinidad and Tobago**	12	200	24	200NM or CM
Tunisia	12 (71)	---(72)	24	---
Turkey	6-12 (73)	200 (73)	---	---
Tuvalu**	12	200	24	---
Ukraine	12 (74)	200	---	200m or E
United Arab Emirates	12*	200 (75)	24	200NM or Equidis-tant
United Kingdom	12	200 (76)	---	200NM or CM
United States	12	200 (77)	24	200NM or CM
Uruguay	12 (78)	200	24	200NM or CM
Vanuatu**	12	200	24	200NM or CM

(61) NATIONAL OCEAN CLAIMS. (Continued).

Venezuela	12	200	15 (79)	200m or E
Vietnam	12* (80)	200	24 (80)	200NM or CM
Yemen	12* (81)	200	24 (81)	200NM or CM

Abbreviations:

CS - Continental Shelf (no specified limits)
CM - Continental Margin
E - Limit of Exploitation
m - meters (depth)
NM - nautical miles

* Indicates a state which requires advance permission or notification for innocent passage of warships in the territorial sea. The United States does not recognize this requirement.

** Indicates an archipelagic state.

FOOTNOTES

The numbers presented in the table reflect a claim regarding the breadth of a zone contained in national legislation - regardless of whether this legislation contains an additional specific reference to the need for delimitation of maritime boundaries with adjacent or opposite states. Therefore there are instances where a state claim exceeds the maximum possible breadth due to the distance to opposite states.

Security Zone - A state claim to control activity beyond its territorial sea for security reasons unrelated to that state's police powers in its territory, including its territorial sea. This Summary lists only those Security Zones which presently claim to restrict navigation and overflight activities conducted exclusively beyond their claimed territorial seas. A claim of right of surveillance beyond the territorial sea or a claim of the right of "hot pursuit" in enforcing violations of law which occur in a state's territorial sea, inland waters, or land territory does not constitute a claimed Security Zone.

Fishery zones not extending beyond a claimed territorial sea or EEZ are encompassed within the territorial sea or EEZ and not listed separately.

Many coastal nations have established straight baselines or have asserted historic waters claims. These footnotes mention some of the more significant ones. It exceeds the scope of this Summary, however, to provide an exhaustive list of baseline and historic waters claims. Accordingly, users should refer to other sources of information to obtain a complete compendium of maritime claims.

1. Argentina. Claims San Matias Gulf (Golfo San Matias), Nuevo Gulf (Golfo Nuevo) and San Jorge Gulf (Golfo San Jorge) as internal waters and claims, jointly with Uruguay, the Rio de la Plata estuary as internal waters.

2. Australia. Claims Anxious, Rivoli, Encounter and Lacepede Bays as historic waters.

3. Bangladesh. Contiguous Zone also considered a Security Zone. Nuclear-powered vessels and vessels transporting nuclear materials or other radioactive substances are required to give notice prior to entering territorial sea.

4. Belgium. EEZ limits set by coordinates found in the Act concerning the EEZ of Belgium in the North Sea of April 1999. Fishery zone and CS extend to median line equidistant from baseline of neighbors.

5. Belize. From the mouth of the Sarstoon River to Ranguana Cay, Belize's territorial sea is 3NM; according to Belize's Maritime Areas Act, 1992, the purpose of this limitation is "to provide a framework for the negotiation of a definitive agreement on territorial differences with the Republic of Guatemala."

6. Bosnia and Herzegovina. No information on maritime claims is available.

7. Brazil. Claims to require permission for more than 3 warships of same flag to be in territorial sea at same time. Military exercises can be carried out in EEZ only with Brazil's consent.

(61) NATIONAL OCEAN CLAIMS. (Continued).

8. Brunei. 200NM or median EEZ.

9. Bulgaria. In territorial sea and internal waters, foreign submarines shall be required to navigate on the surface. Innocent passage of warships limited to designated sea lanes. CS limits will be established by agreement between states with adjacent or opposite coasts on Black Sea on basis of international law.

10. Burma. Claims as internal waters all waters inside a 223NM baseline closing Gulf of Martaban as well as waters inside straight baselines connecting coastal islands. Contiguous Zone also considered a Security Zone.

11. Cambodia. Contiguous Zone also considered a Security Zone.

12. Cameroon. EEZ will stretch from the external boundary of the territorial sea to the limit placed under its jurisdiction by international law.

13. Canada. Claims as internal waters all waters between its islands in the Arctic; also claims Hudson Bay as a historic bay.

14. Chile. Claimed continental shelves for Easter Island and Sala y Gomez Island, extending 350 nautical miles from their respective baselines.

15. China. Claims right to create safety zone around any structure in EEZ, right to require prior authorization to lay submarine cables and pipelines, and right to broad powers to enforce laws in the EEZ. Contiguous Zone also considered a Security Zone.

16. Congo. EEZ limits to be fixed in coordination with neighboring states.

17. Costa Rica. Permit required for foreign flag fishing vessels to transit Costa Rican waters.

18. Croatia. Established “ecological and fisheries protection zone.”

19. Cuba. Claims straight baselines enclosing varying distances of water between Cape Frances (Cabo Frances), the Isle of Pines (Isla de la Juventud) (notable are those enclosing 21-35.6N and 79-50.5W), Breton Cay (Cayo Breton) and Cape Cruz (Cabo Cruz) as internal waters.

20. Denmark. No prior notification required in straits, unless more than 3 warships at once. Includes Greenland and Faroe Islands. Straight baselines have the effect of enclosing waters between the Faroe Islands. Drogden and Hollænderdyb claimed as internal waters. 3NM territorial sea for Greenland. 12NM territorial sea for Faroe Islands.

21. Djibouti. Nuclear-powered vessels and vessels transporting nuclear materials or other radioactive substances are required to give notice prior to entering territorial sea.

22. Dominican Republic. Claims Samana, Ocoa, Neiba, Escocesa and Santo Domingo Bays as historic bays; Samana, Ocoa and Neiba bays qualify as juridical bays.

23. Ecuador. Straight baselines have the effect of enclosing waters between the Galapagos Islands. Claims right to enforce environmentally-based navigational restrictions in the vicinity of the Galapagos. Beyond 200NM, CS claimed along the undersea Carnegie Ridge (measured 100 miles from the 2500m-depth isobath).

24. Egypt. Contiguous Zone also considered a Security Zone. Claims right to prior permission for entry of nuclear-powered vessels or vessels carrying nuclear materials and foreign ships carrying hazardous or other wastes.

25. El Salvador. Claims Gulf of Fonseca (Golfo de Fonseca) as a historic bay.

26. Eritrea. Jurisdiction claimed to the limit of the pearl and sedentary fishery grounds.

27. Estonia. Nuclear-powered ships must apply for permission 30 days in advance to enter territorial sea. Innocent passage prohibited for ships carrying radioactive materials, explosives and marine pollutants defined as hazardous and certain oil and fertilizer products unless those cargoes are loaded or unloaded in an Estonian port.

(61) NATIONAL OCEAN CLAIMS. (Continued).

28. Finland. In the Gulf of Finland territorial sea is 3NM.

29. France. Territorial sea limits apply to all French dependencies. EEZ claim includes the following French dependencies: Clipperton Island, French Guiana, French Polynesia, French Southern and Antarctic Lands, Guadeloupe, Glorioso Islands, Juan de Nova Island, Europa Island, Bassas da India, Martinique, New Caledonia, St. Pierre and Miquelon, Tromelin Island, and Wallis and Futuna.

30. Georgia. National legislation establishes the limits only by reference to the delimitation of maritime boundaries with adjacent or opposite states.

31. Greece. Territorial airspace claim extends to 10NM for control of civil aviation.

32. Guatemala. Claims Gulf of Amatique (Bahia de Amatique) as a historic bay.

33. Haiti. Draws territorial sea limits in a manner which implies straight baselines including across the mouth of the Gulf of Gonave (Golfe de la Gonave). Contiguous Zone also considered a Security Zone.

34. Honduras. Claims Gulf of Fonseca (Golfo de Fonseca) as a historic bay.

35. India. Contiguous Zone also considered a Security Zone. Claims Gulf of Mannar and Palk Bay as historic waters.

36. Indonesia. Submarines must navigate above water level and show national flag. Nuclear vessels and vessels carrying nuclear material must carry documents and adhere to international special preventative measures.

37. Iran. Claims security jurisdiction in Contiguous Zone. EEZ and CS extend to median line equidistant from baseline of neighbors.

38. Italy. Claims the Gulf of Taranto (Golfo di Taranto) as a historic bay.

39. Japan. Claims straight baselines. A high seas corridor remains in 5 “international straits”: Tsugaru Strait (Tsugaru-kaikyo), La Perouse Strait, Osumi Strait (Osumi-kaikyo) and East and West channels of Tsushima.

40. Kenya. Established straight baseline system. Claims Ungwana Bay as a historic bay.

41. Korea, North (DPRK). Measures claims from claimed straight baselines, not coastline. Claims a 50/200NM Security Zone within which all foreign vessels and aircraft are banned without permission; it extends to 50NM in the Sea of Japan and to the limit of EEZ in the Yellow Sea.

42. Korea, South (ROK). Claims straight baselines. A high seas corridor remains in Korea Strait.

43. Latvia. Banned foreign warships with nuclear powered engines or cargo from entering territorial seas or ports without providing 30 days prior notice and permission.

44. Libya. Claims the Gulf of Sidra as a historic bay. All merchant ships required to give prior notice of innocent passage.

45. Lithuania. EEZ limit established by reference to the delimitation by agreement with states with adjacent or opposite coasts.

46. Madagascar. CS 200NM or 100NM from 2500m-depth isobath.

47. Malaysia. Prior authorization requirement for nuclear-powered ships or ships carrying nuclear material to enter the territorial sea.

48. Mauritania. Claims 89NM straight baseline from Cape Blanc (Cap Blanc) to Cape Timiris (Cap Timiris).

(61) NATIONAL OCEAN CLAIMS. (Continued).

49. Mexico. No more than 3 foreign warships will be authorized in Mexican ports on each coast at the same time, and no more than one in any given port. Port calls by more than one training vessel can be authorized only if permission is requested three months in advance. Nuclear-powered and nuclear-armed ships are not allowed to enter Mexican territorial waters or dock in Mexican ports.

50. Montenegro. No information on maritime claims is available.

51. Netherlands. Considers the Westerschelde internal waters through which passage requires prior permission. Includes Aruba and the Netherlands Antilles.

52. New Zealand. Includes Tokelau. Prohibits entry of nuclear-powered and nuclear armed ships into its ports.

53. Norway. Territorial sea claim includes Jan Mayen and Svalbard. Contiguous Zone claim applies only to Norway.

54. Pakistan. Foreign supertankers, nuclear-powered ships and ships carrying nuclear materials are required to give prior notification for entry into territorial sea. Contiguous Zone also considered a Security Zone.

55. Panama. Claims Gulf of Panama as a historic bay.

56. Peru. 200 mile territorial sea is without prejudice to freedom of international communication, “in conformity with the laws and treaties ratified by the state.”

57. Philippines. In addition to its claim of archipelagic waters, claims as maritime territorial waters areas embraced within the lines described in the 1898 Treaty of Paris as subsequently modified. The resulting territorial sea varies from one-half to 285NM in width.

58. Poland. Claims a closing line across Gulf of Gdansk and a fishing zone to the median line in the Baltic. EEZ is determined by lines connecting extreme points of specified lateral limits.

59. Portugal. Established straight baselines for various areas along continental coast and Madeira and Azores island groups. Claims Tagus and Sado estuaries and associated bays as historic waters.

60. Qatar. Extends to median line with neighboring states.

61. Russia. In a Joint Statement with Ukraine declared that the Sea of Azov and Strait of Kerch are historic internal waters of the two nations.

62. Saudi Arabia. Claims power to regulate nuclear-powered vessels in the territorial sea and to require prior authorization for such vessels. Contiguous Zone also considered a Security Zone.

63. Singapore. Singapore has stated that it will negotiate agreed maritime boundary delimitations with neighboring countries whose territorial sea and exclusive economic zone claims overlap with Singapore’s.

64. Slovenia. Foreign warships require 24-hour advance notice for innocent passage through territorial sea and must use designated sea lanes only.

65. Spain. Claims to control transit passage by aircraft and exercise pollution control over vessels in international strait. Claims 200NM Economic Zone in Atlantic only. Fishery zone in the Mediterranean defined by coordinates.

66. Sri Lanka. Contiguous Zone also considered a Security Zone. Claims Palk Bay, Palk Strait and Gulf of Mannar as historic waters.

67. Sudan. Contiguous Zone also considered a Security Zone.

68. Sweden. Territorial sea claim is less than 12NM (but varying) in certain areas of the Skagerrak, the Kattegat and the Baltic.

(61) NATIONAL OCEAN CLAIMS. (Continued).

69. Thailand. Claims inner Gulf of Thailand as a historical bay to 12°35'45"N.

70. Tonga. Claims 12NM territorial sea for Minerva Reef.

71. Tunisia. Claims straight baselines enclosing Gulf of Tunis (Khalij Tunis) and Gulf of Gabes (Khalij Gabes) as internal waters.

72. Tunisia. EEZ limits to be fixed in coordination with neighboring states.

73. Turkey. Claims a 12NM territorial sea in the Black Sea and in the Mediterranean and a 6NM territorial sea in the Aegean. EEZ is claimed in the Black Sea.

74. Ukraine. In a Joint Statement with Russia declared that the Sea of Azov and Strait of Kerch are historic internal waters of the two nations.

75. United Arab Emirates. EEZ extends to agreed CS boundaries or to median lines.

76. United Kingdom. Fishery claims include Ascension, Bermuda, British Virgin Islands, Cayman Islands, Ducie and Oeno Atolls, Henderson Island, Pitcairn Island, St. Helena, Tristan da Cunha, Turks and Caicos Islands. Has also established a fishing zone around the Falkland/Malvinas Islands; although 200NM wide, the zone is only enforced to a distance of 150NM. Established Environment (Protection and Preservation) Zone for the British Indian Ocean Territory.

77. United States. EEZ applies to Northern Marianas (consistent with the Covenant), American Samoa, Guam, Puerto Rico, U.S. Virgin Islands and other U.S. possessions and territories.

78. Uruguay. Claims, jointly with Argentina, the Rio de la Plata estuary as internal waters.

79. Venezuela. Claims 15NM Security Zone.

80. Vietnam. Claims half of the Gulf of Tonkin as historic internal waters and uses straight baselines for measuring the territorial sea. Baselines purport to enclose portions of the South China Sea up to approximately 75NM in width as internal waters. Contiguous Zone also considered a Security Zone.

81. Yemen. Claims notice requirement for warships, nuclear-powered vessels and vessels transporting nuclear materials or other radioactive substances prior to entering the territorial sea. Contiguous Zone also considered a Security Zone.

82. Benin. In December 1998, a representative of the Benin Foreign Ministry provided an informal statement to U.S. State Department that Benin now claims a 12nm Territorial Sea and a 200nm-EEZ. However, the 1976 decree remains on the UN Law of the Sea website, and the UN continues to list the claim as 200nm.

83. Brunei. Claims continental shelf, but has not published delimitation.

84. Indonesia. Claimed to restrict "stopping, dropping anchor, and/or cruising about without legitimate reason" in high seas "adjoining Indonesian territorial waters; "adjoining officially interpreted to extend up to 100 miles seaward of Indonesian territorial waters. This claim is not recognized by the U.S.
(Supersedes NTM 1(62)10) (DEPT. OF STATE/NGA)

(62) U.S. ECONOMIC SANCTIONS.

NOTE: *This section is meant to alert mariners and trade professionals to the existence of U.S. sanctions and does not have the force of law. Sanctions are based on U.S. foreign policy and national security concerns and are administered by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC"). Currently, OFAC administers sanctions programs against targeted foreign countries, as well as terrorists, international narcotics traffickers, proliferators of weapons of mass destruction and others. The regulations governing sanctions programs are found in chapter V of title 31, Code of Federal Regulations. For current details about OFAC and U.S. sanctions, it is important to visit the Treasury Department's sanctions website at:* http://www.treas.gov/ofac.

(62) U.S. ECONOMIC SANCTIONS. (Continued).

U.S. mariners and shippers may face a variety of risks relating to economic and trade sanctions. Take, for example, designated parties who may be operating as pirates off the coast of Somalia or cargo transshipped on an Islamic Republic of Iran Shipping Lines vessel.

Imagine a ship transporting a perishable cargo from South America to ports-of-call along the Atlantic seaboard. The vessel is northbound for a final destination at a large Mid-Atlantic port in the United States. As the vessel makes its way through the Caribbean, it stops in various locations, including Santiago de Cuba in order to perform minor repairs. Upon leaving Santiago de Cuba, it continues north, for its primary destination in the United States. In accordance with U.S. law, the vessel provides advanced identification to the final port of entry. Upon learning that the vessel has just left Cuban territory and was not engaged in licensed or exempt trade with Cuba, the vessel is instructed that it will not be allowed to enter any U.S. port for a period of 180 days. Furthermore, if the ship is owned or managed by a U.S. citizen or company, penalties could be assessed for having permitted an inappropriate stop in Cuba

There are numerous potential business risks for U.S. mariners and shippers relating to economic and trade sanctions.

OFAC JURISDICTION

Who, exactly, is subject to OFAC jurisdiction? OFAC regulations apply to: All U.S. citizens and permanent resident aliens located anywhere in the world, any individual located in the United States, U.S.-registered vessels and other vessels subject to U.S. jurisdiction, all companies organized in the United States, all foreign branches and representative offices of U.S. companies, as well as all individuals and entities located in the United States (including domestic affiliates of foreign companies). Foreign subsidiaries of U.S. companies are subject to U.S. sanctions against Cuba. Every shipping company may potentially be affected by OFAC regulations. In 2010, new, broad-reaching legislation was signed into law involving Iran in the form of the Comprehensive Iran Sanction, Accountability, and Divestment Act of 2010 ("CISADA"). Some of the provisions of CISADA specifically target activities of non-U.S. companies and individuals. Non-U.S. firms found to be engaging in certain activities involving Iran can be subject to restrictions on their dealings with the United States. Although some of these restrictions are not administered by OFAC, shippers must be aware of them. For example, CISADA requires the President to impose sanctions if he determines that a person knowingly supplies goods, services, technology, information, or support that could contribute to Iran's ability to import refined petroleum products, including providing ships or shipping services to deliver refined petroleum products.

OFAC regulations are generally broad-reaching, prohibiting all unlicensed dealings with sanctioned countries, entities and individuals. Prohibitions include facilitating trade, providing maritime transportation, vessel chartering, brokerage services, and maritime insurance or reinsurance that directly or indirectly benefit sanctioned parties. The restrictions include, but are not limited to, transactions relating to:

- Shipments of goods or technology where the country of origin is subject to trade sanctions;
- Shipments of goods to or from countries or targets subject to trade sanctions;
- Export of U.S.-origin vessels to countries subject to trade sanctions;
- Carriage of passengers to or from Cuba;
- Carriage of passengers who are blocked Cuban nationals;
- Shipments of goods or technology in which there is an interest of a target government or a Specially Designated National (SDN) or, in the case of Cuba, an interest of any Cuban national;
- The purchase of services or bunkering at ports located within the territory of a country subject to trade sanctions;
- Transshipments through the United States of cargo from or destined for countries or targets subject to trade sanctions;
- Shipments aboard vessels owned or controlled by sanctioned countries or targets.

It is important to review the regulations and be aware of which programs and prohibitions apply to particular business operations. U.S. sanctions programs nuanced. What may be prohibited with regard to one sanctions program may be permitted or licensable for another. Sanctions programs may be subject to frequent change. To ensure continued compliance, it is important that you remain up-to-date on the latest program provisions. For up-to-date information or questions on sanctions, visit OFAC's webpage at: www.treas.gov/ofac, subscribe to OFAC's email or RSS notification services, or contact OFAC's Compliance hotline at: 1-800-540-6322.

A vessel may be subject to U.S. jurisdiction, depending on its ownership or its location. If your vessel meets any of the following definitions it is subject to U.S. jurisdiction, and hence, OFAC regulations:

- It is a U.S. flag vessel;
- It is owned or controlled by any U.S. company or companies;
- It is within U.S. waters;
- In accordance with sanctions against Cuba, the vessel is owned or controlled by foreign subsidiaries of U.S. companies.

(62) U.S. ECONOMIC SANCTIONS. (Continued).

OFAC LICENSING

OFAC has the authority to authorize transactions that are otherwise prohibited by issuing licenses to allow certain transactions. For some sanctions programs, OFAC may license commercial exports of agricultural commodities, medicine and medical devices pursuant to the Trade Sanctions Reform and Export Enhancement Act of 2000. Provisions may also exist for licensing the exportation of other items, including civil aviation equipment. The OFAC Licensing Division can be reached by telephone (202) 622-2480 and by fax (202) 622-1657.

SANCTIONS ENFORCEMENT AND OUTREACH

OFAC does not require the establishment of any specific sanctions compliance policies, programs, or procedures, but the potential damage to national security, substantial civil and criminal penalties, and the potential harm to a mariner's reputation offer considerable incentive to develop and maintain appropriately tailored OFAC compliance programs. OFAC's Economic Sanctions Enforcement Guidelines, published at 74 Fed. Reg. 57,593 (Nov. 9, 2009), and available on OFAC's website, set forth the General Factors that OFAC will consider in determining appropriate administrative action in response to apparent violations of U.S. sanctions.

A list of currently scheduled Outreach events is also available on OFAC's website.
(Supersedes NTM 1(63)10) (DEPT. OF TREASURY)

(63) MARITIME INDUSTRY REPORTING OF A SUSPECTED OR ACTUAL TERRORIST INCIDENT.

In addition to oil and hazardous substance releases, the National Response Center (NRC) must be notified of any suspected or actual terrorist incident (e.g., chemical, radiological, biological, or etiological discharge into the environment) anywhere in the United States and its territories, particularly one affecting transportation systems. Coast Guard units that receive reports of suspected or actual incidents should ensure such reports are reported to the NRC at 800-424-8802 or (202) 267-2675. Individuals are encouraged to visit the NRC Web site (http://www.nrc.uscg.mil) for reporting requirements and other helpful information.
(Repetition NTM 1(64)10) (USCG)

(64) ELECTRONIC VESSEL NOTICE OF ARRIVAL (NOA) SUBMISSION.

The Coast Guard's Notice of Arrival (NOA) rule was published in February 2003 and requires ships to submit accurate vessel, crew, passenger, and cargo information to the Coast Guard's National Vessel Movement Center (NVMC) prior to arrival in a U.S. port or place. Time frames for submitting this information are based on a vessel's voyage time. Failure to submit a NOA prior to arrival in a U.S. port or place is a violation of the regulation and may result in civil or criminal penalties or denial of a vessel to enter port. Even if a NOA is submitted, failure to submit one using the methods specified in the regulation or without accurate or complete data may result in significant delays, so industry is reminded to be familiar with submission requirements.

Vessels and their respective maritime stakeholders should review the NOA regulations found in 33 Code of Federal Regulations (CFR) Part 160, Subpart C, to ensure submission of complete and accurate reports and minimize any disruption to trade.

The regulation requires NOAs to be submitted to the NVMC via telephone, fax, email, or one of three electronic methods. The electronic methods are an easy way to complete the requirements and comply with the regulation. All required information can be entered via the electronic Notice of Arrival and Departure (eNOAD), available on the NVMC Web site at http://www.nvmc.uscg.gov, and consisting of the following three formats:

- A Web site that can be used to submit NOA information directly to the NVMC;
- Raw eXtensible Markup Language (XML) formatted documents that conform to the eNOAD schema, provided for those interested in creating their own application; this format would draw information from their existing systems to submit, via web service, XML formatted data to comply with NOA requirements;
- A Microsoft InfoPath template, designed for those wanting to input NOA data offline (when not connected to the Internet) for submission later via their Internet connection or as an email attachment to the NVMC.

Vessels should remember that the eNOAD serves as a collection for the Coast Guard's Notice of Arrival requirements and U.S. Custom *and* Border Protection's (CBP) Advanced Passenger Information System (APIS) requirements, which were published on 5 April 2005. Submissions received through one of the three eNOAD formats fulfill both agencies' requirements.

(64) ELECTRONIC VESSEL NOTICE OF ARRIVAL (NOA) SUBMISSION. (Continued).

Submitting a NOA via fax, telephone, or regular email does not meet CBP vessel APIS requirements published in 19 CFR Part 4. The responsibility for ensuring that an NOA/D report is provided to the NVMC remains with the vessel owner/operator or agent. The NVMC Web site (listed above) offers information on both agencies' requirements, methods of submission, and frequently asked questions (FAQs).

The NVMC can be contacted at sans@nvmc.uscg.gov or by telephone at 1-800-708-9823 or 304-264-2502 for more information. For NOA regulatory issues, contact the U.S. Coast Guard Headquarters Advance NOA Program Manager at (202) 372-1234. The U.S. Customs and Border Protection POC for APIS questions is Deborah Nesbitt, who may be reached at (409) 727-0285 ext. 235.

(Supersedes NTM 1(65)10) (USCG)

(65) AMERICA'S WATERWAY WATCH.

The U. S. Coast Guard and the Coast Guard Auxiliary have established a national awareness program called America's Waterway Watch that asks those who work, live, or recreate on or near the water to be aware of suspicious activity that might indicate threats to our country's homeland security. Americans are urged to adopt a heightened sensitivity toward unusual events and individuals they may encounter in or around ports, docks, marinas, riversides, beaches, or communities.

Anyone observing suspicious activity is asked to note details and contact the National Response Center at 1-877 24 WATCH (9-2824). In the case of immediate danger to life or property, call local authorities at 911. The Coast Guard cautions people not to approach or challenge anyone acting in a suspicious manner.

Suspicious activities include:

- People appearing to be engaged in surveillance of any kind;
- Unattended vessels or vehicles in unusual locations;
- Lights flashing between boats;
- Unusual diving activity;
- Unusual number of people onboard a vessel;
- Unusual night operations;
- Recovering or tossing items into/onto the waterway or shoreline;
- Operating in or passing through an area that does not typically have such activity.

Watch for vessels and individuals in locations:

- Under and around bridges, tunnels, or overpasses;
- Near commercial areas or services like ports, fuel docks, cruise ships, or marinas;
- Near industrial facilities like power plants and oil, chemical, or water intake facilities;
- Near military bases and vessels, other government facilities, or security zones.

More information, downloadable file of brochures, decals, posters, and wallet size cards are available at:
http://www.americaswaterwaywatch.uscg.mil.

For more information about the America's Waterway Watch program, contact Mr. Ryan Owens at (202) 372-1108.

(Supersedes NTM 1(66)10) (USCG)

(66) LOSS OF INMARSAT-C SAFETY MESSAGES.

This advisory notifies users of Inmarsat-C ship earth stations that urgent marine information, weather warning and navigational warning broadcast messages, distress-related messages, as well as routine messages may be lost if a printer is not connected to and maintained with the Inmarsat-C terminal, or if floppy drive maintenance is not regularly performed on the terminal. Additionally, certain non-GMDSS-approved software (e.g., windows-based software) may freeze up if this maintenance is not performed. See http://www.uscg.mil/hq/g-m/moa/docs/4-04.htm.

(Repetition NTM 1(67)10) (USCG)

(67) AUTOMATIC IDENTIFICATION SYSTEM.

Automatic Identification System (AIS) is a maritime navigation safety communications system standardized by the International Telecommunication Union (ITU), adopted by the International Maritime Organization (IMO), that: Provides vessel information, including the vessel's identity, type, position, course, speed, navigational status and other safety-related information automatically to appropriately equipped shore stations, other ships, and aircraft; receives automatically such information from similarly fitted ships; monitors and tracks ships; and exchanges data with shore-based facilities. (47 CFR 80.5). It includes a digital VHF radio communication system that relies upon an open, standardized, internationally agreed to protocol (SOTDMA - Self-Organizing Time-Division Multiple Access) that permits two-way communications in an autonomous and continuous manner (between 2-10 seconds while underway, every 3 minutes at anchor).

Carriage. AIS Class A is mandatory on all tankers, vessels of 150 gross tonnage or more which carries more than 12 passengers, or, other ships of 300 gross tonnage or more (SOLAS V/19.2.4). The U.S. Coast Guard has expanded upon this international requirement to include all commercial self-propelled vessels 65 feet or more in length (except fishing and small passenger vessels), towing vessels 26 feet or more in length and exceeding 600 horsepower, or, any vessel certificated to carry 150 or more passengers for hire – when these vessels are navigating in specified Vessel Traffic Service areas (33 CFR §164.46 and NM1/09(25)).

On December 16, 2008 the Coast Guard published a proposed rule to amend the current AIS regulations, expand AIS requirements—beyond Vessel Traffic Service (VTS) areas to all U.S. navigable waters, and require AIS carriage for additional commercial vessels, including commercial vessels carrying 50 or more passengers, fishing vessels 65 feet or greater, hi-speed passenger vessels, dredges and floating plants operating in or near channels or fairways, and vessels carrying or moving certain dangerous cargo. You may visit www.regulations.gov [Docket: USCG 2005-21869] to view the public comments submitted for this proposal and to register for email notifications regarding future actions on this rulemaking.

Alert. Although they do not meet current carriage requirements, AIS Class B devices are now available worldwide and are being voluntarily fitted on many ships and boats. These lower cost AIS devices are interoperable with existing AIS Class A devices; unfortunately not all AIS Class A units have been updated to readily "see" these newest AIS devices.

As with most evolving technology, there are challenges. Although all Class A devices will receive Class B information; unfortunately, some older Class A models are unable to render this information on their Minimum Keyboard and Display (MKD) or may only have available the Class B vessel's dynamic data (i.e. position, course and speed) but not its static data (i.e. vessel name, call-sign). Therefore, the Coast Guard cautions new AIS Class B users to not assume that they are being "seen" by all other AIS users or that all their information is available to all Class A users. Further, we strongly encourage users of certain AIS Class A units to, as soon as practicable, update their MKD's and/or other external navigation display systems (e.g. Electronic Chart Systems, Electronic Chart & Display Information Systems, radar, etc.) in order to view this new stream of valuable AIS information that will enhance navigation safety and mitigate the risk of collision. For a listing of Coast Guard type-approved AIS Class A units which require an update in order to display AIS Class B information, visit http://www.navcen.uscg.gov/?pageName=AISFAQ#13.

Warning. AIS is another available means (i.e. radar) to determine risk of collision, however, assumptions should not be made on the basis of AIS information alone, and, as with any source of navigation information: it should not be solely relied upon in making navigational and collision-avoidance decisions. Further, while AIS allows for safety related ship-to-ship text messaging to communicate with others, e.g. passing arrangements, these communications do NOT relieve users from the requirements set forth in the Vessel Bridge-to-Bridge Radiotelephone Act (33 U.S.C. 1201 *et. seq*.) nor do they relieve a vessel from sound or display signals requirements of the Navigation Rules (International–Inland).

Notice AIS users are compelled to properly operate their AIS at all times (33 CFR § 164.46). The Coast Guard has noticed that many AIS users are not updating their unit to accurately reflect voyage related information – navigation status, static draft, destination, ETA, etc.; and, has also encountered AIS units that either do not transmit at all or improperly transmit the vessel's dynamic data – position, course, speed, heading, etc. The former problem requires due diligence on behalf of the user, the latter is most likely due to loss of power, the improper installation or operation of external sensors – gyro or heading device and vessel GPS system – inputted into the AIS. Some AIS units require reprogramming after a power loss. AIS users should pay close attention to these matters and are encouraged to make each other aware of AIS discrepancies they come upon – and correct them immediately. For guidance on programming your AIS correctly, see http://www.navcen.uscg.gov/?pageName=AISFAQ#2. Improper operation of AIS could subject the user to civil penalties not to exceed $25,000.

Report: To report a problem or for further information regarding AIS, including our plans to extend carriage requirements, see: www.navcen.uscg.gov/enav/ais.

(Supersedes NTM 1(68)10) (USCG)

(68) CELLULAR TELEPHONE USE FOR MARITIME DISTRESS NOTIFICATION.

Cellular telephone ownership and coverage areas have expanded greatly in recent years. Many areas in the coastal maritime environment have some cellular service coverage. The Coast Guard has seen a significant increase in distress notifications via cellular telephone call from the mariner.

The Coast Guard urges mariners to regard cellular telephone capability as a backup to, not a replacement for, VHF-FM radio capability. While the Coast Guard responds to cellular calls the same as any other distress notification, cellular telephones have a number of inherent disadvantages when used in a maritime search and rescue environment. These include:

- Other mariners in the local area cannot hear the call;
- Maritime coverage areas for cellular service are sporadic since most coverage is not designed to cover the marine environment;
- To contact a Coast Guard unit directly, the caller must have a list of phone numbers;
- 911 operators may or may not know proper procedures for handling a maritime distress case;
- Responding rescue forces cannot use direction finding equipment to locate the distressed mariner;
- Cell phones usually have limited battery endurance;
- Responding rescue forces my not have the ability to call the cellular telephone from the rescue platform.

If a mariner makes a distress call by cellular telephone, in addition to the information requested for any distress notification (such as location, type of vessel, type of distress, number of persons, etc.), it is important that the mariner also provide his/her cellular telephone number and a land based backup number.

(Supersedes NTM 1(69)10) (USCG)

(69) DISCOLORED WATER.

Discolored water is an area of seawater having a color distinctly different from the surrounding water. These observations will normally be of seawater having a color other than the blues and greens typically seen. Variations of the colors – including red, yellow, green and brown, as well as black and white have been reported. This may be due to dumping (pollution), the existence of shoals, or underwater features such as submerged volcanoes. In near-shore areas, discoloration often results from disturbance of sediment, e.g., disturbances by propeller wash. Discolorations may appear in patches, streaks, or large areas and may be caused by concentrations of inorganic or organic particles or plankton.

In normally deep waters, discolored water can be a strong indication of undersea growth of coral reefs, submerged volcanoes, seamounts, pinnacles and the like. As these features grow in size and dimension, their only indication may be in the form of discolored water on the surface of the sea. Mariners must be prudent in such waters, as they will normally be in areas that are not well surveyed and outside of established routes for oceangoing vessels.

NGA does not maintain a database of such occurrences worldwide. In areas of active submerged volcanoes, discolored water is a common occurrence and all such reports are charted or included in a Notice to Mariners correction. Mariners are urged to submit new reports of discolored water to the nearest NAVAREA Coordinator via coast radio stations (for NAVAREA IV and NAVAREA XII, by e-mail to navsafety@nga.mil). Reports can also be submitted via the NGA Maritime Safety Web site (http://msi.nga.mil/NGAPortal/MSI.portal).

The legend “Discolored water” appears on many NGA charts, particularly those of the Pacific Ocean where underwater volcanic action is known to occur. In such areas, shoal water or discolored water may suddenly appear where only deep water has been historically depicted. Most of these legends remain on the charts from the last century, when very few deep sea soundings were available and less was known about the causes of discolored water. Few reports of discolored water have proved on examination to be caused by shoals. Nonetheless, due to the isolated areas normally in question, mariners should always give prudent respect to what may lie beneath the surface.

Today, such reports can be compared with the accumulated information for the area concerned. A more thorough assessment can be made using imagery if the water conditions and depth (roughly less than 100 feet) allow.

Mariners are therefore encouraged, while having due regard to the safety of their vessels, to approach sightings and areas of discolored water to find whether or not the discoloration is due to shoaling. If there is good reason to suppose the discoloration is due to shoal water, a report should be made as noted above.

(69) DISCOLORED WATER. (Continued).

Volcanic activity. On occasion, volcanic eruptions may occur beneath the surface of the water. These submarine eruptions may occur more frequently and may be more widespread than has been suspected in the past. Sometimes the only evidence of a submarine eruption is a noticeable discoloration of the water, a marked rise in sea surface temperature, or floating pumice.

Mariners witnessing submarine volcanic activity have reported trails of steam with a foul sulfurous odor rising from the sea surface and unusual sounds heard through the hull, including shocks resembling a sudden grounding. A subsea volcanic eruption may be accompanied by rumbling and hissing, as hot lava meets the cooler sea.

In some cases, reports of discolored water at the sea surface have been investigated and found to be the result of newly-formed volcanic cones on the sea floor. These cones can grow rapidly and constitute a hazardous shoal in only a few years.

Variations in Color. The normal color of the sea in the open ocean in middle and low latitudes is an intense blue or ultramarine. The following variations in appearance occur elsewhere:

- In coastal regions and in the open sea at higher latitudes, where the minute floating animal and vegetable life of the sea (plankton) is in greater abundance, the blue of the sea is modified to shades of green and bluish-green. This discoloration results from a soluble yellow pigment discharged by the plant constituents of the plankton.
- When plankton is found in dense concentrations, the color of the organisms themselves may discolor the sea, giving it a more or less intense brown or red color. The Red Sea, Gulf of California, the region of the Peru Current, South African waters, and the Malabar Coast of India are particularly liable to this variation, seasonally.
- Plankton is sometimes exterminated suddenly by changes in sea conditions, producing a dirty brown or grayish-brown discoloration. This occurs on an unusually extensive scale at times off the Peruvian coast, where the phenomenon is called “Aguaje.”
- Larger masses of animate matter, such as fish spawn or floating kelp may produce other kinds of temporary discoloration.
- Mud carried down by rivers produces discoloration which, in the case of the great rivers, may affect a large sea area, such as the Amazon River outfall. Soil or sand particles may be carried out to sea by wind or dust storms, and volcanic dust may fall over a sea area. In all such cases, the water is more or less muddy in appearance.
- Submarine earthquakes may also produce mud or sand discoloration in relatively shallow water, and crude oil has sometimes been seen to gush up. The sea may be extensively covered with floating pumice after a volcanic eruption.
- Isolated shoals in deep water may make the water appear discolored, the color varying with the depth of the water. The play of the sun and cloud on the sea may often produce patches appearing at a distance convincingly like shoal water.

Visibility. The distance at which coral reefs can be seen is dependent upon the observer’s height of eye, the state of the sea, and the relative position of the sun. When the sea is glassy calm, it is extremely difficult to distinguish the color difference between shallow and deep water. The best conditions for sighting reefs result from a relatively high position, with the sun above 20 degrees elevation and behind the observer, and a sea ruffled by a slight breeze. Under these conditions, with a height of eye of 10-15 meters it is usually possible to sight patches at a depth of less than 6-8 meters from a distance of a few hundred yards.

The use of polarized lenses is strongly recommended, as they make the variations in color of the water stand out more clearly.

If the water is clear, patches with depths of less than 1 meter will appear to be light brown in color; those with depths of 2 meters or more appear to be light green, deepening to a darker green for depths of about 6 meters, and finally to a deep blue for depths over 25 meters. Cloud shadows and shoals of fish may be quite indistinguishable from reefs, but it may be possible to identify them by their movement.

The edges of coral reefs are usually more uniform on their windward or exposed sides and are therefore more easily seen, while the leeward sides are frequently characterized by detached coral heads that are more difficult to see clearly. Water over submerged coral reefs is normally a light blue.

Due to the uncertainty of what discolored water may indicate, mariners are always urged to exercise extreme caution when in its vicinity. New reports of discolored water should be reported immediately with resulting chart, publication and radio/ satellite warnings issued as appropriate.

(Repetition NTM 1(70)10) (NGA)

(70) INTERNATIONAL MARITIME BUREAU (IMB) MARITIME SECURITY HOTLINE.

The International Maritime Bureau (IMB) Piracy Reporting Center has established a dedicated hotline for mariners, port workers, shipping agents, shipyard personnel, brokers, stevedores, and all concerned parties to report any information that they may have seen, heard, known of, etc., relating to maritime crime and security. All information received will be treated in strict confidence and will be passed on to the relevant authorities for further action. Maritime crime and security concerns all and with your help, the IMB can try to minimize the risks and help save lives and properties.

The IMB Maritime Security Hotline can be contacted 24 hours a day at:

E-mail: imbkl@icc-ccs.org; piracy@imbpiracy.org
Telephone: 603 2031 0014
Fax: 603 2078 5769
Telex: MA34199
Web site: www.icc-ccs.org

(Supersedes NTM 1(71)10) (NGA/IMB)

(71) TRANSPORTATION WORKER IDENTIFICATION CREDENTIAL (TWIC).

TWIC was established by Congress through the Maritime Transportation Act of 2002 (MTSA) and is administered by the Transportation Security Administration (TSA) and U.S. Coast Guard (USCG). TWICs are tamper-resistant biometric credentials USCG CREDENTIALED MERCHANT MARINERS operating onboard MTSA regulated vessels, as well as workers who require unescorted access to secure areas of ports, vessels, and outer continental shelf facilities.

To obtain a TWIC, an individual must visit an enrollment center where they will pay the enrollment fee, provide biographic information and a complete set of fingerprints, and sit for a digital photograph. Pre-enrollment is highly encouraged as it is designed to save the applicant time and provides the ability to make an appointment. You will need to pick up your TWIC, after being notified it is ready, at the same enrollment center where you applied. The cost for TWIC is $132.50 and it is valid for 5 years.

For more information on the TWIC program including enrollment locations please visit TSA's websites at http://twicinformation.tsa.dhs.gov/twicinfo/index.jsp or http://www.tsa.gov/twic.

Additional information can be found on the Coast Guard's HOMEPORT website at http://homeport.uscg.mil/twic.

(Supersedes NTM 1(72)10) (USCG)

(72) LONG RANGE IDENTIFICATION AND TRACKING (LRIT) SYSTEM.

Long Range Identification and Tracking (LRIT) system regulatory requirements can be found in the U.S. Code of Federal Regulations, Title 33: Navigation and Navigable Waters, Part 169 – Ship Reporting Systems. General regulation and special LRIT announcements can be found on the U.S. Coast Guard's Homeport website: http://homeport.uscg.mil under the Domestic Vessels section. Specific LRIT system requirements can be found on the U.S. Coast Guard's Navigation Center website which can also be accessed thru Homeport or directly at: http://www.navcen.uscg.gov/?pageName=lritMain.

The LRIT system provides for the global identification and tracking of ships worldwide. LRIT requirements were developed by the International Maritime Organization (IMO) and implemented in the Safety of Life at Sea (SOLAS) 1974 Convention under Regulation V/19-1. The U.S. Coast Guard serves as the Administration for adopting, implementing and enforcing LRIT regulatory and system requirements. The LRIT system consists of the ship borne LRIT information transmitting equipment, the Communication Service Provider(s), the Application Service Provider(s), the LRIT Data Center(s), including any related Vessel Monitoring System(s), the LRIT Data Distribution Plan and the International LRIT Data Exchange. LRIT data serves many purposes including, but not limited to: navigation safety, maritime security and domain awareness, environmental protection, vessel traffic services, search and rescue, weather forecasting and prevention of marine pollution.

The U.S. Coast Guard operates an International Data Exchange (IDE) in support of the IMO and international maritime member state countries. Also, the U.S. Coast Guard maintains a National Data Center (NDC) that monitors vessels that are 300 gross tons or greater on international voyages and either bound for a U.S. port or traveling within 1000 nautical miles of the U.S. coast.

(72) LONG RANGE IDENTIFICATION AND TRACKING (LRIT) SYSTEM. (Continued).

Operators of U.S. flagged vessels subject to 33 CFR Part 169 LRIT regulations are encouraged to contact the U.S. Coast Guard from the websites listed above to discuss LRIT regulatory and conformance testing requirements. Vessels with existing GMDSS, SSAS, or LRIT capable equipment can demonstrate compliance with LRIT regulations through issuance of a Conformance Test Report (CTR) issued by the Authorized Service Provider (ASP). Vessels purchasing new LRIT stand-alone equipment with U.S. Coast Guard type approval (http://cgmix.uscg.mil/equipment/) along with a CTR is needed to demonstrate compliance with the LRIT regulations.

On behalf of the United States, the U.S. Coast Guard recognizes POLESTAR SPACE APPLICATIONS LIMITED as the ASP. For more information on scheduling an LRIT conformance test, please visit the U.S. Coast Guard Navigation Center's website and contact page at: http://www.navcen.uscg.gov/?pageName=lritConformanceTestSched, enter your contact information, and enter "Test Scheduling" in the comments field. A U.S. Coast Guard representative associated with the LRIT service provider will reply.
(Supersedes NTM 1(73)10) (USCG)

(73) COUNTER-PIRACY.

Under the authority of the U.S. Code of Federal Regulations (CFR), Title 33: Navigation and Navigable Waters, Part 101.405 – Maritime Security Directives, the U.S. Coast Guard issued MARSEC Directive 104-6 (Series) to provide direction to U.S. flagged vessels operating on high risk waters.

The general requirements include: the conduct of vessel specific threat assessments, measures taken to harden the vessel, consideration to utilizing security personnel, and submittal of a piracy annex to the Vessel Security Plan (VSP) for U.S. Coast Guard review and approval. MARSEC Directive 104-6, Annex 1, addresses special requirements for commercial vessels operating on the Horn of Africa and Gulf of Aden waters.

The U.S. Coast Guard and U.S. Maritime Administration (MARAD) maintain counter-piracy websites with detailed information including, but not limited to: anti-piracy guidelines, piracy reports, port security advisories, joint agency initiatives and international efforts on deterring piracy. U.S. Coast Guard piracy information can be obtained on Homeport at: http://homeport.uscg.mil/piracy and MARAD's site at: http://www.marad.dot.gov/news_room_landing_page/horn_of_africa_piracy/horn_of_africa_piracy.htm.
(Supersedes NTM 1(74)10) (USCG)

200 (INT 200) 3Ed. 5/25/96 LAST NM 46/10 1/11
Add Foul ground symbol [K31] 43°59′S 62°18′W
Wreck [K29] (PA) 45°10′S 60°22′W
(17(137, 139)07 Buenos Aires)

1116A Ed. 8/09 LAST NM 52/10 1/11
Delete Platform 28°57.9′N 92°20.9′W
(49/10 CG8)

11308 24Ed. 9/08 LAST NM 47/10 1/11
(Side A)
Delete Light "A" 27°43′22.0″N 97°11′23.1″W
Light "D" 27°48′32.1″N 97°08′30.7″W
(49/10 CG8)

★11309 40Ed. 5/10 LAST NM 48/10 1/11
Delete Light "A" 27°43′22.0″N 97°11′23.1″W
Light "D" 27°48′32.1″N 97°08′30.7″W
Light (undesignated) 27°44′38.3″N 97°17′06.9″W
(49/10 CG8)

11310 2Ed. 5/14/05 LAST NM N48/10 N1/11
Delete Light "D" 27°48′31.7″N 97°08′30.9″W
(49/10 CG8)

11318 2Ed. 5/14/05 LAST NM N48/10 N1/11
Delete Research platform and light 27°44′37.8″N 97°17′07.0″W
(49/10 CG8)

★11339 3Ed. 2/10 LAST NM 46/10 1/11
(Inset)
Add Tabulation of controlling depths from
Subsection I-3
(See 46/10-11339)
(NOS)

★11340 74Ed. 8/09 LAST NM 52/10 1/11
Delete Platform 28°57.9′N 92°20.9′W
(49/10 CG8)

11344 38Ed. 4/08 LAST NM 46/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(See 46/10-11344)
(NOS)

11347 38Ed. 6/08 LAST NM 46/10 1/11
(Side A)
Add Tabulation of controlling depths from
Subsection I-3
(See 46/10-11347)

(Side B, Inset)
Add Tabulation of controlling depths from
Subsection I-3
(NOS)

★11358 56Ed. 7/10 LAST NM 50/10 1/11
Substitute Platform [L10] for submerged well (cov 156ft)
and buoy 28°57′23″N 89°45′07″W
(49/10 CG8)

11373 49Ed. 9/10 LAST NM 49/10 1/11
Change Legend to "37 FT 2010" 30°19′15″N 88°30′36″W

Add Tabulation of controlling depths from
Subsection I-3
(NOS)

11374 35Ed. 9/09 LAST NM 46/10 1/11
(Side B)
Delete Depth 29 feet 30°20′53.0″N 88°33′56.5″W
Depth 38 feet 30°19′05.0″N 88°30′43.0″W
Depth 38 feet 30°19′15.0″N 88°30′43.0″W
(See 26/10-11374)

Change Legend to "37 FT 2010" 30°19′16.5″N 88°30′25.7″W
Legend to "37 FT AUG 2010" 30°20′30.9″N 88°30′13.7″W
Legend to "32 FT 2010" 30°21′41.5″N 88°34′10.6″W
(See 22/10-11374)

Add Depth 36 feet 30°19′01.2″N 88°30′43.5″W

Tabulation of controlling depths from
Subsection I-3
(See 46/10-11374)
(NOS)

★11375 37Ed. 6/10 LAST NM 46/10 1/11
Delete Depth 29 feet 30°20′52.7″N 88°33′57.5″W
Depth 38 feet 30°19′04.9″N 88°30′42.8″W
Depth 38 feet 30°19′15.1″N 88°30′43.1″W

Change Legend to "37 FT AUG 2010" 30°19′14.6″N 88°30′36.0″W
Legend to "37 FT AUG 2010" 30°20′31.1″N 88°30′29.6″W
Legend to "32 FT 2010" 30°21′42.9″N 88°33′58.0″W

Add Depth 36 feet 30°19′01.2″N 88°30′43.5″W

Tabulation of controlling depths from
Subsection I-3
(See 46/10-11375)
(NOS)

★11376 54Ed. 11/09 LAST NM 50/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(Supersedes 50/10-11376)

(Inset)
Change Legend to "42 FT 2010" 30°40′10.3″N 88°01′50.0″W

Legend to "40½ FT SEP 2010"
30°43′40.1″N 88°02′26.8″W

Legend to "26 FT SEP 2010" 30°43′46.2″N 88°02′44.1″W
(See 41/10-11376)
(NOS)

★11389 33Ed. 7/05 LAST NM 34/10 1/11
Relocate Buoy "16" from 29°52′30″N 85°23′02″W to
29°52′40″N 85°22′58″W

Add Legend "Shoaling rep (2010)" 29°52′45″N 85°23′03″W
(49/10 CG8)

11393 21Ed. 11/05 LAST NM 26/10 1/11
(Side B)
Relocate Buoy "16" from 29°52′30.1″N 85°23′02.6″W
to 29°52′40.1″N 85°22′58.2″W

Add Legend "Shoaling rep (2010)" 29°52′44.9″N 85°23′03.1″W
(49/10 CG8)

11412 44Ed. 6/06 LAST NM 51/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(NOS)

★11415 8Ed. 8/06 LAST NM 51/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(NOS)

★11416 10Ed. 10/08 LAST NM 46/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(NOS)

11521 29Ed. 2/08 LAST NM 48/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(Supersedes 48/10-11521)
(NOS)

★11524 52Ed. 1/10 LAST NM 50/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(Supersedes 50/10-11524)
(NOS)

12221 80Ed. 1/09 LAST NM 48/10 1/11
Delete Light "13" 37°13′19″N 76°25′06″W

Substitute Light "GT" Fl 4s 5M for light "16"
37°13′40″N 76°25′04″W

Change Light "7" to "WR7" QG 15ft 4M 37°15′47″N 76°01′51″W
(48/10 CG5)

★12224 24Ed. 2/06 LAST NM 48/10 1/11
Change Light "7" to "WR7" QG 15ft 4M
37°15′47.0″N 76°01′51.0″W
(48/10 CG5)

12238 40Ed. 6/09 LAST NM 30/10 1/11
Delete Light "13" 37°13′19″N 76°25′06″W

Substitute Light "GT" Fl 4s 15ft 5M for light "16"
37°13′40″N 76°25′04″W
(48/10 CG5)

★12241 22Ed. 2/08 LAST NM 46/10 1/11
Delete Light "13" 37°13′19.4″N 76°25′05.7″W
Light "16" 37°13′42.5″N 76°25′05.0″W

Add Light "GT" Fl 4s 15ft 5M 37°13′40.0″N 76°25′03.8″W
(48/10 CG5)

★12281 52Ed. 8/08 LAST NM 43/10 1/11
Relocate Buoy "3" from 39°15′16.2″N 76°35′05.9″W to
39°15′16.3″N 76°35′03.2″W
and change period to 4s

Buoy "4" from 39°15′23.7″N 76°35′17.5″W to
39°15′23.5″N 76°35′14.3″W
Buoy "6" from 39°15′33.3″N 76°35′49.2″W to
39°15′35.0″N 76°35′46.5″W

Buoy "4W" from 39°15′29.9″N 76°35′49.4″W
to 39°15′30.5″N 76°35′46.7″W
(See 3/10-12281)
(48/10 CG5)

12324 34Ed. 9/09 LAST NM 52/10 1/11
(Side A)
Add Depth 34 feet 40°27′21″N 74°02′54″W
Depth 42 feet 40°27′34″N 74°03′05″W
Depth 43 feet 40°27′23″N 74°03′08″W
Depth 43 feet 40°27′27″N 74°02′48″W
Depth 43 feet 40°27′38″N 74°02′54″W
Depth 44 feet 40°28′20″N 74°02′15″W

Legend "TURNING BASIN (use chart 12327)"
40°27′31″N 74°02′59″W
(NOS)

12327 103Ed. 12/09 LAST NM 52/10 1/11
Add Depth 34 feet 40°27′21″N 74°02′54″W
Depth 42 feet 40°27′34″N 74°03′05″W
Depth 43 feet 40°27′23″N 74°03′08″W
Depth 43 feet 40°27′27″N 74°02′48″W
Depth 43 feet 40°27′38″N 74°02′54″W
Depth 44 feet 40°28′20″N 74°02′15″W

Legend "TURNING BASIN (see tabulation)"
40°27′31″N 74°02′59″W

Tabulation of controlling depths from
Subsection I-3
(See 49/10-12327)
(NOS)

★12401 10Ed. 10/09 LAST NM 52/10 1/11
Delete Depth 38 feet 40°27′11.8″N 74°02′50.8″W

Add Depth 26 feet 40°27′11.9″N 74°02′49.7″W
Depth 34 feet 40°27′10.3″N 74°02′54.6″W
Depth 34 feet 40°27′11.0″N 74°03′00.6″W
Depth 34 feet 40°27′21.2″N 74°02′53.8″W
Depth 34 feet 40°27′21.8″N 74°02′46.8″W
Depth 42 feet 40°27′34.1″N 74°03′04.8″W
Depth 43 feet 40°27′17.2″N 74°03′08.4″W
Depth 43 feet 40°27′22.8″N 74°03′08.2″W
Depth 43 feet 40°27′24.2″N 74°02′57.2″W
Depth 43 feet 40°27′27.2″N 74°02′47.7″W
Depth 43 feet 40°27′27.8″N 74°03′09.2″W
Depth 43 feet 40°27′38.1″N 74°02′53.5″W
Depth 44 feet 40°27′18.5″N 74°02′59.2″W
Depth 44 feet 40°27′20.9″N 74°03′16.8″W
Depth 44 feet 40°27′28.1″N 74°03′01.7″W
Depth 44 feet 40°27′31.1″N 74°02′43.6″W
Depth 44 feet 40°28′20.3″N 74°02′14.5″W

Legend "TURNING BASIN (see tabulation)"
40°27′31.0″N 74°03′00.0″W

Tabulation of controlling depths from
Subsection I-3
(Supersedes 22/10-12401)
(NOS)

14853 17Ed. 3/08 LAST NM 47/10 1/11
(Page 11)
Add Tabulation of controlling depths from
Subsection I-3
(Supersedes 38/10-14853)
(NOS)

★14854 14Ed. 3/04 LAST NM 38/10 1/11
(Inset)
Add Tabulation of controlling depths from
Subsection I-3
(Supersedes 38/10-14854)
(NOS)

★14907 27Ed. 3/09 LAST NM 32/10 1/11
(Inset Frankfort Harbor)
Substitute Depth 14 feet for 15 feet 44°37′50.0″N 86°14′32.7″W
Depth 15 feet for 16 feet 44°37′44.9″N 86°14′12.1″W

Change Legend to "18 FT SEP 2010" 44°37′48.5″N 86°15′07.7″W

Legend to "21½ FT SEP 2010"
44°37′46.8″N 86°14′56.1″W
Legend to "16 FT OCT 2005 - SEP 2010"
44°37′50.0″N 86°14′57.7″W
Legend to "17 FT OCT 2005 - SEP 2010"
44°37′45.1″N 86°14′54.7″W
Legend to "20½ FT SEP 2010"
44°37′45.9″N 86°14′43.8″W

Add Depth 17 feet 44°37′50.3″N 86°15′10.2″W
(NOS)

★14975 35Ed. 12/07 LAST NM 48/10 1/11
Add Tabulation of controlling depths from
Subsection I-3
(Supersedes 48/10-14975)
(NOS)

16013 30Ed. 7/06 LAST NM 46/10 1/11
Relocate Superbuoy ODAS "46078" from
56°04.4′N 152°34.3′W to 56°03.0′N 152°33.6′W
(See 3/10-16013)
(47/10 CG17)

16471 12Ed. 10/09 LAST NM 5/10 1/11
Relocate Range light, front from
51°51′09″N 176°39′12″W to 51°51′09″N 176°39′15″W
and change height to 41ft

Range light, rear from
51°51′05″N 176°39′35″W to 51°51′05″N 176°39′38″W
and change height to 104ft
Note: Range bearing unchanged
(See 5/10-16471)
(47/10 CG17)

16475 9Ed. 5/16/98 LAST NM 5/10 1/11
Change Height of range light, front to 41ft
51°51′09.2″N 176°39′15.0″W
Height of range light, rear to 104ft
51°51′04.9″N 176°39′38.8″W
(See 5/10-16475)
(47/10 CG17)

★16476 10Ed. 10/18/97 LAST NM 5/10 1/11
Change Height of range light, front to 41ft 51°51′09.2″N 176°39′15.0″W
Height of range light, rear to 104ft 51°51′04.9″N 176°39′37.8″W
(See 5/10-16476)
(47/10 CG17)

★16580 14Ed. 1/08 LAST NM 50/10 1/11
Relocate Superbuoy ODAS "46078" from 56°04.4′N 152°34.3′W to 56°03.0′N 152°33.6′W
(Supersedes 3/10-16580)
(47/10 CG17)

16599 7Ed. 9/04 LAST NM 43/05 1/11
(Inset Larsen Bay)
Add Chartlet, depicting changes to bar scale, from Subsection I-3 57°32′26.0″N 154°04′15.0″W
(NOS)

★16706 10Ed. 7/26/97 LAST NM 50/09 1/11
Change Light to Q 20ft (Priv) 60°46′43.7″N 148°41′44.5″W
Light to Q 20ft (Priv) 60°46′42.0″N 148°42′05.5″W
(See 7/09-16706)

(Inset)
Change Light to Q 20ft (Priv) 60°46′43.7″N 148°41′44.5″W
Light to Q 20ft (Priv) 60°46′42.0″N 148°42′05.5″W
(47/10 CG17)

★17430 11Ed. 5/05 LAST NM 24/10 1/11
(Upper Panel)
Add Light Fl Y 2.5s 6ft (Priv) 55°20′50.8″N 131°40′41.1″W
Light Fl Y 2.5s 6ft (Priv) 55°20′50.4″N 131°40′42.5″W
Light Fl Y 2.5s 6ft (Priv) 55°20′50.0″N 131°40′44.0″W

Double solid line with land tint (breakwater)
[F4.1] between 55°20′50.8″N 131°40′41.1″W
55°20′50.0″N 131°40′44.0″W

(Lower Panel)
Add Light Fl Y 2.5s 6ft (Priv) 55°20′50.8″N 131°40′41.1″W
Light Fl Y 2.5s 6ft (Priv) 55°20′50.4″N 131°40′42.5″W
Light Fl Y 2.5s 6ft (Priv) 55°20′50.0″N 131°40′44.0″W

Double solid line with land tint (breakwater)
[F4.1] between 55°20′50.8″N 131°40′41.1″W
55°20′50.0″N 131°40′44.0″W
(48/10 CG17)

19327 11Ed. 6/05 LAST NM 51/10 1/11
Add Submarine cable [L30.1] joining 20°01′22″N 155°50′29″W
20°01′13″N 155°51′00″W
20°00′43″N 155°52′13″W
20°00′05″N 155°54′39″W
(NOS)

★19330 11Ed. 9/06 LAST NM 36/09 1/11
Add Submarine cable [L30.1] joining
20°01′24.7″N 155°50′14.6″W
20°01′22.2″N 155°50′28.6″W
20°01′13.0″N 155°50′59.8″W
20°00′43.3″N 155°52′12.5″W
20°00′15.7″N 155°53′56.9″W
(NOS)

★19362 14Ed. 8/09 LAST NM 49/10 1/11
Relocate Buoy "A" from 21°16′31.9″N 158°04′02.3″W
to 21°16′30.0″N 158°04′00.0″W
Buoy "B" from 21°16′32.3″N 158°04′29.0″W
to 21°16′30.0″N 158°04′30.0″W
Buoy "C" from 21°16′47.0″N 158°04′29.0″W
to 21°16′48.0″N 158°04′30.0″W
Buoy "D" from 21°16′47.0″N 158°04′02.3″W
to 21°16′48.0″N 158°04′00.0″W
(47/10 CG14)

21520 1Ed. 12/22/84 LAST NM 25/10 1/11
Add Stranded wreck [K24] 13°10.3′N 87°49.6′W
(NTM0005/2010)

21521 15Ed. 12/3/05 LAST NM 25/10 1/11
Add Dangerous wreck [K28] 13°20′30″N 87°49′30″W
Dangerous wreck [K28] 13°21′00″N 87°49′35″W
Stranded wreck [K24] 13°20′45″N 87°49′45″W
Stranded wreck [K24] 13°20′25″N 87°49′30″W
Stranded wreck [K24] 13°21′42″N 87°50′18″W
Dangerous wreck [K28] 13°20′30″N 87°49′24″W
Dangerous wreck [K28] 13°19′00″N 87°48′30″W
Dangerous wreck [K28] (ED) 13°19′35″N 87°48′30″W
Stranded wreck [K24] 13°10′18″N 87°49′36″W
(NTM0005/2010)

★21529 3Ed. 3/13/10 LAST NM 19/10 1/11
Add Dangerous wreck [K28] 13°20′30″N 87°49′30″W
Dangerous wreck [K28] 13°21′00″N 87°49′35″W
Stranded wreck [K24] 13°20′45″N 87°49′45″W
Stranded wreck [K24] 13°20′25″N 87°49′30″W
Stranded wreck [K24] 13°21′42″N 87°50′18″W
Dangerous wreck [K28] 13°20′30″N 87°49′24″W
Dangerous wreck [K28] 13°19′00″N 87°48′30″W
Dangerous wreck [K28] (ED) 13°19′35″N 87°48′30″W
Stranded wreck [K24] 13°10′18″N 87°49′36″W
(NTM005/2010)

★21530 1Ed. 3/13/10 LAST NM 19/10 1/11
Add Dangerous wreck [K28] 13°20′30.0″N 87°49′30.0″W
Dangerous wreck [K28] 13°21′00.0″N 87°49′35.0″W
Stranded wreck [K24] 13°20′45.0″N 87°49′45.0″W
Stranded wreck [K24] 13°20′25.0″N 87°49′30.0″W
Dangerous wreck [K28] 13°20′30.0″N 87°49′24.0″W
Dangerous wreck [K28] 13°19′00.0″N 87°48′30.0″W
Dangerous wreck [K28] (ED) 13°19′35.0″N 87°48′30.0″W
(NTM005/2010)

23010 4Ed. 12/28/96 LAST NM 47/10 1/11
Add Wreck [K29] 43°30.7′S 64°56.0′W
Danger circle "Foul" [K31] 43°58.7′S 62°17.6′W
(17(138, 139)07 Buenos Aires)

23023 4Ed. 11/1/97 LAST NM 37/10 1/11
Add Wreck [K29] 43°30.7′S 64°56.0′W
(17(138)07 Buenos Aires)

24052 16Ed. 7/31/04 LAST NM 47/10 1/11
Delete Dashed line and legend "052°-232°" between
34°30′12″S 58°18′43″W
34°32′35″S 58°22′25″W

Add Dashed line (recommended track) [M4] and legend "044°-224°" between 34°30′30″S 58°18′36″W
34°32′29″S 58°20′52″W
(20(177)07 Buenos Aires)

37120 3Ed. 3/3/07 LAST NM 49/10 1/11
Delete Depth 8.4 meters 51°38.0′N 3°19.6′E

Add Depth 5.8 meters 51°38.0′N 3°19.9′E
(47(540)10 Den Haag)

37162 12Ed. 5/18/96 LAST NM 52/10 1/11
Substitute Depth 16.9 meters Wk [K26] for swept depth 15.3 meters Wk 52°53.9′N 4°33.4′E
Depth 16.5 meters Wk [K26] for swept depth 15 meters Wk 52°54.8′N 4°34.9′E
Foul ground symbol [K31] for depth 17.9 meters Wk 52°45.6′N 4°22.4′E
Depth 19.2 meters Wk [K26] for swept depth 13 meters Wk 52°49.2′N 4°30.5′E
Depth 14.8 meters Wk [K26] for 13 meters Wks 52°49.5′N 4°30.6′E

Add Depth 23.5 meters Wk [K26] 52°59.5′N 4°29.4′E
(48(548)10 Den Haag)

37223 14Ed. 9/2/95 LAST NM 47/10 1/11
Add Depth 23.5 meters Wk [K26] 52°59.5′N 4°29.4′E
(48(548)10 Den Haag)

37238 6Ed. 10/17/98 LAST NM 52/10 1/11
Delete Swept depth 15 meters Wk 52°54′44″N 4°34′51″E

(continued on next page)

37238 (Continued)
Substitute Depth 16.9 meters Wk [K26] for swept depth 15.3 meters Wk 52°53′52″N 4°33′23″E

Add Depth 23.5 meters Wk [K26] 52°59′31″N 4°29′21″E
Depth 16.5 meters Wk [K26] 52°54′46″N 4°34′53″E
(48(548)10 Den Haag)

37244 11Ed. 2/1/97 LAST NM 50/10 1/11
Add Depth 5.8 meters 51°38.0′N 3°19.9′E
(47(540)10 Den Haag)

37246 15Ed. 4/22/06 LAST NM 52/10 1/11
(Inset G)
Add Racon (– • •) to buoy "112" 51°14′35″N 4°20′32″E
(24(300)10 Oostende)

38670 2Ed. 2/17/96 LAST NM 27/09 1/11
Change Height of light to 12m 65°42.5′N 21°40.4′W
(9-10(15)10 Reykjavik; Ice LL)

38682 3Ed. 12/20/97 LAST NM 26/10 1/11
Change Height of light to 12m 65°42′18″N 21°40′30″W

(Plan)
Distance and bearing from range beacon, front in upper left quadrant of plan

Change Light to Fl WRG 5s 12m 13-12M with sectors red shore-297°, white-305°, green-plan border, 100 meters 226°
(9-10(15)10 Reykjavik; Ice LL)

38683 3Ed. 12/27/97 LAST NM 48/08 1/11
Change Height of light to 12m 65°42′18″N 21°40′34″W
(9-10(15)10 Reykjavik; Ice LL)

44041 7Ed. 4/3/93 LAST NM 22/10 1/11
Change Light to Fl(4) WR 12s 10/8M 57°30′35″N 11°43′33″E
(193(4576)08 Norrkoping)

44043 8Ed. 11/30/96 LAST NM 48/07 1/11
Change Light to Fl(4) WR 12s 23m 10/8M 57°30′35″N 11°43′37″E
(193(4576)08 Norrkoping)

44049 10Ed. 8/4/07 LAST NM N29/10 N1/11
Change Characteristic of buoy "OH1" to QG 3s
55°40′32″N 12°56′30″E
Characteristic of buoy "OH2" to QR 3s
55°40′36″N 12°56′40″E
Characteristic of buoy "OH3" to QG 3s
55°40′11″N 12°57′13″E
Characteristic of buoy "OH4" to QR 3s
55°40′13″N 12°57′21″E
Characteristic of buoy "OH5" to QG 3s
55°39′54″N 12°57′59″E
Characteristic of buoy "OH6" to QR 3s
55°39′58″N 12°58′05″E
Characteristic of buoy "OH7" to QG 3s
55°39′35″N 12°58′40″E
Characteristic of buoy "OH8" to QR 3s
55°39′37″N 12°58′48″E
Characteristic of buoy "OH9" to QG 3s
55°39′12″N 12°59′21″E
Characteristic of buoy "OH10" to QR 3s
55°39′17″N 12°59′30″E
(193(4620)08 Norrkoping)

44083 8Ed. 4/6/96 LAST NM 24/10 1/11
(Plan)
Add Light Iso R 2s 53°53′53.4″N 14°15′19.8″E
Light Iso R 2s 53°53′58.8″N 14°15′22.2″E
Light Iso R 2s 53°54′06.6″N 14°15′28.8″E
(49(911)10 Gdynia)

44221 1Ed. 8/12/89 LAST NM 37/04 1/11
(Plan A)
Delete Submarine cable between 62°38′32.0″N 17°57′24.0″E
62°38′41.0″N 17°56′47.0″E
(193(4607)08 Norrkoping)

44462 4Ed. 3/16/96 LAST NM 52/10 1/11
Add Depth 2 meters Obstn [K41] 54°24′12.3″N 18°42′02.2″E
(49(910)10 Gdynia)

51640 6Ed. 2/1/97 LAST NM 13/97 1/11
Delete Dangerous wreck (PA) 6°20′02″N 10°49′36″W
Buoy "No 1" 6°21′19″N 10°50′02″W
Depth 14.6 meters "Rep" 5°51′37″N 10°05′01″W

Substitute Depth 11.8 meters for 10 meters 5°51′00″N 10°04′33″W
(NTM0023/2010)

★51641 5Ed. 10/3/09 LAST NM N48/09 N1/11
Delete Dangerous wreck (PA) 6°20′00″N 10°49′36″W
Buoy "No 1" 6°21′19″N 10°50′02″W

Add Depth 2.6 meters Wk [K26] 6°20′03″N 10°49′19″W

(Plan)
Delete Dangerous wreck (PA) 6°19′59.4″N 10°49′36.0″W
Buoy "No 1" 6°21′17.5″N 10°50′01.5″W
Buoy "No 4" 6°21′22.0″N 10°49′18.0″W
Buoy "No 5" 6°21′11.5″N 10°49′16.0″W

Add Depth 2.6 meters Wk [K26] 6°20′02.5″N 10°49′18.5″W
Depth 9.1 meters Wk [K26] 6°19′55.3″N 10°48′59.0″W
Foul ground symbol [K31] 6°19′56.3″N 10°49′13.0″W
(NTM0023/2010)

★51642 4Ed. 3/28/09 LAST NM N19/09 N1/11
Delete Depth 14.6 meters "Rep (1963)" 5°51′37″N 10°05′01″W
Buoy 5°51′14″N 10°04′40″W
Buoy 5°51′06″N 10°04′33″W

Substitute Depth 11.8 meters for 10 meters 5°51′00″N 10°04′33″W
and delete blue tint and enclosing depth contour

Depth 11.5 meters for 11.2 meters 5°51′20″N 10°04′36″W

(Plan)
Delete Depth 14.6 meters "Rep (1963)"
5°51′36.7″N 10°05′00.8″W

Depth 10 meters, blue tint and enclosing depth contour (10-meter) centered 5°51′01.0″N 10°04′33.0″W

Buoy 5°51′18.2″N 10°04′32.8″W
Buoy 5°51′03.0″N 10°04′32.7″W

Substitute Depth 11.5 meters for 11.2 meters
5°51′20.1″N 10°04′35.6″W

Add Depth 11.8 meters, blue tint and enclosing depth contour (15-meter) centered
5°51′00.2″N 10°04′33.0″W
(NTM0023/2010)

53200 7Ed. 8/13/05 LAST NM 52/10 1/11
Change Height of light to 34m 35°54.1′N 14°31.1′E
(17/10 Malta)

53203 11Ed. 3/23/96 LAST NM 6/10 1/11
Delete Buoy 35°51′03″N 14°35′48″E

Add Buoy BYB, pillar, double cone topmark bases together, Q(3) 10s [Q130.3] 35°51′05″N 14°35′58″E
(9/10 Malta)

53204 10Ed. 2/10/96 LAST NM 6/10 1/11
Add Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°59′18.6″N 14°19′18.5″E
Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°59′30.1″N 14°19′35.4″E
(66/10 Malta)

53205 3Ed. 6/22/96 LAST NM 6/10 1/11
Delete "Marine Farm" area and buoys (4) in vicinity
35°49′50.0″N 14°34′34.0″E
"Marine Farm" area and buoys (4) in vicinity
35°50′28.0″N 14°35′08.0″E

Buoy 35°51′03.0″N 14°35′39.0″E

(continued on next page)

53205 (Continued)

Light 35°54′08.4″N 14°31′09.2″E

Add "RESTRICTED AREA (BUOYED)" [N2.1]
bound by shore and purple composite line
joining 35°52′58.0″N 14°33′20.0″E
35°53′22.7″N 14°33′50.5″E
35°53′16.6″N 14°34′01.8″E
35°52′49.0″N 14°33′40.7″E

"Marine Farm" area bound by dashed line
joining 35°50′47.8″N 14°35′03.2″E
35°50′40.5″N 14°35′18.4″E
35°50′19.7″N 14°35′05.0″E
35°50′29.2″N 14°34′43.6″E

Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°50′47.8″N 14°35′03.2″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°50′40.5″N 14°35′18.4″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°50′19.7″N 14°35′05.0″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°50′29.2″N 14°34′43.6″E

"Marine Farm" area bound by dashed line
joining 35°50′01.3″N 14°34′23.1″E
35°49′49.8″N 14°34′48.5″E
35°49′24.0″N 14°34′36.0″E
35°49′34.2″N 14°34′01.8″E

Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°50′01.3″N 14°34′23.1″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°49′49.8″N 14°34′48.5″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°49′24.0″N 14°34′36.0″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°49′34.2″N 14°34′01.8″E

Buoy BYB, pillar, double cone topmark
bases together, Q(3) 10s [Q130.3]
35°51′05.4″N 14°35′57.6″E

Light Fl(3) 15s 34m 19M 35°54′09.5″N 14°31′08.5″E
(9, 17, 35, 75/10 Malta)

53206 7Ed. 7/21/07 LAST NM N6/10 N1/11

Delete Light 35°54′08.4″N 14°31′09.2″E

Add Light Fl(3) W 15s 34m 19M 35°54′09.5″N 14°31′08.5″E
(17/10 Malta)

53207 1Ed. 5/12/07 LAST NM N6/10 N1/11

Delete Marine farm area and buoy in vicinity
35°49′50.0″N 14°34′19.0″E

Add "Marine Farm" area bound by chart border and
dashed line joining 35°49′27.2″N 14°34′25.2″E
35°49′34.2″N 14°34′01.8″E
35°50′01.3″N 14°34′23.1″E
35°50′00.3″N 14°34′25.2″E
Note: Area extends beyond chart border

Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°49′34.2″N 14°34′01.8″E
Buoy Y, conical, "X" topmark, Fl Y [Q130.6]
35°50′01.3″N 14°34′23.1″E
Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°49′25.1″N 14°33′13.9″E
Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°49′25.1″N 14°33′11.4″E
Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°49′37.2″N 14°33′10.7″E
Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°49′49.4″N 14°33′11.3″E
Buoy Y, can, "X" topmark, Fl Y [Q130.6]
35°49′49.4″N 14°33′13.7″E
(29, 75/10 Malta)

53220 7Ed. 9/24/05 LAST NM 45/10 1/11

Change Height of light to 34m 35°54.1′N 14°31.1′E
(17/10 Malta)

54105 3Ed. 8/31/02 LAST NM 51/10 1/11

Add "X" topmark to buoy 42°51.2′N 13°59.1′E
(Ital CH 34)

54115 3Ed. 8/31/02 LAST NM 51/10 1/11

Delete Platform "PM 2" 44°26.2′N 12°20.5′E
Platform "PM 3" 44°25.9′N 12°21.3′E
Platform "RM 4" 44°24.7′N 12°23.8′E
Platform "RM7" 44°24.7′N 12°24.6′E
Platform "PC 25" 44°22.7′N 12°34.8′E
Platform "CERVIA 25" 44°17.4′N 12°38.3′E
Platform "CESENATICO 4" 44°15.4′N 12°26.4′E
Platform "CESENATICO 3" 44°14.8′N 12°27.7′E
Platform "ANEMONE 2" 44°13.4′N 12°41.6′E
Platform "ANEMONE 5" 44°12.6′N 12°42.5′E

Add Platform "PCMS 2" with light flare symbol
[L10] 44°22.1′N 12°34.6′E

Submarine pipeline [L40.1] joining 44°22.5′N 12°34.2′E
44°22.0′N 12°34.5′E
44°20.8′N 12°35.4′E

Racon (U) [S3.1] to platform "ARMIDA"
44°28.7′N 12°27.4′E

Legend "(2 Platforms)" to platform
"BARBARA C-T" 44°04.6′N 13°46.9′E

"X" topmark to buoy 42°51.2′N 13°59.1′E
(Ital CH 34, 36, 37)

54120 5Ed. 9/19/92 LAST NM 51/10 1/11

Add "X" topmark to buoy 42°51′12″N 13°59′00″E
(Ital CH 34)

54125 4Ed. 9/3/05 LAST NM 52/10 1/11

Delete Platform "PM 2" 44°26.2′N 12°20.5′E
Platform "PM 3" 44°25.9′N 12°21.3′E
Platform "RM 4" 44°24.7′N 12°23.8′E
Platform "RM 7" 44°24.7′N 12°24.6′E
Platform "PC 25" 44°22.7′N 12°34.8′E
Platform "CERVIA 25" 44°17.4′N 12°38.3′E
Platform "CESENATICO 4" 44°15.4′N 12°26.4′E
Platform "CESENATICO 3" 44°14.8′N 12°27.7′E
Platform "ANEMONE 2" 44°13.4′N 12°41.6′E
Platform "ANEMONE 5" 44°12.6′N 12°42.5′E

Add Platform "PCMS 2" with light flare symbol
[L10] 44°22.1′N 12°34.6′E

Submarine pipeline [L40.1] joining 44°22.5′N 12°34.2′E
44°22.0′N 12°34.5′E
44°20.8′N 12°35.4′E

Racon (U) [S3.1] to platform "ARMIDA"
44°28.8′N 12°27.4′E

Legend "(2 Platforms)" to platform
"BARBARA C-T" 44°04.6′N 13°46.9′E
(Ital CH 36, 37)

54140 8Ed. 4/22/06 LAST NM 49/10 1/11

Delete Platform "RM 4" 44°24′42″N 12°23′48″E
Platform "RM7" 44°24′43″N 12°24′36″E
Platform "ANEMONE 2" 44°13′25″N 12°41′38″E
Platform "CERVIA 25" 44°17′29″N 12°38′16″E

Add Platform "PCMS2" with light flare symbol
[L10] 44°22′05″N 12°34′38″E

Submarine pipeline [L40.1] joining 44°22′22″N 12°34′12″E
44°22′02″N 12°34′30″E
44°20′53″N 12°35′18″E

Racon (U) [S3.1] to platform "ARMIDA"
44°28′44″N 12°27′17″E

Buoy (wavemeter) Y, spherical, double can
topmark, Fl(5) Y 20s 44°29′47″N 12°21′35″E

Legend "(2 Platforms)" to platform
"BARBARA C-T" 44°04′36″N 13°46′59″E
(Ital CH 36, 37)

54180 7Ed. 1/21/06 LAST NM 46/10 1/11

Add Legend "(2 Platforms)" to platform
"BARBARA C-T" 44°04′38″N 13°47′00″E
(Ital CH 36)

54360 12Ed. 9/22/90 LAST NM 48/10 1/11
Add Light Fl G 5s 8m 7M, Fl R 5s 8m 7M 40°42.0′N 26°03.0′E

Light Fl G 5s 10m 7M, Fl R 5s 10m 7M
39°33.9′N 26°05.8′E
(33(161, 163)07 Istanbul; UKHO LL)

54363 3Ed. 7/14/84 LAST NM 48/10 1/11
Add Light Fl G 5s 8m 7M, Fl R 5s 8m 7M
40°42′02″N 26°03′02″E
(33(161)07 Istanbul)

54368 4Ed. 2/4/95 LAST NM 46/04 1/11
Add Light Fl G 5s 8m 7M 40°42′02″N 26°03′02″E
Light Fl R 5s 8m 7M 40°41′57″N 26°03′06″E
Light FR 8m 2M 40°41′54″N 26°03′12″E
(33(161)07 Istanbul)

54369 4Ed. 4/6/96 LAST NM 44/10 1/11
Add Light Fl G 5s 10m 7M, Fl R 5s 10m 7M
39°33′54″N 26°05′46″E
(33(163)07 Istanbul; UKHO LL)

54380 6Ed. 5/11/91 LAST NM 51/10 1/11
Change Visibility (range) of light to 8M 38°06.3′N 26°35.6′E

Add Light Fl G 5s 10m 7M, Fl R 5s 10m 7M
39°33.9′N 26°05.8′E
(33(163, 168)07 Istanbul; UKHO LL)

54386 10Ed. 6/1/96 LAST NM 52/10 1/11
Change Visibility (range) of light to 8M 38°06′12″N 26°35′36″E
(33(168)07 Istanbul)

54387 7Ed. 2/3/96 LAST NM 49/10 1/11
Delete Depth 22 meters 38°25′25″N 26°45′54″E

Add Depth 18.2 meters enclosed by depth contour
(20-meter) centered 38°25′24″N 26°45′57″E
(UKHO ARCS 1522-3)

54389 8Ed. 5/18/96 LAST NM 52/10 1/11
Change Visibility (range) of light to 8M 38°06′15″N 26°35′32″E
(33(168)07 Istanbul)

54400 8Ed. 6/2/90 LAST NM 51/10 1/11
Change Visibility (range) of light to 9/6M 36°59.9′N 28°12.3′E
(35(179)07 Istanbul)

54407 4Ed. 1/27/96 LAST NM 50/10 1/11
Change Visibility (range) of light to 9/6M 36°59′55″N 28°12′47″E
(35(179)07 Istanbul)

54423 5Ed. 8/10/02 LAST NM 42/10 1/11
Change Height of light to 12m 36°50′02″N 30°36′59″E

(Plan)
Change Height of light to 12m 36°50′02.2″N 30°36′59.1″E
(35(183)07 Istanbul)

54430 1Ed. 8/21/93 LAST NM 48/10 1/11
Delete Light 36°12.0′N 29°54.5′E

Add Light Fl 5s 35m 9M 36°11.8′N 29°54.8′E
(35(182)07 Istanbul)

63000 13Ed. 3/22/86 LAST NM 51/10 1/11
Add Racon (D) [S3.1] at light 20°41.4′N 70°49.7′E
(UKHO ARCS 1474-0)

63062 8Ed. 5/19/07 LAST NM 51/10 1/11
Delete Depth 9.1 meters, blue tint and enclosing
depth contour (10-meter) centered 22°39′05″N 69°19′42″E

Add Depth 19.7 meters enclosed by depth contour
(20-meter) centered 22°39′05″N 69°19′42″E
(7(204)08 Dehra Dun)

63070 4Ed. 5/26/07 LAST NM 51/10 1/11
Delete Depth 9.1 meters, blue tint and enclosing depth
contour (10-meter) centered 22°39.1′N 69°19.7′E

Add Depth 19.7 meters enclosed by depth contour
(20-meter) centered 22°39.1′N 69°19.7′E

Dangerous wreck [K28] (PA) 20°45.2′N 70°38.3′E
(7(204), 11(318)08 Dehra Dun)

63080 6Ed. 12/23/06 LAST NM 46/10 1/11
Add Dangerous wreck [K28] (PA) 20°45.2′N 70°38.3′E

Racon (D) [S3.1] at light 20°41.6′N 70°49.7′E
(11(318)08 Dehra Dun; UKHO ARCS 1474-0)

63120 2Ed. 9/19/81 LAST NM 44/10 1/11
Delete Dangerous wreck (PA) 13°36.2′N 74°36.0′E

Add Wreck [K29] (PA) 11°49.6′N 75°09.3′E
(10(294)08 Dehra Dun; Ind CH 217)

63121 6Ed. 1/14/06 LAST NM 44/10 1/11
Add Stranded wreck [K24] (PA) 12°53′51″N 74°48′44″E

(Plan A)
Add Stranded wreck [K24] (PA) 12°53′50.8″N 74°48′43.6″E
(10(293)08 Dehra Dun)

63150 1Ed. 5/3/86 LAST NM 20/10 1/11
(Panel B)
Add Racon (G) [S3.1] at light 11°15.0′N 72°46.8′E
Racon (B) [S3.1] at light 10°52.4′N 72°12.2′E
(7(205)08 Dehra Dun)

63170 3Ed. 9/28/85 LAST NM 8/01 1/11
Add Depth 304 meters 5°02′30″N 72°47′00″E
(UKHO ARCS 1013-0)

63200 5Ed. 1/29/94 LAST NM 45/10 1/11
Add Wreck [K29] (PA) 11°49.6′N 75°09.3′E
Dangerous wreck [K28] (PA) 11°33.1′N 75°33.4′E
(10(294)08 Dehra Dun)

63270 7Ed. 9/1/84 LAST NM 31/10 1/11
Delete Dangerous wreck (PA) 14°14.9′N 80°08.8′E
(8(160)09 Dehra Dun)

63271 9Ed. 3/3/07 LAST NM N31/10 N1/11
Delete Light and sector limits 13°07′05″N 80°17′55″E

(Plan)
Delete Light and sector limits 13°07′05.2″N 80°17′55.0″E
(8(159)09 Dehra Dun)

63280 3Ed. 7/7/84 LAST NM 5/10 1/11
Delete Stranded wreck 16°34.5′N 82°19.3′E
Stranded wreck 16°36.2′N 82°20.2′E
(8(161)09 Dehra Dun)

63290 7Ed. 9/1/90 LAST NM 47/10 1/11
Delete Stranded wreck 16°34.5′N 82°18.8′E
Stranded wreck 16°36.2′N 82°19.8′E
(8(161)09 Dehra Dun)

63337 16Ed. 2/18/06 LAST NM 20/08 1/11
Add Dangerous wreck [K28] (PA) marked close N
by buoy G, conical, Fl 5s 22°13′03″N 91°46′08″E
Dangerous wreck [K28] (PA) marked close N
by buoy, pillar, Fl(2) 5s 22°18′12″N 91°43′11″E

(Plan)
Add Dangerous wreck [K28] (PA) marked close N
by buoy G, conical, Fl 5s 22°13′03.3″N 91°46′07.6″E
(8(163)09 Dehra Dun)

71006 5Ed. 5/8/99 LAST NM 27/08 1/11
Add Light Fl 3s 12m 10M 3°43.0′N 96°48.6′E
(30(302)10 Jakarta)

71050 2Ed. 5/1/99 LAST NM 35/10 1/11
Add Light Fl 10s 23m 13M 6°57.3′N 93°56.6′E
(UKHO ARCS 842-0)

71253 11Ed. 10/15/05 LAST NM 52/10 1/11
Delete Solid line between 1°16′42.5″N 103°44′16.8″E
1°16′40.2″N 103°44′19.5″E

Add Double solid line with land tint (pier extension)
[F14] between 1°16′42.8″N 103°44′16.8″E
1°16′36.8″N 103°44′23.8″E

Solid line (pier extension) [F14] joining
1°16′37.1″N 103°44′24.0″E
1°16′36.1″N 103°44′25.1″E
1°16′34.9″N 103°44′26.1″E
1°16′33.3″N 103°44′28.0″E

Dashed line (dredged area limit) [I20] joining
1°16′41.9″N 103°44′21.2″E
1°16′35.0″N 103°44′29.0″E
1°16′33.9″N 103°44′28.0″E
1°16′40.8″N 103°44′20.2″E
and delete all hydrography between existing
dredged area and above dashed line

Legend "16.1m (2010)" between
1°16′41.0″N 103°44′21.0″E
1°16′34.5″N 103°44′28.0″E

Berth designation "MJ9" [F19] 1°16′39.1″N 103°44′25.9″E

Land tint to area bound by shore and solid line
[F14] joining 1°16′25.7″N 103°44′23.8″E
1°16′28.0″N 103°44′25.9″E
1°16′27.2″N 103°44′26.8″E
1°16′26.7″N 103°44′26.3″E
1°16′27.2″N 103°44′25.7″E
1°16′25.4″N 103°44′24.0″E

Solid line (pier extension) [F14] joining
1°16′27.9″N 103°44′25.7″E
1°16′28.6″N 103°44′24.1″E
1°16′29.6″N 103°44′23.1″E

Solid line (pier extension) [F14] joining
1°16′27.0″N 103°44′26.7″E
1°16′25.3″N 103°44′27.5″E
1°16′24.1″N 103°44′28.7″E

Dashed line (dredged channel limit) [I20]
joining 1°16′30.1″N 103°44′23.8″E
1°16′30.9″N 103°44′24.6″E
1°16′26.0″N 103°44′29.7″E
1°16′25.1″N 103°44′29.0″E
1°16′30.1″N 103°44′23.8″E
and delete all hydrography within area bound
by above dashed line

Legend "12.4m (2009)" between
1°16′30.0″N 103°44′24.5″E
1°16′25.8″N 103°44′29.0″E

Berth designation "MJ10" [F19]
1°16′28.8″N 103°44′27.3″E

Dashed line (works in progress area limit)
between 1°16′58.1″N 103°42′08.3″E
1°17′00.5″N 103°42′14.3″E

Dashed line (works in progress area limit)
between 1°17′01.1″N 103°42′15.9″E
1°17′03.9″N 103°42′22.3″E

Legend "Works in progress (2010)"
1°16′53.4″N 103°42′18.6″E
(10(88)10 Singapore; UKHO ARCS 4034-0)

71255 7Ed. 8/15/09 LAST NM N46/10 N1/11
Relocate Buoy "SCM5" from
1°16′35.4″N 103°39′00.6″E to 1°16′31.8″N 103°39′01.2″E
(10(87)10 Singapore)

71262 7Ed. 4/3/99 LAST NM 52/10 1/11
(Plan A)
Add Light Fl 5s 8m 8M 2°32′35.7″N 101°40′42.1″E
(70/10 Malaysia)

71285 4Ed. 2/16/08 LAST NM 52/10 1/11
Delete Buoy 2°48′10″N 101°24′12″E

Add Light Fl G 5s 4m 8M 2°48′04″N 101°24′06″E
Light Fl 5s 8m 8M 2°32′36″N 101°40′42″E
(70/10 Malaysia; UKHO ARCS 2139-0)

71350 8Ed. 5/15/82 LAST NM 32/10 1/11
Add Stranded wreck [K24] (PA) 2°25.0′N 109°08.0′E
(22(191)09 Jakarta)

71401 1Ed. 6/15/91 LAST NM 40/07 1/11
Add Buoy R, pillar, can topmark, Fl R 4s
3°11′05.3″N 113°01′16.0″E
Buoy G, pillar, cone topmark, Fl G 4s
3°11′06.3″N 113°01′39.6″E

Dangerous wreck [K28] (PA) 3°13′12.0″N 112°58′30.0″E
(9/09, 59/10 Sarawak)

71402 1Ed. 7/6/91 LAST NM 40/07 1/11
Add Dangerous wreck [K28] (PA) 3°13′12″N 112°58′30″E
(9/09 Sarawak)

71460 1Ed. 9/26/87 LAST NM 14/10 1/11
Add Stranded wreck [K24] (PA) 2°25.0′N 109°08.0′E
(22(191)09 Jakarta)

71465 1Ed. 7/11/87 LAST NM 20/08 1/11
Add Stranded wreck [K24] (PA) 2°25′00″N 109°08′00″E
(22(191)09 Jakarta)

72007 10Ed. 8/31/96 LAST NM 32/10 1/11
Change Visibility (range) of light to 24M 4°24.5′S 116°10.0′E
(10(90)10 Jakarta)

72050 4Ed. 8/10/85 LAST NM 25/08 1/11
Delete Beacon 3°02′30″S 113°03′10″E
(30(303)10 Jakarta)

72070 4Ed. 10/7/95 LAST NM 47/09 1/11
Change Visibility (range) of light to 24M 4°24′27″S 116°09′54″E
(10(90)10 Jakarta)

72075 2Ed. 9/9/95 LAST NM 47/09 1/11
Change Visibility (range) of light to 24M 4°24′23″S 116°10′07″E
(10(90)10 Jakarta)

72080 7Ed. 3/28/98 LAST NM 37/07 1/11
Change Visibility (range) of light to 24M 4°24′12″S 116°10′18″E
(10(90)10 Jakarta)

72085 3Ed. 1/18/03 LAST NM 3/08 1/11
Change Visibility (range) of light to 24M 4°24.5′S 116°09.8′E
(10(90)10 Jakarta)

72101 6Ed. 6/27/98 LAST NM 45/01 1/11
Delete Beacon 1°13′31.3″S 116°48′23.0″E
(22(195)09 Jakarta)

72110 9Ed. 3/9/96 LAST NM 28/10 1/11
Change Beacon to Q 7m 7M Racon (K) 0°32′06″N 117°46′12″E
(30(304)10 Jakarta)

72120 3Ed. 8/23/80 LAST NM 10/08 1/11
Add Buoy R, spar, can topmark, Fl R 5s 1°55′15″N 118°01′57″E
(22(196)09 Jakarta)

72173 2Ed. 2/3/96 LAST NM 28/10 1/11
Change Characteristic of beacon to Q 0°32.2′N 117°46.4′E

Add Buoy R, spar, can topmark, Fl R 5s 1°55.3′N 118°02.0′E
(22(196)09, 30(304)10 Jakarta)

73002 4Ed. 11/29/97 LAST NM 3/08 1/11
Add Wreck [K29] 5°35.0′S 122°01.0′E
(10(91)10 Jakarta)

73008 8Ed. 3/9/96 LAST NM 25/08 1/11
Add Wreck [K29] 5°35.0′S 122°01.0′E
(10(91)10 Jakarta)

74000 6Ed. 9/9/95 LAST NM 38/10 1/11
Change Legend "Obstn" to "ODAS" 30°16.5′S 153°18.0′E
Legend "Obstn" to "ODAS" 30°16.1′S 153°23.8′E
(5(247)10 Wollongong)

74171 4Ed. 8/5/95 LAST NM 41/09 1/11
Change Legend "Obstn" to "ODAS" 30°16′30″S 153°18′00″E
Legend "Obstn" to "ODAS" 30°16′04″S 153°23′48″E
(5(247)10 Wollongong)

75165 2Ed. 4/27/07 LAST NM N51/10 N1/11
Delete Purple outline of chart Aus 155 joining
38°01.61′S 144°40.07′E
38°01.61′S 145°06.50′E
37°48.42′S 145°06.50′E
37°48.42′S 144°40.07′E

Legend "Aus 155" 38°01.59′S 145°05.90′E

Add Purple outline of chart Aus 155 joining
38°03.34′S 144°40.10′E
38°03.34′S 145°06.50′E
37°50.10′S 145°06.50′E
37°50.10′S 144°40.10′E

Legend "Aus 155" 38°03.24′S 145°05.83′E
(6(312)10 Wollongong)

★81002 6Ed. 3/31/90 LAST NM 19/10 1/11
Add Depth 28 meters 10°29.3′N 140°06.8′E
Depth 26 meters 10°27.6′N 140°07.3′E
Depth 30 meters 10°25.8′N 140°08.0′E
and extend depth contour (200-meter) SSE to enclose above depths
(NTM0023/2010)

81023 5Ed. 8/12/89 LAST NM 38/08 1/11
Add Depth 115 meters enclosed by depth contour (1000-meter) centered 8°27.4′N 145°25.2′E
(UKHO ARCS 762-0)

81025 3Ed. 6/5/04 LAST NM N18/10 N1/11
Delete Depth 565 meters and enclosing depth contour (1000-meter) centered 10°26.0′N 140°08.7′E

Add Depth 28 meters 10°29.3′N 140°06.8′E
Depth 26 meters 10°27.6′N 140°07.3′E
Depth 30 meters 10°25.8′N 140°08.0′E
and enclose above depths (3) with blue tint and depth contour (200-meter)
(NTM0023/2010)

★81048 10Ed. 2/06 LAST NM 52/09 1/11
Delete Buoy "A" 13°21′15″N 144°47′20″E

Add Buoy "9 Mile" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°15′06″N 144°28′42″E
Buoy "Agat" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°23′18″N 144°33′54″E
Buoy "3" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°39′54″N 144°46′06″E
Buoy "4" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°43′18″N 144°43′18″E
Buoy "5" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°44′42″N 144°48′24″E
Buoy "6" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°42′36″N 145°01′36″E
Buoy "Umatac" Y, Fl Y 4s (Priv) with legend "(FAD)" 13°17′00″N 144°37′00″E
(47/10 CG14)

81059 1Ed. 3/12/05 LAST NM N18/10 N1/11
Delete Buoy "A" 13°21.2′N 144°47.3′E

Add Buoy "9 Mile" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°15.1′N 144°28.7′E
Buoy "Agat" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°23.3′N 144°33.9′E
Buoy "3" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°39.9′N 144°46.1′E
Buoy "4" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°43.3′N 144°43.3′E
Buoy "5" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°44.7′N 144°48.4′E
Buoy "6" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°42.6′N 145°01.6′E
Buoy "Umatac" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°17.0′N 144°37.0′E
(47/10 CG14)

81060 2Ed. 5/8/93 LAST NM 18/10 1/11
Delete Buoy "A" 13°21.2′N 144°47.3′E

Add Buoy "9 Mile" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°15.1′N 144°28.7′E
Buoy "Agat" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°23.3′N 144°33.9′E
Buoy "3" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°39.9′N 144°46.1′E
Buoy "4" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°43.3′N 144°43.3′E
Buoy "5" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°44.7′N 144°48.4′E
Buoy "6" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°42.6′N 145°01.6′E
Buoy "Umatac" Y, pillar, Fl Y 4s (Priv) with legend "(FAD)" 13°17.0′N 144°37.0′E
(47/10 CG14)

91005 6Ed. 6/15/96 LAST NM 40/10 1/11
Add Light Fl 10M 10°50.0′N 123°52.0′E
(3(65)08 Manila; UKHO LL)

91008 1Ed. 7/18/92 LAST NM 51/10 1/11
Add Wreck [K29] 20°35.4′N 119°29.4′E
Wreck [K29] 22°47.3′N 120°07.4′E
(185, 223/10 Tso-ying)

91010 6Ed. 9/2/95 LAST NM 51/10 1/11
Add Wreck [K29] 20°35.4′N 119°29.4′E
Wreck [K29] 22°47.3′N 120°07.4′E
(185, 223/10 Tso-ying)

92025 3Ed. 2/11/84 LAST NM 45/10 1/11
Change Characteristic of light to Fl R 3s 10°09.1′N 124°19.5′E
(3(79)08 Manila)

92030 4Ed. 1/22/83 LAST NM 47/10 1/11
Add Light Fl 5s 10M 10°50.0′N 123°52.2′E
(3(65)08 Manila; UKHO LL)

92090 2Ed. 12/12/98 LAST NM 14/07 1/11
Change Characteristic of light to Fl R 3s 10°09′02″N 124°19′38″E
(3(79)08 Manila)

92100 3Ed. 3/7/98 LAST NM 48/01 1/11
Change Characteristic of light to Fl R 3s 10°09′02″N 124°19′38″E
(3(79)08 Manila)

92290 2Ed. 9/25/76 LAST NM 46/10 1/11
Add Light Fl R 5s 8°40.3′N 124°41.3′E
(3(82)08 Manila)

92370 2Ed. 6/10/78 LAST NM 50/06 1/11
Add Light Fl 5s 20ft 10M 10°50′00″N 123°52′01″E
(3(65)08 Manila; UKHO LL)

93006 3Ed. 3/15/08 LAST NM 51/10 1/11
Add Wreck [K29] 20°35.4′N 119°29.4′E
(223/10 Tso-ying)

94004 6Ed. 9/2/95 LAST NM 51/10 1/11
Add Wreck [K29] 22°47.3′N 120°07.4′E
(185/10 Tso-ying)

94080 8Ed. 9/26/09 LAST NM 51/10 1/11
Add Wreck [K29] 22°47.3′N 120°07.4′E
(185/10 Tso-ying)

94082 9Ed. 5/27/06 LAST NM 31/10 1/11
Add Wreck [K29] 22°47′16″N 120°07′21″E
(185/10 Tso-ying)

95068 2Ed. 11/17/07 LAST NM N52/10 N1/11
Delete Purple dashed line joining 37°02′03.0″N 126°41′12.0″E
37°01′27.0″N 126°41′45.0″E
37°00′58.0″N 126°42′08.0″E
37°00′12.8″N 126°42′27.2″E
36°59′41.0″N 126°43′07.0″E
36°58′52.0″N 126°48′11.2″E
36°58′08.8″N 126°49′23.3″E
36°57′04.3″N 126°50′20.8″E
36°57′16.0″N 126°50′34.0″E
36°59′00.8″N 126°49′17.0″E
37°00′08.1″N 126°43′42.5″E
37°00′38.5″N 126°43′00.3″E
(See N13/08, N28/10-95068)

Add Purple dashed line joining 37°02′03.0″N 126°41′12.0″E
37°01′30.0″N 126°41′40.0″E
37°00′58.0″N 126°42′08.0″E
37°00′03.0″N 126°42′16.0″E
36°59′37.0″N 126°43′10.0″E
36°58′51.0″N 126°48′06.0″E
36°58′09.0″N 126°49′23.0″E
36°57′04.0″N 126°50′09.0″E
36°57′07.0″N 126°50′16.0″E
36°56′25.5″N 126°50′45.0″E
36°56′32.0″N 126°51′00.0″E
36°57′13.0″N 126°50′30.0″E
36°57′15.0″N 126°50′33.0″E
36°59′01.0″N 126°49′20.0″E
37°00′08.0″N 126°43′43.0″E
37°00′38.5″N 126°43′00.3″E

Purple dashed line joining 36°58′40.5″N 126°48′26.0″E
36°58′16.0″N 126°48′14.0″E
36°57′51.0″N 126°48′24.0″E
36°56′57.0″N 126°49′01.0″E
36°57′07.0″N 126°49′25.0″E
36°58′01.0″N 126°48′47.0″E
36°58′21.3″N 126°49′01.0″E
(46(714-716)10 Inchon)

97233 12Ed. 12/27/03 LAST NM 46/10 1/11
Change Light to Fl G 3s 7M 34°32′54″N 134°17′00″E
Visibility (range) of light to 7M 34°31′50″N 134°09′42″E
Visibility (range) of beacon to 5M 34°26′48″N 133°58′06″E
Visibility (range) of beacon to 4M 34°22′12″N 134°12′48″E
(Jpn LL)

97234 17Ed. 12/26/98 LAST NM 38/10 1/11
Change Characteristic of light to Fl 3s 34°26′00.0″N 134°20′16.0″E

Visibility (range) of light to 7M
34°31′50.0″N 134°09′42.0″E
Visibility (range) of beacon to 5M
34°26′50.0″N 133°58′06.0″E
Visibility (range) of beacon to 4M
34°22′13.0″N 134°12′40.0″E
(Jpn LL)

97469 10Ed. 7/19/97 LAST NM 18/10 1/11
Add Light Iso 6s 3m 4M 26°17′43.0″N 127°54′22.0″E
(NTM0024/2010)

★**97471** 6Ed. 10/18/08 LAST NM N25/09 N1/11
Add Light Iso 6s 3m 4M 26°17′43.0″N 127°54′22.0″E
(NTM0024/2010)

Chart 16599 (Inset Larsen Bay) NM 1/11

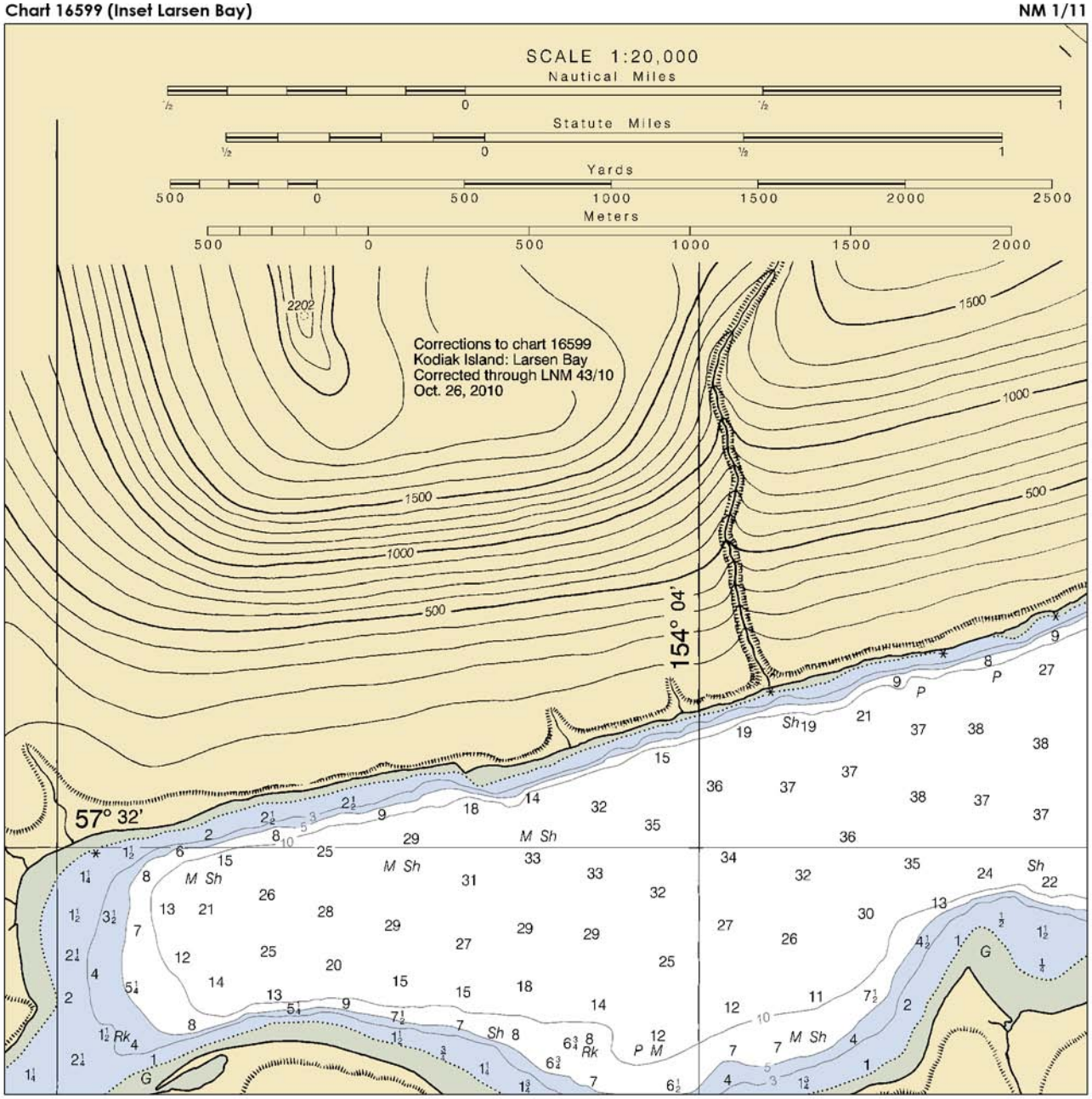


Chart 11339 (Inset) NM 1/11

CALCASIEU PASS AND RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW GULF (MLG)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLG (FEET)
BAR CHANNEL	36.0	38.0	39.0	32.0	6-09; 9-10	800	26.3	42
JETTY CHANNEL TO (29°46'00.0"N, 93°20'43.0"W)	34.0	47.0	46.0	45.0	6,9-10	400	1.3	40
THENCE TO A POINT (29°52'00.0"N, 93°20'43.0"W)	25.0	40.0	40.0	36.0	6-10	400	6.0	40
THENCE TO A POINT (29°58'00.0"N, 93°20'10.0"W)	31.0	38.0	37.0	30.0	6,7-10	400	6.0	40
THENCE TO A POINT (30°04'00.0"N, 93°19'38.0"W)	27.0	35.0	32.0	27.0	7-10	400	6.0	40
THENCE TO A POINT (30°09'03.0"N, 93°19'57.0"W)	29.0	33.0	32.0	25.0	2,5,6,7-10	400	5.2	40
THENCE TO 210 BRIDGE	31.0	35.0	33.0	28.0	6-10	400	4.4	40
THENCE TO END OF 400 CHANNEL (30°13'08.0"N, 93°15'12.0"W)	36.0	40.0	39.0	34.0	8-10	400	2.1	40

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS.
DEPTHS ARE REFERENCED TO A REFERENCE DATUM CALLED MEAN LOW GULF. SEE NOTE H.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11344 NM 1/11

CALCASIEU PASS AND RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW GULF (MLG)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLG (FEET)
BAR CHANNEL	36.0	38.0	39.0	32.0	6-09; 9-10	800	26.3	42
JETTY CHANNEL TO (29°46'00.0"N, 93°20'43.0"W)	34.0	47.0	46.0	45.0	6,9-10	400	1.3	40
THENCE TO A POINT (29°52'00.0"N, 93°20'43.0"W)	25.0	40.0	40.0	36.0	6-10	400	6.0	40

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS.
DEPTHS ARE REFERENCED TO A REFERENCE DATUM CALLED MEAN LOW GULF. SEE NOTE H.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11347 (Side A) NM 1/11

CALCASIEU PASS AND RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW GULF (MLG)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLG (FEET)
BAR CHANNEL	36.0	38.0	39.0	32.0	6-09; 9-10	800	26.3	42
JETTY CHANNEL TO (29°46'00.0"N, 93°20'43.0"W)	34.0	47.0	46.0	45.0	6,9-10	400	1.3	40
THENCE TO A POINT (29°52'00.0"N, 93°20'43.0"W)	25.0	40.0	40.0	36.0	6-10	400	6.0	40
THENCE TO A POINT (29°58'00.0"N, 93°20'10.0"W)	31.0	38.0	37.0	30.0	6,7-10	400	6.0	40
THENCE TO A POINT (30°04'00.0"N, 93°19'38.0"W)	27.0	35.0	32.0	27.0	7-10	400	6.0	40
THENCE TO A POINT (30°09'03.0"N, 93°19'57.0"W)	29.0	33.0	32.0	25.0	2,5,6,7-10	400	5.2	40
THENCE TO 210 BRIDGE	31.0	35.0	33.0	28.0	6-10	400	4.4	40
THENCE TO END OF 400 CHANNEL (30°13'08.0"N, 93°15'12.0"W)	36.0	40.0	39.0	34.0	8-10	400	2.1	40

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS.
DEPTHS ARE REFERENCED TO A REFERENCE DATUM CALLED MEAN LOW GULF. SEE NOTE H.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11347 (Side B, Inset) NM 1/11

CALCASIEU PASS AND RIVER

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOW GULF (MLG)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLG (FEET)
BAR CHANNEL	36.0	38.0	39.0	32.0	6-09; 9-10	800	26.3	42
JETTY CHANNEL TO (29°46'00.0"N, 93°20'43.0"W)	34.0	47.0	46.0	45.0	6,9-10	400	1.3	40
THENCE TO A POINT (29°52'00.0"N, 93°20'43.0"W)	25.0	40.0	40.0	36.0	6-10	400	6.0	40
THENCE TO A POINT (29°58'00.0"N, 93°20'10.0"W)	31.0	38.0	37.0	30.0	6,7-10	400	6.0	40
THENCE TO A POINT (30°04'00.0"N, 93°19'38.0"W)	27.0	35.0	32.0	27.0	7-10	400	6.0	40
THENCE TO A POINT (30°09'03.0"N, 93°19'57.0"W)	29.0	33.0	32.0	25.0	2,5,6,7-10	400	5.2	40
THENCE TO 210 BRIDGE	31.0	35.0	33.0	28.0	6-10	400	4.4	40
THENCE TO END OF 400 CHANNEL (30°13'08.0"N, 93°15'12.0"W)	36.0	40.0	39.0	34.0	8-10	400	2.1	40

INFORMATION IN THIS TABULATION HAS BEEN PROVIDED TO NOAA BY THE U.S. ARMY CORPS OF ENGINEERS.
DEPTHS ARE REFERENCED TO A REFERENCE DATUM CALLED MEAN LOW GULF. SEE NOTE H.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11373 NM 1/11

HORN ISLAND PASS PASCAGOULA HARBOR AND BAYOU CASOTTE CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS- REPORT OF SEP 2010 AND SURVEYS TO OCT 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
PASCAGOULA BAR CHANNEL	38.2	44.0	41.6	10-10	450	6.28	44.0
HORN ISLAND PASS	42.5	44.0	43.6	7-10	600	1.4	44.0
PASCAGOULA LOWER SOUND	38.9A	42.0	39.6B	9-10	350	4.3	42.0
PASCAGOULA UPPER SOUND	33.6	32.5	35.3	9-10	350	4.63	38.0
PASCAGOULA RIVER	32.1C	34.2D	33.5E	8-10	350F	2.021	38.0
BAYOU CASOTTE	38.3G	40.7H	37.2	8-10	350	4.57	42.0

A. SHOALING TO 35.5 FT AT BEND WIDENING AREA.
B. SHOALING TO 39.9 FT AT BEND WIDENING AREA.
C. SHOALING TO 23.8 FT AT CSX RAILROAD BRIDGE.
D. SHOALING TO 19.3 FT AT CSX RAILROAD BRIDGE.
E. SHOALING TO 24.9 FT AT CSX RAILROAD BRIDGE.
F. PASCAGOULA RIVER PROJECT WIDTH VARIES AT SOUTH END OF TERMINAL C TO CSX RAILROAD.
G. SHOALING TO 37.2 FT AT BEND WIDENING AREA.
H. SHOALING TO 40.4 FT AT NORTH END OF PROJECT.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11374 (Side B) NM 1/11

HORN ISLAND PASS PASCAGOULA HARBOR AND BAYOU CASOTTE CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 2010 AND SURVEYS TO OCT 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
PASCAGOULA BAR CHANNEL	38.2	44.0	41.6	10-10	450	6.28	44.0
HORN ISLAND PASS	42.5	44.0	43.6	7-10	600	1.4	44.0
PASCAGOULA LOWER SOUND	38.9A	42.0	39.6B	9-10	350	4.3	42.0
PASCAGOULA UPPER SOUND	33.6	32.5	35.3	9-10	350	4.63	38.0
PASCAGOULA RIVER	32.1C	34.2D	33.5E	8-10	350F	2.021	38.0
BAYOU CASOTTE	38.3G	40.7H	37.2	8-10	350	4.57	42.0

A. SHOALING TO 35.5 FT AT BEND WIDENING AREA.
B. SHOALING TO 39.9 FT AT BEND WIDENING AREA.
C. SHOALING TO 23.8 FT AT CSX RAILROAD BRIDGE.
D. SHOALING TO 19.3 FT AT CSX RAILROAD BRIDGE.
E. SHOALING TO 24.9 FT AT CSX RAILROAD BRIDGE.
F. PASCAGOULA RIVER PROJECT WIDTH VARIES AT SOUTH END OF TERMINAL C TO CSX RAILROAD.
G. SHOALING TO 37.2 FT AT BEND WIDENING AREA.
H. SHOALING TO 40.4 FT AT NORTH END OF PROJECT.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11375 NM 1/11

HORN ISLAND PASS PASCAGOULA HARBOR AND BAYOU CASOTTE CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS- REPORT OF SEP 2010 AND SURVEYS TO OCT 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
PASCAGOULA BAR CHANNEL	38.2	44.0	41.6	10-10	450	6.28	44.0
HORN ISLAND PASS	42.5	44.0	43.6	7-10	600	1.4	44.0
PASCAGOULA LOWER SOUND	38.9A	42.0	39.6B	9-10	350	4.3	42.0
PASCAGOULA UPPER SOUND	33.6	32.5	35.3	9-10	350	4.63	38.0
PASCAGOULA RIVER	32.1C	34.2D	33.5E	8-10	350F	2.021	38.0
BAYOU CASOTTE	38.3G	40.7H	37.2	8-10	350	4.57	42.0

A. SHOALING TO 35.5 FT AT BEND WIDENING AREA.
B. SHOALING TO 39.9 FT AT BEND WIDENING AREA.
C. SHOALING TO 23.8 FT AT CSX RAILROAD BRIDGE.
D. SHOALING TO 19.3 FT AT CSX RAILROAD BRIDGE.
E. SHOALING TO 24.9 FT AT CSX RAILROAD BRIDGE.
F. PASCAGOULA RIVER PROJECT WIDTH VARIES AT SOUTH END OF TERMINAL C TO CSX RAILROAD.
G. SHOALING TO 37.2 FT AT BEND WIDENING AREA.
H. SHOALING TO 40.4 FT AT NORTH END OF PROJECT.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11376 NM 1/11

MOBILE BAY AND RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 2010 AND SURVEYS TO SEP 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
MOBILE BAR CHANNEL	43.3	46.1	43.8	5-10	600	8.1	47
MOBILE BAY:							
LOWER BAY (TO LIGHT 50)	42.6A	44.4	40.7	8-10	400	13.3	45
UPPER BAY	40.9	42.1	40.3	7; 8-10	400-500	15.4	45
UPPER BAY TURNING BASIN	43.6	45.0H	49.4	8-10	VARIES		45
MOBILE RIVER:							
PINTO ISLAND REACH	33.8	39.3	32.5	9-10	700-775	0.8	40-45
MOBILE CHANNEL	33.4	39.4	35.3	9-10	600	1.8	40
MOBILE TURNING BASIN	37.8B	39.0	38.1C	9-10	740-1000	0.6	40
BLAKELEY ISLAND REACH	37.3D	28.3D	27.8D	9-10	500-1000	1.3	40
ST. LOUIS POINT REACH	18.2	24.8	21.2E	5-10	500	0.2	25
CHICKASAW CREEK CHANNEL	14.7	22.9	19.8	5-10	250	3.0	25
ARLINGTON CHANNEL	14.4	15.0	14.0	7-10	150	1.7	27
GARROWS BEND CHANNEL	4.2I	4.8J	5.1K	7-10	150	1.3	27
OCEAN TERMINAL TURNING BASIN	14.8	15.3	12.3	11-08	600	0.1	27
THEODORE SHIP CHANNEL:							
BAY CUT	38.8	39.9	38.1	5-10	400	5.3	40
ANCHORAGE AREA	40.0F	40.0	40.0	5-10	300	0.2	40
LAND CUT	39.8	40.0	40.0	5-10	300	1.7	40
TURNING BASIN	40.0G	36.8	34.3	5-10	1400	0.3	40
BARGE CHANNEL	9.5	10.3	9.5	4-10	100	1.2	12

A. EXCEPT FOR SHOALING TO 41.8 FEET IN BEND WIDENING AREA.
B. EXCEPT FOR SHOALING TO 36.5 FEET IN BEND WIDENING AREA.
C. EXCEPT FOR SHOALING TO 36.5 FEET IN BEND WIDENING AREA.
D. SHOALING EXISTS AT NORTH END OF PROJECT BY COCHRAN BRIDGE.
E. EXCEPT FOR SHOALING TO 20.1 FEET IN BEND WIDENING AREA.
F. EXCEPT FOR SHOALING TO 39.1 FEET IN BEND WIDENING AREA.
G. EXCEPT FOR SHOALING TO 38.5 FEET AT WESTERN END.
H. EXCEPT FOR SHOALING TO 40.6 FEET IN THE NORTHERN SECTION FROM 30°39'56.1"N/88°01'50.3"W TO 30°40'03.7"N/88°01'51.0"W.
I. EXCEPT FOR SHOALING TO 4.0 FEET AT THE NORTHEAST END OF PROJECT
J. EXCEPT FOR SHOALING TO 3.4 FEET AT THE NORTHEAST END OF PROJECT
K. EXCEPT FOR SHOALING TO 3.0 FEET AT THE NORTHEAST END OF PROJECT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11412 NM 1/11

TAMPA BAY CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 2005 AND SURVEYS TO MAY 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
EGMONT CHANNEL	23.9	43.7	45.1	39.6	8-05	700-1000	3.9	45
MULLET KEY CHANNEL	40.1	43.2	42.2	38.7	8-05	600-900	2.9	43
CUT A CHANNEL	38.0	41.7	42.0	42.6	3-10	500-700	2.7	43
CUT B CHANNEL	41.7	42.1	43.0	41.9	5-10	500-700	3.4	43
CUT C CHANNEL	42.1	43.5	43.6	42.8	5-10	500-750	1.7	43
CUT D CHANNEL	42.6	42.2	42.0	42.1	5-10	500-650	2.1	43
CUT E CHANNEL	42.2	41.4	42.6	42.4	5-10	500-700	2.1	43
CUT F CHANNEL	41.1	42.4	42.2	42.1	2,3-10	500	1.6	43
EAST WIDNER	42.0	41.4	41.2	42.4	2,3-10	0-2880	0.4	43
WEST WIDNER	32.9	34.2	34.8	35.0	2,3-10	0-970	0.25	34
CUT G CHANNEL	33.3	33.5	33.8	30.1	2,5-10	400	2.7	34
GADSDEN PT. CUT	42.5	43.0	43.0	41.0	1-09; 2-10	500	3.05	43

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11415 NM 1/11

TAMPA BAY ENTRANCE CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 2005 AND SURVEYS TO MAY 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
EGMONT CHANNEL	23.9	43.7	45.1	39.6	8-05	700-1000	3.9	45
MULLET KEY CHANNEL	40.1	43.2	42.2	38.7	8-05	600-900	2.9	43
CUT A CHANNEL	38.0	41.7	42.0	42.6	3-10	500-700	2.7	43
CUT B CHANNEL	41.7	42.1	43.0	41.9	5-10	500-700	3.4	43

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11416 NM 1/11

TAMPA BAY CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF SEP 2005 AND SURVEYS TO MAY 2010

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
MULLET KEY CHANNEL	40.1	43.2	42.2	38.7	8-05	600-900	2.9	43
CUT A CHANNEL	38.0	41.7	42.0	42.6	3-10	500-700	2.7	43
CUT B CHANNEL	41.7	42.1	43.0	41.9	5-10	500-700	3.4	43
CUT C CHANNEL	42.1	43.5	43.6	42.8	5-10	500-750	1.7	43
CUT D CHANNEL	42.6	42.2	42.0	42.1	5-10	500-650	2.1	43
CUT E CHANNEL	42.2	41.4	42.6	42.4	5-10	500-700	2.1	43
CUT F CHANNEL	41.1	42.4	42.2	42.1	2,3-10	500	1.6	43
EAST WIDENER	42.0	41.4	41.2	42.4	2,3-10	0-2880	0.4	43
WEST WIDENER	32.9	34.2	34.8	35.0	2,3-10	0-970	0.25	34
CUT G CHANNEL	33.3	33.5	33.8	30.1	2,5-10	400	2.7	34
G TO J WIDENER	32.6	32.4	32.0	31.5	5-10	0-770	.52	34
CUT J CHANNEL	32.3	35.1	34.2	34.2	5-10	400-450	1.2	34
CUT J2 CHANNEL	35.6	37.3	37.1	35.9	5-10	400-450	0.9	34
CUT K CHANNEL	32.3	36.3	36.5	33.3	5-10	400	2.0	34
CUT K TURNING BASIN	32.4	36.9	36.2	33.7	5-10	400-750	0.5	34
GADSDEN PT. CUT	42.5	43.0	43.0	41.0	1-09; 2-10	500	3.05	43
HILLSBOROUGH BAY								
CUT A CHANNEL	43.0	42.0	43.0	40.0	1-09	500	1.0	43
A TO C WIDENER	40.0	42.0	43.0	42.0	1-09	0-1000	0.7	43
CUT C CHANNEL	38.0	41.0	42.0	39.4	1,6-09	500	5.6	43
CUT D CHANNEL	35.0	37.0	36.0	34.0	3-09	400	1.0	41
SEDDON CHANNEL	14.0	17.0	20.0	22.0	3-09	200	1.1	12
GARRISON CHANNEL (A)	24.8	21.9	22.0	16.9	2-04; 10-07	300	0.4	30
SPARKMAN CHANNEL	28.0	35.0	36.0	29.0	3-09	400	1.2	34
YBOR TURNING BASIN	30.0	32.0	30.0	23.0	3-09	—	0.3	34
YBOR CHANNEL	29.0	31.0	29.0	22.0	3-09	400	0.6	34
PORT SUTTON ENTRANCE CHANNEL	43.7	44.6	43.6	40.3	6-09	400	0.3	43
SOUTH WIDENER	39.9	39.2	38.4	37.2	6-09	0-540	0.3	43
PORT SUTTON TURNING BASIN	39.5	41.6	37.9	41.1	6-09	400-1930	0.4	43
EAST BAY CHANNEL								
TO TURNING BASIN	41.3	41.8	42.5	38.9	6-09	600	0.6	43
TURNING BASIN	40.5	40.6	40.9	39.5	6-09	300-800	0.3	43
NORTHEAST OF TURNING BASIN	41.3	43.1	44.1	43.3	6-09	300	0.4	43
UPPER EAST BAY								
CHANNEL TO UPPER BASIN	31.5	33.3	34.5	32.8	6-09	300	0.6	34
TURNING BASIN	32.6	34.0	31.2	29.3	6-09	300-789	0.5	34

A. GARRISON CHANNEL HAS BEEN DEAUTHORIZED AS A FEDERALLY MAINTAINED NAVIGATION PROJECT. SHOALING THROUGHOUT WESTERN PORTION OF CHANNEL.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11521 NM 1/11

CHARLESTON HARBOR ENTRANCE

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2010

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	46.5	48.0	47.8	47.1	9-10	1000	17.5	A47
MOUNT PLEASANT RANGE	46.2	49.2	49.3	48.4	9-10	1000-600	1.8	A45

A. FOR WIDTH OF 1000 FEET, THE PROJECT DEPTH IS 42 FEET FOR OUTER 100 FEET.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 11524 NM 1/11

CHARLESTON HARBOR, COOPER RIVER AND SHIPYARD RIVER
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS- SURVEYS TO SEP 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	46.5	48.0	47.8	47.1	9-10	1000	17.5	A47
MOUNT PLEASANT RANGE	46.2	49.2	49.3	48.4	9-10	1000-600	1.8	A45
REBELLION REACH	46.5	49.0	48.4	46.8	9-10	600	1.6	45
BENNIS REACH	45.7	48.2	48.4	45.8	9-10	600	1.5	45
HORSE REACH	50.2	49.8	49.5	44.8	9-10	VARIES	0.6	45
CUSTOMHOUSE REACH	35.0	49.0	48.0	47.0	4-10	1385	0.2	45
SOUTH CHANNEL	24.4	24.8	24.5	B24.3	10-96; 7-04;9-08;6-09	600-1000	3.6	45
HOG ISLAND REACH	46.7	46.9	45.8	B39.8	9-10	800-600	1.6	45
DRUM ISLAND REACH	44.8	49.6	48.7	45.7	9-10	1200-600	0.8	45
TIDEWATER REACH	35.6	35.1	34.2	34.4	9-10	650	0.7	40
TOWN CREEK LOWER REACH	38.5	42.2	45.2	44.4	9-10	450-400	1.1	45
TOWN CREEK LOWER REACH TB	38.9	38.7	38.7	37.0	9-10	300	0.25	35
TOWN CREEK UPPER REACH	35.2	40.2	40.9	40.5	11-01; 5-02	250	1.0	16
MYERS BEND	49.7	48.7	47.8	41.8	9-10	900-1500	0.5	45
DANIEL ISLAND REACH	44.7	45.5	43.9	37.9	9-10	880	1.4	45
DANIEL ISLAND BEND	49.0	50.4	51.2	49.8	9-10	800-700	0.5	45
CLOUTER CREEK REACH	46.8	48.2	48.1	45.5	9-10	600	1.3	45
NAVY YARD REACH	45.0	48.6	47.7	41.1	9-10	600-700	1.1	45
NORTH CHARLESTON REACH	46.8	49.4	48.0	47.0	9-10	500-600	1.0	45
FILBIN CREEK REACH	45.5	46.7	49.3	48.4	9-10	500	0.9	45
PORT TERMINAL REACH	44.5	46.0	48.8	47.4	9-10	600	0.7	45
ORDNANCE REACH	37.1	36.9	42.2	43.0	9-10	600	0.4	45
ORDNANCE REACH TURNING BASIN	44.8	35.7	35.7	32.8	9-10	800	0.4	45
WANDO RIVER								
LOWER REACH	45.8	47.8	48.0	43.2	9-10	1500-400	1.4	45
UPPER REACH	47.7	43.1	42.7	43.5	9-10	850-600	0.9	45
TURNING BASIN	43.3	48.1	48.1	47.0	9-10	550	0.4	45
SHIPYARD CREEK								
MAIN CHANNEL	23.4	28.2	26.7	24.6	2-07; 1-10; 5-10	1200-300	1.2	30
LOWER TURNING BASIN	39.3	40.5	42.8	39.5	2-07; 1-10; 5-10	700	0.2	38
UPPER TURNING BASIN	14.0	21.0	19.5	19.6	2-07; 5-10	600	0.2	30
COOPER RIVER								
RANGE A	39.0	39.7	38.7	37.9	7,8-98; 10-03; 3-10	400-1350	1.2	35
RANGE B	18.6	23.1	35.1	33.5	12-99; 10-03; 3-10	VARIES	0.9	35
RANGE C	20.6	C24.6	38.9	36.5	12-03; 3-10	VARIES	0.9	35
RANGE D	29.8	29.5	29.0	26.4	3-10	VARIES	0.7	35
RANGE E	31.1	36.6	38.0	35.8	3-10	VARIES	0.4	35
RANGE F	25.0	35.3	37.5	34.6	1-95; 3-10	VARIES	0.3	35

A. FOR WIDTH OF 1000 FEET, THE PROJECT DEPTH IS 42 FEET FOR OUTER 100 FEET.
B. ALONG CHANNEL EDGE.
C. OBSTRUCTION LOCATED WITH A DEPTH OF 35 FEET, AT 32°55'15.6"N; 79°55'55.7"W.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 12327 NM 1/11

LOWER BAY, CHAPEL HILL, RARITAN BAY AND RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 2010
AND SURVEYS TO JUN 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
LOWER BAY:								
AMBROSE CHANNEL	39.9	45.9	45.8	41.7	4-03	2000	9.2	45
SANDY HOOK CHANNEL (EAST)	35.8	40.9	37.5	35.2	8-08; 9-09	800-2150	4.5	35
SANDY HOOK CHANNEL (BAYSIDE)	30.7	39.1	37.8	31.6	8-08; 9-09	800	2.3	35
TERMINAL CHANNEL (NAVY)	45.0	45.0	45.0	45.0	9-09	400-1050	0.8	A45
TURNING BASIN (NAVY)	45.0	45.0	45.0	45.0	9-09	400-2300	0.6	A45
CHAPEL HILL:								
SOUTH CHANNEL (B)	*28.0	*28.5	*29.6	*24.3	11,12-09	1000	2.6	30
NORTH CHANNEL (B)	*28.8	*29.3	*27.3	*27.6	11,12-09	1000	2.2	30
RARITAN BAY:								
EAST REACH	33.3	38.2	37.6	33.5	5-09	600	3.9	35
WEST REACH	32.3	39.7	39.5	32.5	5-09	600	2.4	35
SEGUINE POINT BEND	30.2	34.5	35.8	21.1	5-09;4-10	600-1000	1.2	35
RED BANK REACH	33.0	40.5	40.2	33.1	4-10	600	1.02	35
WARD POINT BEND (EAST)	29.7	38.6	36.3	27.9	4-10	600-800	0.82	35
WARD POINT BEND (WEST)	34.4	35.3	32.8	29.7	4-10	600	1.35	35
WARD POINT SECONDARY CHANNEL	18.8	18.8	18.8	18.2	4-10	400	0.83	30
CUTOFF (C)	11.4	16.9	18.6	17.1	6-10	600-1740	1.0	20
RARITAN RIVER:								
GREAT BEDS REACH (D)	19.6	21.5	21.5	17.4	7-09	300	0.76	25
SOUTH AMBOY REACH (D)	20.4	19.8	19.8	17.2	7-09	300	1.2	25

A. PROJECT DEPTHS IN THE TERMINAL CHANNEL AND TURNING BASIN ARE 45 FEET, EXCEPT AROUND PIERS 2 AND 3 WHERE THE PROJECT DEPTH IS 35 FEET. DEPTHS SHOALER THAN PROJECT DEPTHS ARE CHARTED IN CHANNELS.
B. AN * DENOTES A SHOAL OBSTRUCTION. SPORADIC SHOAL OBSTRUCTIONS EXIST WITHIN THE CHANNEL BUT ARE NOT CHARTED. CONSULT CORPS OF ENGINEERS FOR LOCATION OF OBSTRUCTIONS.
C. CONTROLLING DEPTHS ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM RARITAN RIVER.
D. THE CORPS OF ENGINEERS REPORTS MIDDLE HALF OF CHANNEL.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 12401 NM 1/11

LOWER BAY, CHAPEL HILL AND RARITAN BAY CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 2010
AND SURVEYS TO DEC 2009

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
LOWER BAY:								
AMBROSE CHANNEL	39.9	45.9	45.8	41.7	4-03	2000	9.2	45
SANDY HOOK CHANNEL (EAST)	35.8	40.9	37.5	35.2	8-08; 9-09	800-2150	4.5	35
SANDY HOOK CHANNEL (BAYSIDE)	30.7	39.1	37.8	31.6	8-08; 9-09	800	2.3	35
TERMINAL CHANNEL (NAVY)	45.0	45.0	45.0	45.0	9-09	400-1050	0.8	A45
TURNING BASIN (NAVY)	45.0	45.0	45.0	45.0	9-09	400-2300	0.6	A45
CHAPEL HILL:								
SOUTH CHANNEL (B)	28.0	28.5	29.6	24.3	11,12-09	1000	2.6	30
RARITAN BAY:								
EAST REACH	33.3	38.2	37.6	33.5	5-09	600	3.9	35
WEST REACH	32.3	39.7	39.5	32.5	5-09	600	2.4	35

A. PROJECT DEPTHS IN THE TERMINAL CHANNEL AND TURNING BASIN ARE 45 FEET, EXCEPT AROUND PIERS 2 AND 3 WHERE THE PROJECT DEPTH IS 35 FEET. DEPTHS SHOALER THAN PROJECT DEPTHS ARE CHARTED IN CHANNELS.
B. SPORADIC SHOAL OBSTRUCTIONS EXIST WITHIN THE CHANNEL BUT ARE NOT CHARTED. CONSULT CORPS OF ENGINEERS FOR LOCATION OF OBSTRUCTIONS.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14853 (Page 11) NM 1/11

RIVER ROUGE CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH LWD (FEET)
SHORT CUT CANAL							
ENTRANCE TO WEST JEFFERSON AVE. BRIDGE	17.5	21.0	15.4	8-09, 8-10	100-400	1.08	21
WEST JEFFERSON AVE. BRIDGE TO I-75 BRIDGE	15.5	19.6	14.2	8-09	100-200	.74	21
I-75 BRIDGE TO DIX AVE. BRIDGE	14.1	18.3	15.2	8-09	100-200	.91	21
DIX AVE. BRIDGE TO END	15.7	19.4	17.4	8-09	100-800	.25	21
OLD CHANNEL							
ENTRANCE TO 42°17'19.9"N 83°06'27.5"W	23.7	23.1	17.6	6-05, 8-10	100-300	.25	25
42°17'19.9"N 83°06'27.5"W TO 42°17'23.2"N 83°06'46.0"W	15.0	19.5	5.4	8-10	100	.27	18
42°17'23.2"N 83°06'46.0"W TO RR SWING BRIDGE	12.7	17.8	11.2	8-10	100	.29	17
RR SWING BRIDGE TO SHORT CUT CANAL	12.8	16.7	12.6	8-10	100-600	.76	17

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14854 (Inset) NM 1/11

RIVER ROUGE CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH LWD (FEET)
SHORT CUT CANAL							
ENTRANCE TO WEST JEFFERSON AVE. BRIDGE	17.5	21.0	15.4	8-09, 8-10	100-400	1.08	21
WEST JEFFERSON AVE. BRIDGE TO I-75 BRIDGE	15.5	19.6	14.2	8-09	100-200	.74	21
I-75 BRIDGE TO DIX AVE. BRIDGE	14.1	18.3	15.2	8-09	100-200	.91	21
DIX AVE. BRIDGE TO END	15.7	19.4	17.4	8-09	100-800	.25	21
OLD CHANNEL							
ENTRANCE TO 42°17'19.9"N 83°06'27.5"W	23.7	23.1	17.6	6-05, 8-10	100-300	.25	25
42°17'19.9"N 83°06'27.5"W TO 42°17'23.2"N 83°06'46.0"W	15.0	19.5	5.4	8-10	100	.27	18
42°17'23.2"N 83°06'46.0"W TO RR SWING BRIDGE	12.7	17.8	11.2	8-10	100	.29	17
RR SWING BRIDGE TO SHORT CUT CANAL	12.8	16.7	12.6	8-10	100-600	.76	17

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14975 NM 1/11

DULUTH HARBOR

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2010

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH LWD (FEET)
DULUTH ENTRY	A	A	A	A				
1	25.7	30.3	31.5	29.8	7-2009	245-1000	.13	32
2	27.5	33.4	33.8	30.0	7-2009	245	.08	31
3	30.3	32.5	31.8	30.4	7-2009	245	.07	30
4	31.8	31.5	31.5	31.0	7-2009	245	.07	29
5	25.6	31.7	32.3	24.1	7-2010	245-480	.07	28
DULUTH HARBOR BASIN								
NORTHERN SECTION	25.3	27.7	28.1	24.9	7-2010	1100-2700	.64	28
SOUTHERN SECTION	24.3	25.6	26.2	22.1	7-2009; 7-2010	1200-2700	.91	27
EAST GATE BASIN (NORTH)	25.8	26.6	25.8	23.3	7, 9-2009	1500-3300	.33	27
WEST GATE BASIN	23.9	27.7	26.8	24.4	8-2010	400-850	.66	27
HOWARDS BAY	21.4	23.1	24.5	23.3	9-2009; 7-2010	100-750	.99	27
NORTH CHANNEL								
EASTERN SECTION	18.4	19.8	21.6	B11.2	6-2004; 8-2010	400	1.66	27
WESTERN SECTION	16.0	20.7	20.6	19.1	6-2004; 8-2010	400	.59	21
21ST AVE WEST CHANNEL	7.8	14.4	20.1	19.4	6-1998	200	.33	20
SOUTH CHANNEL								
EASTERN SECTION	20.1	22.5	23.1	24.8	8-2010	400-800	.74	27
WESTERN SECTION	21.9	22.7	22.4	22.1	8-2010	400	.83	23
CROSS CHANNEL	22.3	27.9	27.8	18.8	8-2010	1300	.33	27
UPPER CHANNEL	18.9	23.7	20.0	19.9	8-2010	500	1.00	23
MINNESOTA CHANNEL								
EASTERN SECTION	C16.0	21.8	23.1	D19.3	8-2010	600	.95	23
WESTERN SECTION	E13.4	14.6	10.6	F10.3	8-2009; 8-2010	200	2.39	20

A. CHANNEL DIVIDED INTO QUARTERS WHEN ENTERING FROM LAKE.
B. SHOALING TO UNKNOWN DEPTH BEHIND THE 12 FT CURVE FROM 46°45'02.5"N - 92°06'08.8"W TO 46°45'07.2"N - 92°06'18.6"W
C. SHOALING TO 6.4 FT IN THE OUTSIDE HALF OF THE QUARTER FROM 46°43'13.2"N - 92°08'34.4"W TO 46°43'12.2"N 92°08'38.1"W
D. SHOALING TO 12.8 FT IN THE OUTSIDE HALF OF THE QUARTER FOR THE NORTHERN 600 FT OF THE REACH.
E. SHOALING TO 5.3 FT IN THE OUTSIDE HALF OF THE QUARTER
F. SHOALING TO 5.7 FT IN THE OUTSIDE HALF OF THE QUARTER.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
11	2	8,23,33,47/09
12	1	23,29,33,34,45,47/09
13	1	23,29,33,34,45,47/09
20	3	4/09;7,36/10
21	4	18,46,48/09;7,16,36/10
22	1	4,46,48/09;7,16,36/10
50	6	6,22,23,26,28,29,34,35, 36,37,39,40,41/09;4,5,7, 11,12,22,26,40,45/10
51	1	6,13,22,28,34,35,39,40, 41/09;21,22,31,36/10
52	1	37,38,47/09;7,18/10
53	2	4,22,32,34,35,38,39,40, 41,47,50/09;7,18/10
62	3	41/09;23,26,36,49/10
70	4	18/09;4,7/10
71	4	24,46/09
72	4	23,24/09;7/10
73	4	18,24,46/09;4,7/10
105	4	46/09
107	3	47,49/09;29/10
108	9	8,23,24,26,30,33,34,38, 46,47/09;3,52/10
109	5	8,30/09
111	3	45/09
120	6	8,23,29,33,34,45,46,47, 49/09;3/10
124	10	23,29,33,34,45,46,47, 49/09;3/10
145	16	8,23,29,34,41,45,46, 49/09;3,4,5,7,12,13,21, 26/10
200	3	4,48/09;7,36,45,46/10; 1/11
201	2	4/09;32/10
202	2	32/10
203	2	6/09;36/10
204	4	16,36/10
211	5	4,46,48/09;7,36,45,46/10
301	1	4,16,37,39/09
302	1	4,30,39/09
310	20	4,37,39/09
400	3	4,23,24,26,28,29,33,34, 45,46,47,49,51/09;3,6, 42/10
401	5	16,24,28,33,34,47/09;6, 42,52/10
402	4	4,16,23,29,47,49,51/09;3, 52/10
411	52	3,4,5,8,10,14,16,24,25, 28,32,33,34,41,45,52/09; 6,11,29,41,42,43,46,49, 51,52/10
500	8	26,32,36,37/09;3,28/10
501	13	35*,36,47/09;5,10,11,12, 14,21,26,36,39,40,47/10
502	2	13,26,27,43/09;4,10,21, 34,36,47/10
503	4	41,43/09;10,13,21,29/10
504	4	6,16,22,27,28,29,34,35, 38,39,40/09;22/10
505	2	14,21/09
506	2	37,47/09;18/10
507	2	37,47/09;7,18,38/10
508	2	38/09;7,38,40/10
509	4	23,29,38/09;18,19/10
510	3	23,29,37,38,47/09
511	4	23,24/09;18/10
513	7	4,41,50/09;7,45/10
514	7	22/10
520	127	6,13,22,23,26,27,28,32, 34,35,36,37,39,40/09;3,4, 5,11,12,22,24,26,40/10
521	11	4,22,27,34,35,38,39,40, 41,50/09;7/10
522	87	24,29,37,38,47/09;18,34, 38,40/10
523	8	4,6,22,24,27,28,29,32,34, 35,37,38,39,40,41,47, 50/09;7,18/10
524	12	29,37,38,47/09;7,18,34, 38,40/10
525	3	37,38,47/09;18/10
526	10	6,20,22,28,29,33,34,35, 37,38,39,40,47/09;7,18, 22/10
530	33	52/10*
531	24	4,5,8,23,24,26,32,36,37, 43,47/09;2,3,5,6,9,15, 28/10
532	17	32,41,50/09;7/10
540	19	6,16,22,27,28,29,30,34, 35,39,40,41,42,45,46, 52/09;1,6,12,22,23/10
541	2	6,20,28,29,35,45/09;18, 22/10
550	7	28/09;34,37,38,40/10
600	5	13/09;7/10
601	4	13/09;4,7/10
602	6	8,18,28,29,33/09;7,43/10
603	6	7/10
604	5	8/09;7/10
605	4	8,15,20,35/09;7/10
606	1	20,35,48/09;7/10
607	1	14,48/09;7/10
608	2	8,10,15,48/09;6,26,30, 34/10
609	2	7,48/09;36,49/10
622	9	8,13,17,20,28,29,33, 35/09;7/10
623	9	29,33/09;7/10
624	3	7/10
625	4	48/09;49/10
632	8	7/10
700	4	18/09;7/10
702	5	47/09;4,7/10
703	4	24/09
704	1	38/09
705	3	24,38,47/09;1/10
706	4	24,46/09;1/10
707	2	24,46/09;4,7/10
708	3	18/09;7,33/10
709	2	33,39/10
800	4	17,31,41/09
803	1	17,26,31,32,36,37,41, 45/09;7,24/10
805		N17/09
1113A		10*,13,14/10
1114A		7,8,22,24,30,41,45/09;8, 10,11,32/10
1115A		48*,49/10
1116A		40*,41,42,43,45,48,49, 50,51/09;1,2,4,6,9,11,14, 16,17,19,26,27,28,29,30, 31,34,36,37,38,40,41,42, 46,47,48,49,51,52/10; 1/11
1117A		2,4,5,6,8,14,15,16,23,25, 32,38,41,43/09;4,6,9,14, 16,28,29,37,38,46,47/10
11004	8	4,8,9,10,15,16,17,22,23, 24,25,27,28,29,30,31,32, 33,34,35,36,41,42,43, 51/09;1,4,6,9,11,14,16, 37,40,42,46,47,48,49/10
11006	33	17*,24,25,26,28,31,32, 34,35,38,40,41,43,45,49, 52/09;7,9,16,19,27,28,29, 30,32,40,41,42,49/10
11009	38	3,10,22,24,26,33,38,45, 46,47,52/09;14,31,41,45, 46/10
11013	47	8,16,22,24,27,28,31,32, 40,45,51,52/09;14,37/10
11299	1	N23,N38,N45/09;N15, N16,N36,N48/10
11300	42	2,4,5,6,8,14,15,16,23,25, 32,38,41,43/09;4,6,9,14, 16,28,29,37,38,46,47/10
11301	25	4,15,17,22,23,35,38/09;9, 15,16,19,33,36/10
11302	32	15,22,23,35,38/09;9,15, 16,33,36/10
11304	13	19/10
11305	2	N4,N23,N32,N38,N42, N45/09;N1,N2,N15,N36, N47,N48/10
11306	21	19/10
11307	38	3*,9,28,47/10
11308	24	4,32,42,43/09;1,2,33,36, 46,47/10;1/11
11309	40	27*,33,36,46,47,48/10; 1/11
11310	2	N23,N38,N45/09;N11, N15,N16,N36,N48/10; N1/11
11311	24	23,38,45/09;15,34,36,46, 48/10
11312	5	34*,38,42,45/09;1,2,15, 16,36,47,48/10
11313	24	48/10*
11314	25	3/09*
11315	33	52/10*
11316	41	9,23,38,42,45/09;9,11,14, 15,16,24,26,29,36/10
11317	32	19*,38,45/09;14,15,16, 24,29,36/10
11318	2	N4,N23,N32,N38,N42, N43,N45/09;N1,N2,N15, N36,N46,N47,N48/10; N1/11
11319	33	9/09;14,29/10
11320	1	N38/09
11321	30	16,27/09;9,26,32,37/10
11322	32	3*,6,23,25,38/09;15,17, 24,26,29,36,48/10
11323	63	3*,6,12,14,15,25,31,36, 40,48/10
11324	36	11*,23,24,25,27,29,34, 38,41,45,49/09;2,14,15, 16,19,25,28,29,31,36,40, 46,48/10
11325	39	6,23,25,38,45/09;6,15,16, 25,36,48/10
11326	36	2,4,5,6,9,10,11,23,24,25, 27,29,34,38,41,45,49/09; 2,14,16,25,28,29,31,38, 40,46,48,50/10
11327	34	14*,23,38,45/09;15,16, 19,25,36,48,50/10
11328	25	23,38,45/09;15,16,19,25, 36,38,48/10
11329	38	6,23,38,45/09;15,16,27, 36,38,48/10
11330	20	3*,6,9,11,14,16,17,28,29, 30,31,37,38,46,47,48,49, 51/10
11331	21	11*,22,27,30,41,49/09;6, 14,34,40/10
11332	31	27*,31,36,38,41,48/10
11333	1	N38/09
11339	3	17*,28,33,40,46/10;1/11
11340	74	40*,41,42,43,45,48,49, 50,51/09;1,2,4,6,9,11,14, 16,17,19,26,27,28,29,30, 31,34,36,37,38,40,41,42, 46,47,48,49,51,52/10; 1/11
11341	42	2,5,11,15,23,27,33,35,38, 42,49,50/09;11,14,15,24, 31,33,36,38,41,47,48/10
11342	53	4,6,11,14,22,23,25,27,30, 38,41,45,49/09;5,6,11,14, 15,16,19,24,36,37,48/10
11343	38	8,22,23,25,27,30,38,41, 45,49/09;14,15,16,19,24, 34,36,48/10
11344	38	5,7,22,31,33,34,35,41,49, 50/09;2,9,17,19,28,33,34, 37,46/10;1/11
11345	34	31,35,50/09;19,25,46/10
11346	2	34*,40,41,43,48,49/09;2, 4,11,12,22,28,30,31,33, 36,37,38,46,47,49,50/10
11347	38	7,22,31,33,36,38,43,50, 51/09;2,9,28,33,40, 46/10;1/11
11348	22	31,51/09;9,28,33,40/10
11349	43	9,24,31,35,42,45,50/09; 14,16,19,25,30,40,46, 47/10
11350	27	35,45/09;19,30/10
11351	42	12*,19,29,48,49,51/10
11352	41	10*,11,22,30,31,46,47, 49/10
11353	5	3,9,13,14,15,16,22,24,28, 31,32,33,35,49/09;1,3,4, 6,7,11,14,16,22,25,28,34, 40,41/10
11356	38	2,7,8,10,15,25,42,49/09; 9,11,17,19,27,34,37,40, 42,46,51/10
11357	40	31*,35,36,41,43,48, 49/09;3,4,11,12,28,30,37, 38,40,42,46,47,49/10
11358	56	41*,50/10;1/11
11359	14	9*,22,40,49/10
11360	44	48*,49/10
11361	75	40*,41,50/09;2,14,16,22, 28,30,40,41,49/10
11362	5	N4,N5,N10,N12,N13, N15,N16,N25,N31,N32, N33,N34,N35,N38,N40, N41,N42,N43,N45,N49, N50/09;N2,N5,N7,N9, N11,N14,N16,N19,N23, N27,N28,N29,N30,N31, N32,N36,N41,N49/10
11363	42	42/09*;1,2,3,4,6,11,14, 16,22,25,28,34,40,41/10
11364	43	42*,50/09;3,17,30,34,42, 48,49/10
11365	22	9*,11,28,30,31,36,46,47, 49/10
11366	13	18*,19,22,23,26,29,30, 31,34,36,38,40,41,46, 49/10
11367	36	24*,37,40,46/10
11368	24	12,13,30,31,43/09;3,37, 40,46/10
11369	47	46/09*;3/10
11370	27	3*,4,8,14,21,34,41,45,48, 49/09;5,9,12,14,16,17,19, 22,27,32,33,41,46/10
11371	39	27*,37/10
11372	34	12*,16,17,49/10
11373	49	48*,49/10;1/11
11374	35	44*,48,50/09;2,6,9,15,16, 22,26,33,40,46/10;1/11
11375	37	31*,33,40,46/10;1/11
11376	54	4*,5,9,11,13,14,17,19,28, 33,34,36,37,41,46,50/10; 1/11
11377	9	31*,37,41,46,50/10
11378	37	31*,37,41,47,52/10
11380	2	23*,37,41,46,50/10
11382	41	31*,32,52/10
11383	51	8,22,23,25,30,38,40,43, 45,48/09;2,12,13,16,17, 20,22,24,47,52/10
11384	35	23,38,40,43,45,48/09;2, 12,13,16,20,24,52/10
11388	17	10,31/09;27,28/10
11389	33	9,21,25,28,38,42,43, 45/09;2,13,19,24,26,32, 34/10;1/11
11390	24	9,21,28,30,35,45,50/09;2, 24,32,34/10
11391	24	9,21,28,30,35,43,45, 50/09;2,24,32,34/10
11392	7	9,45,50/09
11393	21	45/09;13,19,26/10;1/11
11400	36	7,8,22,24,30,41,45/09;8, 10,11,32/10
11401	30	22,45,48/09;32/10
11402	21	48/09;32/10
11404	23	22,43,48/09
11405	29	10/10
11409	29	37/10
11411	17	5,8,10,33,46,51/10
11412	44	9,14,16,30,39,41/09;5,6, 8,10,21,46,51/10;1/11
11415	8	14,24,30,41/09;5,6,21,33, 46,51/10;1/11
11416	10	3,8,14,16,34,39,41,46/09; 3,6,13,33,46/10;1/11
11420	29	10*,13,14/10
11423	8	N7,N16,N24,N29,N31, N33,N40,N46,N51, N52/09;N2,N5,N13, N14/10
11424	19	7,16,25,26,29,33,36, 46/09
11425	38	40/10*
11426	38	17/09*;2,5,13,14/10
11427	34	37,41/09;5/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
11429	23	48/10*
11430	27	17*,30/09
11431	13	21/10
11434	28	31,40,52/09
11435	14	N31,N40,N52/09
11439	26	31,45,52/09;20,32/10
11441	41	15,40/09;8,20,32,41, 45/10
11442	35	40/09;32,41,45/10
11446	32	15/09;41,45/10
11447	37	7/09*;8/10
11450	10	14/10
11451	34	52/09*;13,14,23,27, 36/10
11460	42	47/09*;2,14/10
11461	5	23,37,40,51/09
11462	25	18/10*
11464	17	14/10
11465	38	11,15,27,30,32,39/09;13, 23,25,36/10
11466	38	5,11,27,30,31,32,34,39, 40,49/09;2,5,13,25/10
11467	42	52/10*
11468	42	15*,23,25,27,36/10
11469	8	12,27,30,31,39/09
11470	38	27,32/09;2,3,4,6,11/10
11471	1	N27/09
11472	34	37*,41,46,49/09;5,7,8,25, 41/10
11473	1	N27,N30,N31/09;N36/10
11474	10	8,29/09;7,14/10
11475	19	31*,46,49/09;7,8/10
11476	22	15/10*
11477	6	N18,N25,N27,N28,N32, N45,N48/09;N6,N7,N20, 32,N34/10
11478	22	35*,45/10
11479	5	N8,N18,N22,N24,N25, N27,N28,N30,N31, N45/09;N2,N14/10
11480	40	15,24,25,30,32,34,45/09; 5,7,40,46/10
11481	7	46*,48/09;6,7,20,21,32, 34,45/10
11482	1	N27/09;N3,N4,N6, N11/10
11484	23	15,25,27,28,32/09;6/10
11485	36	37/10*
11486	15	32/09
11488	26	34/09;5,32/10
11489	38	11*,16,23,35,48/09;7,13, 14,36,42/10
11490	19	23,34,46/09;16,23,32,36, 37,46/10
11491	37	26*,36,37,46/10
11493	10	N48/09*;N8,N16,N32, N45/10
11494	9	N5*,N7,N16,N32, N45/10
11496	10	N3,N15,N24,N25,N30, N33,N34,N45/09;N5,N7, N16,N40,N46/10
11502	31	11,16,30/09;5,14,20/10
11503	42	7,11,15,16,48/09;7,16,32, 45/10
11504	17	35/09;14,20/10
11505	4	48/10*
11506	44	22*,39,46/09;1,13,14,16, 20,21,25,34,35,40,42,43, 50/10
11507	33	16,37/09
11509	31	5,16,35,37/09;32/10
11510	20	16/09
11511	17	5,35,37/09
11512	62	15*,23,25,32,37/10
11513	25	8/09;7,22,48/10
11514	30	3,9,18,30,41,43,46/09;1, 8,13,23,25,32,37/10
11516	31	23/09;22,34,48/10
11517	18	8/09
11518	37	12*,34,35,45/10
11520	44	48/10*
11521	29	15,23,28,41,43/09;5,14, 20,21,34,37,45,48/10; 1/11
11522	21	23/10*
11523	25	52/10*
11524	52	12*,14,16,20,23,27,34, 35,37,45,48,50/10;1/11
11525	7	N3,N5,N10,N21,N24, N25,N33,N42,N46/09; N16,N40,N45,N46/10
11527	17	39/09;7,23,27,33,37/10
11531	22	16/10
11532	21	13,15,18,36/09;7,8,14,16, 17,27,37/10
11534	36	42*,47/09;7,8,14,27,37, 41,45/10
11535	12	27/09;16/10
11536	19	44/10*
11537	38	9*,17,20,21,26,27,39,40, 47/09;7,14,22,32,47/10
11539	19	44/10*
11541	39	19*,31,45,49/10
11542	17	12,21/09
11543	23	12,21,25/09;31,46/10
11544	39	31,46/10
11545	63	3,8,10,11,14,25,26,30,36, 43/09;7,14,31,32,47, 49/10
11547	37	3,8,10,14,25,26,36,43/09; 7,14,31,32,47,49/10
11548	40	5,24,47/09
11550	29	5,24/09
11552	20	3,6/09
11553	29	47/09
11555	40	5,25,42/09
12200	49	5,6,7,8,18,31,37,42,48, 49/09;1,2,31,44,45/10
12201	26	N5,N6,N7,N8,N9,N10, N13,N18,N31,N36,N37, N42,N48,N49/09;N1,N2, N31,N44,N45/10
12204	37	2,9,31/09;45/10
12205	32	9*,12,19,27,45/10
12206	33	26,31,42/09
12207	22	1*,48/10
12208	14	44*,49,51/09;12,19, 40/10
12210	38	13,21,26,37,39,42,48/09; 2,31/10
12211	43	5,7,8,9,10,13,15,17,21, 26,27,36,39,42,48/09;2, 31,44,48/10
12214	48	17,37,39,48,49/09;15, 41/10
12216	28	8,39/09;15,41/10
12221	80	9*,22,24,29,32,36,37,38, 39,49,51/09;12,19,27,30, 33,40,48/10;1/11
12222	52	44*,51/09;12,19,27,29, 33,35,44,48/10
12224	24	3,8,22,24,37,40/09; 48/10;1/11
12225	59	9*,11,19,20,36,38,41,44, 46,49,50/10
12226	18	39*,42,50/09;7,11,19,41, 46,49/10
12228	32	7,27,40,42,44,50,52/09;2, 4,7,11,14,20,36,38,41,44, 50/10
12230	64	17*,27,41,44,49,50, 52/09;2,11,29,33,36,38, 44,48,50/10
12231	28	44/09*;29,38,44,48, 50/10
12233	37	7,8,11,18,41,50/09;2,11, 33,36,38,44,50/10
12235	32	5,9,20,25,36,37,38,42,44, 49,50/09;2,4,7,14,20,38, 41/10
12237	27	2,5,47/09
12238	40	31*,37/09;12,30/10;1/11
12241	22	20,38/09;30,46/10;1/11
12243	14	3*,31,46/10
12244	13	20,43/09
12245	67	8,12,24,25,32,39/09;29, 35,44/10
12248	42	6,7,9,47/09;14,17,37, 38/10
12251	23	6,18,32,47/09;10,14,19, 47/10
12252	24	2,14,35,52/09;19,52/10
12253	46	5,8,9,11,12,13,24,26,31, 42/09;27,29,35/10
12254	48	17*,29,32/09;19,27, 33/10
12255	17	29/09;33/10
12256	16	14*,29,32/09;19,33/10
12261	29	20/09
12263	55	2,4,7,8,12,32/09;1,4,6,14, 30,38/10
12264	30	13,15,20/09;4,19,29,38, 48/10
12266	30	10*,30/10
12268	11	34/10*
12270	34	2,4,7,12,13,25/09;1,14, 38/10
12272	31	36,51/09;23/10
12273	57	5,18,26,35,41,51/09;15, 23,32,45,47,52/10
12274	35	5,26,41/09;23,47/10
12277	35	40/10*
12278	76	5,9,18,26,35,51/09;15,23, 32,38,45,52/10
12280	9	31*,32,36,37,39,41,42, 44,49,50,51,52/09;1,2,4, 6,7,11,12,14,19,23,29,36, 38,40,41,44,46,48,50/10
12281	52	3,9,26,35,38,51/09;3,4, 27,33,38,40,41,43/10; 1/11
12282	35	2,7,12,13,18,25,35,51/09; 1,38/10
12283	26	2,7,12,13,25/09;1/10
12284	16	35/09*
12285	40	24*,33,36,43,44,50/10
12286	30	11,24/09;43/10
12287	18	46/09*;43/10
12288	20	11,15,41/09;2,15,43/10
12289	50	52/10*
12300	48	31*,42,47,49,51/10
12301	22	N5,N6,N8,N11,N13, N14,N18,N19,N21,N24, N25,N26,N29,N30,N32, N37,N39,N45/09;N1,N4, N19,N39,N42,N47,N49, N51/10
12304	45	39/09;47/10
12311	45	7*,9,15,18,29,32,36, 47/09;3,11,14,29,31, 32/10
12312	55	39*,48,51/09;1,11,26, 38/10
12313	52	7*,14,24,35,48,51/09;26, 38/10
12314	32	8,35,37/09;7,10,11,19,36, 43/10
12316	34	24,25/09;21/10
12317	32	24/09
12318	45	23/10*
12323	25	3*,8,25,37,48/09;21/10
12324	34	44/09*;3,4,5,19,43,49, 52/10;1/11
12325	4	43/10
12326	51	23*,45/09;22,30,42/10
12327	103	9*,12,13,19,20,21,22,23, 29,39,40,43,44,45,46,47, 49,50,52/10;1/11
12331	32	12*,20,49/10
12332	22	10,19,20/09;5,11,49/10
12333	36	4*,19,39,42,46,47,50/10
12334	70	35*,39,44,52/09;5,12,13, 23,39,44,45,46,47,50/10
12335	44	19*,29,40,50/10
12337	23	8,30,38,43,44/09;11,12, 39,42/10
12339	46	35/09;5,52/10
12341	27	35/09*;29,39/10
12342	23	6/09
12343	19	6,22,31/09;6,30,36,39,41, 51/10
12345	10	6/09;41/10
12346	11	6/09;30,32,36,39,51/10
12347	31	35*,39/10
12348	34	32/10*
12350	59	40,41/09;42/10
12352	32	30/10
12354	43	43*,51/10
12358	20	9,10,18,21,22/09;10,18, 23/10
12362	17	38/10*
12363	41	15*,27,43,46,47/10
12364	38	14,15,29,36,49/09;5,27, 33,46,47/10
12365	26	11/09;33,47/10
12366	29	29/09;33,46/10
12367	24	11,14,15,49/09
12368	27	11,36/09;27,47/10
12369	26	5/10
12371	24	11,13/09;5,43/10
12372	34	2,9,11,14,15,19,21,38, 44/09;5,10,22,32,42,43, 51/10
12375	22	48/10*
12401	10	1*,3,4,5,22,43,52/10; 1/11
12402	11	31*,49/09;22/10
13000	1	N6,N8,NP15,N23,N26, N27,N32,N33/09;N46, N51/10
13003	50	28*,30,43,44,45,46,48, 49,51,52/10
13006	35	23*,27,29,30,33,39,40, 45/09;1,4,13,19,30,31,39, 43,46,47,48,49,51/10
13009	35	44*,46,47,48,49,51/10
13200	37	23*,29,33,40/09;13,31, 42,49,51/10
13201	11	N2,N5,N6,N9,N12, NP15,N19,N23,N26, N29,N32,N33,N40/09; N10,N13,N42,N49, N51/10
13203	13	23/09*
13204	12	6/09
13205	38	5,10,14,21,30,38,39,42, 44,46/09;4,6,10,12,18,22, 23,32,39,40,42,44,47/10
13209	25	9,10,14,21,22/09;10,12, 18/10
13211	15	51/10
13212	39	32*,42/10
13213	41	2,9,15,19,38,44/09;10,22, 32,42/10
13214	28	22,32/10
13215	19	9*,23,39,40,44,47/10
13216	1	N22/10
13217	15	42,46,47/09;23,40/10
13218	41	47/09*;1,4,6,19,20,21,23, 39,40,44,47,49,51,52/10
13219	12	6,40,44/10
13221	58	28*,29,39,50,52/10
13223	41	35*,43/09;29,50/10
13224	39	39/09*;7,29,41/10
13225	34	4/10*
13226	6	19,30/09;5,29,39,50/10
13227	14	5,39,50/10
13228	12	3/10*
13229	31	48/10*
13230	50	40/10*
13232	5	1*,21,41,45/10
13233	18	13,14,20,50/09;3,39,40, 42/10
13235	6	20,50/09;3,12,13,37/10
13236	30	6,41,46/09;39,51/10
13237	40	11,14,15,19,20/09;5,20, 40,42,45/10
13238	16	14,20/09;40,42/10
13241	16	15/09;20/10
13246	39	48*,51/10
13249	13	2,41/09;12,19/10
13250	8	2,41/09;39/10
13251	15	41/09
13253	20	35/10*
13260	40	8,9,12,26,27,30,32,33,40, 41/09;13,30,43,46,47, 48/10
13263	8	N8,N9,N12,N26,N27, N30,N32,N33,N40, N41/09;N13,N30,N43, N46,N47,N48/10
13267	34	9,12,19,33,35,40,41/09;2, 12,13,27,33/10
13269	10	9/09;2/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
13270	63	9,23,30,35,43/09;2,18,32,33,39/10
13272	50	5,6,8,23,30,33,35,37,38/09;5,32,39/10
13274	27	9,19,25,30,33,35,47/09;2,11,27,33,40,41/10
13275	31	9,20,33,35/09;2,11,27,33,40/10
13276	23	52/10*
13278	27	47*,52/09;41/10
13279	33	39/09*
13281	19	48/10*
13282	12	46/09*
13283	20	11,33,47,52/09;20,41/10
13285	11	12,47/09;19,20/10
13286	30	15,41,47,52/09;18,47/10
13287	12	15/09
13288	43	35*,52/10
13290	39	35/10*
13292	40	35/10*
13293	35	52/10*
13295	11	11,36/09
13296	25	30,36,42/09;19,39/10
13298	10	19/10
13301	20	23/09;52/10
13302	22	5,41,45/09;24,40,52/10
13303	12	41/09;52/10
13305	28	20/09;24,40/10
13307	10	20/09;24,40/10
13309	29	44/10*
13312	22	22,48/10
13313	20	21/09;22/10
13316	22	21/09;48/10
13318	18	21,45/09;22/10
13321	9	45/09;22/10
13325	15	46/10
13392	2	11/09;46/10
13394	3	22/10
13396	5	28/10*
13398	3	11,43/09;22/10
14000		N20/09
14001		N2,N8,N18,N20/09
14003	6	5,6,7,8,P15,23,26,27,29,33/09;43,46/10
14004		N18,N20,N22/09
14006		N12/10**
14007		N11,N18,N20/09
14011		N22/09
14012		N18,N20/09
14013		N2/09
14016		N8,N18/09
14019		N2,N8,N18,N20/09;N46/10
14021	1	N8/09
14024	5	18,19/09
14028		N4,N8,N20/09
14030		N8,N20/09
14031		N20/09
14034		N27/09**
14038		N27/09**
14047	1	N13/09*
14055	2	N27/09**
14056	1	N27/09**
14057	2	N27/09**
14058		N2/09
14061	27	11/09
14063	1	N27/09**
14069	1	N27/09**
14071	1	N27/09**
14074	1	N27/09**
14081	21	27/09**
14082	1	N27/09**
14092	1	N27/09**
14094	1	N27/09**
14095	1	N27/09**
14096	1	N6/09*
14130	2	27/09**
14135	2	6/09**
14164		N28/09**
14167	1	N20/09
14168	1	N23/09*
14169	2	28/09**
14174		N2,N11,N18,N19/09
14175		N28/09**
14176		N28/09**
14177		N28/09**
14178		N28/09**
14184		N11,N19/09
14190	2	6/09**
14191		N28/09**
14214	1	N30/09*
14217		N30/09
14224		N28/09**
14229		N28/09**
14247		N28/09**
14248		N28/09**
14249		N18/09
14250		N28/09**
14251		N28/09**
14254	1	N6,N22/09
14320	1	N29/09**
14321	19	8/09**
14322	4	6/09**
14323	1	N29/09**
14324	1	N11/10*
14325	13	29/09**
14327	8	29/09**
14328	6	29/09**
14329	5	29/09**
14334	1	N9*,N22/09
14336	1	N11/10*
14337	1	N29/09**
14339	1	N10/09*
14340	25	9/09**
14341	5	29/09**
14342	20	11/10**
14343	1	N12/10*
14344	2	24/09**
14345	5	29/09**
14348	1	N12/10*
14349	7	10/09**
14350	12	12/10**
14351	11	12/10**
14353	3	29/09**
14354	2	29/09**
14355	3	29/09**
14357	1	N29/09**
14358		N29/09**
14359	1	N25/09*
14360	36	12/10**
14362	1	N12/10*
14364	6	25/09**
14366	1	25/09**
14369	1	N29/09**
14372	2	29/09**
14373	2	12/10**
14377	1	N12/10*
14380	19	19/09
14382	4	29/09**
14383	3	29/09**
14385	4	29/09**
14386	3	29/09**
14402	2	30/09**
14403	5	30/09**
14404	4	30/09**
14415	4	12/10**
14427		N10/09**
14756		N30/09
14760		N30/09
14775	1	N14/09*
14776	1	N6/09*
14786	14	7*,30/09;45/10
14800	10	24/09;45/10
14803	27	45/10
14804	24	24/09
14805	24	40/09
14809	1	N6/09*
14812	3	6/09**
14813	21	45/10
14815	23	24/09
14820	21	8,16,22/09;3,10/10
14824	26	48/09
14825	25	16,22/09
14826	28	48/10*
14828	6	22/09
14829	6	8,16,22,24/09;3,10/10
14830	32	10,16,24,26,40/09;8,10,11,33,35,37/10
14832	34	4,42,48/09;32/10
14833	26	4,42,48/09;32/10
14835	32	6/09;32/10
14836	27	48/09;15,37/10
14837	28	40/09
14839	37	1*,8,10/10
14841	29	7/09;8/10
14842	15	16,24,34,49/09;10,37/10
14843	23	2/09
14844	32	8,24,34,36/09
14845	27	10,36,49/09
14846	13	10,11,16,24,26,31,40/09;10,11,33,35,37/10
14847	31	11,31/09;10,35/10
14848	58	9,11,25,29,32/09;10,33,37,39/10
14850	53	4,8,14,16,17,29,32,36/09;12,32/10
14852	46	4,14,16,17,29,36,37/09;5,12,32,47/10
14853	17	4,8,9,11,12,16,17,24,25,29,32,36,37/09;5,10,12,32,33,38,47/10;1/11
14854	14	9,11,32/09;33,38/10;1/11
14860	36	30,40/09;8,32,49/10
14862	28	29,49/09;38/10
14863	31	24/09;8/10
14864	26	32/09;32,35/10
14865	16	17,29,37,49/09
14867	26	11,24,29,30,41/09;10,32/10
14868	1	N10/09*
14869	26	32,36/10
14870	1	N30/09*
14871	2	41/09**
14874	2	30/09**
14875	2	30/09**
14876	1	N30/09**
14877	1	N8/09*
14878	1	N35/09*
14880	32	24,30,40/09;8,38,45,49/10
14881	33	27*,30,40/09;8,45/10
14882	35	45/10
14883	43	2,40,43/09
14884	39	6/09;10,51/10
14885	21	8/10
14901	15	4,6,12,13,14,16,17,24,25,27,30,32,36/09;14,32,36,37,45/10
14902	29	4,6,14,24,25,30,32,36/09;32,36,38/10
14903	24	16/09;37/10
14904	26	2,6,12,16,32/09;10,16,36,39/10
14905	31	3,6,13,17,22,24,27,31,32/09;14,37,39,42,45,50/10
14906	24	9,16,32/09;3/10
14907	27	17/09*;32/10;1/11
14908	18	4,25/09;32,45/10
14909	20	24,32,36,44/09;32,42/10
14911	21	19,32,36/10
14912	17	14,24/09
14913	19	24/09;49/10
14915	25	25/09;32,42,45/10
14916	10	12,32/10
14917	24	2/09;19,42/10
14918	27	48/09;12,32/10
14919	28	37/09;14,32,42/10
14922	20	3*,8,16/09;17,35,37,39/10
14924	28	16,24,48/09;38,42/10
14926	11	3,13,17,24,27,32/09;35,39,42,45/10
14927	25	3,13,17,24,27/09;10,35/10
14928	22	3,24,27/09;35,39/10
14929	24	13,17,27/09;35,42,45/10
14930	25	31,35/09;14,37,45/10
14932	23	9,10,29,42/09;3,35,37/10
14933	24	4,24,32,44/09;32/10
14934	29	16,27,34,49/09;37,51/10
14935	21	10/09
14937	24	16,37/09;42,45/10
14938	24	3,7,13,36/09;36/10
14942	26	3/10
14961	12	8,9,29,31,32,36,40,42,43/09;10,42/10
14962	20	4,10,29/09;10/10
14963	20	4,40,43/09;47/10
14964	21	32,40,42,43/09;42/10
14965	21	9,12,13,31,35/09;37,42/10
14966	27	15,29,31,36/09
14967	23	9,13/09;32/10
14968	28	12,40/09
14969	22	47/10
14970	26	7,29/09;32,38/10
14972	26	33,43/09;17,39/10
14973	27	12,15,31,36/09;1/10
14974	24	2,29/09;1,39/10
14975	35	9,10,25/09;32,45,48/10;1/11
14976	18	40/09
15000	1	N23/09*
15001	1	N12/10*
15004	1	N12/10*
15005	1	N12/10*
15007	1	N19/09
15008	3	12/10**
15010	1	N31/09**
15016	1	N31/09**
15018	3	12/10**
15019	1	N31/09**
15020	5	12/10**
15021	1	N31/09**
15022	1	N31/09**
15024	1	N6/09*
15025	1	N31/09**
15031	1	N12/10*
15034	1	N31/09**
15035	1	N6*,N32/09
15036	1	N31/09**
15037	1	N31/09**
15043	3	31/09**
15046	4	31/09**
15064	1	31/09**
15067	2	13/09**
15068	2	6/09**
15069	4	24/09**
15070	3	6/09**
15074	1	31/09**
15081	4	31/09**
15083	6	31/09**
15140	7	12/10**
15300	1	N48/09*
15312	1	6/09**
15444		N32/09**
15445		N32/09**
15446	1	N32/09**
15449	1	N32/09**
15450		N32/09**
15484	1	N44/09*
15505		N32/09**
15520	1	N44/09*
15540		N39/09
15543	1	N35/09*
15561	1	N45/09
15568	1	N46/09*
15569	1	N23/09*
15570	1	N46/09*
15644	1	N32/09**
15661		N32/09**
15670		N11/10**
15672	1	N44/09*
15724	1	N27/09*
15750	1	N25/09*
15770	1	N25/09*
15785	1	N44/09*
15800	1	N7/09*
15822	1	N44/09*
15863		N3/10
15881		N25/09
15883		N32/09**
15884		N32/09**
15885	1	N32/09**
15900	1	N24/09*
15925		N32/09**
15926		N35,N38/09
15932		N32/09**
15937		N32/09**
15940		N38/09
15945		N35,N38/09
15948	1	N44/09*
15952		N46/09
15953		N52/10
15956	1	N7/09*
16003	17	27,28,31,41/09;22/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
16004	12	19/10
16005	10	27,28,31,41/09;22/10
16006	35	34,41,52/09;7,22/10
16011	37	34,41,43,52/09;3,7/10
16012	22	4,41/09;1,3,45/10
16013	30	3,4,27,36,37,41/09;3, 46/10;1/11
16016	21	26,27,36,42/09;4,28/10
16041	8	38/09
16082	7	19/10
16123	6	4/09;40/10
16124	6	4/09;40/10
16200	14	41/09;22/10
16204	6	22/10
16220	5	41/09
16322	8	45/10
16323	9	41/09
16363	12	29,34/10
16420	10	45/10
16421	10	45/10
16423	2	45/10
16431	7	45/10
16432	11	45/10
16471	12	1*,5/10;1/11
16475	9	5/10;1/11
16476	10	5/10;1/11
16500	10	14/09;7/10
16520	23	29,34,35,39,52/09;45/10
16522	6	52/09
16528	17	26,52/09;40,48/10
16529	16	52/10*
16530	7	28*,48/10
16531	7	43,52/09;40,45/10
16532	6	45/10
16535	12	12,21/09;3/10
16540	13	52/10*
16547	9	41,43/09;28,30,37/10
16549	16	23*,30/10
16551	10	4,12,14,22/10
16553	6	18,44/09;34/10
16556	5	18/09;22,34/10
16561	4	52/10*
16570	11	20/09
16576	4	50/10
16580	14	37/09;3,50/10;1/11
16595	15	25,34/10
16596	12	48/10
16599	7	1/11
16606	11	27/09
16640	24	27,41/09;17,18/10
16645	19	35*,45/10
16646	13	41/09;13,16,30,46/10
16647	3	27,41/09;13,16,17,18, 45/10
16660	30	11,12,30,51,52/09;1,2,22, 23,30,46/10
16662	8	12,30,51,52/09
16663	8	11,12,30,51,52/09;1,2,22, 23,46/10
16665	9	11,30,52/09;1,2,22,23, 46/10
16680	11	27/09
16681	10	27/09
16682	17	27/09
16700	31	11*,23,52/09;3,22,29,30, 34,46/10
16701	22	4,21/09;22/10
16702	14	47/09*;34/10
16704	13	12/09
16706	10	7,34,50/09;1/11
16707	13	17/09*;45/10
16708	27	3*,4,11/09;40,45/10
16709	24	23/09;3,29,34,40,46/10
16713	4	40/10*
16760	10	3/10
16762	9	39/09
17003	4	23,26,47/09;2,4,5,6, 21/10
17005	10	23,25,31,35,40,43,44, 46/09;4,5,6,7,16,20, 31/10
17007	1	N27,N43,N47/09;N7, N15,N16/10
17300	31	18,34,35,42/09;7,13,15, 17,30,34,46,50/10
17302	18	18,21/09;7,15,45,50/10
17303	10	15/10
17311	1	42/09
17312	2	42/09;17/10
17313	9	31/09*
17314	12	42/09
17315	24	4,11,20,27,35,42/09;13, 45,46,50/10
17316	20	11,20,21,27,34,35,42/09; 30,45/10
17317	20	34/09;7,14,22,45/10
17318	7	19/09*;7,30/10
17320	18	8,18,20,28,37,42,52/09; 14,28,34,46/10
17323	12	42/09
17324	15	21,42/09;14,46/10
17325	9	52/09
17326	16	8,18,20,21,22,28/09;25, 30,34/10
17327	23	8,11,21,22/09;25,30/10
17328	7	8/09
17338	14	42/09
17339	12	18,25,42/09;17/10
17360	35	20,37/09;1,5,35,40/10
17372	11	1,3/10
17375	22	9/10*
17376	8	14/10
17378	14	5/10
17382	17	42,52/09;4,25/10
17383	3	42/09
17384	9	42/09;22/10
17385	17	4*,22,34,40/10
17387	13	5/10
17400	17	5,7,8,9,18,20,21,22,26, 29,30,37,42/09;1,2,4,5,7, 12,13,25,34/10
17402	11	37/09;5/10
17403	14	21/09
17404	14	5,9,18,29,30/09;2,25/10
17405	16	5,8,9,18,21,29,46/09;1,2, 3,5,7/10
17406	7	5,7,8,9,18,21,22,46/09;4, 12/10
17407	15	5,8,9,18,20/09
17411	1	N25,N43/09
17420	28	33,42/09;5,13,16,34/10
17421	1	16/10
17422	9	42/09
17424	9	1/10*
17425	6	16/10
17426	15	42/09
17428	10	21,22,43/09;24,46/10
17429	2	N43/09
17430	11	21,22,32,43/09;24/10; 1/11
17432	7	42/09
17433	11	42/09
17434	13	46/10
17436	9	42/09
17438	12	12/10**
17439	1	N12/10*
17440	1	N12/10*
17442	1	N27,N29/09;N13/10
17443	12	48/09;5,16/10
17445	2	12/10**
17446	1	N10/10
17447	1	N10/10
17450	1	N12/10*
17452	1	N34/09**
17454	1	N12*,N16/10
17456	1	N44/09*
17458	1	N13/09*
17460		N24,N27,N43,N44,N47, N51/09;N7/10
17464	4	12/10**
17467	3	22/09**
17468		N2,N16/10
17470		N2/10
17471		N7/10
17472	4	34/09**
17480	4	12/10**
17482	1	N7/09*;N15/10
17483		N5,N9/09;N15/10
17484	3	34/09**
17485	4	44/09**
17486	3	13/09**
17487	3	34/09**
17488	1	N12/10*
17489	19	12/10**
17491	3	34/09**
17493	1	N27/09;N4/10
17494	1	N34/09**
17496	1	N6/09*;N5/10
17498	1	N44/09*
17499	1	N48,N51/09;N25/10
17500	1	N2,N11/10
17501	1	N31/09
17502	1	N34/09**
17506		N51/09
17510	1	N31/10*
17511	1	N24,N34/09;N1,N19/10
17514	1	N25,N26,N37/09;N12, N19,N31/10
17515	7	6/09**
17517	8	44/09**
17520	2	N5/09;N4/10
17521		N31/09
17522	1	N44/09
17524		N27,N34,N35,N40/09; N5,N17/10
17525		N35/09;N4,N17/10
17528		N27/09
17541	3	34/09**
17542	6	25/09**
17545	13	34/09**
17546	22	31/10**
17549	6	34/09**
18000	8	13,26,27/09;4,7,10,11,12, 21,22,36,40,44,47,49/10
18002	7	N13,N26,N27,N30,N34, N37,N41,N46/09;N4,N7, N10,N11,N12,N21,N22, N36,N38,N40,N44,N47, N49/10
18003	20	5,8,21,22,25,30,39,44,46, 47,48/09;3,12,17,20,35, 36,40/10
18005	5	N6,N11,N22,N25,N28, N41,N42/09;N7,N8,N9, N10,N11,N21,N22,N36, N40,N43,N46,N48/10
18006	4	N25,N41/09;N7,N10, N21,N22,N36/10
18007	33	14*,16,21,23,25,34,42, 44,47,49/09;1,3,5,10,12, 17,20,23,24,31,39,40,43, 46,48/10
18008	8	N5,N11,N16,N21,N23, N25,N33,N42,N44,N47, N49/09;N5,N6,N10,N12, N17,N20,N21,N24,N31, N39,N40,N43,N46, N48/10
18009	3	N6,N11,N22,N28, N42/09;N8,N11,N12, N22,N43,N46,N48/10
18010	21	6,9,11,16,22,28,34,42,48, 51/09;8,10,11,12,20,22, 23,39,40,43,46,48/10
18020	38	6,11,26,27,28,34,37,42, 46/09;7,9,10,11,12,20,21, 22,32,36,37,38,40,41,43, 44,46,47,48,49/10
18022	35	6,9,10,11,16,24,25,26,28, 30,34,37,42,46/09;4,7,8, 9,11,12,20,21,22,24,25, 29,32,36,37,38,40,41,43, 44,46,47,48,49/10
18400	48	7*,14,15,19,20,22,23,25, 27,29,34,36,37,40,42,43, 47,48,49/09;7,12,15,29, 30,31,34,40,42,49,51/10
18404	2	N44/10*
18411		N35/09**
18419	11	31/09;3/10
18421	49	15,22,29,33,36,39,43,47, 49,51/09;2,7,20,26,29,30, 31,38,40,42,49/10
18422	1	N35/09**
18423	37	46*,47,48/09;1,2,5,7,14, 15,20,26,29,30,31,36,37, 38,40,41,42,49,51/10
18424	27	22,36,51/09;29,30,31,36, 49/10
18425	1	N35/09**
18426	1	N5,N17/10
18427	23	26,49/10
18428	10	48/10*
18429	10	36,39,42,46/09;14,49/10
18430	9	40/10*
18431	7	47,48/09;40,49/10
18432	6	23,33/09;40,42/10
18433	6	46/09;2/10
18434	7	15,42,47/09;14,15,20,34, 38/10
18435	1	N11/10
18436	1	N33/09;N5,N17/10
18437	1	N33/09
18438	1	N35/09**
18439	1	N35/09**
18440	30	48*,51/10
18441	46	9,11,14,15,16,18,20,22, 26,33,34,41,42,43,47,48, 52/09;5,13,15,19,20,25, 36,37,40,41,44,51/10
18442	1	N48/09;N2/10
18443	17	12*,41,51/10
18444	17	4*,5/10
18445	33	28*,30,33,40,41,42,47, 49,50,51/09;5,13,14,15, 18,20,22,23,24,25,28,29, 32,34,35,37,41,42,44,45, 50/10
18446	17	15,24,29,34,42/09;5,20, 25/10
18447	29	15,24,25,29,36,40/09;5, 41/10
18448	34	8,11,21,24,26,28,40,42, 47/09;13,14,22,23,24,28, 29,35,37,41/10
18449	18	14,16,20,21,27,33,47,50, 51/09;18,23,25,29,35/10
18450	18	14,27,33/09;18/10
18451	1	N19/09
18452	16	20,47/09;35/10
18453	26	35*,42/10
18454	5	N26,N42/09;N13,N14, N24,N28,N41/10
18455	2	N11/09
18456	20	8,21/09;29/10
18458	17	52/10*
18459	5	N9,N11/09;N37,N44/10
18460	13	4,25,26,27,37,46/09;12, 29,31,34,40/10
18461	1	N19/09;N2,N42/10
18462	1	N46/09;N3,N7/10
18464	25	16,26,34,41/09;37,51/10
18465	38	14,19,20,39,42,43,46/09; 7,14,15,38,40/10
18466	1	N16/10
18467	2	N5,N10/10
18468	18	14,15/10
18471	11	16,19,20,26,34,41,42, 48/09;37,40,51/10
18473	8	15,22,24,34,41,42,48/09; 5,13,15,20,25,37,44,50, 51/10
18474	8	9,11,12,14,16,20,24,27, 28,33,40,47,50,51/09;15, 18,22,23,24,25,28,29, 35/10
18476	5	9,11/09;13,25,27,34,37, 44/10
18477	5	41,48/09;13,37,44/10
18480	31	4,25,26,27,37,42,46/09; 12,19,29,31,34,36/10
18484	12	39/09
18485	16	25,39/09;12,29,34/10
18500	30	21,22,26,39/09;3,26/10
18502	86	3,22,23,28,32,47/09;3,25, 26,42/10
18504	66	8,40/09;26,36/10
18520	27	27*,30,47,48,49,50/09; 12,17,26,49/10
18521	74	40*,42,48,49,51,52/09; 16,18,26,27,37,49/10
18523	57	26*,28,29,31,32,33,37, 48,49,52/10
18524	36	3,13,17,22,27,34,40,50, 52/09;15,16,21,26,27,29, 30,37,49,52/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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

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18527	22	8,11,24,30,48/09;13, 35/10
18528	11	8/09;7,15,51/10
18531	22	3,27,37,40,52/09;13,16, 27,41,49,50/10
18532	21	3,28,36/09;13,28/10
18554	8	32/10*
18556	25	23,50/09
18558	38	22,47,50/09;7,12,13,37, 49,51/10
18561	12	22,30/09;7/10
18580	22	5,26,30,43,47/09;7,35, 36/10
18581	18	16,21,22,23,30/09;3,7,29, 34,50/10
18583	39	21,43,47/09;34,35,36, 52/10
18584	48	15,22,43/09;2,23,34,35, 52/10
18587	70	9,15,20,22,26,30,33/09;7, 12,13,22,23,37,51,52/10
18588	37	20,26/09;2,15,21,38, 50/10
18589	16	3,13,23,40,50/10
18600	14	19,48,51/09;10,20,40, 50/10
18601	14	25/09;13/10
18602	12	16,19,48,51/09;15,26, 36/10
18603	16	19,36,41,47/09;10,31/10
18605	12	26/10
18620	23	8,16/09;7,11,12,23,26, 39/10
18622	55	35*,42/10
18623	11	16/09
18626	15	11/10
18628	8	11/10
18640	25	9,11,22,23,26,42/09;43, 46,48,51/10
18643	18	10/10*
18645	26	9,11,23,26,42/09;26,37, 43,46,48,51/10
18647	16	22/09*;46/10
18648	5	N46/10
18649	67	4*,8,11,20,24,25,26,27, 28,29,30,35,37,40,41,43, 48,51/10
18650	56	46*,47,50,51/09;1,7,8,20, 24,25,28,29,30,35,41, 48/10
18651	44	23,33/09;7,24,42,51/10
18652	35	40*,47,48,50,51/09;1,7,8, 10,11,13,20,22,24,25,26, 27,29,31,32,35,37,40,41, 42,48,50,51/10
18653	11	1*,20,24,27,30,37,41/10
18654	44	21,24,27/09;1,24,27,30, 32,40,42/10
18655	59	21,27/09;1,30,42/10
18656	56	40*,51/10
18657	19	8,24/09;7,13,24,25,26,30, 35,37,51/10
18658	31	8,24/09;13,23,24,25,30, 35,37,51/10
18659	15	8,12,21/09;13,22,25,30, 35,51/10
18660	3	12/09;10,22/10
18661	30	19/09*;7,10,22,40/10
18662	22	26/09*;7/10
18663	6	22,40/10
18666	1	8,24/09;13,25,30,35/10
18680	31	5,9,11,14,22,23,26,28, 42/09;8,11,22,43,46,48, 51/10
18685	33	5,9,14,22,24,31/09;8, 22/10
18700	22	5,10,25,41,44/09;10,12, 22,37,50/10
18703	25	5,7,10,44/09;12,24,32, 37/10
18704	13	37/10
18720	33	5,21,25,30,44,49/09;4,10, 11,12,16,20,22,44,47, 50/10
18721	12	10*,12,20,22,50/10
18723	3	41,44/09
18724	2	19*,21,50/09
18725	29	8,21/09;8,11,22,31,50/10
18728	9	44,50/10
18730	2	N44/10
18740	42	5,15,16,17,21,24,30,34, 37,46,47/09;4,7,8,10,11, 12,16,20,22,24,25,26,29, 32,36,37,38,40,41,44,46, 47,49,50/10
18741	19	N24,N26,N30,N34, N46/09;N4,N7,N8,N10, N12,N22,N25,N26,N29, N32,N36,N38,N41,N44, N46,N47/10
18744	33	44*,46/10
18746	38	3*,7,32,40,49/10
18748	1	5,13,16/09;10,24,28/10
18749	43	24*,32,39,40,46,48,50/10
18751	46	42/09*;11,37,39,46, 48/10
18754	18	52/10*
18756	8	17/10
18758	6	27,29,40/10
18760	7	N5,N24,N25,N26,N34, N37,N41,N46/09;N4,N7, N10,N12,N20,N22,N25, N32,N34,N36,N38,N40, N44,N47,N49/10
18761	3	N17,N24,N34/09;N7, N12/10
18762	16	10*,12,38,41/10
18763	10	17,24,34,46/09;7,12/10
18764	9	46/09;38,41/10
18765	16	21,24,30/09;7,10,22,25, 34,37,43,44,46,51/10
18766	7	24,30/09;4,7,10,22,25,26, 34,38,41/10
18768	5	N24,N30/09;N4,N7,N10, N22,N25,N26,N29,N34, N38,N41/10
18769	3	N17,N24,N34,N46/09; N7,N12,N26,N36,N38, N41,N44/10
18772	48	30/09;22,27,28,32,34,43, 44,46/10
18773	41	14,23,39/09;1,4,7,8,12, 16,25,27,28,32,35,37,43, 44,46/10
18774	11	21,46/09;8,29,31,32,36, 38,41,44,46/10
18775	3	N17,N24,N34,N46/09; N7,N12/10
19002	11	N46*,N49/10
19004	38	6,13,14,16,24,28,32,41, 42,46/09;1,6,12,15,18,23, 26,45,49,51/10
19007	18	6,16,22,27,28,30,34,35, 39,40,42,46,52/09;1,6,23, 36/10
19008	5	6,16,22,27,28,29,34,35, 39,40,42,46,52/09;1,6,16, 18,21,22,36/10
19010	19	6,13,14,16,24,28,41,42, 46/09;1,12,15,18,22,23, 26,45,49,51/10
19013	19	48*,49/10
19016	12	16,22,27,30,34,35,40/09; 16/10
19019	11	30/09
19022	12	30/09
19320	17	16,24,25,41,42/09;1,12, 15,18,23,26,45,49/10
19324	22	30,40/10
19327	11	18,25,36,42/09;1,51/10; 1/11
19330	11	18,36/09;1/11
19331	7	1/10
19339	2	N3,N13,N14,N24,N32, N41,N42,N43,N46,N48, N49/09;N6,N11,N12, N15,N16,N18,N23,N26, N45,N49/10
19340	27	3,13,14,24,32,41,42,43, 46,48,49/09;6,11,12,15, 16,18,23,26,45,49/10
19342	11	15*,40/10
19347	18	13,24,41/09;16,18/10
19348	8	36/09;16,40/10
19350	11	49/09
19351	10	14,24,41/09;23/10
19353	13	18/10*
19357	24	3,32,41,43,46,48,49/09;3, 6,11,40,49/10
19358	21	36/09
19359	12	46/09;3/10
19360	1	N48/09;N6/10
19361	9	18/10*
19362	14	39*,43,48/09;6,11,49/10; 1/11
19366	37	9,18,48/09;11/10
19367	39	26,28,33/09;40/10
19369	6	3,4,26,28,33,48/09;40/10
19379	2	N32,N41,N48/09;N6/10
19380	15	32,41,48/09;6/10
19381	9	11*,23,25,36/09;2,25/10
19382	16	18*,23,25/10
19383	18	52/10*
19388	3	N27,N35,N39,N40/09
19401	9	31/09
19402	7	31/09
19421	8	31/09
19441	8	31/09
19442	6	31/09
19461	7	31/09
19480	9	31/09
19481	11	31/09
19482	9	31/09;40,45/10
19483	6	31/09
21005	5	13/09
21008	62	3,42/09
21011	5	8/09;6/10
21014	72	3,4,8,11,13,14/09;5,6,47, 48/10
21017	50	4,5,8,13,14,46/09;5/10
21020	42	3,46/09;21/10
21021	3	3,4,6/09;47/10
21023	41	4,5,12/09;21,47,50/10
21026	47	4/09;29,47/10
21033	46	7,24,41,43/09;2,10,13, 16/10
21036	7	5,41/09;2,10,13/10
21100	29	8/09;6/10
21120	27	8,11,14/09;5,6,32,48/10
21121	18	8,14/09;6,43/10
21126	2	N19*,N34/10
21140	1	3,24,26/09;4,7,22,26, 34/10
21141	23	3/09
21180	1	13/09
21182	34	3,4/09
21200	1	8/09
21301	14	32*,52/10
21338	4	4,8/09;47/10
21342	28	3/09;30,43,47/10
21384	4	3,5/09;43,47/10
21401	21	30/10*
21441	27	4,12/09;50/10
21478	3	42/09;52/10
21483	1	16/09;39/10
21500	1	41/09;29/10
21510	1	4/09;47,52/10
21520	1	25,30/09;25/10;1/11
21521	15	25,30/09;16,25/10;1/11
21524	3	29/09
21526	5	N37/10*
21529	3	19/10*;1/11
21530	1	19/10*;1/11
21544	20	47/10
21560	33	41/09;47/10
21563	3	26,30/09
21581	5	41/09
21584	2	41/09
21601	4	41/09
21602	2	41*,51/09
21603	10	41/09*
21604	26	50/09*;8/10
21661	12	5,13/09
22000	16	5,6,10,18/09;4/10
22004	38	8,10,14/09;15,16,23, 40/10
22008	35	8,14,15,16,30,35/09;6, 23/10
22012	31	8,9,10,14,25/09
22032	20	22/09;5/10
22036	28	5,34,36/10
22040	1	19,43/09;2,10/10
22050	4	6,7,24,28,42/09;2,5,15, 16,28/10
22051	19	18/09;10,22,23,24,36/10
22052	7	18,23/09;10,23,24,36, 49/10
22054	1	20/09;22,24/10
22055	1	18/09;10,22,23,24,47, 48/10
22080	3	6/09;8,15,16/10
22081	1	7/09;5,43/10
22082	5	10,16,30,42,43/10
22083	6	42/10
22084	4	5,17,49/09;15,16,40/10
22090	2	10,14,35,44/09;40/10
22100	3	28/09
22101	20	4/09
22102	19	17,27,46/09;52/10
22103	2	27,46/09;52/10
22109	3	27,28,46/09;8,52/10
22111	4	40/10
22112	3	20,28,40,41,44,52/09;40, 46/10
22113	8	6,9,18,29,40,41/09;8,14, 40/10
22114	5	40/09;40/10
22117	3	40/09;46/10
22120	3	8,10,14/09;23,45/10
22121	9	14/09;34/10
22124	2	10,14,24,35/09;5/10
22125	2	10,14,26/09
22126	1	14/09
22130	2	8,16,26/09;6,23,45/10
22138	3	10,16,35/09;6,24,37/10
22140	2	14,26,35/09;45/10
22142	2	8,10,14,35,42/09;5,45/10
22143	4	14,15/09
22160	2	15,26,30,35/09;6/10
22170	3	10,14,15,16,26,30,35/09; 6,7,8/10
22172	8	30,35/09;6,23,37,45/10
22173	36	15,26,30,35,42/09;6, 34/10
22180	2	25/09
22181	17	8,10,14,42/09;5,34/10
22182	7	8,10,14,31/09;7,23/10
22183	4	10/09
22190	2	8,14/09
22205	2	9/09;8/10
22221	20	9,52/09;8,45/10
22225	2	6,21/09
22233	30	N24/10*
22234	2	N19/10*
22250	2	21/09;23,30/10
22251	12	N32/10*
22252	19	N35/10*
22259	5	18/10
22262	3	35,39/10
22263	2	9,12,22/09;46/10
22264	3	9,12,22,48/09;18,26,46, 49/10
22275	3	48/09;15,23,26,30,32, 49/10
22281	10	23,30/10
22282	17	12,21/09;48/10
22285	1	12,21/09;48/10
22286	1	23,30/10
22290	4	7,9,48/09;8,26,27,35, 49/10
22293	15	9,12,48/09;15,18,26,32, 49/10
22294	16	12/09
22305	2	7,21/09;27,30,35,47/10
22311	19	13/09
22312	2	7,13/09
22313	2	7,13/09;6,27,35,49/10
22314	1	7,13/09;6,33/10
22331	2	N22/09;N26,N30/10
22335	4	21/09;26,30,49/10
22341	9	21/09;6,26,30,36,39/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
22342	9	52/09;6,26,32,36/10
22343	1	N21/09;N26,N30/10
22347	6	N52/09;N6,N26,N36/10
22351	1	N21/09;N30/10
22352	6	22/09;26,30,49/10
22360	2	22/09;15,26/10
22361	2	N48/09;N15,N49/10
22370	2	48/09;26,46/10
22371	5	48/09;30,46,49/10
22379	2	N17/10*
22395	2	36/10
22401	5	N8*,N23/10
22403	1	N12,N29/10
22404	15	10/10
22405	6	8,10,11/10
22408	1	N12/10
22409	4	N12/10
22410	32	21,22/09;5,7,8,26,34,46, 47,49/10
22413		N20/09
22415	8	6,7/10
22417	1	N6,N7/10
22418	2	11/10
22420	2	29,30/10
22421	4	N21,N22/09;N6,N7, N49/10
22423	3	N11/10
22425	2	22/09;7,26,35/10
22427	1	N21,N22/09;N5,N27, N49/10
22429		N6/10
22430	6	11/10
22433	3	11/10
22440	1	34/10
22461	1	N41/10
22471	31	9/09;5,36/10
22481	35	5,8,11,27,47,49/10
22482	17	N27/10*
22492	3	14/10
22521	4	N49/10*
22523	3	27/09;40/10
22524	2	27/09
22528	3	45/10
22529	3	5,10/09
22531	2	10/09
22532	2	5/09
22544	2	18/09
22545	1	5,18/09
22547	4	N46/10*
22549	2	5/09
23000	5	5,36,40/10
23010	4	36,37,47/10;1/11
23020	4	4/09;33,36/10
23023	4	36,37/10;1/11
23030	6	4,8/09;36,47/10
23071	3	37/10
23101	5	36,45/10
23102	7	N39/09*;N45/10
23115	3	36/10
23121	7	37,41,47/10
23122	8	35/10
23123	3	47/09;36/10
23124	3	N35,N36,N37,N41, N47/10
23125	4	47/09;36/10
23126	6	N35,N37,N41/10
23127	4	N35/10
23129	2	N35/10
23131	7	32/10
23141	7	4/09
23142	10	4/09;37,40/10
23145	3	4,8/09
24000	39	33/09;32/10
24004	36	27,33,39/09;11,32/10
24008	42	27/09;22,32,42/10
24012	40	31/09
24016	53	31,43/09;37/10
24020	47	48,50/10
24024	46	48/09;22/10
24028	6	48,49/09;22,29,32,43,45, 48/10
24050	11	4/09;36,40,41,47,50/10
24051	1	25/09
24052	16	25/09;37,40,41,47/10; 1/11
24053	16	37,41,45/10
24055	6	25/09;40,47,50/10
24057	5	4/09;36,46/10
24058	2	25,47/09;37,41,47/10
24080	5	27/09
24091	7	N6*,N14,N41/10
24092	15	N6*,N14/10
24100	5	17,26,41/10
24101	3	41/10
24102	3	41/10
24103	3	52/10
24110	3	37,43/09;26/10
24120	9	33/09;46/10
24121	10	31,44/10
24122	2	44/10
24130	14	39/09;11,27/10
24131	8	37,43/09
24132	13	33,37,39/09;41,42/10
24133	6	32,41/10
24140	18	33/09
24141	4	33,39/09;41/10
24142	43	22/10
24149	2	42/10
24150	27	33/09;14,42/10
24151	4	33/09;42/10
24153	6	5,37/09;44,50/10
24154	12	37/09;44/10
24155	6	37/09;27,31,32,41,42/10
24156	3	31,32,40,48/10
24159	1	31,48/10
24160	21	33,37/09;4,14/10
24161	11	27,39,45/09;4,44,48, 50/10
24162	9	27,39,45/09;18/10
24164	6	5/09;27,41,42/10
24170	14	32,33/09;41,42,52/10
24171	20	N32*,N50/10
24172	5	N37/10*
24180	15	33/09;27,31,32,52/10
24190	15	22,42/10
24200	14	31,41,46/10
24201	5	39/10
24202	7	21,38/10
24203	36	39/10
24210	14	32,46/10
24211	8	11/10
24220	14	31,37,41/09
24221	17	20/09
24222	3	31,37,41/09
24223	33	41/09;44/10
24224	1	27/09;32,34/10
24231	7	38/10
24235	2	38/10
24240	5	31/09
24250	5	37/10
24251	23	39/09;17,41,46,50/10
24252	5	39/09;41,46,50/10
24263	2	37/10
24270	3	44/09;52/10
24271	14	33/09;52/10
24274	2	42/09;52/10
24290	3	27,40,50/10
24291	4	24,40/10
24292	4	22,27,31,40/10
24293	6	27,30,31/10
24294	23	22,31,39/10
24311	4	11,31/10
24319	1	11,31/10
24320	4	5/09;40,48/10
24321	3	40/10
24322	6	5/09;40,42/10
24350	2	22,45,48/10
24355	2	45,48/10
24360	1	48/09
24370	1	48/09;29,32,46,48/10
24375	2	15,32/10
24380	2	31,52/09;43,46/10
24385	1	31/09;43/10
24388	2	31,52/09;30,39,42/10
24390	3	49/09
24400	1	29/10
24404	9	9,41,42/09;17,19,39/10
24405	11	N7*,N9,N42/09;N19, N22,N30,N39/10
24406	32	N37*,N49/10
24408	21	44/09;19,30,39/10
24410	2	41/09;29/10
24423	2	46/09
24430	5	4,21,27,40,41,42,46/09; 16,22,23,28,30,33,45/10
24431	14	21,27,40/09;23,28/10
24434	4	27,41/09;16,22,28,45/10
24435	5	25,29/10
24441	3	33/10
24450	3	49/09;24,33,36/10
24452	7	49/09;37/10
24453	5	25,46/10
24454	5	41,52/09;25,46/10
24460	4	20,41,43/09;22,23,24,29, 36/10
24461	4	46/09;24,28/10
24462	5	24,28,40/10
24463	6	41/09;16,25,30,46,48,49, 52/10
24464	20	24,52/10
24465	6	45/09;51/10
24468	1	42,43/09;23/10
24469	1	42,43/09;23/10
24470	4	20,34,43/09
24471	9	31,34/09;22/10
24480	1	2,7,37/09;19,22,23,28,29, 40,46,50/10
24481	7	16/09
24485	1	4,43/09;48/10
24486	1	42/09;30/10
24490	3	2,4,43/09;16,21,22,25, 29/10
24491	3	2,4,7,43,49/09;16,22,29, 36,48/10
24492	21	N4,N43/09;N48/10
24500	1	2,4,5,7,16,20,23,25,31, 49/09;16,29,36,49/10
24501	3	2,7/09;22,29/10
24502	6	4,5,7,16,20,23,25,31,44, 49/09;24,25,29,36,46,49, 50/10
24504	7	2,37/09;4,22,23,28,40, 42/10
24507	1	2,37/09;4,19,22,23,28,36, 40,42/10
24508	4	32*,42,43/10
24509	3	37*,40,43/10
24510	3	38*,42,43/10
24512	3	39,50/10
24513	18	39/10
24514	1	39,50/10
24517	2	42/09;30/10
24521	3	43/09
24531	4	43/09
24551	3	39/10
25001	7	4,29,31,42,47,51,52/09;3, 16,22,23,29,47/10
25017	6	N29/09;N12,N17,N47, N51/10
25018	9	3,12,17,47/10
25400	2	42/09;45/10
25480	1	1/10
25485	45	25,48/09
25487	2	25,48/09
25521	35	52/09
25524	43	52/09;46,49/10
25525	17	1/10
25526	2	52/09;1,46/10
25527	31	52/09;46/10
25550	2	8,31,52/09;17,39,46, 51/10
25561	24	51/09
25563	50	52/09;39/10
25564	7	19,51/10
25565	7	48/10
25566	27	30,52/10
25567	16	16/10
25570	3	8,31/09
25575	4	8/09
25600	47	46,52/09;6,12,17,25,47, 51/10
25601	34	48/10
25607	4	52/09;6,17,28,32,46,48, 49,51/10
25608	22	32,39,48/10
25609	5	26/09;39,47/10
25611	22	34/10
25613	3	42,46,49,52/09;6,12,16, 25,32,33,47,48/10
25640	43	3/09*;3,17/10
25641	27	26/09;21,38/10
25644	13	8/09
25646	7	N8/09
25647	11	26/09;21/10
25649	20	40/10*
25670	43	8,20,30/09;13,16,27/10
25671	18	41/09;3,35/10
25673	16	17/09
25675	9	35/10
25677	21	3*,5/09;17/10
25683	19	31/09*
25700	3	41/09
25720	3	33/10
25800	3	26/09;7,34,47/10
25803	17	10*,34/10
25842	10	26/09
25847	1	10/10*
25848	26	26*,42/10
25849	13	34/10
26001	4	2,47/09;1,22,29,50/10
26060	1	19/10
26068	12	10/10*
26080	1	N43/10*
26081	9	N43*,N50/10
26082	1	N43/10*
26083	14	12,33/10
26100	4	5/10
26122	30	22,29/09
26130	20	22,42/09;34/10
26146	1	28/10*
26147	31	32/09;5,10,28/10
26181	20	7,11/10
26182	1	11/10*
26184	5	19*,52/10
26186	18	17*,20/10
26187	1	10/10*
26188	11	7,10/10
26194	5	6/10
26206	10	16/10
26207	1	16/10*
26218	2	40/09;5/10
26219	5	5,6/10
26229	11	40/09;2,5/10
26230	13	N8/10*
26237	3	16/10
26244	3	37/09
26250	18	37/09
26261	27	33/10
26282	7	N34,N45/09
26295	1	34,45/09
26300	7	24/09
26308	5	24/09
26310	1	N24/09
26311	1	N24/09
26320	5	12,22,24,27,30,31,40, 49/09;5/10
27005	4	24,31,34,45,49/09;1,3,37, 52/10
27040	5	37/09
27041	4	37/09
27060	2	23,37/09
27061	5	23/09
27080	4	23,31,40,51,52/09;26/10
27083	39	50/09;47/10
27084	4	47/10
27100	2	40/09
27120	4	1,6,34/10
27142	5	5/10
27160	2	1,37,52/10
27180	2	28/09;14,34/10
27211	22	28/09;14/10
27241	23	34,37/10
27243	2	34,37/10
28004	1	31,34,45/09;1,6,52/10
28041	4	41/09
28042	3	35,41/09
28050	3	12,33/10
28051	2	40/10
28053	2	27/09
28054	2	27,52/09
28104	2	34/09;20,24/10
28130	1	34/09
28144	4	27/09;46/10
28150	3	30/09;46/10
28153	1	51/09
28154	2	27,40,51/09;46/10
28161	4	30/09

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
28162	29	30,48/09;24/10
28164	17	48/09;24/10
28165	21	23/09*;24/10
28168	24	N30/09*
28170	1	31/09
28171	1	30,31/09
28190	2	6,34/10
28196	4	1,6,34/10
28197	4	25/09;1/10
28201	8	42/09
28202	22	8/09;34,39/10
28210	2	34,43,52/10
28220	2	34,43,52/10
28223	4	43/10
28260	30	3,4,6,8,14,22/09;34/10
28263	3	5,6,8,14,42/09
28264	3	5,6,42/09
28265	4	N25/09*
28281	32	3,4,5/09;47/10
28282	2	3,4,5/09;47/10
28300	1	3,4,8,14/09;32,39,43, 52/10
28302	16	19/10**
28303	1	N48/09*;N51/10
28304	1	N19*,N51/10
28310	2	3,4,8,11,44/09;39,43, 51/10
28320	6	3,4,6,14,42/09;32,49/10
28321	36	52/10
28323	2	3,4,6,21,42/09;49/10
28325	2	6,42/09;43,49/10
28330	2	4,8,42/09
29002	9	33/10
29018	4	4/10
29022	5	4/10
29040	3	33/10
29104	4	33/10
29105	5	34/10
29121	5	14/10
29122	5	39/10
29124	1	39/10
29126	2	39/10
35000	26	15/09;25,37,40/10
35001	2	N33/09*
35002	1	N32/09
35008	21	4,15,21/09;39/10
35014	3	N33/09*
35015	2	N8,N10/09
35024	2	N7/09;N25/10
35025	1	N39/09**
35027		N39/09**
35028	1	N39/09**
35034		N39/09**
35035	1	N6/09
35037	1	N6/09
35038	2	N39/09**
35039	1	N39/09**
35045	1	N10/09
35046		N39/09**
35048	1	N4/09*
35049		N39/09**
35051		N39/09**
35052		N4/09
35053		N39/09**
35054	1	N39/09**
35055	1	N10/09
35056	1	N10/09
35057	2	N39/10*
35058	2	N39/10*
35059	2	N33/09*
35061	2	N39/09**
35065	2	N39/10*
35067	1	N4/09
35068	2	N39/10*
35069	1	N39/09**
35071	2	N39/10*
35078	2	N10/09
35079	4	N39/10*
35089	2	N12/10*
35092	3	N13/10*
35093	4	N39/10*
35094	1	N4/09
35098	1	N39/09**
35102	1	N40/09**
35105	1	N40/09**
35106	2	N33/09*
35107	1	N40/09**
35108	1	N40/09**
35109	1	N8/09
35111	1	N40/09**
35112	1	N40/09**
35116	1	N8/09
35118	2	N33/09*
35119	2	N8/09
35121	1	N8,N29/09
35122	1	N40/09**
35124	1	N40/09**
35125	2	N40/09**
35129	1	N40/09**
35132	1	N40/09**
35133	1	N40/09**
35134	2	N40/09**
35137		N40/09**
35145	1	N40/09**
35146	1	N40/09**
35147	1	N3,N7,N27/09
35151	1	N26/10*
35172	3	N33/09*
35180	6	29/09
35303	7	43/09**
36000	1	N4,N7,N9/09;N24, N25/10
36001		N34,N36,N37,N40, N42/10
36002		N3,N27/09;N25/10
36003	1	N41/09**
36004	1	N41/09**
36005	2	5,7,9,17,18,22,26,30,34, 36,37,40,42,52/10
36006	1	N7,N10/09;N24,N25/10
36007	1	N24/10
36008	1	N8/09;N24/10
36009	1	N24/10
36013	1	N41/09**
36017		N3/09
36020	1	N3/09
36021	1	N26/10*
36022	1	N3/09
36025	1	N4,N9/09
36026	1	N41/09**
36027	3	N41/09**
36028	2	N41/09**
36029	1	N41/09**
36030	1	N3/09
36031	1	N41/09**
36033		N3/09
36034	1	N33/09*
36035	1	N33/09*
36037		N41/09**
36038		N41/09**
36042		N8/09
36043	3	N41/09**
36045		N41/09**
36047		N41/09**
36048		N41/09**
36049	1	N33/09*
36050		N36,N40/10
36051		N41/09**
36052		N41/09**
37000	23	22/10*
37001		N42/09**
37002		N42/09**
37004	3	N39/10*
37005	17	4,21,29/09;1,11,39/10
37009		N42/09**
37010	24	4,9,21/09;1,11/10
37011		N42/09**
37012	1	N42/09**
37013		N42/09**
37014	1	N42/09**
37015	1	N34,N36,N40/10
37016	2	N39/10*
37018	1	N42/09**
37019	2	N39/10*
37022	1	N42/09**
37023	1	N42/09**
37025	26	41,49/09;26,34,36,37/10
37026		N42/09**
37027	1	N6/09
37028	1	N6/10*
37029		N42/09**
37030	1	N43/09**
37031	1	N43/09**
37032	2	42,46/10
37035		N43/09**
37036	1	N43/09**
37037	1	N43/09**
37038	1	N43/09**
37039	3	N43/09**
37040	2	N22/09*
37050	9	18,25,26,34,36,37,40, 42/10
37051	1	N2/09
37052	2	N9/09
37053	1	N43/09**
37054		N43/09**
37055		N4/09;N5,N10,N14,N22, N44/10
37056	1	N43/09**
37062	3	N33/09*
37066	6	N26/10*
37067	5	N43/09**
37080	4	N37/10*
37085	8	43/09**
37090	8	8,17,18,23,34,36,37, 40/10
37091	1	N43/09**
37095	3	18,27,34,36,40/10
37103	9	18/10
37104	4	N18/10
37106	4	18/10
37110	11	2/09;18/10
37112	1	18/10
37115	2	2/09;18/10
37120	3	2,23,30,31,33,43,45/09; 13,14,18,27,38,44,49/10; 1/11
37121	11	2/09;18,38/10
37123	9	38,50/10
37125	15	38/10
37126	8	38/10
37127	11	38,50/10
37129	7	N46*,N49,N52/10
37140	33	2,4,9,33/09;38/10
37162	12	38,40,41,45,47/09;5,10, 11,14,23,27,32,44,47, 52/10;1/11
37163	20	N39,N41,N49/09;N3, N22,N31,N44/10
37164	5	N25*,N38,N41,N45/09; N10,N14,N27,N44,N47, N49/10
37165	3	4,5,6,9,11,14,15,19,21, 22,26,30,31,32,33,37,40, 41,43,44,47,48,49,52/09; 1,3,5,7,10,11,15,19,21, 23,26,31,43,44,47,49/10
37166	3	9,40,41,48/09;1,5,10,11, 14,23,27,32,47,49/10
37200	16	16*,29,44/09;23,31, 43/10
37205	3	5*,33,44,49,52/09
37221	14	4,5,9,11,18,20,21,23,31, 32,37,39,47,52/09;1,7,11, 19,26,27,31,43/10
37222	14	N46/10*
37223	14	21,32,39,40,41/09;1,5,10, 11,21,23,32,33,44,45, 47/10;1/11
37224	11	3,5,14,15,21,26,51/09;3, 19,22,27/10
37226	18	N4,N5,N11,N13,N23, N30,N31,N34,N39,N41, N43/09;N4,N11,N15, N19,N21,N27,N31,N43, N45,N46,N51/10
37228	14	11,14,31,41,43,52/09;13, 32,42,43,45,47/10
37229	15	4,34,52/09;7,42,43,49, 51/10
37230	14	13,19,30/09;45/10
37231	18	4,5,6,11,13,14,15,19,21, 26,28,31,39,43,49,52/09; 13,15,19,23,43,45,46, 51/10
37232	13	N4,N5,N9,N18,N41/09
37234	13	4,9,15,18,19,23,43/09;19, 26,46/10
37235	11	9,15,18/09;51/10
37236	9	15/09
37238	6	39,41,45,49,51/09;4,10, 11,22,23,27,32,47,49, 52/10;1/11
37241	19	N20*,N38,N39,N41, N44,N49/09;N1,N4,N5, N10,N14,N31,N45, N49/10
37242	11	41,45,48,49/09;1,4,11,14, 27,49,50/10
37243	7	41/09;1,11,22,32/10
37244	11	23,30,31,32,33,34,41,43, 44,45/09;1,2,10,11,14,22, 23,27,32,44,47,50/10; 1/11
37246	15	23,27,31,32,33,38,39,41, 44,45,48,49/09;5,10,11, 14,22,23,27,31,32,41,45, 50,52/10;1/11
37248	19	19,22,23,27,28,29,30,32, 33,34,37,39,45,49,51/09; 10,13,14,21,22,23,31,32, 44,46/10
37258	4	18/10
37261	10	18,20/10
37262	20	18/10
37264	3	18,36/10
37265	3	18/10
37266	3	18/10
37281	15	18/10
37320	16	21,22,25,26,34,36,37, 52/10
37325	9	N10,N12,N14/10
37326	2	10,12/10
37328	2	10,14,21,22,26,37/10
37330	2	5,7,8,9,18,25,26,30,34, 36,37/10
37342	3	3,4,12/09
37344	11	3/09;10/10
37360	15	3,12,36/09;22,26,52/10
37362	6	26,48/09;11/10
37363	9	N22/10*
37367	1	11/10
37380	2	26/09
37400	10	33,44,45,46,49,51,52/09; 32/10
37401	9	44,45,47,49,51,52/09
37403	23	12,52/09;42,46/10
37420	1	31,51,52/09;46/10
37421	8	32,38/10
37423	5	32,38/10
37446	3	N28/10
37461	9	38/09;17,20,26,27/10
37464	2	N24/10
37481	7	37/09
37506	4	24/09
38032	6	17/09
38220	2	49/09
38460	7	49/09
38540	4	25/10
38545		N25/10
38580	8	39/10
38585	4	39/10
38603	2	27,43/09
38604	2	N31*,N32/10
38606	1	43/09
38607	2	31,43/09
38610	1	7,31,43/09;23/10
38641	5	N12/10*
38642	1	N18*,N32/10
38670	2	27/09;1/11
38681	3	14/09
38682	3	26/10;1/11
38683	3	1/11
38690	2	32/10
42301	3	51/10
42640	6	36/10
42740	5	36,41/10
42742	3	2,22/10
42760	5	17,49/09;1,2,22/10
42762	3	N49/09;N22/10
42765	3	36/10
43030	24	43/09;15,32,39,47/10
43040	6	36/10
43058	3	17/09
43059	3	17/09
43060	4	17/09
43143	4	10/09

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
43144	4	15,25/09
43145	4	15/09
43146	2	24/09
43148	4	25/09
43150	3	N24/09
43160	6	24/09
43162	3	2/09
43167	5	27/09
43181	3	27/09
43203	3	4/09
43220	3	4/09
43221	4	4/09
43224	3	4/09
43240	4	30/09
43242	4	30/09
43244	4	29/09
43245	4	29/09
43246	5	11/09
43247	5	4/09
43260	4	31/09
43262	5	2,11,17,25,31/09
43263	7	12,17,25,30/09
43264	2	11,25,31/09
43265	2	12,17,25/09
43280	5	30/09
43281	6	11,29,31/09;48/10
43283	6	31/09
43285	5	27/09
43287	2	11,15,31/09
43300	5	12/09
43302	4	45/10
43303	4	30/09
43321	6	30/09;45/10
43323	4	31/09
43324	4	26,31/09
43340	13	21/09
43341	7	10,27,30/09
43342	7	10,26,27/09
43345	4	21,26/09;44/10
43356	2	11/09
43360	21	21/09;2,15,39/10
43363	5	12/09
43364	6	N12/09
43365	5	29/09
43368	5	11,17/09
43369	6	17/09
43371	13	11,19,24,27,29,30/09
43372	5	N27/10*
43373	8	24,32/09;17,25/10
43374	1	19,24,27,29,30/09
43375	7	15,17,25/10
43377	2	24/09
43382	2	17/09
43384	1	15/10
43385	1	15,22,39,48/10
44000	16	26,P48/09;1,5,11,12,14, 32,P43,49,52/10
44001	2	49/10**
44015	9	49*,51/09;1,4,5,8,12,14, 17,18,24,30,34/10
44030	8	29*,43,P48/09;1,10,11, 14,17,28,52/10
44036	5	41,49/09
44037	5	29,49/09;22/10
44039	1	N27/10*
44040	24	11/10*
44041	7	22/10;1/11
44042	8	N37,N46,N51/10
44043	8	1/11
44044	6	43/09;48/10
44045	6	32/09;24,36,39/10
44046	10	42/09;22,24/10
44047	22	24,32/10
44048	12	N5/09*
44049	10	N24,N29/10;N1/11
44050	22	N44/10*
44051	2	N44/10*
44052	2	N44/10*
44053	1	32/10
44054	1	N26/09*
44057	5	15,19,20/09;2,4,25,32/10
44059	1	N5/10*
44061	22	45/09*;2,24/10
44062	8	29/09
44063	8	2,32/10
44064	19	26,42,49/09;22,24,25, 32/10
44065	7	4,6,13,29,31/09;7/10
44066	10	18,29,30,43/09;31,33/10
44067	23	42*,52/09;2,7,22/10
44068	11	49/10**
44069	16	5,6,11,13,14,20,26,29,30, 37,39,52/09;19,22,47/10
44070	7	6,15,19/09;11,26/10
44071	4	26/09
44072	4	13,19,44/09
44073	2	11,18/09;32,43,47/10
44075	4	6,52/09;15,43/10
44076	3	6,9,19,31,34,41,49/09;15, 26,31,43,47/10
44081	9	2,4,6/09;23,27,46,47, 49/10
44082	11	15,48/09;27,P43,49/10
44083	8	2,9,18,20,31/09;7,8,20, 24/10;1/11
44084	1	2,7,15/09;4,7,20,23, 32/10
44085	2	6,11,30,37,48/09;3,26,27, 28,31,46/10
44100	8	12*,23,27,29,46/10
44105	2	52/10
44120	8	19*,27,P43,45,46,49/10
44140	9	19*,20,32,41,P43,45, 49/10
44160	7	12,24,P43/10
44161	2	12/10
44164	1	32/10
44165	1	24/10
44178	2	47/10
44179	2	40/10
44180	6	P48/09;1,7,24,29,32,34, 47/10
44181	6	N26/09*
44182	5	N42/09*;N12,N29/10
44183	6	11,12,29,41,44/10
44184	9	11/10
44185	8	N42/09*;N11,N29/10
44186	2	17,29/10
44187	2	42/09;22,41/10
44192	1	42/09;25,48,49/10
44193	1	35/09;15,23,37,52/10
44200	9	P48/09;1,52/10
44203	1	P48/09;1/10
44205	2	35/09;32/10
44206	1	32/09;11,48/10
44220	5	28/10
44221	1	1/11
44223	1	28/10
44224	1	22/10
44240	8	35/09;6,28,29,42/10
44243	2	34/10
44260	7	12/09;11,15,32/10
44280	9	43/09;10,15,29,32,52/10
44281	2	22,51/10
44282	1	35/09;10,28/10
44283	2	51/10
44284	2	7,8/10
44285	1	25,47/10
44286	1	47/10
44310	5	6,10,17/10
44313	1	6,10/10
44319	3	27*,30,34,36,52/10
44320	4	9,13,17,20,26,27,32/09;5, 8,12,16,18,30,34,P43, 49/10
44321	6	6,13,P43,49/10
44340	12	9,10,12,20,26,30,36,37, 41,43/09;5,6,14,16,17,18, 19,30,34,36,P43,49,51, 52/10
44341	7	26/09;6,7,8,11,18,P43, 49,52/10
44342	8	11/10
44352	3	N9,N13,N15,N19,N20, N26,N32,N34,N36, N41/09;N16,N17,N18, N19,N30,N31,N36, NP43,N49/10
44360	10	9,13,23,25,31,37,41,48, 52/09;5,6,14,17,18,19,20, 34,36/10
44361	7	N32*,N46/10
44362	1	N30/10*
44365	1	30,33,36,44/10
44366	1	25/09;30,32/10
44367	2	5,14,17,18/10
44400	4	3,9,11,12,13,23,25,26,27, 29,32,33,34,37,39,41, 43/09;16,18,19,30,31,34, 36,44,45/10
44401	8	N18*,N37/10
44410	4	3,11,23,32,39,43/09;12, 15,31,34,45,47,49/10
44420	7	44*,P45/10
44430	3	44*,P45,48,52/10
44442	1	N39*,N51/09;N31, N37/10
44443	1	N39/09*;N45/10
44444	7	N44/09*
44445	1	N26*,N31/09;N24/10
44446	1	N35/09*;N32,N52/10
44461	10	2,13,17,18,20,32,35,39, 40,45/09;32,35,45/10
44462	4	2,6,20/09;7,20,41,42, 52/10;1/11
44463	9	17,18,35,40/09;4,8,20, 31/10
44465	2	2,6,13,17,18,20,31,32,35, 40,45/09;4,41,45,46/10
44481	2	2,18,26,35/09;8,P43,45, 49/10
51002	7	21,46/09;52/10
51007	22	15,23,27,41,46/09;51, 52/10
51013	4	23,32/09
51017	31	36/09
51022	11	36/09
51027	8	38/09;7/10
51032	10	38/09;14/10
51041	3	19,21,48/09
51061	14	18,19,27,41/09
51062	28	18,19,37,41/09;19/10
51064	2	27,37/09;33/10
51081	10	19,21,34,46/09;51/10
51082	7	21,37,48/09
51100	7	13,15,16,20,22,23,38/09; 3,6,20,31,51/10
51103	10	37/09;19,31/10
51104	1	20/10
51109	5	13,16,20,22,23/09;3,6,17, 32/10
51120	6	16,18,23,27,37,41,46/09; 3,6,32,51,52/10
51135	2	N31/09*;N3/10
51142	2	13,18,20,41,48/09;14,31, 32,47,49,52/10
51143	5	N37/10*
51144	4	N39*,N51,N52/10
51145	2	18,41/09;31/10
51146	3	18,41,45/09
51150	1	15,18,21,23,41,48/09;17, 32,P47,49,52/10
51153	1	N48/09*;N51/10
51154	3	20/09;51/10
51155	1	20,21/09;6,31,47,49, 52/10
51160	21	21,23/09;6,17,31,32,P47, 49,52/10
51164	18	52/09;26,28/10
51165	9	N52/09
51166	4	N52/09
51167	7	N52/09
51168	2	26,28,31,35/10
51260	4	36/09;4,23/10
51261	23	18,20/09;47,50/10
51341	23	36/09;15,18,23/10
51342	3	31,32/10
51343	3	36/09
51344	2	35/09
51346	1	N26/10*
51347	1	N26/10*
51380	5	36/09
51400	3	36/09;35/10
51420	5	17/10
51440	4	17/10
51460	4	10/10
51480	4	52/10
51500	7	44*,45/09
51520	4	37/09;7/10
51540	3	38,41,44/09;7/10
51559	4	9/09*
51560	11	14,52/10
51561	11	52/10
51605	1	N16/10*
51621	10	N10/10*
51622	1	N10/10*
51640	6	1/11
51641	5	N48/09*;N1/11
51642	4	N19/09*;N1/11
51663	4	5/09*
52031	1	4/09
52039	4	44/09;28/10
52040	18	44/09;18,26/10
52043	21	2,39,44/09
52045	6	2/09
52046	21	26,27/10
52047	11	26/10
52051	2	N7/09*
52066	3	19/10
52080	14	4/09
52083	2	37/09
52084	2	26/10
52085	3	37/09
52117	1	50/10
52118	1	23,50/10
52119	1	50/10
52121	9	50/10
52140	6	4,5,22/10
52142	3	24/10
52143	8	4,26/10
52144	6	N11/09*;N3,N4,N5/10
52145	1	N11/09*;N3,N4,N5/10
52160	7	3,4,6,17,27,33/09;10, 29/10
52161	14	4,6,33/09;10/10
52164	2	4,17/09
52165	2	48/10
52170	3	3,6,9,17,20,27,33,35, 36/09;10,24,45,48/10
52172	2	17,36/09;22,45,48/10
52180	14	3,4,6,16,18,25,29,32,36, 40,46/09;1,8,15,27,31,39, 43,45,48/10
52184	3	25,46/09;45,48/10
52186	3	18,32,46,47/09;1/10
52200	8	52/09;10,45/10
52202	7	52/09;11/10
52220	7	16/09;32,47/10
52221	7	32,47/10
52223	4	10,32,47/10
52243	11	32/10
52262	6	32,47/10
52263	5	32,47/10
53011	2	3,4,12,13,16,17,39,41/09; 24,27,29,30,39,43,45, 52/10
53031	1	35,47,49/09;8,15,41,43, 45,46,49/10
53060	15	32/10*
53061	10	13,15/10
53062	13	13,15/10
53063	9	15/10
53065	2	4/10
53081	9	50/09;1,20/10
53082	14	11,14,50/09;1/10
53083	8	8/10
53084	6	32/10
53085	6	32/10
53086	8	22,30,32/10
53087	9	32/10
53088	8	18,26,51/09;1/10
53090	1	42/10
53093	3	32/10
53100	17	16,35,48,51/09;6,16,21, 24,39,41,42,47/10
53101	8	N10*,N21,N42/10
53103	1	N21/10
53104	3	N50/09*;N1,N15,N21, N49/10
53105	21	N8,N40/10
53106	7	28,37,51/09;16/10
53107	17	N33/09;N21,N42/10
53108	3	16,32/09;33/10
53110	1	16,39,47/10
53120	14	11,12,33,40,41,47,49/09; 2,3,24,42,45,46,49/10
53122	3	1,42/10
53123	3	1/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
53125	2	33/09;48/10
53130	1	11/09;45,46/10
53135	2	23,33,47/09;2,45,49, 52/10
53141	5	14,41,47/09;22,30,44/10
53147	3	3,15,35/09;8,42/10
53149	3	N10*,N40/09;N42, N49/10
53160	14	11,12,14,16,41,47,49/09; 2,24,27,30,44/10
53161	8	3,5,12,13,16,22,28,38,42, 47,48,49/09;2,6,21,44, 52/10
53162	7	3,16,22,42/09;30,44/10
53164	9	16,42/09
53165	14	N6/09*
53166	1	16,22,28,29,38,42,47, 48/09;22/10
53179	1	N39/09*
53180	10	5,16,17,23,35,38,49/09;2, 8,13,15,24,30,39,41,43, 47,48,51,52/10
53181	4	3,38,43,49/09;27,41/10
53183	13	14,22/09;8,13,27,30, 39/10
53184	5	13,23,26/09;8,28,40/10
53191	1	N17/10*
53200	7	12,25,39,46/09;6,13,18, 24,27,29,30,43,48,52/10; 1/11
53201	6	33,37,40/09;48/10
53203	11	23/09;6/10;1/11
53204	10	23/09;6/10;1/11
53205	3	6/10;1/11
53206	7	N23,N45/09;N6/10; N1/11
53207	1	N6/10;N1/11
53212	3	33,46/09
53220	7	9,12,25,35,39,46/09;6,10, 24,27,29,43,45/10;1/11
53223	5	41/10
53226	3	5,25,27,35/09;29,51/10
53242	12	39,43/10
53244	2	43/10
53262	8	10,15,40/10
53263	1	13,37/09
53265	6	37/09;40/10
53266	4	14/10
53268	4	13,37/09;10,15/10
53269	5	13,17,37/09
53279	4	3,42/09;3,6,41/10
53281	4	15,16,21,47/10
53282	8	32,47/09;14,19,46/10
53283	4	43/09;6,45,46/10
53285	4	3,42/09;3,6,48/10
53287	6	3,42/09;3,6,38,45,48/10
53290	1	17/09;14,15,52/10
53301	4	38,45/10
53303	6	50/10
54040	3	49/09;15,30,39,48,49/10
54041	7	23,26,38,40,43/09
54043	2	17,28,33,38,41,43/09
54060	5	3,5,15,25,26,27,28,32,37, 41,49/09;16,33/10
54061	12	N23,N27/09;N33/10
54063	3	3/09
54064	2	28,49/09
54081	4	N10/10*
54082	13	N27/09
54083	4	31,48/10
54085	2	3,5,20,25,39,40,47/09;41, 47/10
54090	3	3,5,9,15,20,25,26,28,41, 42,49/09;11,31,33,39,45, 47/10
54091	1	41/09*;33/10
54095	3	3,5,8,20,25,27,29,34,40, 47/09;41,47,52/10
54105	3	8,21,27,28,29,34,40,41, 47/09;2,41,51/10;1/11
54115	3	14,18,21,25,28,29,33,34, 37,41/09;2,5,8,18,29,33, 38,41,46,49,51/10;1/11
54120	5	5,8,21,28,33,37,38,41/09; 2,8,18,41,51/10;1/11
54125	4	3,5,14,15,23,24,25,26,28, 31,34,35,40,41,43,47/09; 2,5,6,7,18,19,26,27,29, 33,38,40,42,46,47,49, 52/10;1/11
54131	2	3,12,15,20,25,28,37,39, 40,41,49/09;2,16,24,27, 29,30,31,33,39,43,47,49, 51,52/10
54140	8	5,14,18,24,28,33,35,40, 41,47/09;2,8,18,26,29,33, 38,40,49/10;1/11
54151	1	8,14,30/09;51/10
54161	13	N38*,N47/10
54165	2	29/09
54167	2	7/10
54168	1	23,33,35,38/09
54169	3	14,23,24,29,33,35,47/09; 7,29,42,47/10
54180	7	23,24,25,29,33,34,47, 51/09;5,8,33,38,46/10; 1/11
54181	7	5/10
54195	3	25,33,51/09
54200	4	23,25,29,31,34,47,51/09; 5,8/10
54201	6	25,31,34,47/09;18/10
54220	5	24,29,30,34,41,44,47/09; 8,22,48/10
54222	4	34/09;44/10
54223	2	25,31,34/09
54224	3	46/10*
54225	2	30,34,41/09
54226	2	47/09;5,8,26,43/10
54227	3	N6/09*;N5,N8,N26, N43/10
54230	1	44/09*
54265	1	11/10*
54266	2	42/09;11/10
54279	4	5,9,10,12,17,18,30/09;11, 33/10
54280	11	2,10,11,12,17,20,29,30, 32,36,50/09;6,11,43, 45/10
54281	6	12,18,29,47/09
54282	1	33,35/10
54283	5	12,14,22/09
54284	1	4,14,18,24,30/09;24/10
54285	1	29,36/09;24/10
54286	4	4/09;12/10
54287	7	12,13,17,23,26,29,32,36, 48/09;11,33/10
54288	5	10,11,24,26/09
54289	8	10,17,23,24,26,35,36, 50/09;43/10
54300	12	17,25,33,44,46/09;6,43, 45/10
54301	4	5,31/09;45/10
54302	1	25,33,44/09;6/10
54303	4	25/09
54314	2	12,13,17/09;11,33,34,37, 50/10
54318	3	17,36,44/09;6/10
54320	4	8,11,13,14,17,20,24,25, 26,36,44/09;6,24,35,36, 45,51/10
54321	3	N16*,N24,N36/09;N24, N45/10
54322	8	4,11,13,17,44/09;6,37, 43/10
54324	9	4,14,24,34/10
54327	4	4,14,20,33/09;51/10
54329	4	11,17,25,44/09;19,24/10
54330	2	25/09;19,35/10
54332	3	13,22,26,27/09;37/10
54333	3	19,34,47/10
54334	3	4/09;24,35,37,51/10
54335	3	12,44,50/09;35,51/10
54337	4	N19*,N47/09
54338	2	47/09
54339	9	N18*,N47,N50/09;N19, N50/10
54340	8	4,9,14,22,24,26,27,37,41, 44,50/09;18,24,35,50/10
54341	4	2,8,22,26,44/09;18,34, 45/10
54343	10	14,16,19,41,47,50/09;18, 45,50/10
54344	6	12,14,41,44,47,50/09;18, 24,34,35,45,50/10
54346	9	5,16,19,47,50/09;4,18, 43/10
54347	4	4,33/10
54349	4	3,9,22,24,37/09;18/10
54350	4	9,11,27,30/09;45/10
54351	7	48,50/09;18,35/10
54352	3	9,48/09;11/10
54359	2	2,33,36/09
54360	12	9,11,13,24,30,33,36, 48/09;1,2,18,19,20,24,26, 35,38,45,48/10;1/11
54361	10	2,24,33,36/09
54363	3	8,9,17/09;1,2,19,48/10; 1/11
54365	6	8,17,50/09;48/10
54367	3	19/09
54368	4	1/11
54369	4	9,11,48/09;1,2,13,19,20, 26,38,44/10;1/11
54372	2	51/10
54380	6	9,20,35,48/09;1,2,6,11, 14,25,26,35,38,42,44,45, 49,51/10;1/11
54382	9	11,41,47/09;1,6,20,23,29, 33,36,37,44,47,49/10
54386	10	20,30,35,50/09;4,11,19, 22,25,26,33,36,42,46, 52/10;1/11
54387	7	36/09;1,13,29,36,38,39, 42,49/10;1/11
54389	8	50/09;8,14,23,26,35,39, 42,47,51,52/10;1/11
54400	8	11,13,14,18,24,25,31,36, 48/09;4,12,22,24,26,40, 41,42,47,50,51/10;1/11
54402	4	18/09;50/10
54403	4	7,8,15,23,24,25,26,40,42, 50,52/10
54404	4	8,20,25/09;42,50/10
54406	2	2/09;18,43,50/10
54407	4	4,24,25,31/09;4,6,8,11, 12,18,22,25,26,40,41,49, 50/10;1/11
54408	4	8,9/09;8,18,34/10
54409	2	24/09;10/10
54412	1	24/09*
54413	3	9,31/09;4,6,11/10
54416	5	13,18,27/09;24,35,40, 51/10
54418	4	4,24,25/09;4,6,8,38,41, 50,52/10
54419	2	47/09;38/10
54421	6	33/09;13,22,26,36,45,48, 51/10
54422	4	23,33/09;45/10
54423	5	25,35,42/10;1/11
54424	1	26,44/10
54425	1	23/09
54430	1	13,15,22,26,39,40,42, 48/10;1/11
54440	4	10,35,48/10
54441	6	10,24,25,27,42,48/10
54462	5	11/09;22,41/10
54463	5	6,24,52/10
54464	5	22,49/10
54480	8	11/09;24,26,27,39,46, 48/10
54481	9	7,12,13,14,22,26,38,39, 46,48/10
55001	4	8,12,13,24,44/10
55040	4	33,34,37,38,39,40,42, 49/09;1,20,23,37,42,46, 48/10
55041	7	33,34,35/09;13,20,36,39, 44,52/10
55042	1	38,39,42/09;5,12,13, 48/10
55043	2	38,43/09;5,15,16,22,27, 52/10
55044	5	34,37,38/09;13,20,52/10
55045	2	37,38,42/09;5,12/10
55046	4	39,40,42,43,48,49/09;1,5, 6,11,12,13,14,16,23,36, 37,39,42,44,45,46,48/10
55047	8	40,42,43/09;5,7,8,9,10, 12,13,22,36,46,52/10
55048	12	43/09;5,7,8,9,10,16,20, 37,45/10
55049	6	48,49,52/09;1,5,11,12,13, 16,20,27,35,42,48/10
55060	8	N30/09*
55064	3	8,9,10,12,20,25,26,36,38, 46,48/10
55082	9	8,17,23,37/09;6,31/10
55084	7	31,33,47/10
55085	9	23,37,43/09;6/10
55100	8	46,48,49/09;8,13,23,32, 34,44/10
55101	5	8,48,49,52/09;2,14,27,33, 36,40/10
55102	4	25,51/09;27,33,40,41/10
55103	3	N47/09;N18,N47/10
55104	2	14/09;24,27,30,32,35, P43,49/10
55105	7	45,46,47,48/09;12,24,26, 32,40,44/10
55110	2	8,13,23,39,44,46,48/10
55120	2	34,50/10
55127	2	37,49/09;10,14,30,31/10
55128	3	N43/09;N6,N7,N22, N41/10
55129	7	43/09;6,7,22,31,32,36, 41/10
55130	2	14,23,25,43,46,48,49/09; 5,6,10,30/10
55131	1	23,25,49/09;16/10
55133	4	N18*,N24/10
55135	1	8/09*
55139	6	28/10*
55140	2	17,36,46,47/09;10,30,32, 37,P43,49/10
55150	2	8,22,25,27,42,44,49/10
55160	2	6,12,13,25,35,39,40,47, 49/10
55161	1	6,40,47/10
55170	2	8,37,48/09;6,22,26,32,36, 40/10
55175	1	25,49/10
55180	2	43,45,47/09;7,18,24, 37/10
55190	2	23/09;10,18,30,32,37, 47/10
55200	2	32,43,45/09;22,27,47, 48/10
55205	1	23,32,37,43,44,47/09;1,5, 7,10,14,22,27,36,44/10
56011	1	4,12,22,46/09;24,27,29, 43,45/10
56031	1	11,14/09;24,25,51/10
56044	3	7/10
56045	1	16/10
56060	9	3/09;7,24,29,40/10
56063	1	5/09;4,29,40/10
56064	6	5/09;7,24,29,40/10
56065	3	3,5/09;24,29,40/10
56067	3	3/09;24,29,40/10
56082	17	N19/10
56100	14	10/09;25/10
56101	7	24/09
56102	24	24/09
56103	7	51/09
56104	3	5,25/10
56120	13	24/09
56220	4	4/09;29/10
57006	5	38/09
57029	9	6,26/09;36/10
57035	10	34/09;16/10
57061	6	37/10*
57064	4	N5/10*
57080	8	10/10
57100	10	25,38/09
57101	18	38/09
57120	13	38/09
57142	6	32/10
57160	10	19/09
57161	5	N10/10*
57162	7	19/09
57163	4	N32/10*

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
57164	3	N32/10*
57169	1	5/10*
57241	13	N12/09*
57242	9	25/09*
57245	2	38/09*
57380	3	6/09
57381	13	N16/10*
57400	4	26/09
57408	3	N22/10*
57420	3	23/09
57440	3	23/09;26/10
57460	4	13,34/09;22/10
57471	3	23/09
57480	8	23/10
57482	13	N5/10*
57483	12	N5*,N13,N22/10
57484	20	N16/10*
57488	7	N10/10*
61000	20	6,10,23,26/09
61003	17	6,23,31/09
61020	2	6/09
61040	6	10/09;26/10
61050	5	6,23,34/09
61051	9	N19/10*
61060	6	23/09
61061	10	6/09;23/10
61071	10	N49/10
61090	6	31/09;22,23/10
61091	6	N23,N47/10
61092	14	N34/09;N23,N47/10
61100	4	6,31/09;22/10
61110	3	6/09
61112	11	N32/10*
61210	6	8,48/09
61212	3	N7/09
61220	5	8/09
61221	1	N8/09*
61300	2	6/10
61410	2	8/09
61540	2	32,35/10
61541	8	45/09
61542	7	45/09
61550	2	31/09
61581	5	31/09
61582	4	31/09
61591	4	39/10
61592	5	N32*,N39/10
62000	20	15/09;23,32,33/10
62001	5	24,38/09;27,49/10
62024	13	10,31/10
62028	15	21,22,31,38/09;31/10
62032	16	7,22,25,36,51/09;22/10
62033	3	N7,N22,N25,N36, N51/09;N22/10
62080	5	15/09
62090	7	15/09;23/10
62092	7	51/09;27/10
62093	8	9/09;27,32/10
62095	4	9/09;27,32/10
62097	6	15/09
62098	7	15/09
62105	4	N16/09*
62110	10	24/09
62142	10	5/10
62143	3	36/09;5,49/10
62144	3	36/09;49/10
62170	2	33/09
62171	4	33/09
62195	7	49/10
62225	4	N38/09*
62230	3	24,38/09;27/10
62241	10	51/09
62250	5	33/09;5,27/10
62270	5	5,24,49/10
62271	5	49/09;24/10
62276	3	49/09
62290	4	24,49/09;24/10
62295	4	24/09
62302	3	27/10
62310	2	31/10
62313	4	8,51/09;24,31,49/10
62314	3	25/09;31/10
62340	3	31/10
62343	4	25/09;31/10
62350	3	22/09;22,31/10
62353	4	22/09;31/10
62355	7	22/09;31/10
62360	5	21,22,51/09;31/10
62361	2	N21,N22,N51/09;N31/10
62362	1	22/09;31/10
62364	1	8,22,51/09;31/10
62366	4	13/09;39,49/10
62377	2	21/09
62387	3	N23/09*
62388	3	N14/09*
62389	1	N8/09
62391	5	21/09
62392	7	21,25/09;5,22,31/10
62393	7	25,36,51/09;5/10
62394	10	25,36/09;5/10
62395	3	25/09
62396	5	31/10
62400	17	7/09;11,19,30,48/10
62401	9	10,16,19/10
62402	10	16,32/10
62403	5	7/09
62404	3	18/09
62407	5	19,30/10
62408	7	11,19,30/10
62411	1	7,15,48/09;28/10
62412	13	9,11/09;5,7,18,30,52/10
62413	13	9,11/09;5,18,30,52/10
62414	2	19/10
62416	14	36/09
62417	3	N46/10*
62419	6	27/10
62420	5	9/09;5,27/10
62431	8	5/10
62432	18	2,5/10
62433	13	5/10
62437	12	51/09
62440	8	10/09;10,11,16,19,30/10
62444	2	7/09
62446	4	N10/09
62449	4	7/09
62453	6	N18/09*;N18,N30/10
62455	7	27/10
62457	6	32/10
62459	2	10,16,24,27/10
62460	4	7,21,25/09;5,11/10
62462	2	7,32/09
62463	2	32/09
62464	4	N10/10*
62480	2	7,21,22,25,36,51/09;11, 22,28,50/10
62490	2	7/09;11,28,50/10
62498	5	N28/10*
62499	6	N10/10*
62510	3	7,21,25,36/09;5,11,22/10
62512	3	N7,N21,N25,N36/09;N5, N11,N22/10
62515	2	10/09
62520	6	7,10,51/09;5,10,11,16,19, 28,50/10
62521	4	N7,N10,N51/09;N5,N10, N11,N16,N19,N28, N50/10
62530	6	7,9,51/09;5,7,10,11,27, 28,31,50/10
62531	4	N7,N9,N51/09;N5,N7, N10,N11,N27,N28,N31, N50/10
62540	6	7,24,40/09;2,5,11,27/10
62541	3	N7,N24,N40/09;N2,N5, N11,N27/10
62550	3	7,9,51/09;5,7,10,28, 50/10
62552	1	32/10
62560	4	5,11,27,31/10
62570	4	24/09;2,5/10
62572	3	2/10
62580	3	2/10
62590	3	24/09
62591	4	N24/09
63000	13	6,19,21,31,35,48/09;2,8, 11,31,34,38,51/10;1/11
63005	18	11,19,35,48,49/09;1,21, 44,45/10
63010	14	6,24/09;3,21/10
63015	11	7,11,48/09;5,34,47/10
63050	2	9,20,21,31/09;2/10
63053	5	9/09
63054	3	9,31/09
63060	7	6,9,21,35/09;2/10
63062	8	6,7,8,11,18,21,35,47,49, 52/09;3,7,15,31,37,44,45, 46,51/10;1/11
63063	9	6,35,49,52/09;7,14/10
63065	6	37,45/10
63070	4	7,8,11,17,18,19,35,49/09; 7,29,31,44,46,51/10;1/11
63080	6	6,35,48/09;3,5,14,31,34, 46/10;1/11
63090	9	23*,30,52/09;11,31,38, 45/10
63091	4	6,7,35,48/09;3,4,5,8,30, 34,46,51/10
63092	4	4,8,34/10
63100	2	11,35/09;11,46,51/10
63101	17	N14*,N48,N52/09;N11, N15,N42,N45,N46/10
63102	21	N14*,N35,N52/09;N1, N11,N15,N42,N46/10
63103	19	N7*,N11,N35/09;N1,N8, N46/10
63110	4	11,19,35,49,50/09;1,11, 13,21/10
63111	10	14,15,50/09;13,21,34,45, 51/10
63112	1	N38/10
63113	1	N15,N38/10
63120	2	19,35,48/09;1,11,20,29, 44/10;1/11
63121	6	35,48/09;1,3,11,19,20,29, 44/10;1/11
63150	1	6,24,50/09;20/10;1/11
63170	3	1/11
63172	5	N4/09
63200	5	37/09;3,8,44,45/10;1/11
63201	11	N41*,N52/09;N3,N8, N44/10
63205	2	52/09;3,8,44,47,51/10
63210	3	24/09;14,21,46/10
63220	5	14/10
63230	6	47/09
63231	9	N47/09
63250	6	35,48/09;14,44,46,51/10
63252	2	N48/09;N45,N46/10
63260	6	17,35/09;14,15,18,34,44, 47/10
63268	2	14/10
63270	7	18,48,52/09;5,31/10;1/11
63271	9	N48,N51/09;N3,N31/10; N1/11
63280	3	7,11/09;5/10;1/11
63290	7	6,7,11,52/09;34,47/10; 1/11
63291	9	6/09;3,12,44,47/10
63310	5	50/09
63320	8	50/09;4,13/10
63321	6	13,51/10
63322	2	51/10
63324	2	50/09;1,4/10
63337	16	1/11
63352	6	16/09
63370	2	8/09
63380	2	7,11,16/09;51/10
63383	5	45/10
63390	2	7/09
63400	1	30,46/09;11/10
63410	6	45/10
63420	2	45/10
63430	3	48/09
63440	4	22,24,48/09;11,32,41/10
71005	1	7,18,30,43/09;3,14/10
71006	5	1/11
71015	5	28,34/10
71018	10	4,28,34/10
71027	9	6,7,37/09;24,27,28,39, 41/10
71033	31	7,28/10
71036	8	32,34/10
71040	5	24,26,30,38/09;11,32,33, 41/10
71042	2	N13,N41/10
71043	3	26/09;13,41/10
71044	2	24,25/09;33,41/10
71045	2	35/10
71050	2	46,48/09;35/10;1/11
71058	3	N7,N12/09
71059	2	N7,N12/09
71061	16	N7,N12/09
71066	2	7,22,45/09;22,24,39/10
71091	5	N22/10*
71180	29	28,34/10
71182	2	34/10
71185	24	6/10
71186	2	6/10
71230	11	6,52/10
71239	4	N23,N32/09
71241	11	N8*,N11,N13,N22, N32/09;N3,N24,N29, N52/10
71243	6	18,32/09;26,49,52/10
71244	4	14,23,32/09
71247	19	18,43,44/09;12,23,24,26, 27,29,46,52/10
71248	3	N18/09;N12,N22,N29, N46/10
71249	2	23/10
71250	1	N36,N43,N44/09
71251	13	N36,N43,N44/09;N22, N23,N46/10
71252	2	N2,N11,N13,N14,N16, N22,N23,N32,N36, N43/09;N3,N7,N12,N24, N29,N46/10
71253	11	2,14,18,36,43/09;3,12,23, 26,27,28,32,45,46,52/10; 1/11
71254	2	N14,N36/09;N24,N29/10
71255	7	N41*,N44/09;N12,N23, N27,N29,N46/10;N1/11
71256	2	N6,N11,N14,N18,N23, N32,N35/09;N22,N23, N26,N46/10
71261	9	16,22,40/09
71262	7	13,16,32/09;39,52/10; 1/11
71265	4	2,11,14,16,18,23,32,36, 43/09;3,7,23,24,26,28,29, 46,49,52/10
71271	11	7,32,40/09;4,14,28/10
71272	11	31,36,40/09;32,41/10
71273	3	7,32,36,40/09;28,41/10
71275	4	7,14,16,18,22,36,43/09;3, 4,7,12,14,24,29,52/10
71285	4	7,18,32/09;4,12,14,28, 52/10;1/11
71295	3	17/10*
71305	2	8,30,32,45/09;11,41/10
71315	2	8,24,30,45/09;11,31,33, 41/10
71320	1	11/09;22,28,41,48/10
71325	8	24,32/10
71330	13	11/09;28,41,48/10
71331	11	11/09;6,32/10
71333	2	11/09
71340	11	32/10
71343	3	14/10
71350	8	32/10;1/11
71400	5	34/10
71401	1	1/11
71402	1	1/11
71410	1	32,34/10
71420	1	32/10
71430	3	52/10
71440	2	11,18,36,43/09;23,24, 52/10
71460	1	14/10;1/11
71465	1	1/11
72000	8	34/10
72007	10	32/10;1/11
72014	10	14/09;28,32/10
72021	8	28/10
72028	7	4/09;4/10
72050	4	1/11
72070	4	47/09;1/11
72075	2	47/09;1/11
72080	7	1/11
72085	3	1/11
72094	2	32,34/10
72100	7	14/09;32,34/10
72101	6	1/11
72103	2	32,34/10
72105	2	14/09;32/10
72107	2	14/09;32,34/10
72109	3	35/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
72110	9	14/09;28/10;1/11
72120	3	1/11
72143	5	32/09
72173	2	14/09;28/10;1/11
72231	9	N44/10*
72234	3	N42/10*
73000	9	7/10
73002	4	1/11
73006	2	7/10
73008	8	1/11
73014	10	23/09
73022	4	4/10
73081	2	14/09*
73291		4/10
73341	8	23/09
73393	1	N41/10*
73395	1	N10/09**
73396	1	N41/10*
73398	1	N10/09**
73441	3	N43/09*
73470	4	49/10
73471	1	49/10
73481	2	4/10
74000	6	41/09;38/10;1/11
74001	1	N10/09**
74002	2	29,33/09
74003	5	29/09;49,52/10
74004	2	50/10
74005	2	50/10
74010	1	N10/09**
74011	1	N10/09**
74016	3	10/09**
74019	1	N10/09**
74020	4	10/09;33/10
74021	7	10,50/09;38,52/10
74027	9	33/10
74031	1	N51/10
74033	1	N50/09;N52/10
74045	1	N10/09**
74143	1	N30/10
74150	2	N44/10*
74154	1	N48/09;N29,N43,N50/10
74155	1	N48/09
74164	1	N29,N38/10
74171	4	41/09;1/11
74180	1	N26,N27,N29,N52/10
74181	8	49,50,52/10
74182	12	49,50/10
74184	10	49,50,52/10
74189	1	N47/10
74190	7	11/09;49,52/10
74191	2	11/09**
74205	2	45/10**
74208	1	N43/09
74209	1	N43/09
74212	2	N41/10
74217	1	N11/09**
74220	8	33,36/10
74222	1	N11/09**
74224	1	N11/09**
74225	1	N11/09**
74226	2	N33/10
74227	1	N38/10
74228	3	N39/10*
74230	7	48/10
74235	1	N11/09**
74237	3	N45/10*
74240	8	48/10
74243	1	N45/10*
74244	1	N45/10*
74246	1	N33/10
74247	1	N33/10
74248	1	N45/10*
74249	1	N41/10*
74251	8	11/09
74252	9	41/10**
74255	1	N11/09**
74256	1	N11/09**
74258	1	N41/10*
74262	1	N33,N50/10
74265	2	33,36,43,50/10
74267	1	N36/10
74270	3	35,36/10
74275	2	N36,N38/10
74276	1	N11/09**
74281	7	46/10
74286	2	11/09**
74290	12	20/09*
74292	8	11/09;29,48,49/10
74295	3	29,48,49/10
74296	4	48/10
74300	1	N29,N49/10
74302	1	N12/09;N30,N35/10
74311	2	N29,N33,N46,N49/10
74312	1	N12/09**
74313	1	N50/10
74341	1	N12/09**
74342	1	N41/09;N12/10
74343	1	N12/09**
74345	1	N46/10*
74346	1	N12/09**
74347	1	N46*,N50/10
74376	5	36/10**
74380	4	48/10
74383	3	N44/10*
74386	1	N12/09**
74389	1	N52/10
74397	1	N42,N43,N46,N50, N51/09;N12,N30,N35/10
74398	2	N12,N30/10
74399	1	N12/09**
74410	3	12,43/09;48/10
74420	3	12/09;49/10
74440	3	49/10
74451	2	N30/10
74464	1	N41/10*
74470	2	49/10**
74475	2	10/09
74491	4	12/09
74492	7	12/09**
74493	3	10,12/09;33/10
74496	1	N12/09**
74510	2	50/09;49/10
74515	4	50/09;38,46,52/10
74517	3	36/10**
74518	1	N47/10*
74520	2	38,48/10
74550	4	33/10
74560	10	46/10
74583	15	33/10
74588	1	N44/09
74589	1	N12/09**
74590	2	12,45/09
74593	1	N45/09;N33/10
75000	6	12/09
75025	9	4,52/10
75051	6	46,50/10
75052	2	13/09;50/10
75111	1	N25/10
75114	1	N33/10
75119	1	N13/09**
75130	16	45/09;43,47,51,52/10
75134	3	13,45/09;43,47,52/10
75136	1	N13/09**
75137	2	N39,N45/09;N43/10
75142	5	13/09**
75143	4	13/09
75147	1	N38/10
75154	1	N13/09**
75155	1	N13/09**
75160	6	13/09
75162	1	N13/09**
75163	1	N13/09**
75164	3	N44/10*
75165	2	N33,N51/10;N1/11
75166	1	N52/09;N33/10
75169	1	N14/09**
75170	12	17/10**
75174	2	N33/10
75177	7	38/09
75178	2	N49/09
75182	1	N14/09**
75185	2	4,52/10
75188	1	N14/09**
75191	6	52/10
75207	2	14/09**
75208	2	14/09**
75209	1	N49/10
75210	1	N14/09**
75211	1	N49/10
75213	2	14/09**
75215	2	14/09**
75220	12	19/09;52/10
75222	8	14/09**
75223	1	N14/09**
75240	4	22/10
75252	1	N52/09;N33,N52/10
75255	1	N14/09**
75266	1	N29,N43/10
75267	1	N25,N29,N30,N48/10
75268	1	N14/09**
75269	1	N25,N30/10
75271	1	N14/09**
75272	1	N14/09**
75273	2	N14/09**
75274	1	N43/10
76015	1	13,14,22,23,25,32,48/09; 4/10
76020	7	8/09;4/10
76030	9	8,48/09;4,7,24/10
76040	8	14,16/09
76041	2	13,15,16,19,31/09
76050	8	14,20,21,22,23,25,32, 48/09;14,52/10
76052	8	13,14,15,20,21,22,23,25, 30,32,48/09;22,24/10
76054	5	14,21/09
76056	3	19,22,25,48/09;5,26/10
76060	7	13,22,23/09;32,41/10
76061	3	14,16,19,22,23/09;32, 51/10
76070	9	13/09;31,38/10
76071	9	18,22/09;47/10
76080	8	14,21/09;38/10
76081	7	19,21,22,42/09;24/10
76083	3	13,21/09;35,39/10
76090	6	23,49/09;37,39/10
76110	5	7,43/10
76120	6	14,19,31/09
76140	7	51/10
76141	8	22,34/09
76142	1	19/09
76146	1	15/09;51/10
76147	1	15/09;51/10
76150	6	15/09
76160	4	41/10
76161	10	15,16,18,49/09;41/10
76162	1	19/09;22/10
76170	7	18/09;24/10
76171	10	13,19/09
76180	1	7/10
81001	1	46/09
81002	6	47/09;19/10;1/11
81004	5	37,38,47/09;18/10
81012	3	46/09
81023	5	1/11
81025	3	N37,N38,N47/09;N10, N18/10;N1/11
81048	10	20,36,52/09;1/11
81054	16	7/09
81059	1	N47/09;N18/10;N1/11
81060	2	47/09;18/10;1/11
81067	9	14/09*
81076	12	30,36,49/10
81435	4	5/09*
81711	7	32*,37/10
81715	5	37/10*
82005	5	34/10
82020	7	8/09
82025	3	8/09
82030	8	8/09;4,7/10
82095	2	34/10
83005	33	40/09
83010	6	12/09
83015	8	21/09;50/10
83021	1	52/09;50/10
83022	1	48/10
83023	4	48/09;7/10
83024	2	48/09;48/10
83025	1	48/09;47/10
83026	32	12,35/09
83032	1	4,7/10
83034	1	10/09;4,7/10
83039	11	10,12,15,35/09;4,7/10
83059	3	22/10*
83153	2	7/09*
83251	2	21/09;47/10
83252	8	21/09
83253	2	21/09;47/10
83254	2	21/09
83382	10	N19/10*
83383	2	25/09
83385	19	11,25/09;48,52/10
83393	2	N48/10
83425	6	30/09
83476	26	47/10
83484	12	24/10*
83500	1	10,19,22/09;4,7/10
83560	3	19,22/09;4/10
83567	3	21/09
83570	2	10/09;7/10
83572	2	N42/10*
83574	3	N49/10*
83580	2	10/09;4/10
83590	1	4/10
83633	5	25,29/09
83637	4	25,29/09
91005	6	38/09;13,32,38,40/10; 1/11
91008	1	2,6,8,15,23,27,28,33, 48/09;31,32,33,40,46, 51/10;1/11
91010	6	2,6,8,15,23,27,28,33, 48/09;31,32,33,40,46, 51/10;1/11
91020	5	23,47,51/09;32,44,46, 47/10
91025	8	51,52/10
91030	3	47/09;44,46,47/10
91040	1	47/10
91120	3	33/09
91140	4	23,33/09;10/10
91151	3	10/10
91160	3	32/10
91170	2	10/10
91175	3	23,33/09
91220	3	47/10
91240	5	47/10
91247	6	N14/09*
91280	7	51,52/10
91330	1	10/10
91331	3	23,47/09;44,45,46/10
91340	3	23,47,51/09;44,45,46/10
91360	2	47/09
91380	2	47/10
92006	5	23/09
92010	3	32/09
92020	2	10/10
92025	3	45/10;1/11
92030	4	23/09;44,45,46,47/10; 1/11
92033	5	10,13,32,38/10
92090	2	1/11
92100	3	1/11
92210	3	16/10
92220	2	16/10
92290	2	46/10;1/11
92293	2	46/10
92320	4	44,45/10
92370	2	1/11
92380	3	44,45/10
92383	7	45/10
92385	4	44,45/10
92440	4	23,47/09;44,46,47/10
92450	3	47/09;44/10
92460	2	32/10*
92470	3	23/09;44,46,47/10
92480	2	10/10
92500	1	10/10
92560	4	35/09
93006	3	4,6,11,28,49/09;19,31,33, 39,46,51/10;1/11
93010	6	6,7,24,26,27,30,35,37/09; 13,27,33,39,41,49/10
93018	8	6,7,24,26,30,35,37/09;13, 27,33,39,41,49/10
93020	2	24/10
93025	5	37/10
93030	7	38/10*
93036	11	6,11,28/09;39,40/10
93044	2	37/10
93045	2	13,38/10
93047	2	37/10
93048	1	11/09;22,48/10
93049	1	24,38/10
93050	1	N37/09
93110	2	6,11/09
93113	3	N7,N22/09

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
93115	3	N30/09*
93117	3	7,11/09
93160	4	6,12,24,30/09;39/10
93180	8	N24,N30,N35,N37/09; N27,N32,N33,N41/10
93200	4	24,30,35,37/09;11,31,33, 41/10
93220	6	24,26,27,35,37/09;32,34, 41/10
93224	3	34/10
93240	11	24,26,27,28,35,37/09;12, 33,34/10
93241	9	25,26,28,51,52/09;33,34, 41/10
93242	7	33,41/10
93243	6	25/09
93244	8	25,37/09;33,34/10
93245	6	25,30,35,51/09;11,12,31, 32,33,34/10
93247	5	12,31,34/10
93248	1	26,35/09;11,32,34/10
93249	1	30,37/09;33,34/10
93260	8	24,26,28,35/09;12,27,32, 34,49/10
93261	5	28,35/09;27,34/10
93280	5	32,34/10
93404	6	31,35/10
93520	13	34/10
93610	3	8,12,14/10
93650	2	8,9/09;12/10
93680	3	8/10
93688	3	N8,N12/10
93690	3	12/10
93710	3	8/09;14,38/10
93720	11	6,13,25,49/09
93721	6	N6,N8,N13,N22,N25, N36,N49/09;N4,N7,N27, N29,N32,N37,N39,N41, N44/10
93726	5	6,21/09
93728	2	7/09;5/10
93730	4	4,6,8,11,13,25,49/09;4, 19,22,37/10
93733	14	N4,N6,N13,N40,N49/09; N4,N13,N19,N29,N32, N44/10
93734	13	N6,N13/09;N4,N9,N19, N29,N44/10
93736	25	N6,N31,N40,N49/09;N9, N13,N15,N29,N44,N45, N49/10
93778	8	16/09;8/10
94004	6	2,6,15,34,48/09;30,31,33, 38,46,51/10;1/11
94016	3	12*,30,33,38,51/10
94028	8	48/09*;5,20,37,38,41/10
94033	5	6,8,9,15,23,38/09;8,19, 35,38/10
94040	14	6,15/09;8,24,31,33,39,46, 51/10
94042	9	6,7,9/09;24/10
94060	12	2,15,48/09;6,13,33,38, 51/10
94061	6	12,13,38/10
94063	5	28/09;6,10/10
94067	11	6,15,27,28/09;33/10
94080	8	12*,31,46,51/10;1/11
94082	9	16,28/09;31/10;1/11
94083	12	16/09
94084	1	16/09;45/10
94120	7	6,8,15,28,34/09;19,29, 30/10
94122	8	N39/09*;N29,N32/10
94123	9	6,15,28,34/09;16,19,30, 34/10
94124	15	N6,N15/09;N30/10
94127	2	28/09;34/10
94160	9	34/09;13,19,30,36,38/10
94164	2	9/09
94165	4	8,9/09;14/10
94180	9	9,16/09
94184	2	N16/09
94187	3	14/10
94188	2	6,10/09;5,39/10
94203	10	6,8,9,10/09
94207	5	N6/09
94216	8	N12,N37,N39/10
94217	6	N39/10
94220	4	6,8,10/09;12,38/10
94260	6	44/10*
94280	6	N44/10*
94281	7	N7/09
94282	9	2/09;38,39/10
94283	8	N18/09;N38/10
94287	2	2/09;39/10
94290	2	2,6/09;14,39/10
94322	14	38/09
94360	6	3,6,8,11,15,18,23/09;35, 38/10
94361	13	37/10
94363	4	11,13,15,18/09;35,38/10
94380	4	N6/09;N5,N35/10
94384	4	5/10
94420	3	6,9,15,23/09;35,36,38, 39/10
94421	11	7,15/09
94423	12	7,15/09
94440	3	6,38/09
95016	8	14,23,29/09;7,15,18/10
95040	9	8/10
95060	14	23,28,42/09;6,8,9,10,19, 51/10
95065	7	N19/10*
95066	13	N38*,N41,N51,N52/10
95067	15	N44/09*;N10,N24,N25, N26,N27,N29,N31,N45, N46,N51/10
95068	2	N44/09;N28,N31,N51, N52/10;N1/11
95080	14	8,9,11,13,18,22,28,31,32, 34,39,40,42/09;6,12,18, 22,37,45/10
95082	10	N8,N31,N32,N34,N39, N41/09;N23/10
95083	8	9,22,27,43,50/09;5,11/10
95084	7	32,43,48/09;8,22,27,32, 45,50/10
95085	4	8,11,27,32,45,50/10
95086	5	4,8,11,50/10
95100	13	9,11,14,26,28,31,32/09;8, 12,18,19,37,45,52/10
95101	8	9,18,22,26,28,30,48/09;7, 9,16,37,52/10
95102	8	9,11,22,30/09;4,6,7,8,10, 12,13,19,37,48,51/10
95103	8	9,14,23,27,30,32,42, 49/09;3,5,6,7,9,10,11,12, 13,17,18,35,36,45/10
95120	9	49/09;3,7,17,18,45/10
95138	9	N14/09
95140	15	22,24,25,37/09;1,12,14, 16,17,18,22,35/10
95141	8	6,9,11,14,27,47,50/09;6, 11,12,14,19,32,45,48/10
95142	9	42,43/09;1,3,6,20,22, 34/10
95143	12	N6,N8,N13,N14,N22/09; N1,N7,N32/10
95144	10	9,18,31,32,37/09;1,5,6,7, 16,17,19,21,26/10
95146	16	27,31,48/09;6,7,16,17,18, 19,21,24,26,28,31,32,35, 42/10
95147	14	48/09;12,16,24,26,28,31, 32,45,50/10
95149	10	6,22,27,30,32,40,51/09;5, 16,17,18,21,25,27,42,46, 51/10
95151	18	8,22,32,40,51/09;5,12,24, 25,27,29,35,42/10
95152	6	22,40/09;18,21,25,27,29, 42/10
95153	3	21,24,27,42,46,51/10
95160	14	48/09*;11,14,16,17,18, 20,32,38,52/10
95161	16	9,11,13,21,28,40,41,42, 43,49,50/09;8,11,12,13, 17,28/10
95162	2	4,9/09;5,7,41/10
95163	2	31,44/09;7,16,19,28,30, 32,34,35,37,38,51,52/10
95164	4	4,22,43/09;7,16,27/10
95167	11	N35/09*;N26,N30,N31, N35,N51,N52/10
95169	2	4,9,41,42/09;4,15/10
95171	1	8,13,23/09;5,8,10,16,19, 21,22/10
95172	1	10,16/10
95173	1	49,50/09;3,5,18/10
95174	1	50/09;18/10
95176	2	3,11,18,23/10
95177	2	N43/09*;N30,N35, N38/10
95180	11	8,11,13,23,41,44,49/09;3, 4,5,6,7,8,15,18,19,21, 22/10
95185	3	5,11,20,32/10
95200	6	14,49/09;5,9,19/10
95250	4	21,23,36,41,47/09;2,11, 15,38,39/10
95255	2	24,25/09
95258	3	25,40/09
95261	7	24,25,26,38/09;39/10
95264	9	N39/09;N39/10
95267	6	37/09
95268	16	48/09;47/10
95270	5	49/09;38,47,50/10
95271	5	N50/09*
95273	2	24,25,43/09
95274	4	24,25,26,38/09;38,39/10
95276	4	46/10**
95280	10	24,26/09;17,51/10
95281	15	42/09
95282	8	N10/10*
95284	1	N46/10*
95285	3	26,48/09;51/10
95300	6	34,37/09;17/10
95320	15	41,45/09;11/10
95341	9	N8*,N34,N35,N41,N42, N46,N47/09;N11,N38/10
96000	5	24/09
96004	14	14,21,24,29/09;7/10
96020	4	45/09
96024	3	5,14/10
96028	5	1,45/10
96032	3	41/10
96036	2	41/09
96039	7	14,47/09;4,5,7,35/10
96041	11	39,47/09;4,7,30,33,36/10
96042	11	17,39,47/09;10,12,25,27, 28,32,33,41/10
96043	8	14/09;5,7,14,30,48/10
96044	10	48,51/09;14,23,30,33,36, 40,46,48/10
96060	7	5/10
96181	5	39/09;30,36/10
96200	5	17,24,44,45,48/09;7/10
96340	4	46/09
96360	4	47/10
96379	1	47/10
96381	2	46/09
96441	1	12,36/10
96660	4	41/09
96760	4	36,38,44/09
96762	4	36,38,48/09
96763	7	36,38,45/09
96764	3	36,44,48/09;38/10
96880	6	5,14/10
96900	4	24,36,44,45,47/09
96901	3	24,36,44,45,47/09;38/10
96904	3	44/09
96906	2	24/09
96910	1	5,14/10
96937	2	44,52/09
96938	4	24,44,45/09
96939	3	24,36/09;8,42/10
96940	1	N24/09;N5/10
96941	8	3,23,24,32,38/09;5/10
96942	10	N5*,N23/09;N5/10
96943	15	21,23,29,36,38,41/09;2, 11,15,38,39/10
96944	6	26,42,47/09
96945	3	21,23,24,29,38,41/09;11, 15,39/10
96948	8	21,36/09;39/10
96949	21	21/09;13/10
96951	1	N46*,N50/10
96960	3	3,23,24,32,36,45/09;5,8, 42/10
96961	4	46/10**
96962	4	21,36/09;11/10
97005	9	21,22,23,25,29,36/09; 11/10
97015	10	7,25,35,37,47/09;3/10
97021	7	7,25,26,31,37/09;3,5, 17/10
97026	10	7,26,29,38,45,46/09
97029	3	7,25,32,35,37/09;20/10
97040	5	22,30/09;1,17/10
97041	9	1,13/10
97042	7	22,30/09;17/10
97043	2	26,49/09
97060	8	22,27,30/09;17,49,50/10
97061	4	22/09
97062	13	10*,22,39/09
97063	2	30/09;7/10
97064	2	22,30/09;49,50/10
97065	2	22/09
97080	6	22,26/09;1,13,42,49, 50/10
97082	6	N39/09
97100	4	7,26,47/09;1,12,13,42/10
97101	2	30,47/09;12/10
97104	4	1/10
97105	3	1,42/10
97108	4	30,47/09;12/10
97120	6	4,6,15,16,30,37,47/09; 3/10
97135	1	N46/10*
97137	1	N46/10*
97139	1	N46*,N50/10
97140	17	6,15,16,25,30,32,34,35, 36,37/09;3,13,15,17,22, 37/10
97141	5	4,6,15,47/09
97143	12	4,6,15,30,44,50/09;3, 39/10
97144	14	4,6,15,16,30,44,50/09
97145	2	30,37,50/09;3/10
97146	10	46/10**
97148	9	4,15,38,50/09
97149	21	N46/10**
97150	13	46/10**
97151	17	4,15,30/09;21,39/10
97154	2	17/10
97155	15	30/09;21/10
97156	6	44/09;7/10
97159	6	25,34,37/09;13,15,22/10
97163	14	52/09;22/10
97164	1	52/09;13,22/10
97166	2	N37/10
97167	3	25/09;37/10
97180	7	N5*,N15,N38/10
97181	20	26,30,32,36,37,46,48, 50/09;2,5,12,38,42/10
97182	14	N33*,N48/09;N5/10
97183	9	30,36/09;38/10
97184	16	N35/09*;N38/10
97185	2	47/09;42/10
97187	3	36/09
97188	3	47,52/09;5,42/10
97189	2	30/09;38/10
97190	2	26,31,32,36,37,45,50/09; 8,16,20/10
97200	9	38,47,48,52/09;8,16, 20/10
97201	7	26,45/09;8/10
97202	16	N47/09
97204	9	31,38,52/09;10,20/10
97206	3	20/10
97218	3	37/09;12/10
97219	4	37,52/09;12,17/10
97220	4	50/09;39/10
97221	21	N18*,N31,N35,N41, N47,N48,N50,N52/09; N1,N10,N12,N17,N20, N38,N39/10
97222	12	31,41,48,52/09;1,38/10
97225	32	31,41,50,52/09;1,10,20, 38,39/10
97228	16	N34/09*;N39/10
97229	12	50/09;39/10
97231	11	37/09;12/10
97232	9	31/09
97233	12	35,39,43,50/09;11,12,13, 38,43,46/10;1/11
97234	17	35,49/09;13,38/10;1/11
97235	2	9,11/10

CHARTS AFFECTED BY NOTICE TO MARINERS
NM 2/09 THROUGH NM 1/11

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.
97236	20	31,43,49/09;38/10
97238	11	31/09
97239	10	35,37,43/09;46/10
97241	6	35,36/09
97243	9	N31,N34,N37,N39,N43, N50/09;N12,N16,N43, N46/10
97244	5	39/09;7/10
97245	11	39/10
97246	7	31/09
97251	4	31,52/09
97261	15	31,35,36,38,50/09;1, 38/10
97262	11	N43/09;N1,N46/10
97263	10	31,35/09;46/10
97266	6	N5*,N12,N38,N43,N44, N45,N46/10
97267	16	28,39,44,47,50/09;38/10
97269	12	N39/09*
97270	7	N38,N47/09
97271	12	31,41/09;5/10
97272	11	27,35,41,43,52/09;7/10
97273	11	27,31,41,52/09;5,7,21/10
97274	19	31,40,48,52/09;2,7,11,16, 38/10
97276	2	44/09
97277	12	26,31,35,39,41,43/09;5,7, 13,20,21,38/10
97278	12	31,38,43,46/09;5,13,20, 21,37/10
97279	10	N14/09*;N5,N20/10
97281	3	21/10
97283	4	N31/09;N20/10
97285	7	41,52/09;11,38/10
97286	7	34,41,47,52/09;2,38/10
97287	6	34,44,47/09;11/10
97300	6	30,36,38,46/09;37,39/10
97304	1	39/10
97320	6	38,43,46/09;37,39/10
97340	8	26,34/09;37/10
97342	14	34/09;37/10
97343	12	34/09
97360	6	23,24,37,46,52/09;7,14, 37/10
97380	7	8,9,10,14,16,17,24,25,46, 47/09;2,4,5,7,14,37, 39/10
97381	7	37,46,52/09;7,14,37/10
97383	16	24,25,37,44,46/09;1,2,7, 11,15,37/10
97384	5	44,46/09;15/10
97385	11	25,44/09;1,7,11/10
97386	6	40/09
97387	3	36,44/09;1,7/10
97389	2	11/10
97390	6	N13*,N14,N25,N34, N44,N47/09;N2/10
97391	27	34/09
97392	5	17,25,34/09;4,37,39/10
97396	14	8,9,10,14,17,25,47/09;2, 4,14,37,39/10
97397	8	N9*,N10,N14,N17/09; N4,N37/10
97398	4	9,10/09;4,37/10
97400	4	8,10,37,39/09;4/10
97409	5	26/09
97410	9	25,36/09;4/10
97412	7	25/09
97420	17	24,25,36,41,46,47/09;4,7, 11,14,38,39/10
97421	13	47/09;7,38/10
97423	3	N25,N47/09
97425	7	N5*,N25,N36/09;N38, N39/10
97440	8	26,37,43,46/09;10,16, 37/10
97441	5	24,43,46/09;16/10
97443	6	24,43,46/09;16/10
97460	7	6,12,16,19,37,43,46/09; 10,16/10
97461	9	6,12,14,16,19,37/09; 18/10
97465	9	6,12,14,23,34/09
97466	3	N48/09*
97469	10	12,34/09;18/10;1/11
97471	6	N25/09*;N1/11
97472	8	6,12/09
97473	8	N19/10*
97474	7	12/09
97480	8	6,8,15/09;16,30/10
97481	6	34/09
97483	7	32,38/09;16/10
97521	6	49/09;20/10
97564	3	34/09
800113	6	N26*,N46/09;N38, N41/10
800669	9	N26*,N34,N46/09;N7, N12,N38,N41/10
800744	1	N3,N26,N41,N46/09
801217	1	N6,N12,N16/09
801959	2	N21/09
802202	8	N44/10
802260	6	N26*,N34/09;N7,N12/10
803222	1	N31/09*
803400	1	N40/10*
803401	1	N24/10*
803405	1	N46/09*
803408	1	N47/09*
803410	1	N46/09*
803417	1	N24/10*
803418	1	N47/09*
803429	1	N31/10*
803436	1	N47/09*
803450	1	N40/10*
803452	1	N10/10*
803456	1	N47/09*
803457	1	N40/10*
803458	1	N46/09*
803463	1	N40/10*
803470	1	N46/09*
803472	1	N31/10*
803475	1	N46/09*
803482	1	N47/09*
803486	1	N47/09*
803487	1	N40/10*
803489	1	N10/10*
803496	1	N46/09*
803738	1	N40/10*
804233	1	N31/09*
804344	1	N31/09*
804567	4	N40/09;N2,N5/10
805118	4	N6/10*
805576	1	N31/09*
805647	2	N32,N43,N48/09;N6/10
805980	4	N24,N41/09;N15,N18/10
806413	1	N31/09*
806464	1	N31/09*
806675	1	N31/09*
806901	1	N47/09*
806928	1	N40/10*
806929	1	N40/10*
806946	1	N46/09*
806952	1	N47/09*
806958	1	N47/09*
806959	1	N31/10*
806967	1	N24/10*
807448	2	N24,N41/09;N15/10
808528	1	N41/09
808568	1	N49/09;N31,N33/10
808916	4	N6/09*
809055	7	N8,N29,N32,N46/10
809310	10	N47/09*;N46/10
809381	1	N31/09*
809679	2	N30/09;N22,N27,N34, N43,N44,N46/10
809780	1	N13,N37/09

CORRECTIONS TO C. G. LIGHT LIST, VOLUME I ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
1520	Norton Island Buoy 2	44 29 28 N 67 45 22 W				Red nun.	
		*					1/11
	***Add Note:**						
	Cathance River buoy positions frequently shifted with changing conditions.						
9005	- Entrance Buoy 3	42 48 44 N 70 47 36 W				Green can.	
		*					1/11
28180	*- Lighted Buoy 12*	41 02 58 N 72 22 40 W	**Fl R** 4s		3	Red.	Replaced by nun from Nov. 15 to May 1.
		*					1/11
31564.1	- Channel Buoy BC5	40 36 05 N 73 44 04 W				Green can.	Private aid.
	*						1/11
31564.2	- Channel Buoy BC6	40 36 04 N 73 44 04 W				Red can.	Private aid.
	*						1/11
31564.3	- Channel Buoy BC7	40 36 07 N 73 44 00 W				Green nun.	Private aid.
	*						1/11
31564.4	- Channel Buoy BC8	40 36 06 N 73 43 59 W				Red nun.	Private aid.
	*						1/11
31590	- Daybeacon A1	40 36 07 N 73 41 09 W				SG on pile.	Private aid.
		*					1/11
31600	- Daybeacon A4	40 36 13 N 73 41 19 W				TR on pile.	Private aid.
		*					1/11
31605	- Buoy A5	40 36 12 N 73 41 20 W				Green can.	Private aid.
		*					1/11
31610	- Buoy A6	40 36 18 N 73 41 28 W				Red nun.	Private aid.
		*					1/11
31620	- Daybeacon A8	40 36 25 N 73 41 30 W				TR on pile.	Private aid.
		*					1/11

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.*

CORRECTIONS TO C. G. LIGHT LIST, VOLUME I ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
31625	- Buoy A9	40 36 35 N 73 41 30 W				Green can.	Private aid.	
		*						1/11
31630	- Buoy A12	40 36 39 N 73 41 29 W				Red nun.	Private aid.	
		*						1/11
31635	- Buoy A13	40 36 42 N 73 41 29 W				Green can.	Private aid.	
		*						1/11
31640	- Buoy A14	40 36 44 N 73 41 31 W				Red nun.	Private aid.	
		*						1/11
31645	- Buoy A16	40 36 49 N 73 41 36 W				Red nun.	Private aid.	
		*						1/11
31650	- Buoy A17	40 36 48 N 73 41 36 W				Green can.	Private aid.	
		*						1/11
31655	- Buoy A19	40 36 56 N 73 41 41 W				Green can.	Private aid.	
		*						1/11
31660	- Buoy A20	40 36 56 N 73 41 40 W				Red nun.	Private aid.	
		*						1/11
31665	- Buoy A21	40 37 00 N 73 41 46 W				Green can.	Private aid.	
		*						1/11
31670	- Buoy A22	40 37 04 N 73 41 54 W				Red nun.	Private aid.	
		*						1/11
31675	- Buoy A23	40 37 02 N 73 41 51 W				Green can.	Private aid.	
		*						1/11
31680	- Buoy A25	40 37 04 N 73 42 00 W				Green can.	Private aid.	
		*						1/11
31685	- Buoy A26	40 37 05 N 73 42 03 W				Red nun.	Private aid.	
		*						1/11

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.

CORRECTIONS TO C. G. LIGHT LIST, VOLUME I ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
31690	- Buoy A27	40 36 59 N 73 42 02 W				Green can.	Private aid.	
		*						1/11
31695	- Buoy A28	40 37 01 N 73 42 03 W				Red nun.	Private aid.	
		*						1/11
31700	- Buoy A29	40 36 54 N 73 42 02 W				Green can.	Private aid.	
		*						1/11
31705	- Buoy A30	40 36 54 N 73 42 03 W				Red nun.	Private aid.	
		*						1/11
31710	- Buoy A31	40 36 52 N 73 42 13 W				Green can.	Private aid.	
		*						1/11
31715	- Buoy A32	40 36 53 N 73 42 08 W				Red nun.	Private aid.	
		*						1/11
31720	- Buoy A33	40 36 51 N 73 42 20 W				Green can.	Private aid.	
		*						1/11
31725	- Buoy A34	40 36 51 N 73 42 20 W				Red nun.	Private aid.	
		*						1/11
31730	- Buoy A38	40 36 55 N 73 42 23 W				Red nun.	Private aid.	
		*						1/11
31735	Boseware Bay North End Buoy AB1	40 37 08 N 73 41 55 W				Green can.	Private aid.	
		*						1/11
31740	Boseware Bay North End Buoy AB2	40 37 06 N 73 41 54 W				Red nun.	Private aid.	
		*						1/11
31745	Boseware Bay North End Buoy AB4	40 37 10 N 73 41 53 W				Red nun.	Private aid.	
		*						1/11
31915	- Buoy B53	40 37 38 N 73 40 29 W				Green can.	Private aid.	
		*						1/11

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.*

CORRECTIONS TO C. G. LIGHT LIST, VOLUME I ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
31975	*- Lighted Buoy C1*	40 35 46 N 73 39 56 W	**Fl G** 4s				Private aid.	
	*	*	*			*		1/11
31980	*- Lighted Buoy C2*	40 35 47 N 73 39 51 W	**Fl R** 4s				Private aid.	
	*	*	*			*		1/11
31985	- Buoy C3	40 36 01 N 73 40 15 W				Green can.	Private aid.	
		*						1/11
31990	- Buoy C5	40 36 10 N 73 40 15 W				Green can.	Private aid.	
		*						1/11
31995	- Buoy C7	40 36 23 N 73 40 04 W				Green can.	Private aid.	
		*						1/11
32000	- Buoy C9	40 36 25 N 73 39 50 W				Green can.	Private aid.	
		*						1/11
32005	- Buoy C11	40 36 26 N 73 39 38 W				Green can.	Private aid.	
		*						1/11
32010	*- Lighted Buoy C13*	40 36 28 N 73 39 30 W	**Q G**			Green.	Private aid.	
		*						1/11
32015	- Buoy C15	40 36 35 N 73 39 23 W				Green can.	Private aid.	
		*						1/11
32650	- Buoy SW1	40 36 02 N 73 33 00 W				Green can.	Private aid.	
		*						1/11
32655	- Buoy SW2	40 36 02 N 73 32 57 W				Red nun.	Private aid.	
		*						1/11
32660	- Buoy SW3	40 36 11 N 73 33 05 W				Green can.	Private aid.	
	*	*						1/11
32665	- Buoy SW4	40 36 16 N 73 33 04 W				Red nun.	Private aid.	
	*	*						1/11

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CORRECTIONS TO C. G. LIGHT LIST, VOLUME I ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
32670	- Buoy SW5	40 36 39 N 73 33 21 W				Green can.	Private aid.	
		*						1/11
32675	- Buoy SW6	40 36 45 N 73 33 19 W				Red nun.	Private aid.	
	*	*						1/11
32685	- Daybeacon SW7	40 36 52 N 73 33 31 W				SG on pile.	Private aid.	
	*	*						1/11
32690	- Buoy SW8	40 36 53 N 73 33 27 W				Red nun.	Private aid.	
	*	*						1/11
32695	- Buoy SW9	40 37 02 N 73 33 48 W				Green can.	Private aid.	
	*	*						1/11
32700	- Buoy SW10	40 37 08 N 73 33 55 W				Red nun.	Private aid.	
	*	*						1/11
32705	- Daybeacon SW11	40 37 15 N 73 34 17 W				SG on pile.	Private aid.	
	*	*						1/11
32710	- Daybeacon SW12	40 37 25 N 73 34 30 W				TR on pile.	Private aid.	
	*	*						1/11
32715	- Daybeacon SW13	40 37 24 N 73 34 35 W				SG on pile.	Private aid.	
	*	*						1/11
35755	*- Channel Lighted Buoy 5*	40 24 49 N 74 00 06 W	**Fl G** 2.5s		3	Green.	Replaced by can from Dec. 1 to Apr. 15.	
		*						1/11

CORRECTIONS TO C. G. LIGHT LIST, VOLUME II ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
*8	SEA GRIT OUTFALL LIGHT 1	40 08 17 N 74 01 28 W	**Fl W** 4s			On Pile worded DANGER SUBMERGED PIPE	Private aid.	
								1/11
4845	*- Lighted Wreck Buoy WR7A*	38 21 16 N 75 05 23 W	**Q G**		3	Green.		
	*							1/11

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CORRECTIONS TO C. G. LIGHT LIST, VOLUME II ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
*21223	MASONVILLE DIKE WARNING LIGHT A	39 15 08 N 76 34 52 W	**Fl W** 4s	10		On containment dike.	Private aid. 1/11
*21223.1	MASONVILLE DIKE WARNING LIGHT B	39 15 10 N 76 34 58 W	**Fl W** 4s	10		On containment dike.	Private aid. 1/11
*21223.2	MASONVILLE DIKE WARNING LIGHT C	39 15 14 N 76 35 07 W	**Fl W** 4s			On containment dike.	Private aid. 1/11
*21223.3	MASONVILLE DIKE WARNING LIGHT D	39 15 14 N 76 35 19 W	**Fl W** 4s			On containment dike.	Private aid. 1/11
*21223.4	MASONVILLE DIKE WARNING LIGHT E	39 15 13 N 76 35 32 W	**Fl W** 4s			On containment dike.	Private aid. 1/11
28067	- Buoy 20	35 46 24 N 75 32 26 W *				Red nun.	1/11
28070	- Channel Buoy 21	35 46 28 N 75 32 36 W *				Green can.	1/11
28073	Oregon Inlet Channel Buoy 21A	35 46 36 N 75 32 43 W *				Green can.	1/11
28910	- Buoy 3	35 03 56 N 75 59 25 W *				Green can.	1/11
28940	*- Lighted Buoy 16*	35 04 20 N 76 01 49 W *	**Fl R** 2.5s		3	Red.	1/11
*29385	Shackleford Point Warning Daybeacon	34 41 18 N 76 39 56 W			4	NW on pile.	Ra ref. 1/11
34965	- LIGHT 9	40 05 33 N 74 05 50 W	**Fl G** 4s	15	4	TR on pile. *	Lighting equipment removed from Nov. 15 to May 1. * 1/11
37440	- LIGHT 55	36 34 32 N 76 02 25 W	**Fl G** 4s	15	4	SG-SY on pile.	Light equipment removed from Dec. 1 to Mar. 15. * 1/11

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CORRECTIONS TO C. G. LIGHT LIST, VOLUME II ATLANTIC COAST, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
37455	- LIGHT 61	36 33 24 N 76 01 45 W	**Fl G** 4s	16	4	SG-SY on pile.	Light equipment removed from Dec. 1 to Mar. 15. * 1/11

CORRECTIONS TO C. G. LIGHT LIST, VOLUME III ATLANTIC AND GULF COASTS, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
	Charleston Harbor North Channel						
2485	REBELLION REACH RANGE FRONT LIGHT	32 46 54 N 79 54 12 W	**Fl G** 2.5s	16 *		On skeleton tower on piles.	Visible 0.5° each side of range line. Lighted throughout 24 hours. 1/11
2490	REBELLION REACH RANGE REAR LIGHT 460 yards, 306.5° from front light. *	32 47 02 N 79 54 25 W	**Iso G** 6s	46 *		On skeleton tower on piles.	Visible 0.5° each side of rangeline. Lighted throughout 24 hours. 1/11
8850	MANHATTEN LIGHT 4	29 08 12 N 81 30 50 W *	**Fl R** 4s	16	3	TR on dolphin.	1/11
9155	Wekiva Cutoff Daybeacon 95	28 52 59 N 81 21 57 W *				SG on pile.	1/11
	***Delete Heading:** ***Mullet Key Bayou West Channel**						
25295	- Buoy 1						*Remove from list.* * 1/11
25300	- Buoy 2						*Remove from list.* * 1/11
25305	- Buoy 3						*Remove from list.* * 1/11
25310	- Buoy 4						*Remove from list.* * 1/11
25315	- Buoy 5						*Remove from list.* * 1/11
25320	- Buoy 6						*Remove from list.* * 1/11
*32003	*Shoal Lighted Buoy 2*	17 56 48 N 66 43 44 W	**Fl R** 6s		5	Red.	1/11

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CORRECTIONS TO C. G. LIGHT LIST, VOLUME III ATLANTIC AND GULF COASTS, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
32065	*Cayo Maria Langa Lighted Buoy 2*	17 57 39 N 66 45 21 W	**Fl R** 2.5s		5	Red.		
	*	*	*	*	*	*		1/11
37610	- LIGHT 60	30 50 57 N 81 28 42 W	**Fl R** 4s	12	3	TR-TY on pile.		
		*						1/11

CORRECTIONS TO C. G. LIGHT LIST, VOLUME VI PACIFIC COAST AND PACIFIC ISLANDS, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
3770	*- Lighted Buoy 5*	34 24 26 N 119 41 10 W	**Fl G** 4s		3	Green can.	Buoys maybe frequently relocated due to changing conditions.	
		*						1/11
3785	*- Lighted Buoy 11*	34 24 31 N 119 41 16 W	**Q G**		3	Green can.	Buoys maybe frequently relocated due to changing conditions.	
		*						1/11
3790	*- Lighted Buoy 10*	34 24 32 N 119 41 16 W	**Fl R** 4s		3	Red.	Buoys maybe frequently relocated due to changing conditions.	
		*						1/11
3792	*- Lighted Buoy 12*	34 24 29 N 119 41 21 W	**Fl R** 2.5s		3	Red nun.	Buoys maybe frequently relocated due to changing conditions.	
		*						1/11
3971.1	*Monterey Bay Special Purpose Buoy MY1*						*Remove from list.*	
							*	1/11
3971.2	*Monterey Bay Special Purpose Buoy MY2*						*Remove from list.*	
							*	1/11
19725	- Daybeacon 2	48 34 58 N 123 10 20 W				TR on pile.		
		*						1/11

CORRECTIONS TO C. G. LIGHT LIST, VOLUME VII GREAT LAKES AND THE ST. LAWRENCE RIVER ABOVE THE ST. REGIS RIVER, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
	LAKE HURON (Chart 14860)							
10010	*NOAA Lighted Weather Buoy 45008*	44 17 00 N 82 24 59 W	**Fl (4) Y** 20s			Yellow disc-shaped hull.	Aid maintained by NOAA	
							*	1/11

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CORRECTIONS TO C. G. LIGHT LIST, VOLUME VII GREAT LAKES AND THE ST. LAWRENCE RIVER ABOVE THE ST. REGIS RIVER, 2010

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
22145	*- Lighted Buoy 9*	44 37 22 N 87 55 33 W	**Fl G** 4s		4	Green.	Year-round lighted ice buoy. * 1/11
22200	*- Lighted Buoy 17*	44 34 55 N 87 58 37 W	**Q G**		4	Green.	Year-round lighted ice buoy. * 1/11

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CORRECTIONS TO PUB 112, LIST OF LIGHTS, 2010 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
7896 *M 5548*	**Okado Hana.**	34° 26.0′ N 134° 20.2′ E	**Fl.W.** period 3s	209 **64**	**21**	White tower; 43.	Visible 209°-116°. Partially obscured by Funoko Shima.	
		*	*			*		1/11
7912 *M 5547.5*	Obe Ko, breakwater.	34° 32.9′ N 134° 17.0′ E	**Fl.G.** period 3s	43 **13**	7	White round concrete tower; 32.		
		*	*		*	*		1/11
7916 *M 5547*	Sanuki Chiburi Shima.	34° 31.8′ N 134° 09.7′ E	**Fl.(2)W.** period 7s	72 **22**	7	White tower; 27.		
	*	*			*	*		1/11
8034 *M 5549.55*	Okushi Saki.	34° 22.2′ N 134° 12.7′ E	**Mo.(A)R.** period 8s	25 **8**	4	STARBOARD (B) R, beacon, topmark; 18.		
	*			*	*			1/11
8094 *M 5746*	Manaitaishi.	34° 26.8′ N 133° 58.1′ E	**Mo.(A)G.** period 8s	43 **13**	5	PORT (B) G, beacon, topmark; 36.		
	*	*			*			1/11
*13313	-Navy Pier, head.	26° 17.7′ N 127° 54.4′ E	**Iso.W.** period 6s	9 **3**	4	White post; 9.		
								1/11
*14819 *F 2405*	Tabuelan.	10° 50.0′ N 123° 52.0′ E	**Fl.W.** period 5s	20 **6**	10	Metal tower; 20.		
								1/11
14877.8 *F 2385*	-Talibon.	10° 09.0′ N 124° 19.6′ E	**Fl.R.** period 3s		10	Concrete.		
			*			*		1/11
*15098.5 *F 2264.8*	Alutaya Reef.	8° 40.3′ N 124° 41.3′ E	**Fl.R.** period 5s					
								1/11
*21773.5 *F 1619.7*	Bambek Shoal.	2° 32.6′ N 101° 40.7′ E	**Fl.W.** period 5s	26 **8**	8	Pile, white platform.		
								1/11
21782 *F 1614.5*	Kuala Langat.	2° 48.1′ N 101° 24.1′ E	**Fl.G.** period 5s	13 **4**	8	Pile, green square daymark.		
*	*	*	*	*	*	*		1/11
23322 *F 1291*	Teluk Susoh.	3° 43.0′ N 96° 48.6′ E	**Fl.W.** period 3s fl. 0.5s, ec. 2.5s	39 **12**	10	White metal framework tower; 23.		
		*	*	*	*	*		1/11

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CORRECTIONS TO PUB 112, LIST OF LIGHTS, 2010 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
24794.1 *F 2024.81*	-Channel beacon.	0° 32.1′ N 117° 46.4′ E	**Q.W.**	23 **7**	7	N. CARDINAL BY, beacon, topmark.	Channel marked by lighted beacons. **Radar reflector.**	
	-RACON		**K(– • –)**				(3 & 10 cm)	
		*				*		1/11
24976 *K 1442*	**Sambargalang (Brothers) Islands.**	4° 24.4′ S 116° 10.2′ E	**Fl.W.** period 5s fl. 1s, ec. 4s	180 **55**	**24**	White metal framework tower; 98.	Obscured 209°-219° from 2-12 miles.	
		*	*		*	*	*	1/11
25031 *K 1411.7*	Teluk Sampit.						*Remove from list.*	
							*	1/11
*26426 *F 1227.1*	- -Rosen Point.	6° 57.3′ N 93° 56.6′ E	**Fl.W.** period 10s	75 **23**	13	Trestle tower on square masonry tower, black bands; 69.		
								1/11
27074 *F 0938*	-Entrance channel.						*Remove from list.*	
							*	1/11
27592 *F 0754.2*	-Kadmat Island.	11° 15.4′ N 72° 47.4′ E	**Fl.(4)W.** period 20s fl. 0.5s, ec. 1s fl. 0.5s, ec. 1s fl. 0.5s, ec. 1s fl. 0.5s, ec. 15s	112 **34**	8	White framework tower; 98.		
	-RACON		**G(– – •)**					
	*	*	*					1/11
27600 *F 0754.7*	-Agatti Island, N. end.	10° 52.5′ N 72° 12.3′ E	**Fl.(3)W.** period 30s fl. 1s, ec. 3s fl. 1s, ec. 3s fl. 1s, ec. 21s	115 **35**	10	White framework tower; 98.		
	-RACON		**B(– • • •)**					
	*	*	*					1/11
28268 *F 0414*	**Diu Head.**	20° 41.5′ N 70° 49.6′ E	**Fl.W.** period 10s fl. 0.3s, ec. 9.7s	194 **59**	**32**	White hexagonal masonry tower, red bands; 121.		
	RACON		**D(– • •)**					
	*	*	*			*	*	1/11

CORRECTIONS TO PUB 113, LIST OF LIGHTS, 2010 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
10544 *E 2061.5*	**- -Valleta.**	35° 54.2′ N 14° 31.1′ E	**Fl.(3)W.** period 15s	112 **34**	**19**	Metal framework tower on Fort St. Elmo.		
		*		*				1/11

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CORRECTIONS TO PUB 113, LIST OF LIGHTS, 2010 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
*16861 *E 4568.3*	Gulpinar (T.), main breakwater, head.	39° 33.8′ N 26° 05.7′ E	**Fl.G.** period 5s fl. 1s, ec. 4s	33 **10**	7	White concrete tower; 26.		1/11
*16861.1 *E 4568.31*	-Auxillary breakwater, head.	39° 33.9′ N 26° 05.8′ E	**Fl.R.** period 5s fl. 1s, ec. 4s	33 **10**	7	White concrete tower; 26.		1/11
*16943 *E 4557.1*	Enez Harbor (T.), W. breakwater, head.	40° 42.0′ N 26° 03.0′ E	**Fl.G.** period 5s fl. 1s, ec. 4s	26 **8**	7	White concrete tower; 20.		1/11
*16943.1 *E 4557.12*	-N. breakwater, head.	40° 42.0′ N 26° 03.1′ E	**Fl.R.** period 5s fl. 1s, ec. 4s	26 **8**	7	White concrete tower; 20.		1/11
*16943.2 *E 4557.14*	-Inner breakwater, head.	40° 41.9′ N 26° 03.2′ E	**F.R.**	26 **8**	2	White concrete tower; 20.		1/11
19996 *E 4661*	Teke Burnu (T.), Sigacik Korfezi, W. entrance point.	38° 06.2′ N 26° 35.6′ E	**Fl.(3)W.** period 15s fl. 0.5s, ec. 2s fl. 0.5s, ec. 2s fl. 0.5s, ec. 9.5s	125 **38**	8	White framework tower; 26.		1/11
		*			*	*		
20240 *E 4731.4*	-Sehir Adalari, Orta Ada.	36° 59.9′ N 28° 12.8′ E	**Fl.W.R.** period 10s fl. 0.5s, ec. 9.5s	49 **15**	W. 9 R. 6	White metal framework tower; 33.	R. 024°-056°, W.-024°.	1/11
		*			*			
20596 *E 5848.5*	Kekova Adasi, E. point.	36° 11.8′ N 29° 54.8′ E	**Fl.W.** period 5s fl. 0.5s, ec. 4.5s	115 **35**	9	White metal framework tower; 20.		1/11
		*			*	*		
20632 *E 5855*	Antalya (New Harbor), main breakwater.	36° 50.0′ N 30° 37.0′ E	**Fl.R.** period 3s fl. 0.3s, ec. 2.7s	39 **12**	6	White metal tower; 33.		1/11
		*		*		*		

CORRECTIONS TO PUB 115, LIST OF LIGHTS, 2010 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
18664 *L 4626*	- -Holmavik (Holmarvig), N. side of entrance to Holmavik Anchorage.	65° 42.3′ N 21° 40.7′ W	**Fl.W.R.G.** period 5s fl. 0.5s, ec. 4.5s	39 **12**	W. 13 R. 12 G. 12	Yellow hut; 10.	R. shore-297°, W.-305°, G.-shore.	1/11
				*			*	

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CORRECTIONS TO PUB 116, LIST OF LIGHTS, 2010 EDITION

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks	
1160 *C 0625*	**Tistlarna.**	57° 30.6′ N 11° 43.7′ E	**Fl.(4)W.R.** period 12s fl. 0.3s, ec. 1.4s fl. 0.3s, ec. 1.4s fl. 0.3s, ec. 1.4s fl. 0.3s, ec. 6.6s	75 **23**	W. 10 R. 8	Yellow castellated building.	R. 100°-351°, W.-100°.	
			*		*	*		1/11
*6150 *C 2678.55*	-Berth 4, NE corner.	53° 54.1′ N 14° 15.5′ E	**Iso.R.** period 2s	23 **7**	1	Red pole.		
								1/11
*6150.1 *C 2678.6*	-Berth 3, SW corner.	53° 54.0′ N 14° 15.4′ E	**Iso.R.** period 2s	23 **7**	1	Red pole.		
								1/11
*6150.2 *C 2678.7*	-Berth 2, SW corner.	53° 53.9′ N 14° 15.3′ E	**Iso.R.** period 2s	23 **7**	1	Red pole.		
								1/11

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PUBLICATIONS AFFECTED BY NOTICE TO MARINERS
THROUGH NM 1/11

Note: * indicates New Edition/New Publication; ** indicates Publication Canceled; N indicates Not For Sale

NGA Reference No.	Ed.	Notice to Mariners No.
NGA/DLIS CATALOGS CATCDLIMDIS		
Region 1	2005	11*,12,13,14,15,16,18,21,22,23,24,25,26,27,28,29,31,32,33,34,35,36,38,39,40,41,42,43,45,46,47,48,49,50,51,53/05;2,3,4,5,6,8,9,10,11,12,14,15,16,17,19,20,21,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,45,46,48,49,50,51,52/06;1,3,4,6,7,8,10,11,12,13,14,17,19,20,22,23,24,25,26,30,31,32,33,34,36,37,38,40,41,43,44,45,46,47,49,50,51,52/07;1,5,6,7,8,11,12,13,15,16,17,18,19,20,21,22,23,24,25,27,28,30,31,32,33,34,36,38,39,40,41,42,43,44,46,47,48,50,51/08;1,3,6,7,8,9,10,11,13,14,15,17,19,22,23,24,25,26,27,28,29,30,31,32,34,35,37,39,40,41,42,44,46,47,48,52/09;1,3,4,5,9,10,11,12,15,17,18,19,23,24,26,27,28,31,32,34,35,37,38,40,41,43,44,46,48,51,52/10
Region 2	2005	11*,25,41/05;8,12,13,14,20,23,25,26,27,29,31,37,39,42/06;3,10,12,13,21,24,32,34,51/07;21,31,34,45,48,49/08;1,3,7,23,25,30,31,39,41,48,50/09;6,8,10,11,16,17,19,24,26,27,28,30,32,35,37,38,40,43,46,47,49/10
Region 3	2005	11*,12,13,14,16,17,19,23,24,25,27,31,32,34,35,37,40,45,46,47,51/05;4,5,8,12,15,17,18,20,21,22,23,25,26,27,29,30,32,40,42,43,47,52/06;2,3,4,5,6,7,9,11,12,13,14,20,21,24,27,28,29,30,37,38,42,44/07;6,7,8,10,16,21,25,26,27,31,32,33,36,37,38,46,49,52/08;4,5,16,20,22,25,33,34,39,40,41,42,43/09;6,7,12,13,18,22,26,31,37,39,46/10
Region 4	2005	11/05*;20,43/07;17,20,25,43,45/08;5,26,29,35,39,42,43,44,45,49/09;5,11,12,18,19,27,30,32,44,49/10
Region 5	2005	11*,14,18,20,22,23,28,36,41,43,45,49/05;4,5,7,9,10,12,14,27,32,45/06;3,20,23,25,28,30,31,41/07;8,13,17,20,22,25,29,31,33,36,38,40,51/08;1,5,6,7,8,9,10,11,12,16,18,19,24,25,30,31,38,39,41,44,48,50/09;5,10,11,16,17,18,22,26,27,28,32,37,38,39,46/10
Region 6	2005	11*,18,23,28,43,46,52/05;5,7,10,12,14,16,25,30,35,36,40,41,42,43,45,50/06;3,6,7,10,12,20,28,30,35,39,41,42,50/07;3,7,8,11,13,15,20,22,32,34,37,43,45,46/08;7,8,14,16,18,23,38,41,48/09;10,19,28,32,46/10
Region 7	2005	11*,14,43,47,52/05;12,14,15,17,18,19,20,21,25,27,35,42,45,46,47,48,49,52/06;3,4,8,9,10,11,12,13,14,15,16,17,18,19,20,23,30,34,35,36,39,42,50/07;1,7,10,16,17,20,22,25,26,37,42,43,48/08;1,8,10,11,12,13,14,20,22,41,43/09;17,22,36,39,41,42,44,45,46,47,49/10
Region 8	2005	11*,23,53/05;15,16,25,32,35,39,52/06;10,20,23,39,40,41/07;8,21,36,39,49,51/08;5,7,14/09;19,22,24,32,37,42,49/10
Region 9	2005	11*,43,47,52/05;2,4,5,8,21,22,25,27,29,32,39,40,42,45/06;3,4,7,10,13,21,22,28,29,34,38,40,41,50/07;3,7,8,10,17,19,20,24,25,32,33,34,36,38,43,45,48,49/08;1,5,8,9,10,13,14,18,24,25,30,33,34,35,39,43,44,48,50/09;5,10,12,19,32,38,44,46/10
Miscellaneous Charts and Publications	2005	11*,12,13,14,15,16,18,19,20,21,22,24,25,27,28,29,31,32,33,35,36,37,38,39,41,42,43,44,46,47,48,50,52,53/05;1,3,4,5,6,7,9,10,11,13,14,15,16,17,18,19,20,22,23,24,25,26,27,28,29,30,31,32,35,36,39,40,41,42,44,45,46,49,50,51,52/06;1,3,4,6,7,10,13,17,18,19,21,22,24,26,27,29,30,31,32,33,34,35,36,37,38,39,40,43,44,45,46,47,48,49,50,51,52/07;1,2,3,4,6,7,8,9,10,11,12,13,14,16,17,18,19,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,44,45,46,47,48,52/08;1,2,3,4,6,7,8,9,10,11,12,13,17,18,19,20,22,24,25,26,27,28,29,30,31,32,34,35,36,37,38,39,40,41,42,43,45,46,47,48,49,50,51,52/09;2,3,4,5,6,7,8,9,10,11,12,13,14,15,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,35,36,37,38,39,40,41,42,43,44,45,46,47,48,50/10
NGA LIST OF LIGHTS		
LLPUB110	2010	22*,23,24,25,26,27,28,30,32,33,34,36,37,38,39,40,41,42,44,45,46,47,48,49,50,51,52/10
LLPUB111	2010	37*,38,39,40,41,45,46,47,48,49,51,52/10
LLPUB112	2010	47*,49,50,51,52/10;1/11
LLPUB113	2010	44*,45,47,48,49,50,51,52/10;1/11
LLPUB114	2010	27*,32,34,36,37,38,40,41,45,47,49,50,52/10
LLPUB115	2010	38*,41,44,47,51/10;1/11
LLPUB116	2010	31*,32,33,34,36,37,39,41,42,43,44,45,46,47,48,52/10;1/11
SAILING DIRECTIONS		
PUB120	2010	12/10*
PUB123	2009	50/09*
PUB124	2010	25/10*
PUB125	2010	22/10*
PUB126	2010	42/10*
PUB127	2010	46/10*
PUB131	2010	24/10*
PUB132	2008	31/08*
PUB140	2010	45/10*
PUB141	2010	28/10*
PUB142	2009	4/09*
PUB143	2010	36/10*
PUB145	2010	17/10*
PUB146	2010	23/10*
PUB147	2010	10/10*
PUB148	2010	31/10*
PUB153	2010	35/10*
PUB154	2010	23/10*
PUB155	2009	31/09*
PUB157	2010	30/10*
PUB158	2010	11/10*
PUB159	2010	42/10*
PUB160	2010	11/10*
PUB161	2010	15/10*
PUB162	2010	9/10*
PUB163	2009	28/09*
PUB164	2009	20/09*
PUB171	2010	17/10*
PUB172	2010	40/10*
PUB173	2010	37/10*
PUB174	2010	40/10*
PUB175	2010	32/10*
PUB180	2010	25/10*
PUB181	2010	46/10*
PUB182	2010	36/10*
PUB183	2009	17/09*
PUB191	2010	43/10*
PUB192	2010	19/10*
PUB193	2010	37/10*
PUB194	2009	50/10*
PUB195	2008	45/08*
PUB200	2009	8/09*
USCG LIGHT LIST VOLUMES I - VII		
COMDTM165021	2010	12*,13,14,15,16,17,18,19,20,21,22,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51,52/10;1/11
COMDTM165022	2010	12*,13,14,15,16,17,18,19,20,21,22,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,40,41,42,43,44,45,46,47,48,49,50,51,52/10;1/11

PUBLICATIONS AFFECTED BY NOTICE TO MARINERS THROUGH NM 1/11

Note: * indicates New Edition/New Publication; ** indicates Publication Canceled; N indicates Not For Sale

NGA Reference No.	Ed.	Notice to Mariners No.
COMDTM165023	2010	12*,13,14,15,16,17, 18,19,20,21,22,23, 24,25,26,27,28,29, 30,31,32,33,34,35, 36,37,39,40,41,42, 43,44,45,46,47,49, 50,51,52/10;1/11
COMDTM165024	2010	21*,22,24,25,26,27, 28,29,30,31,32,33, 34,35,36,37,38,39, 40,41,42,43,44,45, 46,47,48,50,52/10
COMDTM165025	2010	17/10*
COMDTM165026	2010	12*,13,14,15,16,17, 18,19,20,21,22,23, 24,25,26,27,28,29, 30,31,32,33,34,35, 36,37,38,39,40,41, 42,43,44,45,46,47, 48,49,50,51,52/10; 1/11
COMDTM165027	2010	21*,22,24,26,27,28, 29,30,31,32,33,34, 35,37,38,40,41,42, 43,44,45,46,47,48, 49,50,51/10;1/11
DIGITAL PUBS - QUARTERLY		
CDPUBQTLY	2010	N45/10*
FLEET GUIDES		
PUBFGATL	2010	N35/10*
PUBFGPAC	2010	N35/10*
NOS MISCELLANEOUS PUBLICATIONS		
NOSPBCATALOGA	2009	27/09*
NOSPBCATALOGG	2009	9/09*
NOSPBCATALOGK	2009	31/09*
NOSPBCATALOGL	2009	19/09*
NOSPBCATALOGP	2009	17/09*
ALMANACS		
AIRALMANAC111	2011	30/10*
NAUTALMANAC11	2011	26/10*
COAST PILOT		
NOSPBCP1	40	19*,21,24,31,34,35, 37,38,40,45,48/10
NOSPBCP2	40	47*,48,51,52/10
NOSPBCP3	43	8*,9,12,14,18,23,34, 37,38,39,45,48,51, 52/10
NOSPBCP4	42	40*,42,45,48/10
NOSPBCP5	38	25*,26,31,34,36,37, 39,42,45,49,52/10
NOSPBCP6	40	15*,17,22,23,24,25, 27,31,35,37,38,46, 47,51/10
NOSPBCP7	42	3*,5,9,13,15,16,17, 21,22,23,24,26,27, 31,34,35,36,37,38, 39,41,42,45/10
NOSPBCP8	32	31*,32,34,37,45/10
NOSPBCP9	28	37*,38,45,51/10
RADIO NAVIGATIONAL AIDS		
PUB117	2005	4/05*
AMERICAN PRACTICAL NAVIGATOR		
NVPUB9	2002	36/02*;14,38/03; 40/05
INTERNATIONAL CODE OF SIGNALS		
PUB102	2003	20/03*
WORLD PORT INDEX		
PUB150	2010	36/10*
DISTANCES BETWEEN PORTS		
NVPUB151	2001	4/02*

NGA Reference No.	Ed.	Notice to Mariners No.
RADAR NAVIGATION AND MANEUVERING BOARD MANUAL		
CDPUBNV1310	2001	51/01*
SIGHT REDUCTION TABLES (MARINE)		
SRPUB229V1	1970	11/71*
SRPUB229V2	1970	11/71*
SRPUB229V3	1970	7/71*
SRPUB229V4	1970	3/71*
SRPUB229V5	1970	3/71*
SRPUB229V6	1970	23/70*
SIGHT REDUCTION TABLES (AIR)		
SRPUB249V1	2007	38/07*
SRPUB249V2	1952	46/52*
SRPUB249V3	1952	46/52*
CHART NO. 1		
WOBZC1	1997	18/98*
CHART NO. 4		
WOBZC4	1988	N23/91*
ATLAS OF PILOT CHARTS		
NVPUB106	2002	42/03*
NVPUB107	1998	30/99*
NVPUB109	2001	49/02*
USCG NAVIGATION RULES		
COMDTM166722D	1999	44/99*;52/00;16/04
NOS TIDE TABLES		
NOSPBTTCWPACIN0	2010	N51/09*
NOSPBTTECSTNSA0	2010	N51/09*
NOSPBTTEURAFR0	2010	N51/09*
NOSPBTTWCSTNSA0	2010	N51/09*
TIDAL CURRENT TABLES		
NOSPBTCTATCSTN0	2010	N51/09*
NOSPBTCTPACAS0	2010	N51/09*

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 221330Z December 2010:

2010 series	437(28)	464(11,28)	507(12,13)	511(24)
345(24)	441(28)	495(24)	509(GEN)	514(GEN)

The summary of all NAVAREA IV messages in force as of 16 December 2010 is given in Section III of NM 52/10.

NAVAREA IV WARNINGS issued from 161230Z to 221330Z December 2010.

508/10. CANCELED.

509/10(GEN).
GPS SATELLITE SYSTEM.
1. PRN 04 UNUSABLE 221300Z TO 230100Z DEC.
2. CANCEL THIS MSG 230200Z DEC.

(171336Z DEC 2010)

510/10. CANCELED.

511/10(24).
TRINIDAD-EAST COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 05 MAR BY
M/V GGS ATLANTIC TOWING TWO 6000 METER
LONG CABLES IN AREA BOUND BY
10-21.06N 060-53.88W, 10-27.17N 060-46.37W,
10-14.56N 060-37.14W, 10-08.30N 060-43.89W.
FIVE MILE BERTH REQUESTED.
2. CANCEL THIS MSG 06 MAR 11.

(171630Z DEC 2010)

512/10 and 513/10. CANCELED.

514/10(GEN).
1. NAVAREA IV MESSAGES IN FORCE 180900Z DEC 10. ONLY THOSE
MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN.
2010 SERIES: 464(11,28), 495(24), 507(12,13), 509(GEN), 511(24).
2. THE SUMMARY OF ALL NAVAREA IV MESSAGES IN FORCE AS
OF 16 DEC 2010 IS GIVEN IN SEC III OF NM 52/10.
3. CANCEL NAVAREA IV 503/10.

(181001Z DEC 2010)

515/10. CANCELED.

HYDROLANTS

Messages in force 221330Z December 2010:

2008 series	914(37)	2081(37)	2311(25)	2414(55)	2451(GEN)
1354(24)	996(24)	2092(24)	2318(12,13)	2415(54)	2452(37)
1463(24)	1079(24)	2110(37)	2319(25,51)	2423(24)	2453(24,25)
1852(37)	1426(52)	2129(55)	2320(26)	2424(52)	2454(GEN)
1917(24)	1429(56)	2178(24)	2329(55)	2426(57)	2458(24)
2009 series	1724(35)	2194(56)	2332(56)	2429(24)	2459(26)
2529(52)	1741(35)	2195(56)	2336(37)	2432(53)	2461(26)
2530(54)	1745(51,52)	2242(37)	2347(53)	2435(37)	2466(24)
2531(54)	1796(57)	2246(55)	2348(57)	2436(36)	2473(35)
2532(54)	1835(37)	2256(24)	2350(35)	2437(24)	2474(37)
2010 series	1894(37)	2276(24)	2351(25)	2438(24)	2475(24)
58(56)	1908(24)	2279(37)	2361(25)	2439(24)	2476(24)
103(24)	1921(35,36)	2282(52,53)	2369(35,43)	2442(12)	2477(24)
452(37)	1984(54,56)	2289(56)	2378(56)	2443(52)	
471(35)	1985(23)	2302(24)	2380(24)	2444(54)	
642(35)	2003(51)	2304(57)	2386(53)	2445(GEN)	
845(24)	2013(57)	2309(24)	2400(24)	2447(51)	

The summary of all HYDROLANTS in force as of 16 December 2010 is given in Section III of NM 52/10.

HYDROLANT WARNINGS issued from 161230Z to 221330Z December 2010.

2433/10 and 2434/10. CANCELED.

2435/10(37).
ENGLAND-EAST COAST.
THAMES ESTUARY APPROACHES.
NGA CHART 37140 (33RD ED).
UNEXPLODED ORDNANCE ON SEABED, MARKED BY
BUOY, REPORTED IN 51-44.3N 001-50.2E.

(161940Z DEC 2010)

2436/10(36).
IRISH SEA.
NGA CHART 36007 (1ST ED).
ODAS BUOY 25 53-28.8N 005-25.5W OFF STATION AND UNLIT.

(162006Z DEC 2010)

2437/10(24).
BRAZIL-SOUTHEAST COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 240159Z DEC
BY M/V WESTERN MONARCH TOWING 5556 METER
LONG CABLES IN AREA BOUND BY
25-17S 042-50W, 24-36S 042-49W,
24-36S 042-04W, 25-17S 042-04W.
SIX MILE BERTH REQUESTED.
2. CANCEL THIS MSG 240259Z DEC.

(170106Z DEC 2010)

2438/10(24).
BRAZIL-SOUTHEAST COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 240159Z DEC
BY M/V RAMFORM SOVEREING TOWING 14
8100 METER LONG CABLES IN AREA BOUND BY
23-26.22S 041-41.85W, 23-11.87S 041-32.57W,
23-11.10S 041-17.27W, 23-32.25S 040-39.73W,
23-53.07S 040-53.15W.
SIX MILE BERTH REQUESTED.
2. CANCEL THIS MSG 240259Z DEC.

(170115Z DEC 2010)

2439/10(24).
BRAZIL-SOUTHEAST COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 240159Z DEC
BY M/V WESTERN NEPTUNE TOWING 12
3.5 MILE LONG CABLES IN AREA BOUND BY
22-43.48S 040-52.68W, 23-03.99S 040-16.93W,
23-24.45S 040-30.77W, 23-03.44S 041-06.05W.
SIX MILE BERTH REQUESTED.
2. CANCEL THIS MSG 240259Z DEC.

(170122Z DEC 2010)

2440/10 and 2441/10. CANCELED.

2442/10(12).
WESTERN NORTH ATLANTIC.
DISTRESS SIGNAL RECEIVED ON 406 MHZ FROM
89 FOOT M/V WANDERBIRD, BLACK HULL, IN
34-08.4N 073-37.2W ON 17 DEC. VESSELS IN
VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO RCC NORFOLK,
INMARSAT-C: 430370670, TELEX: 127775,
PHONE: 757 398 6231, FAX: 757 398 6392,
E-MAIL: D05-SMB-D5CC@USCG.MIL.

(171020Z DEC 2010)

2443/10(52).
WESTERN MEDITERRANEAN SEA.
ALGERIA.
NGA CHART 52240 (9TH ED).
POINTE COLOMBI LIGHT 36-26.6N 000-56.4E UNLIT.

(171226Z DEC 2010)

2444/10(54).
AEGEAN SEA.
TURKEY.
HAZARDOUS OPERATIONS.
1. HAZARDOUS OPERATIONS 0400Z TO 1800Z DAILY
21 THRU 23 DEC IN AREA BOUND BY
39-00.0N 025-48.0E, 38-53.5N 026-10.0E,
38-42.7N 026-10.0E, 38-45.0N 025-48.0E.
2. CANCEL THIS MSG 231900Z DEC.

(171308Z DEC 2010)

2445/10(GEN).
GPS SATELLITE SYSTEM.
1. PRN 04 UNUSABLE 221300Z TO 230100Z DEC.
2. CANCEL THIS MSG 230200Z DEC.

(171332Z DEC 2010)

2446/10. CANCELED.

2447/10(51).
EASTERN NORTH ATLANTIC.
SENEGAL.
1. SEISMIC SURVEY IN PROGRESS UNTIL 25 DEC BY
M/V GEO CARIBBEAN TOWING 12 9000 METER
LONG CABLES IN AREA BETWEEN
13-00N 13-40N AND 017-30W 018-15W.
SEVEN MILE BERTH REQUESTED.
2. CANCEL THIS MSG 26 DEC.

(172255Z DEC 2010)

2448/10 thru 2450/10. CANCELED.

2451/10(GEN).
1. HYDROLANT MESSAGES IN FORCE 180900Z DEC 10. ONLY THOSE
MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN.
2010 SERIES: 2129(55), 2178(24), 2194(56), 2195(56), 2242(37),
2246(55), 2256(24), 2276(24), 2279(37), 2282(52,53), 2289(56),
2302(24), 2304(57), 2309(24), 2311(25), 2318(12,13),
2319(25,51), 2320(26), 2329(55), 2332(56), 2336(37), 2347(53),
2348(57), 2350(35), 2351(25), 2357(24), 2361(25), 2369(35,43),
2378(56), 2380(24), 2386(53), 2400(24), 2414(55), 2415(54),
2421(57), 2423(24), 2424(52), 2425(51), 2426(57), 2429(24),
2432(53), 2435(37), 2436(36), 2437(24), 2438(24), 2439(24),
2441(29), 2442(12), 2443(52), 2444(54), 2445(GEN), 2447(51),
2449(24), 2450(24).
2. THE SUMMARY OF ALL HYDROLANT MESSAGES IN FORCE AS
OF 16 DEC 2010 IS GIVEN IN SEC III OF NM 52/10.
3. CANCEL HYDROLANT 1321/09, 590/10, 2104/10, 2145/10,
2365/10, 2393/10, 2428/10.

(181009Z DEC 2010)

2452/10(37).
SOUTHERN NORTH SEA.
NGA CHART 37057 (2ND ED).
PLATFORM 49/17-CD 53-25.3N 002-22.2E UNLIT.

(181030Z DEC 2010)

2453/10(24,25).
WESTERN NORTH ATLANTIC.
S/V MOJITA REPORTS CREWMAN REQUIRING MEDICAL
ASSISTANCE IN 16-30N 053-24W AT 181130z DEC.
VESSELS IN VICINITY ABLE TO PROVIDE MEDEVAC
TO GUADELOUPE REQUESTED TO ASSIST IF
POSSIBLE. REPORTS TO MRCC FORT DE FRANCE,
TELEX: 42912008, PHONE: 59 659 670 9292,
FAX: 59 659 663 2450.

(181254Z DEC 2010)

2454/10(GEN).
NORTH ATLANTIC.
MADEIRA TO GUADELOUPE.
13 METER S/V NAWICK, WHITE HULL, FOUR PERSONS
ON BOARD, UNREPORTED MADEIRA (32-39N 016-55W)
TO GUADELOUPE (16-15N 061-35W). VESSELS IN
VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO MRCC ROME,
INMARSAT-C: 424744220, PHONE: 390 6592 4145
OR 390 65 8908 4409, FAX: 390 6592 2737 OR
390 65 908 4793.

(181851Z DEC 2010)

2455/10 thru 2457/10. CANCELED.

2458/10(24).
BRAZIL-NORTH COAST.
NGA CHART 24290 (3RD ED).
1. SIMAO GRANDE LIGHT 00-15.4S 048-24.1W UNLIT
AND RACON INOPERATIVE.
2. CANCEL HYDROLANT 2026/09.

(190817Z DEC 2010)

2459/10(26).
WESTERN NORTH ATLANTIC.
47 FOOT S/V SECRET O LIFE, WHITE HULL,
TWO PERSONS ON BOARD, DISABLED AND ADRIFT
IN 24-49N 069-29W. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST
IF POSSIBLE. REPORTS TO RCC MIAMI,
PHONE: 305 415 6800.

(191654Z DEC 2010)

2460/10. CANCELED.

2461/10(26).
WESTERN NORTH ATLANTIC.
RHODE ISLAND TO CARIBBEAN SEA.
73 FOOT S/V ENCORE, UNREPORTED NEWPORT TO CARIBBEAN SEA.
LAST KNOWN POSITION 32-38N 067-39W AT 192000Z DEC.
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO RCC NORFOLK:
TELEX: 127775, PHONE: 757 398 6231, FAX: 757 398 6392,
E-MAIL: D05-SMB-D5CC@USCG.MIL.

(201554Z DEC 2010)

2462/10 thru 2465/10. CANCELED.

2466/10(24).
BRAZIL-EAST COAST.
NGA CHART 24210 (14TH ED).
MANGUE SECO LIGHT 11-27.9S 37-22.0W UNLIT.

(210151Z DEC 2010)

2467/10 thru 2472/10. CANCELED.

2473/10(35).
SCOTLAND-WEST COAST.
NGA CHART 35093 (4TH ED).
OIGH SGEIR LIGHT 56-58.2N 006-40.8W AT REDUCED INTENSITY.

(211559Z DEC 2010)

2474/10(37).
BAY OF BISCAY.
M/V MARI LUNE ADRIFT IN 45-30.1N 003-36.1W AT 211800Z DEC.
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO MRCC ETEL, TELEX: 42950519,
PHONE: 3 329 755 3535, FAX: 3 329 755 4934,
E-MAIL: ETEL@MRCCFR.EU.

(211833Z DEC 2010)

2475/10(24).
BRAZIL-SOUTHEAST COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 240159Z DEC
BY M/V OCEAN EUROPE IN AREA BOUND BY
22-17.68S 040-09.77W, 22-22.97S 040-13.52W,
22-28.78S 040-04.03W, 22-23.52S 040-00.28W.
SIX MILE BERTH REQUESTED.
2. CANCEL THIS MSG 240259Z DEC.

(220120Z DEC 2010)

2476/10(24).
BRAZIL-SOUTH COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 240159Z DEC
BY M/V VERITAS VANTAGE TOWING EIGHT
7000 METER LONG CABLES IN AREA BETWEEN
25-49S 26-51S AND 041-45W 044-19W.
SIX MILE BERTH REQUESTED.
2. CANCEL THIS MSG 240259Z DEC.

(220124Z DEC 2010)

2477/10(24).
BRAZIL-NORTH COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 25 DEC BY
M/V WG TASMAN TOWING 8334 METER
LONG CABLE IN AREA BOUND BY
03-38S 037-21W, 03-45S 037-27W,
04-33S 036-31W, 04-26S 036-28W.
SIX MILE BERTH REQUESTED.
2. CANCEL HYDROLANT 2465/10.
3. CANCEL THIS MSG 26 DEC.

(220126Z DEC 2010)

2478/10 and 2479/10. CANCELED.

NAVAREA XII

Messages in force 221330Z December 2010:

2010 series	471(19)	484(GEN)	486(GEN)	488(18)

The summary of all NAVAREA XII messages in force as of 16 December 2010 is given in Section III of NM 52/10.

NAVAREA XII WARNINGS issued from 161230Z to 221330Z December 2010.

484/10(GEN).
GPS SATELLITE SYSTEM.
1. PRN 04 UNUSABLE 221300Z TO 230100Z DEC.
2. CANCEL THIS MSG 230200Z DEC.

(171338Z DEC 2010)

485/10. CANCELED.

486/10(GEN).
1. NAVAREA XII MESSAGES IN FORCE 180900Z DEC 10. ONLY THOSE MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN. 2010 SERIES: 471(19), 481(18), 484(GEN).
2. THE SUMMARY OF ALL NAVAREA XII MESSAGES IN FORCE AS OF 16 DEC 2010 IS GIVEN IN SEC III OF NM 52/10.
3. CANCEL NAVAREA XII 479/10.

(181015Z DEC 2010)

487/10. CANCELED.

488/10(18).
EASTERN NORTH PACIFIC.
CALIFORNIA.
MISSILES.
1. INTERMITTENT MISSILE FIRING OPERATIONS 0001Z TO 2359Z DAILY MONDAY THRU SUNDAY IN THE NAVAL AIR WARFARE CENTER SEA RANGE. THE MAJORITY OF MISSILE FIRINGS TAKE PLACE 1400Z TO 2359Z AND 0001Z TO 0200Z DAILY MONDAY THRU FRIDAY IN AREA BOUND BY
34-02N 119-04W, 33-52N 119-06W, 33-29N 118-37W,
33-20N 118-37W, 32-11N 120-16W, 31-54N 121-35W,
35-09N 123-39W, 35-29N 123-00W, 35-57N 121-32W,
34-04N 119-04W.
2. VESSELS MAY BE REQUESTED TO ALTER COURSE WITHIN THE ABOVE AREA DUE TO FIRING OPERATIONS AND ARE REQUESTED TO CONTACT PLEAD CONTROL ON 5081.5 MHZ (5080 KHZ) OR 3238.5 KHZ (3237 KHZ) SECONDARY OR 156.8 MHZ (CH 16) OR 127.55 MHZ BEFORE ENTERING THE ABOVE BOUNDARIES AND MAINTAIN CONTINUOUS GUARD WHILE WITHIN THE RANGE.
3. VESSELS INBOUND AND OUTBOUND FOR SOUTHERN CALIFORNIA PORTS WILL CREATE THE LEAST INTERFERENCE TO FIRING OPERATIONS DURING THE SPECIFIC PERIODS, AS WELL AS ENHANCE THE VESSEL'S SAFETY WHEN PASSING THROUGH THE VICINITY OF THE SEA RANGE IF THEY WILL TRANSIT VIA THE SANTA BARBARA CHANNEL AND WITHIN NINE MILES OFFSHORE VICINITY OF POINT MUGU OR CROSS THE AREA SOUTHWEST OF SAN NICOLAS ISLAND BETWEEN SUNSET AND SUNRISE.
4. CANCEL NAVAREA XII 481/10.

(201328Z DEC 2010)

489/10. CANCELED.

HYDROPACS

Messages in force 221330Z December 2010:

2007 series	1672(63)	2562(62)	2729(97)	2792(95)	2839(74)
1284(71)	1808(22)	2565(63)	2733(63)	2793(95)	2843(96)
2008 series	1922(71)	2581(62)	2735(63)	2794(63)	2844(63)
44(GEN)	1930(74)	2583(97)	2739(63)	2795(63)	2845(63)
1345(92)	1957(63)	2584(94)	2741(61)	2796(63)	2846(63)
2009 series	2028(76)	2585(94)	2745(61)	2797(81,82)	2847(91,93,94)
1128(22)	2132(63)	2586(94)	2750(63)	2801(72)	2848(61)
2364(63)	2179(71)	2587(94)	2754(21)	2802(63)	2850(63)
2366(63)	2189(74)	2589(94)	2756(63)	2808(96)	2851(64)
2010 series	2192(94)	2593(63)	2758(61)	2810(63)	2854(22)
75(22)	2282(72)	2610(62)	2760(73,74)	2811(63)	2855(97)
306(22)	2409(63)	2627(63)	2765(74)	2812(63)	2856(71)
375(97)	2416(91,94,95)	2629(81)	2767(61)	2816(61)	2857(63)
578(71)	2445(74)	2630(62)	2768(62)	2819(GEN)	2858(63)
593(71)	2461(93)	2641(62,63)	2769(63)	2820(63)	2859(62,63)
816(61)	2462(93)	2653(62)	2770(61)	2821(63)	2860(81,82)
917(62)	2468(81)	2655(63)	2775(74)	2824(22)	2861(76)
1550(73)	2475(63)	2666(94)	2777(62)	2825(71,93)	2862(82)
1594(63)	2478(74)	2667(71)	2780(63)	2827(22)	2863(81)
1661(62)	2502(75)	2668(63)	2788(62,63)	2828(GEN)	
1668(62)	2509(62)	2679(83)	2789(95)	2834(74)	
1670(63)	2516(21,22)	2700(63)	2790(95)	2836(62)	
1671(63)	2561(63)	2721(63)	2791(95)	2837(18)	

The summary of all HYDROPACS in force as of 16 December 2010 is given in Section III of NM 52/10.

HYDROPAC WARNINGS issued from 161230Z to 221330Z December 2010.

2809/10. CANCELED.

2810/10(63).
INDIA-WEST COAST.
HAZARDOUS OPERATIONS.
1. HAZARDOUS OPERATIONS 0900Z TO 1200Z DAILY 21 AND 28 DEC
AND 0900Z TO 1200Z AND 1230Z TO 1430Z DAILY 24 AND 31 DEC
IN AREA BOUND BY
09-57.5N 075-59.5E, 09-57.7N 076-14.2E,
09-44.0N 076-17.5E, 09-42.5N 076-09.5E.
2. CANCEL THIS MSG 311530Z DEC.

(161201Z DEC 2010)

2811/10(63).
INDIA-EAST COAST.
1. SEISMIC SURVEY 20 DEC THRU 03 JAN 11
BY M/V VIKING II TOWING 8100 METER
LONG CABLE IN AREA BOUND BY
15-25N 084-56E, 16-02N 084-40E,
15-58N 084-32E, 15-29N 084-04E.
EIGHT MILE BERTH REQUESTED.
2. CANCEL THIS MSG 04 JAN 11.

(161324Z DEC 2010)

2812/10(63).
ARABIAN SEA.
INDIA-WEST COAST.
1. SEISMIC SURVEY IN PROGRESS UNTIL 30 DEC BY
M/V GEOWAVE COMMANDER TOWING SIX
6500 METER LONG CABLES IN AREA BOUND BY
21-48.06N 068-53.95E, 21-47.58N 067-38.00E,
23-02.61N 068-13.25E, 23-03.00N 068-14.00E,
22-50.50N 068-24.66E, 22-44.65N 068-24.65E,
22-41.73N 068-34.40E, 22-29.38N 068-34.40E,
22-22.36N 068-42.68E.
FIVE MILE BERTH REQUESTED.
2. CANCEL THIS MSG 31 DEC.

(161433Z DEC 2010)

2813/10 thru 2815/10. CANCELED.

2816/10(61).
WESTERN INDIAN OCEAN.
SOMALIA.
PIRACY.
M/V ATTACKED IN 03-05-12N 049-48-29E AT 170342Z DEC.
VESSELS ARE ADVISED TO KEEP 100 MILES CLEAR
OF THIS POSITION AND TO EXERCISE EXTREME CAUTION.
REPORTS TO UKMTO DUBAI, PHONE: 97 150 552 3215,
E-MAIL: UKMTO@EIM.AE.

(170444Z DEC 2010)

2817/10 and 2818/10. CANCELED.

2819/10(GEN).
GPS SATELLITE SYSTEM.
1. PRN 04 UNUSABLE 221300Z TO 230100Z DEC.
2. CANCEL THIS MSG 230200Z DEC.

(171335Z DEC 2010)

2820/10(63).
INDIA-EAST COAST.
BAY OF BENGAL.
ROCKETS.
1. HAZARDOUS OPERATIONS 0230Z TO 1130Z DAILY
22 AND 23 DEC IN AREA BOUND BY
21-24.32N 086-54.65E, 21-10.76N 086-53.69E,
20-47.61N 087-13.49E, 18-56.05N 088-24.81E,
19-23.15N 089-03.10E, 19-58.13N 089-32.08E,
21-07.35N 087-34.38E, 21-25.53N 087-09.35E.
2. CANCEL THIS MSG 231230Z DEC.

(171357Z DEC 2010)

2821/10(63).
SRI LANKA-WEST COAST.
MAN OVERBOARD FROM M/V JIA FU STAR VICINITY
07-05.3N 078-23.1E AT 171200Z DEC. VESSELS
IN VICINITY REQUESTED TO KEEP A SHARP
LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO SPOCC,
TELEX: 8720021, PHONE: 656 226 5539,
FAX: 656 227 9971, E-MAIL: POCC@MPA.GOV.SG.

(171432Z DEC 2010)

2822/10 and 2823/10. CANCELED.

2824/10(22).
EASTERN NORTH PACIFIC.
GALAPAGOS ISLANDS.
DISTRESS SIGNAL RECEIVED ON 406 MHZ IN
02-21.2N 092-12.5W. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO USCG ALAMEDA,
TELEX: 230172343, PHONE: 510 437 3701,
E-MAIL: RCCALAMEDA@USCG.MIL.

(171654Z DEC 2010)

2825/10(71,93).
SOUTH CHINA SEA.
DISTRESS SIGNAL RECEIVED ON 406 MHZ IN 05-28.6N 109-40.1E.
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP
LOOKOUT, ASSIST IF POSSIBLE. REPORTS TO SINGAPORE
PORT OPERATIONS CONTROL CENTER, TELEX: 20021,
PHONE: 656 226 4439, FAX: 656 227 9971.

(172033Z DEC 2010)

2826/10. CANCELED.

2827/10(22).
EASTERN SOUTH PACIFIC.
PERU.
NGA CHART 22173 (36TH ED).
DANGEROUS WRECK IN 12-01-25.2S 077-10-01.86W.

(180152Z DEC 2010)

2828/10(GEN).
1. HYDROPAC MESSAGES IN FORCE 180900Z DEC 10. ONLY THOSE
MESSAGES ISSUED DURING THE LAST SIX WEEKS ARE LISTED HEREIN.
2010 SERIES: 2409(63), 2416(91,94,95), 2445(74), 2461(93),
2462(93), 2468(81), 2475(63), 2478(74), 2502(75), 2509(62),
2516(21,22), 2561(63), 2562(62), 2565(63), 2581(62), 2583(97),

2584(94), 2585(94), 2586(94), 2587(94), 2589(94), 2593(63),
2610(62), 2627(63), 2629(81), 2630(62), 2641(62,63), 2653(62),
2655(63), 2666(94), 2667(71), 2668(63), 2679(83), 2689(63),
2700(63), 2716(63), 2721(63), 2729(97), 2733(63), 2735(63),
2739(63), 2741(61), 2745(61), 2750(63), 2754(21), 2756(63),
2758(61), 2760(73,74), 2765(74), 2766(95,96), 2767(61),
2768(62), 2769(63), 2770(61), 2775(74), 2777(62), 2780(63),
2788(62,63), 2789(95), 2790(95), 2791(95), 2792(95), 2793(95),
2794(63), 2795(63), 2796(63), 2797(81,82), 2798(71), 2801(72),
2802(63), 2803(94), 2804(94), 2805(94), 2806(94), 2807(94),
2808(96), 2810(63), 2811(63), 2812(63), 2815(29), 2816(61),
2817(94), 2819(GEN), 2820(63), 2821(63), 2822(82), 2824(22),
2825(71,93), 2827(22).
2. THE SUMMARY OF ALL HYDROPAC MESSAGES IN FORCE AS
OF 16 DEC 2010 IS GIVEN IN SEC III OF NM 52/10.
3. CANCEL HYDROPAC 2312/10, 2337/10, 2429/10, 2628/10, 2649/10,
2673/10, 2675/10, 2685/10, 2726/10, 2737/10, 2740/10,
2742/10, 2743/10, 2744/10, 2746/10, 2748/10, 2799/10, 2826/10.

(181021Z DEC 2010)

2829/10 thru 2833/10. CANCELED.

2834/10(74).
AUSTRALIA-NORTHWEST COAST.
SEISMIC SURVEY IN PROGRESS UNTIL FURTHER NOTICE
BY M/V VERITAS VOYAGER IN AREA BETWEEN
18-57.44S 21-14.10S AND 112-56.30E 115-56.50E.
SIX MILE BERTH REQUESTED.

(190913Z DEC 2010)

2835/10. CANCELED.

2836/10(62).
ARABIAN SEA.
PIRACY.
M/V ATTACKED IN 19-04N 062-10E AT 190909Z DEC.
THE AREA INVOLVED SHOULD BE AVOIDED IF POSSIBLE.
THIS AREA WILL REMAIN HIGH RISK FOR AT LEAST
24-48 HOURS. CAUTION ADVISED.

(191026Z DEC 2010)

2837/10(18).
EASTERN NORTH PACIFIC.
DISTRESS SIGNAL RECEIVED ON 406 MHZ IN
24-50.4N 124-05.9W. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST
IF POSSIBLE. REPORTS TO RCC ALAMEDA,
TELEX: 230172343, PHONE: 510 437 3701,
E-MAIL: RCCALAMEDA@USCG.MIL.

(191142Z DEC 2010)

2838/10. CANCELED.

2839/10(74).
AUSTRALIA-NORTHWEST COAST.
SEISMIC SURVEY IN PROGRESS UNTIL
FURTHER NOTICE BY M/V AQUILA EXPLORER
IN AREA BETWEEN
21-19S 21-37S AND 113-52E 114-13E.
FOUR MILE BERTH REQUESTED.

(192159Z DEC 2010)

2840/10 thru 2842/10. CANCELED.

2843/10(96).
TATARSKIY PROLIV.
MISSILES.
1. HAZARDOUS OPERATIONS 2300Z TO 0200Z COMMENCING
DAILY 24 THRU 26 DEC AND 0400Z TO 0700Z DAILY
25 THRU 27 DEC IN AREA BOUND BY
47-30.0N 140-35.0E, 47-49.2N 140-43.5E,
47-54.8N 140-35.9E, 48-49.0N 140-40.7E,
49-18.9N 140-29.8E, 49-29.2N 140-51.5E,
48-51.3N 141-05.2E, 47-53.9N 140-59.9E,
47-48.9N 140-51.5E, 47-30.0N 140-55.0E.
2. CANCEL THIS MSG 270800Z DEC.

(200941Z DEC 2010)

2844/10(63).
INDIA-WEST COAST.
VESSEL CAPSIZED AND ADRIFT IN 18-42.4N 072-49.8E
AT 191100Z DEC. SIX PERSONS RESCUED. TWO PERSONS
REMAIN MISSING. VESSELS IN VICINITY REQUESTED TO
KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE. REPORTS
TO ANY COASTAL RADIO STATION.

(201005Z DEC 2010)

2845/10(63).
INDIA-EAST COAST.
HAZARDOUS OPERATIONS.
1. HAZARDOUS OPERATIONS 240530Z TO 240730Z DEC
WITHIN 11 MILES OF 13-07.17N 080-18.70E
BETWEEN 045 DEGREES AND 075 DEGREES.
2. CANCEL THIS MSG 240830Z DEC.

(201228Z DEC 2010)

2846/10(63).
INDIA-WEST COAST.
1. SEISMIC SURVEY 23 THRU 29 DEC BY
M/V WESTERN SPIRIT TOWING FOUR
10500 METER LONG CABLES IN AREA BOUND BY
17-51.38N 070-47.58E, 17-02.58N 070-47.10E,
17-02.70N 070-18.26E, 16-28.58N 070-18.20E,
16-28.61N 070-49.46E, 16-10.40N 070-49.29E,
16-10.45N 071-32.22E, 15-48.56N 071-32.24E,
15-48.73N 072-41.88E, 16-06.78N 072-41.88E,
16-06.58N 072-53.08E, 16-33.65N 072-53.23E,
16-33.85N 072-42.01E, 17-01.48N 072-41.99E,
17-02.03N 071-58.65E, 17-41.36N 071-59.28E,
17-41.38N 071-17.05E, 17-51.36N 071-07.06E.
EIGHT MILE BERTH REQUESTED.
2. CANCEL THIS MSG 30 DEC.

(201238Z DEC 2010)

2847/10(91,93,94).
SOUTH CHINA SEA.
MAN OVERBOARD FROM M/V REGINA VICINITY 21-23N 118-18E
AT 201605Z DEC. VESSELS IN VICINITY REQUESTED TO
KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO MRCC HONG KONG, TELEX: 80282952,
PHONE: 8 522 233 7999, E-MAIL: HKMRCC@MARDEP.GOV.HK.

(201744Z DEC 2010)

2848/10(61).
WESTERN INDIAN OCEAN.
PIRACY.
M/V ORNA HIJACKED IN 01-46S 060-32E AT 201129Z DEC.
VESSELS ARE ADVISED TO KEEP 100 MILES CLEAR OF THIS
POSITION AND TO EXERCISE EXTREME CAUTION. REPORTS TO
UKMTO DUBAI, PHONE: 971505523215, E-MAIL: UKMTO@EIM.AE.

(201828Z DEC 2010)

2849/10. CANCELED.

2850/10(63).
INDIA-EAST COAST.
NGA CHART 63310 (5TH ED).
DANGEROUS WRECK IN 19-47.21N 085-53.64E.

(202237Z DEC 2010)

2851/10(64).
INDIA-EAST COAST.
HAZARDOUS OPERATIONS.
1. HAZARDOUS OPERATIONS 240130Z TO 240830Z DEC
IN AREA BETWEEN
16-56.5N 17-16.5N AND 084-09.0E 084-30.0E.
2. CANCEL THIS MSG 240930Z DEC.

(202301Z DEC 2010)

2852/10 and 2853/10. CANCELED.

2854/10(22).
EASTERN SOUTH ATLANTIC.
PERU.
HAZARDOUS OPERATIONS.
1. HAZARDOUS OPERATIONS 221000Z TO 221330Z DEC
IN AREA BETWEEN
11-49S 12-03S AND 077-26W 077-40W.
2. CANCEL THIS MSG 221430Z DEC.

(210242Z DEC 2010)

2855/10(97).
WESTERN NORTH PACIFIC.
JAPAN.
NAMPO SHOTO.
MAN OVERBOARD FROM M/V OGASAWARA MARU VICINITY
OF TRACKLINE BETWEEN 29-19.44N 141-28.66E
AT 211130Z DEC AND 29-40.23N 141-21.89E AT 211150Z DEC.
VESSELS IN VICINITY REQUESTED TO KEEP A SHARP LOOKOUT,
ASSIST IF POSSIBLE. REPORTS TO JAPAN COAST GUARD.

(211419Z DEC 2010)

2856/10(71).
EASTERN INDIAN OCEAN.
1. DERELICT 25 METER WOODEN VESSEL ADRIFT IN
10-23.7S 105-21.3E AT 211307Z DEC.
2. CANCEL THIS MSG 241500Z DEC.

(211503Z DEC 2010)

2857/10(63).
ARABIAN SEA.
PIRACY.
1. HIJACKED M/V IZUMI CONDUCTING MOTHERSHIP
OPERATIONS IN 12-22.1N 062-05.1E AT 212341Z DEC.
VESSELS ARE ADVISED TO KEEP 100 MILES CLEAR
OF THIS POSITION AND TO EXERCISE EXTREME CAUTION.
REPORTS TO UKMTO DUBAI, PHONE: 97 150 552 3215,
E-MAIL: UKMTO@EIM.AE.
2. CANCEL HYDROPAC 2853/10.

(220032Z DEC 2010)

2858/10(63).
ARABIAN SEA.
PIRACY.
M/V ATTACKED IN 12-10N 060-31E AT 220312Z DEC.
VESSELS ARE ADVISED TO KEEP 100 MILES CLEAR OF
THIS POSITION AND TO EXERCISE EXTREME CAUTION.
REPORTS TO UKMTO DUBAI, PHONE: 97 150 552 3215,
E-MAIL: UKMTO@EIM.AE.

(220340Z DEC 2010)

2859/10(62,63).
ARABIAN SEA.
PIRACY.
M/V ATTACKED IN 17-03N 062-45E AT 220428Z DEC.
VESSELS ARE ADVISED TO KEEP 100 MILES CLEAR OF
THIS POSITION AND TO EXERCISE EXTREME CAUTION.
REPORTS TO UKMTO DUBAI, PHONE: 97 150 552 3215,
E-MAIL: UKMTO@EIM.AE.

(220455Z DEC 2010)

2860/10(81,82).
WESTERN SOUTH PACIFIC.
NGA CHART 82005 (5TH ED).
TRITON ODAS BUOY ESTABLISHED
IN 00-01.48S 146-59.98E.

(220538Z DEC 2010)

2861/10(76).
NEW ZEALAND.
SOUTH ISLAND-SOUTH COAST.
DISTRESS SIGNAL IN 46-10S 166-38E. VESSELS IN VICINITY
REQUESTED TO KEEP A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO MARITIME OPERATIONS NEW ZEALAND,
INMARSAT-C: 451200067, PHONE: 644 914 8333,
FAX: 644 914 8334 OR TAUPO MARITIME RADIO.

(220939Z DEC 2010)

2862/10(82).
WESTERN SOUTH PACIFIC.
NGA CHART 82210 (2ND ED).
TRITON ODAS BUOY ESTABLISHED
IN 04-58S 156-01E.

(220946Z DEC 2010)

2863/10(81).
WESTERN NORTH PACIFIC.
DISTRESS SIGNAL RECEIVED ON 406 MHZ IN
09-16.7N 140-12.6E AT 220830Z DEC.
VESSELS IN VICINITY REQUESTED TO KEEP
A SHARP LOOKOUT, ASSIST IF POSSIBLE.
REPORTS TO U.S. COAST GUARD GUAM,
PHONE: 1 671 355 4824,
E-MAIL: RCCGUAM@USCG.MIL.

(220956Z DEC 2010)

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://www.nga.mil/NGAPortal/MSI.portal), by referring to Section I (paragraph 50) of US Notice to Mariners 1/11 for those in-force as of 22 December 2010, or by contacting the Maritime Administration, Office of Security, Code MAR-420, Room W23-312, 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 22 December 2010: 00-7, 05-1, 06-1, 07-1, 10-3, 10-6, 10-7, 10-9 and 10-10.

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://www.nga.mil/NGAPortal/MSI.portal) or by referring to Section I (paragraph 5) of US Notice to Mariners 1/11 for those in-force as of 22 December 2010.

SPECIAL WARNINGS in force 22 December 2010: 1, 29, 77, 81, 82, 89, 92, 107, 108, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124 and 125.

MARINE INFORMATION

NATIONAL OCEAN SERVICE OFFICES

Information concerning National Ocean Service (NOS) charts and related publications can be obtained by addressing;

NOAA Office of Coast Survey
1315 East-West Highway
Silver Spring, MD 20910
Telephone: 1-888-990-6622
Web site: http://www.nauticalcharts.noaa.gov/staff/chartspubs.html
http://www.nauticalcharts.noaa.gov

Information concerning the sale of NOS products may be obtained by addressing:

FAA, AeroNav Products
Printing & Distribution Group, Distribution Team
10201 Good Luck Road
Glenn Dale, MD 20769-9700
E-Mail address: 9-AMC-chartsales@faa.gov
Web site: http://naco.faa.gov/ecomp/

NOAA Regional Navigation Managers:

NOAA navigation managers are stationed around the country. These regional managers bring the mariners' perspective to NOAA by working with commercial mariners and recreational boaters to better repond to their needs. The regional managers are indentified at **http://www.nauticalcharts.noaa.gov/nsd/reps.htm**.

U.S. ARMY CORPS OF ENGINEERS

OFFICE OF THE CHIEF OF ENGINEERS, USACE
ATTN: CECW-OD
441 G. STREET, N.W.
WASHINGTON, D.C. 20314-1000
TELEPHONE: 202-761-0011

DISTRICT OFFICES (COASTAL)

Concord, MA 01742-2751	696 Virginia Road, Tel. 978-318-8111
Detroit, MI 48226-2550	477 Michigan Ave., Tel. 313-226-6413
Buffalo, NY 14207-3111	1776 Niagara St., Tel. 716-879-4104
Chicago, IL 60606-7206	111 N. Canal St., Tel. 312-846-5330
New York, NY 10278-0090	26 Federal Plaza., Tel. 917-790-8007
Philadelphia, PA 19107-3390	The Wanamaker Bldg., 100 Penn Square East, Tel. 215-656-6515
Baltimore, MD 21203-1715	10 S. Howard St., Tel. 410-962-7608
Norfolk, VA 23510-1011	803 Front St., Tel. 757-201-7500
Wilmington, NC 28403-1343	69 Darlington Ave., Tel. 910-251-4625
Charleston, SC 29403-5107	69-A Hagood Ave., Tel. 843-329-8123
Savannah, GA 31402-0889	100 W. Oglethorpe Ave., Tel. 912-652-5279
Jacksonville, FL 32207-0019	701 San Marco Blvd., Tel. 904-232-2234
Mobile, AL 36602-3680	109 St. Joseph St., Tel. 251-690-2505
New Orleans, LA 70118-3651	7400 Leake Ave., Tel. 504-862-2201
Galveston, TX 77550-3211	2000 Fort Point Rd., Tel. 409-766-3004
Anchorage, AK 99506-1518	Elmendorf Air Force Base, Tel. 907-753-2520
Los Angeles, CA 90053-2325	915 Wilshire Blvd., Tel. 213-452-3333
San Francisco, CA 94103-1398	1455 Market St., Tel. 415-503-6800
Portland, OR 97204-3495	Robert Duncan Plaza, 333 S.W. 1st Avenue, Tel. 503-808-5150

Seattle, WA 98134-2385	4735 East Marginal Way South, Tel. 206-764-3742
Sacramento, CA 95814-2922	1325 J St., Tel. 916-557-5100

U.S. ARMY CORP OF ENGINEERS DIVISION OFFICES (COASTAL)

North Atlantic	302 General Lee Avenue, Tel. 718-765-7018 Brooklyn, New York 11252
South Atlantic	60 Forsyth Street S.W., Tel. 404-562-5011 Atlanta, Georgia 30303-8801
Mississippi Valley	1400 Walnut Street, Tel. 601-634-5760 Vicksburg, Mississippi 39180-3262
Southwestern	1100 Commerce Street, Tel. 469-487-7007 Dallas, Texas 75242-1317
South Pacific	1455 Market Street, Tel. 415-503-6517 San Francisco, California 94103-1398
Northwestern	1125 NW Couch Street, Tel. 503-808-3705 Portland, Oregon 97209
Great Lakes and Ohio River	550 Main Street, Tel. 513-684-3010 Cincinnati, Ohio 45202-3222
Pacific Ocean	Building 525, Tel. 808-438-8319 Fort Shafter, Hawaii 96858-5440

UNITED STATES COAST GUARD DISTRICT OFFICES

Commander, 1st Coast Guard District, 408 Atlantic Ave., Boston, MA 02110-3350.
Phone, 800-848-3942, Ext. 8356.
Commander, 5th Coast Guard District, 431 Crawford St., Portsmouth, VA 23704-5000.
Phone, 757-398-6486, 757-398-6552.
Commander, 7th Coast Guard District, Brickell Plaza Federal Bldg., 909 S.E. 1st Ave., Miami, FL 33131-3028.
Phone, 305-415-6751, 305-415-6800.
Commander, 8th Coast Guard District, Hale Boggs Federal Bldg., 500 Poydras St., New Orleans, LA 70130-3319.
Phone, 504-671-2020.
Commander, 9th Coast Guard District, 1240 East 9th St., Cleveland, OH 44199-2060.
Phone, 216-902-6069.
Commander, 11th Coast Guard District, Coast Guard Island, Building 50-2, Alameda, CA 94501-5100.
Phone, 510-437-3701.
Commander, 13th Coast Guard District, 915 Second Ave., Seattle, WA 98174-1067.
Phone, 206-220-7280.
Commander, 14th Coast Guard District, 300 Ala Moana Blvd., Room 9-220, Honolulu, HI 96580-4982.
Phone, Day 808-535-3409, Night 808-842-2600/2601.
Commander, 17th Coast Guard District, P.O. Box 25517, Juneau, AK 99802-5517.
Phone, Day 907-463-2269, Night 907-463-2000.

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. Updates to Sailing Directions and other electronic publications can be made through the application of digital patch files (PDU files), available for download from the NGA Maritime Safety Web site.

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:

Former US Chart No.	*Current US Chart No.*	*Foreign Chart No.*	*Originally Announced in NTM*	*Later Edition*
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	

14040	14ACO14016	Can. 4010	29/04	
14041	14XHA14019	Can. 4011	29/04	
14042	14XHA14020	Can. 4396	1/05	
14043	14AHA14021	Can. 4116	8/05	42/08
14044	14AHA14022	Can. 4117	14/05	
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	14XHA14029	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	
14068	14XHA14032	Can. 4209	47/05	
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	
14141	14AHA14076	Can. 4462	22/07	
14144	14XHA14143	Can. 4950	38/03	11/08
14145	14AHA14077	Can. 4448	22/07	
14146	14XHA14078	Can. 4404	25/07	
14151	14XHA14079	Can. 4403	23/07	
14156	14BHA14080	Can. 4419	22/07	
14190	14ACO14096	Can. 4905	6/09	
14203	14XHA14195	Can. 1431	42/03	11/08
14222	14XHA14211	Can. 1312	40/03	5/08
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	
14366	14AHA14359	Can. 4846	25/09	
14373	14BHA14362	Can. 4847	12/10	
14415	14ACO14377	Can. 4020	12/10	
14812	14XHA14809	Can. 2085	6/09	
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	
17412	**17XHA17410**	Can. 3890	40/08	
17413	**17ACO17411**	Can. 3802	42/08	
17414	**17BCO17415**	Can. 3854	42/08	
17416	**17BCO17417**	Can. 3858	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	
17445	17BHA17439	Can. 3957	12/10	
17464	17XHA17450	Can. 3924	12/10	
17465	**17XHA17451**	Can. 3742	41/08	
17480	17ACO17454	Can. 3744	12/10	
17485	17XHA17456	Can. 3936	44/09	
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. 3306	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	
18406	18BHA18435	Can. 3481	23/07	
18407	18BHA18436	Can. 3494	12/07	
18408	18BHA18437	Can. 3495	42/08	
18413	18BHA18442	Can. 3442	31/07	
18414	18XHA18451	Can. 3478	31/07	
18415	18BHA18461	Can. 3441	24/07	
18416	18AHA18462	Can. 3440	24/07	
18418	18AHA18466	Can. 3419	24/07	
18420	18BHA18467	Can. 3479	12/07	16/08
18475	18XHA18472	Can. 3685	43/08	
35009	35ACO35002	UK 266	19/04	3/07
35009	35ACO35003	UK 268	19/04	3/07
35009	35ACO35004	UK 273	19/04	4/07
35009	35ACO35005	UK 278	23/04	4/07

35009	35ACO35006	UK 1191	24/04	8/06
35009	35ACO35010	UK 1192	28/04	12/06
35009	35ACO35013	UK 1409	23/04	49/04
35009	35ACO35014	UK 1407	23/04	33/09
35016	35ACO35015	UK 2635	26/06	10/08
35022	35ACO35017	UK 1128	16/08	32/08
35023	35ACO35018	UK 1129	37/07	
35031	35ACO35019	UK 1127	4/06	6/08
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	52/08
35082	35BHA35037	UK 735	31/04	52/08
35084	35BHA35045	UK 1481	32/04	12/06
35086	35BHA35048	UK 736	32/04	4/09
35088	35BHA35050	UK 190	28/04	12/06
35100	35ACO35013	UK 1409	23/04	49/04
35101	35BHA35052	UK 223	33/04	
35120	35ACO35055	UK 115	23/04	10/08
35130	35ACO35056	UK 1942	12/06	
35135	35ACO35057	UK 2249	27/07	39/10
35136	35ACO35058	UK 2250	27/07	39/10
35141	35ACO35059	UK 2162	21/07	33/09
35144	35XCO35062	UK 2584	27/07	49/08
35150	35ACO35063	UK 1119	27/07	
35155	35ACO35064	UK 1234	27/07	
35159	35ACO35065	UK 3271	30/07	39/10
35160	35ACO35066	UK 1233	27/07	
35163	35ACO35067	UK 3272	27/07	
35166	35ACO35068	UK 3283	27/07	39/10
35169	35ACO35071	UK 3281	29/07	39/10
35170	35ACO35072	UK 3282	30/07	
35200	35ACO35001	UK 1954	28/04	33/09
35205	35ACO35073	UK 2720	27/07	6/08
35210	35ACO35074	UK 1785	27/07	6/08
35220	35ACO35075	UK 2721	37/07	6/08
35230	35ACO35078	UK 1794	24/07	10/08
35236	**35AHA35079**	UK 2207	28/07	39/10
35237	**35AHA35089**	UK 2208	30/07	12/10
35239	**35AHA35090**	UK 2210	28/07	
35243	**35BHA35091**	UK 3146	37/07	6/08
35246	35ACO35092	UK 1795	21/07	13/10
35247	35AHA35093	UK 1796	28/07	39/10
35248	**35BHA35094**	UK 2209	38/07	
35250	35BHA35095	UK 2540	29/07	7/08
35255	**35AHA35096**	UK 2171	30/07	
35256	35AHA35097	UK 2390	24/07	
35260	35ACO35104	UK 2722	27/07	7/08
35265	35ACO35106	UK 1778	27/07	33/09
35270	**35AHA35109**	UK 2169	29/07	
35272	35ACO35110	UK 1770	12/07	
35277	35BHA35113	UK 2326	22/06	7/08
35278	35BHA35114	UK 2343	4/06	
35279	35BHA35115	UK 2397	29/06	
35295	35BHA35116	UK 2481	22/06	

35296	35BHA35117	UK 2396	25/06	
35298	35BHA35118	UK 2168	7/07	33/09
35299	35ACO35119	UK 2724	26/06	5/07
35300	35ACO35121	UK 2723	18/06	
35302	35ACO35123	UK 2798	46/05	
35307	35ACO35126	UK 2199	5/06	
35308	35ACO35127	UK 2198	25/06	
35310	35ACO35128	UK 2725	27/06	
35350	35ACO35131	UK 2173	12/07	
35380	35ACO35138	UK 2254	30/06	
35390	35ACO35139	UK 2423	22/06	
35400	35ACO35140	UK 2424	5/06	
35420	35ACO35147	UK 2049	18/06	
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	33/09
36010	36ACO36000	UK 1121	26/06	
36015	36ACO36001	UK 2649	47/05	
36040	36ACO36002	UK 1410	47/05	
36060	36ACO36006	UK 1141	12/07	
36061	**36BHA36007**	UK 1468	20/07	
36062	**36BHA36008**	UK 1415	4/06	
36063	36BHA36009	UK 1447	12/07	
36081	36BHA36011	UK 1753	7/07	
36098	36AHA36012	UK 2221	47/05	
36103	36BHA36014	UK 2126	9/07	
36104	36BHA36016	UK 2220	6/07	
36106	36BHA36017	UK 2131	47/05	
36108	36BHA36018	UK 2000	4/06	
36110	36BHA36019	UK 2007	8/06	
36115	36BHA36020	UK 1994	3/07	
36116	36AHA36021	UK 1867	23/05	26/10
36117	36BHA36022	UK 1907	11/07	
36118	36BHA36023	UK 2383	25/06	
36119	36BHA36024	UK 2491	4/06	
36120	36ACO36025	UK 1826	13/07	
36127	36BHA36030	UK 3746	32/06	
36128	36BHA36030	UK 3746	32/06	
36137	36AHA36032	UK 1478	39/04	
36138	36AHA36033	UK 3275	39/04	9/05
36139	36BHA36034	UK 3274	39/04	33/09
36140	36ACO36035	UK 1178	39/04	33/09
36141	36BHA36036	UK 2878	41/04	9/05
36161	36BHA36039	UK 1152	52/04	
36162	36BHA36041	UK 1182	1/05	
36163	36BHA36042	UK 1176	1/05	
36165	36BHA36044	UK 1165	17/05	52/06
36180	36ACO36049	UK 2565	27/05	33/09
37043	37AHA37003	UK 1267	15/06	
37044	37AHA37004	UK 30	25/05	39/10
37045	37AHA37006	UK 1901	25/05	20/07
37046	37AHA37007	UK 1613	34/05	18/06
37047	37XHA37008	UK 1902	25/05	27/08
37060	36ACO36050	UK 442	25/05	
37075	37ACO37015	UK 2454	25/08	
37079	37AHA37016	UK 2625	32/05	39/10

37081	37AHA37017	UK 2045	32/05	4/06
37083	37AHA37019	UK 2037	25/05	39/10
37084	37AHA37020	UK 2036	5/06	38/08
37086	37AHA37021	UK 2631	31/05	16/08
37119	37AHA37027	UK 1698	8/06	
37122	37AHA37028	UK 1828	19/05	6/10
37141	37AHA37040	UK 1607	9/05	22/09
37145	37AHA37051	UK 1185	37/04	52/08
37147	37BHA37052	UK 1975	36/04	7/08
37150	37ACO37055	UK 1504	37/04	17/05
37170	37ACO37057	UK 1503	38/04	8/08
37175	37ACO37058	UK 1187	38/04	8/08
37180	37ACO37059	UK 1190	38/04	10/05
37182	37AHA37062	UK 109	38/04	33/09
37183	37BHA37066	UK 1188	6/05	26/10
74071	74BHA74072	Aus. 615	35/07	
74071	74BHA74073	Aus. 616	35/07	
74071	74BHA74074	Aus. 617	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	
74186	74AHA74189	Aus. 238	47/05	
74192	74BHA74213	Aus. 818	9/07	
74201	74BHA74199	Aus. 246	8/07	
74202	74BHA74208	Aus. 247	13/07	
74204	74BHA74209	Aus. 819	14/07	
74205	74BHA74244	Aus. 245	45/10	
74206	74AHA74212	Aus. 244	15/07	
74210	74BCO74245	Aus. 820	13/07	
74221	74BCO74227	Aus. 821	11/07	
74229	74BHA74226	Aus. 250	13/07	
74229	74BCO74246	Aus. 824	16/08	
74229	74BCO74247	Aus. 249	16/08	
74231	74BHA74226	Aus. 250	13/07	
74232	74BHA74216	Aus. 256	10/07	
74234	74BHA74237	Aus. 257	11/07	45/10
74252	74BHA74258	Aus. 263	41/10	
74253	74BCO74262	Aus. 830	13/07	
74271	74BCO74275	Aus. 833	18/07	
74271	74BCO74277	Aus. 280	35/07	
74272	74BHA74267	Aus. 834	13/07	
74287	74BHA74279	Aus. 289	52/06	
74293	74ACO74311	Aus. 839	12/06	
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	
74521	75AHA75147	Aus. 744	19/06	
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	
75132	75BHA75137	Aus. 137	19/06	42/08
75144	75BHA75146	Aus. 344	47/05	
75170	75ACO75166	Aus. 788	14/06	
75170	75ACO75167	Aus. 789	14/06	
75170	75ACO75168	Aus. 790	17/06	
75171	75AHA75164	Aus. 144	44/10	
75171	75AHA75165	Aus. 143	21/06	20/08
75171	75AHA75174	Aus. 158	18/06	
75173	75AHA75174	Aus. 158	18/06	
75175	75AHA75178	Aus. 154	18/06	25/08
75261	75AHA75274	Aus. 808	11/07	
75264	75AHA75269	Aus. 201	12/07	
75264	75AHA75267	Aus. 202	48/06	
75265	75AHA75266	Aus. 197	17/07	
95276	95BHA95284	Jpn. W1193	46/10	
96961	96BHA96951	Jpn. W1033A	46/10	
97146	97AHA97135	Jpn. W1083	46/10	
97149	97AHA97137	Jpn. W66	46/10	
97150	97XHA97139	Jpn. W67	46/10	

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 44 (Worldwide Navigational Warnings 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 out 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).

MARINE INFORMATION REPORT AND SUGGESTION SHEET

Observer _____ Ship/Organization _____

Address _____

_____

Email address _____

Date of Observation _____ Time of Observation (Local) _____

Latitude _____ Longitude _____ Datum _____

Navigation System _____ Verified by Navigator: Yes _____ No _____

Product(s) Affected _____ Edition _____

Latest correction applied: N.M. _____

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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User Feedback (continue on additional sheets as necessary)

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BETHESDA MD 20816-5003

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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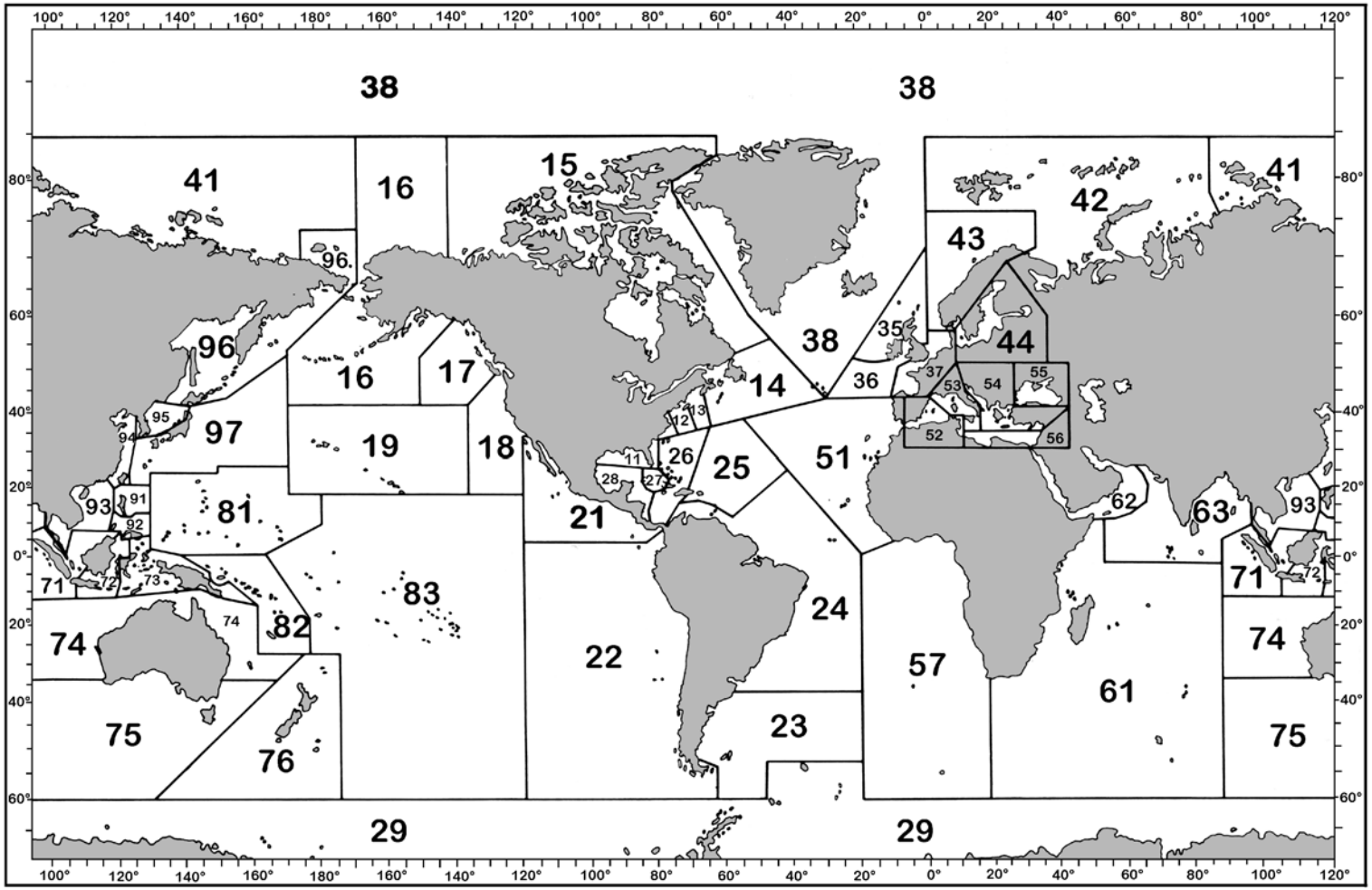

GEOGRAPHIC LOCATOR

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