

Draft Environmental Assessment

**National Oceanic and Atmospheric Administration, National
Ocean Service, Office of National Marine Sanctuaries
Papahānaumokuākea Marine National Monument**

**Proposed Regulations Implementing the International Maritime
Organization's Particularly Sensitive Sea Area Designation,
Ship Reporting System and Areas to be Avoided**

Papahānaumokuākea Marine National Monument

July 2008

**Prepared by the National Oceanic and Atmospheric Administration, National Ocean
Service, Office of National Marine Sanctuaries**

Table of Contents.....	2
Introduction.....	4
1 Background.....	4
1.1 Setting.....	4
1.2 International Maritime Organization Designations.....	4
1.3 Monument Transit Notification Regulations.....	6
1.4 Purpose and Need.....	6
2 Proposed Actions and Alternatives.....	7
2.1 Amending Monument Reporting Requirements to Implement and to be Consistent with IMO Reporting Requirements (Proposed Action).....	7
2.2 No Action Alternative.....	7
3 Affected Environment.....	7
3.1 General.....	7
4 Evaluation of Environmental Consequences.....	8
4.1.1 Environmental Consequences of the Preferred Alternative.....	8
4.1.2 Environmental Consequences of the No Action Alternative.....	9
4.2 Cumulative Impacts.....	9
5 Other Laws and Authorities Considered.....	9
5.1 Executive Order 13089: Coral Reef Protection.....	9
5.2 Endangered Species Act.....	10
5.2 National Historic Preservation Act (NHPA).....	10
5.4 Marine Mammal Protection Act.....	10
5.5 Environmental Justice.....	10
5.6 Executive Order 12866.....	10
5 List of Preparers.....	12
6 References.....	13
7 Appendices.....	14

EXECUTIVE SUMMARY

This environmental assessment was prepared in accordance with the National Environmental Policy Act of 1969 (42 United States Code §4321, et seq.), as implemented by the Council on Environmental Quality regulations (40 Code of Federal Regulations Part 1500-1508), and National Oceanic and Atmospheric Administration (NOAA) Administrative Order (NAO) 216-6, which describes NOAA policies, requirements, and procedures implementing NEPA.

On June 15, 2006, the Papahānaumokuākea Marine National Monument (Monument) was established by Presidential Proclamation 8031 (Proclamation) under the authority of the Antiquities Act (16 U.S.C. 431). The Proclamation establishes restrictions and prohibitions on activities in the Monument. On August 29, 2006, the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service (USFWS) promulgated joint regulations at 50 CFR Part 404 codifying the provisions of the Proclamation, including the conditions under which all domestic vessels passing through the Monument without interruption and all vessels permitted to enter the Monument and conduct activities must provide notification of entry and exit from Monument boundaries.

The International Maritime Organization (IMO) designated the Monument as a Particularly Sensitive Sea Area (PSSA) on April 3, 2008. As part of this designation, a ship reporting system was established for all vessels greater than 300 gross tons traveling through the Monument on their way to or from a U.S. port. This reporting system has specific reporting requirements that differ slightly from those required by current Monument regulations (50 CFR Part 404).

This is an environmental assessment (EA) of the potential environmental effects associated with amending the Monument regulations to implement and be consistent with the IMO ship reporting requirements for vessels passing through the Monument without interruption. This proposed action would not affect the reporting requirements for vessels that enter the Monument pursuant to a permit.

No adverse impacts are anticipated as a result of the proposed action and no additional burden hours will be required for vessels that are required to report. There would be beneficial impacts in making these regulations consistent and more broadly applicable to vessels conducting permitted activities in the Monument, or vessels passing through the Monument without interruption.

NOAA anticipates a Finding of No Significant Impact.

Introduction

1 Background

1.1 *Setting*

President George W. Bush established the Papahānaumokuākea Marine National Monument (Monument) on June 15, 2006 to protect the natural and cultural resources of the Northwestern Hawaiian Islands (NWHI). The purposes and management regime for the Monument, as well as restrictions and prohibitions regarding activities in the Monument, are set forth in Presidential Proclamation 8031 (71 FR 36443, June 26, 2006) (Proclamation).

The Monument encompasses a vast and remote chain of islands that is a part of the Hawaiian archipelago, including emergent and submerged lands and waters out to a distance of approximately 50 nautical miles from the islands. The Monument extends approximately 1,200 miles and includes islands, coral atolls, seamounts, banks, and shoals. The Monument includes State of Hawaii waters and submerged lands, including the NWHI State Marine Refuge and Kure Atoll Wildlife Sanctuary. The Monument also includes Midway Atoll National Wildlife Refuge/Battle of Midway National Memorial, Hawaiian Islands National Wildlife Refuge, and the NWHI Coral Reef Ecosystem Reserve (Reserve). This diverse ecosystem is home to many species of coral, fish, birds, marine mammals, and other flora and fauna, including the endangered Hawaiian monk seal, the threatened green turtle, and the endangered leatherback and hawksbill turtles. The area is also rich in history and represents a place of great cultural significance to the Native Hawaiians.

The Secretary of Commerce, through NOAA, has primary responsibility regarding the management of the marine areas of the Monument, in consultation with the Secretary of the Interior. The Secretary of the Interior, though the USFWS, has sole responsibility for the areas of the Monument that overlay the Midway Atoll National Wildlife Refuge, the Battle of Midway National Memorial, and the Hawaiian Islands National Wildlife Refuge, in consultation with the Secretary of Commerce. Nothing in the Proclamation diminishes or enlarges the jurisdiction of the State of Hawaii, which has primary responsibility for managing the State waters of the Monument and primary responsibility for the Kure Atoll portion of the Kure Atoll State Seabird Sanctuary.

NOAA and USFWS implemented the provisions of the Proclamation by publishing a final rule in the Federal Register (71 FR 51134) on August 29, 2006. These regulations were effective immediately and codified the provisions of the Proclamation. They regulate a range of activities in the Monument and establish the conditions under which vessels must report prior to entering or after leaving the Monument.

1.2 *International Maritime Organization Designations*

On April 3, 2008 the Papahānaumokuākea Marine National Monument was designated as a Particularly Sensitive Sea Area (PSSA) by the International Maritime Organization (IMO) to protect the recognized attributes of this fragile and integrated coral reef ecosystem from damage by international shipping activities. The burden on international shipping by the PSSA and its associated protective measures is minimal while the objectives for establishing it—increased maritime safety, protection of the fragile environment, preservation of cultural

resources and areas of cultural importance significant to Native Hawaiians, and facilitation of the ability to respond to developing maritime emergencies—are significantly furthered. The PSSA overlays and has the same boundary coordinates at the Monument.

This vibrant and integrated coral reef ecosystem is inherently vulnerable to damage by international shipping activities, and ships in transit through the NWHI are one of the most persistent and significant anthropogenic threats to its pristine character. The very features that give rise to this dynamic ecosystem—the small islands, atolls, banks, seamounts, pinnacles, shoals, and other emergent features—pose a significant challenge to safe and environmentally sound navigation. As evidenced from a number of shipwrecks in the NWHI, this area is vulnerable to physical damage from ship groundings and damage from pollution. Therefore, the objectives of the PSSA are to increase maritime safety and minimize risk where navigation is hazardous, protect the fragile environment, preserve cultural resources and areas of cultural importance significant to Native Hawaiians, and facilitate the ability to respond to developing maritime emergencies. Two associated protective measures were included along with the PSSA designation and went into effect on May 1, 2008. These include the expansion of the existing Areas To Be Avoided (ATBA) and the establishment of a ship reporting system that includes a reporting area. The ATBAs and the reporting area are shown in the small chart in Appendix 1. The boundary coordinates of the expanded ATBAs are shown in Appendix 2 and the boundary coordinates for the reporting area are shown in Appendix 3.

The ATBAs are a critical protective measure because they serve to keep ships away from the navigation hazards, allow any spilled cargo an opportunity to disperse before reaching the shore, protect sensitive ecological resources, preserve cultural resources and areas of cultural importance significant to Native Hawaiians, and provide time to mount a response to a developing maritime emergency. In recognition of the hazards to safe navigation in this area and the benefits provided by ATBAs, six ATBAs were adopted by IMO in 1981 to protect eight of the NWHI. While these ATBAs have been effective in the areas where they apply and with regard to the ships subject to them, IMO determined that it was necessary to amend them in two ways. First, the ATBAs were applied to a broader class of vessels in response to the groundings and spills that had occurred. Second, additional ATBAs were adopted around Kure Atoll and Midway Atoll and three areas between islands to protect these vulnerable areas. These areas contain significant hazards to navigation and are home to some of the most vulnerable and endangered resources in the island chain. The need to establish these ATBAs was underscored by the shipwrecks that have occurred in many of these areas.

The IMO ship reporting system is tailored to meet the objectives of PSSA designation as well. The system is mandatory for ships 300 gross tons or greater that are entering or departing a U.S. port or place and recommended for other ships. Ships are required to report by e-mail as they cross into the reporting area boundary, which generally extends ten miles out and entirely around the Monument boundary. The required reporting information includes: vessel identification information (e.g., name, call sign, flag, IMO identification number); date and time of entry; position; true course; speed in knots and tenths; destination and estimated time of arrival; intended route through the reporting area; vessel draft; categories of hazardous cargoes on board; any vessel defects or deficiencies that restrict maneuverability or impair normal navigation; any pollution incident or goods lost overboard

within the Monument, reporting area, or the U.S. EEZ; contact information for the vessel's agent or owner; vessel size (length overall, gross tonnage) and type; and total number of persons on board. Information required when the vessel leaves the reporting area includes: vessel identification information (e.g., name, call sign, flag, IMO identification number); date and time of exit; position; and any pollution incident or goods lost overboard within the Monument, reporting area, or the U.S. EEZ.

The act of filing a report with the Monument ensures that ships passing through the area are aware of the hazards to navigation as well as the sensitive resources within the Monument. It also provides information on vessel traffic in transit through the PSSA which facilitates the ability to respond to developing maritime emergencies. The specific reporting requirements associated with this ship reporting system can be found in Appendix 4

1.3 Monument Transit Notification Regulations

In addition to the IMO ship reporting system, the Proclamation that established the Monument and the joint regulations that implement it, restrict access to the Monument to persons who have been issued Monument permits. Current Monument regulations at 50 CFR 404.4 require that any person passing through the Monument without interruption provide notice prior to entering and after leaving the Monument. Notification of entry must be provided at least 72 hours, but no longer than 1 month, prior to the entry date. Notification of departure from the Monument must be provided within 12 hours of leaving. Notification may be made by e-mail, telephone or fax and must include the following information: position when making the report; vessel name and IMO identification number; name, address, and telephone number of owner and operator; United States Coast Guard documentation, state license, or registration number; home port; intended and actual route through the Monument; general categories of any hazardous cargo on board; and length of vessel and propulsion type (e.g., motor or sail).

All of the terms of the Proclamation and the regulations are applied in accordance with international law. The specific reporting requirements can be found in Appendix 4.

1.4 Purpose and Need

The IMO designated the Monument as a PSSA on April 3, 2008. The designation included adoption of a ship reporting system that is mandatory for all vessels greater than 300 gross tons travelling through the Monument on their way to or from a U.S. port or place, and all vessels of any size that are travelling through the Monument on their way to or from a U.S. port or place and that experience an emergency while in the Monument. This reporting system has specific reporting requirements that differ slightly from those outlined in current Monument regulations (50 CFR 404). Current Monument regulations require reporting from all permitted vessels travelling through the Monument, as well as all domestic vessels passing through the Monument without interruption. The purpose and need associated with this environmental assessment are to implement the IMO reporting requirements and to make the Monument reporting requirements consistent and therefore, more broadly applicable. In addition, this consistency will avoid unnecessary and duplicative reporting by vessels passing through the Monument without interruption.

2 Proposed Actions and Alternatives

2.1 *Amending Monument Reporting Requirements to Implement and to be Consistent with IMO Reporting Requirements (Proposed Action)*

Under the proposed action, the Monument reporting requirements at 50 CFR 404.4 would be amended to be consistent with and to implement the IMO ship reporting system as follows: (1) the current requirements at 50 CFR 404.4(b) for notification prior to passing through the Monument without interruption would be amended by the proposed regulations and several new terms and their definitions would be added to the Monument regulations at 404.3 to implement the proposed reporting requirements; (2) a reporting area would be established around the Monument, extending outward ten nautical miles from the Monument boundary but excluding the ATBA's within the Monument; (3) several categories of vessels that would be passing through the Monument without interruption would be required to notify NOAA by e-mail at the time they cross the Reporting Area boundary and prior to entering the Monument, and again when they exit the reporting area after having transited the Monument; (4) specific information regarding the vessel, its location, etc., would be required in the e-mail to NOAA and would be sent in a reporting format that is consistent with the reporting system adopted by IMO; (5) vessels that do not have e-mail capability would be subject to current regulations that require notification by various means (telephone, fax, e-mail) at least 72 hours but not more than one month before passing through the Monument without interruption; (6) voluntary participation in the reporting system would be recommended for all other vessels that are not required to notify NOAA; and (7) the revised boundaries of the four voluntary ATBA's would be published as part of these regulations.

2.2 *No Action Alternative*

Under the no action alternative, the Monument and IMO-based reporting requirements associated with vessels entering or leaving the Monument and ATBA's would remain inconsistent. In addition, the IMO provisions would not be implemented under the Monument regulations at 50 CFR 404.

3 Affected Environment

3.1 *General*

The Northwestern Hawaiian Islands (NWHI) are among the few large-scale, intact, predator-dominated coral reef ecosystems left in the world, with apex predator biomass several orders of magnitude greater in the NWHI as compared with the main Hawaiian Islands (MHI). In addition, roughly one third of reef fish and coral species found in the NWHI are believed to be endemic to the Hawaiian archipelago. Because of their isolation and their relatively undisturbed condition, the NWHI host a number of federally protected marine mammals, including the endangered Hawaiian monk seal (for which the NWHI serve as the major breeding site). The area also hosts protected sea turtles, including the threatened green turtle as well as several species of land and sea birds. Green turtles inhabit waters throughout the Hawaiian archipelago but nest in the NWHI (Friedlander et al. 2005).

The NWHI region is also important globally, as it is one of the world's most significant coral reef and marine ecosystems, serving as an example of ongoing geological processes, biological evolution, and the effects humans have had on the natural environment elsewhere. The NWHI is also characterized by a high degree of endemism in reef fish species, particularly at the northern end of the island chain, with endemics comprising over 50% of the population in terms of numerical abundance (Demartini and Friedlnader 2004).

Live coral cover and species richness is highest in the middle of the chain at locations such as Lisianski Island, Maro Reef, and French Frigate Shoals (Maragos et al. 2004). The coral reefs of the Monument are undisturbed by fishing or tourism, with excellent health and high species richness; preliminary faunal inventories indicated that many of their constituent species remain undocumented, and new coral species are still being discovered in this area.

The area's great cultural significance to Native Hawaiians and its connection to early Polynesian culture were significant reasons for its designation as a Marine National Monument. Numerous archaeological artifacts found on two of the islands reveal a close relationship with the Hawaiian culture, with evidence of both prehistoric seasonal and permanent settlements, as well as use of the area for religious purposes.

4 Evaluation of Environmental Consequences

This section of the EA presents an evaluation of the anticipated environmental impacts that would result from implementation of the alternatives described in section 2 on the affected environment described in section 3. A qualitative assessment of the level of significance of potential impacts is included, in terms of minor or moderate positive and/or negative short-term and long-term impacts. Direct, indirect, and cumulative impacts are defined as follows:

Direct impacts are those caused by the proposed action or no action alternative that occur at the same time and place. Indirect impacts are those caused or induced by the proposed action or no action alternative that occur later in time or are removed in distance from the time and location of the proposed action. Cumulative impacts are the impacts on the environment that result from the incremental effect of the proposed action, added to other past, present, or reasonable foreseeable future actions.

4.1.1 Environmental Consequences of the Preferred Alternative

Implementation of the preferred alternative would change the type of information ships would provide but no additional burden hours would be required to comply with the amended regulations. The proposed regulatory changes would ensure that mariners who are reporting before and after transiting the Monument utilize a consistent reporting format, definitions, and reporting area to satisfy both Monument regulations and IMO requirements. Requiring all vessels transiting the Monument to report as they enter and leave ATBAs would provide additional protection to the shallow water areas they encompass by making vessel operators cognizant of the risks associated with navigating into the ATBAs. Not only would the preferred alternative help mariners be more aware of potentially hazardous locations within the Monument it would also alert Monument management when vessels are operating in an area where there is increased potential for grounding. This may allow for a more rapid response in the event that a grounding occurs.

Domestic commercial fisherman operating within the reporting area, but outside the Monument, would not be required to exit the 10 mile reporting area prior to emailing a report. They would be able to report from their given location within the reporting area and commence transiting. Under the current reporting requirements, a vessel operator must provide notification 72 hours before traveling through the Monument. The proposed action would allow transit immediately upon reporting. This change would directly benefit fishermen and other vessel operators who determine they need to transit the Monument on short notice due to changing environmental conditions. It would also provide more accurate information to Monument managers, who would know the precise time and positions of vessels when they cross into and depart the reporting area.

An additional benefit would be elimination of duplicative reporting requirements on vessel operators, who would not be required to provide notice at least 72 hours in advance of transiting the Monument and also provide essentially the same information when they enter the reporting area. Implementing the IMO reporting requirements would also facilitate compliance by vessel operators and enforcement by Monument managers by eliminating confusion between the two reporting requirements.

4.1.2 Environmental Consequences of the No Action Alternative

The no action alternative carries some risk of confusion to mariners interested in passing through the Monument and would impose two reporting systems on vessels 300 gross tons or greater entering or departing a U.S. port or place, which would be required to submit essentially the same information twice. Currently there are two reporting standards based on vessel size, flag state, port of origin, and destination. This confusion could result in misreporting and would result in an unnecessary reporting burden.

4.2 Cumulative Impacts

Cumulative impacts from the preferred and no action alternatives are not likely to significantly affect the resources of the Monument. There have been vessels documented either a) passing through the Monument without interruption or b) conducting permitted activities within the Monument (Monument Notification records, 2006-present). The number of vessels is not expected to significantly increase as a result of the proposed action. Implementation of the preferred alternative would streamline the reporting process, increase awareness of the ATBAs and potential navigational hazards in the Monument, and facilitate response by managers in the event of an emergency occurring in the Monument involving a vessel in transit.

Other Laws and Authorities Considered

5 Other Laws and Authorities Considered

5.1 Executive Order 13089: Coral Reef Protection

Executive Order (EO) 13089 requires all Federal agencies whose actions may affect U.S. coral reef ecosystems to (1) identify these actions; (2) utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and (3) ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems.

This assessment has considered EO 13089 and has determined that, while it may have a limited effect on U.S. coral reef ecosystems in the NWHI, the proposed action) would not degrade the conditions of any U.S. coral reef ecosystem, including the coral reef ecosystems in the NWHI.

5.2 *Endangered Species Act*

The Monument is required to consult with the National Marine Fisheries Service under Section 7 of the Endangered Species Act of 1973, as amended, 16 U.S.C 1531 et. seq., if there is potential for the proposed action to affect listed marine species. The Monument has determined that the proposed activity is not likely to affect any endangered or threatened species or result in the destruction or adverse modification of habitat of such species. Therefore, consultation is not required by Section 7 of the Endangered Species Act but Monument managers will consult informally with NMFS.

5.2 *National Historic Preservation Act (NHPA)*

The proposed action would not change the number of vessels passing through the Monument, it would only affect the type and timing of information they would provide. The reporting would take place in deep water, well away from land and any known submerged historic maritime resources (e.g. shipwrecks). No known sites listed in or eligible for listing in the National Register of Historic places exist within the areas that the proposed action would take place. Although no surveys for maritime heritage resources have been conducted in this depth range, given what is known about the area's historic resources, the potential for impact is minimal. No consultations with the Advisory Council on Historic Preservation, State Historic Preservation Officer, or State Burial Council were conducted.

5.4 *Marine Mammal Protection Act*

The proposed action would not result in the take of any marine mammal protected under the Marine Mammal Protection Act, therefore a separate permit to take a marine mammal is not required.

5.5 *Environmental Justice*

Consistent with the President's Executive Order on Environmental Justice (February 11, 1994) and the Department of Commerce's Environmental Justice Strategy, the proposed research activities will not have any disproportionately high and adverse human health or environmental effects on minority or low income populations.

5.6 *Executive Order 12866*

Implementation of the activities herein described does not constitute a "significant regulatory action" as defined by Executive Order 12866 because (1) it will not have an annual effect on the economy of \$100 million or more, or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) it will not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) it will not materially alter the budgetary impact of entitlements, grants,

user fees, or loan programs or the rights and obligations of recipients thereof; and (4) it will not raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

5 List of Preparers

Sean Corson
Deputy Superintendent
Office of National Marine Sanctuaries
National Ocean Service/NOAA
Papahānaumokuākea Marine National Monument
Phone: 808/694-3925
E-mail: Sean.Corson@noaa.gov

Hoku Johnson
Permit Specialist
Office of National Marine Sanctuaries
National Ocean Service/NOAA
Papahānaumokuākea Marine National Monument
Phone: 808/694-3946
E-mail: Hoku.Johnson@noaa.gov

6 References

- Demartini, E. E. and A. M. Friedlander. 2004. Spatial Patterns of Endemism in Shallow Reef Fish Populations of the Northwestern Hawaiian Islands. *Marine Ecology Progress Series* 271: 281-296.
- Friedlander, A. G. Aeby, R. Brainard, A. Clark, E. DeMartini, S. Godwin, J. Kenyon, R. Kosaki, J. Maragos, and P. Vroom. 2005. The State of the Coral Reef Ecosystems of the Northwestern Hawaiian Islands. pp.270-311. In: j.Waddell (ed.), *The State of the Coral Reef Ecosystems of the United States and Pacific Freely Associated States: 2005*. NOAA Technical Memorandum NOAA NCCOS 11. NOAA/NCCOS Center for Coastal Monitoring and Assessment's Biogeography Team. Silver Spring, MD. 522p.
- Maragos, J. E. Potts, G. Aeby, D. Gulko, J. Kenyon, D. Siciliano and D. VanRavensway. 2004. 200-2002 rapid ecological assessment of corals on the shallow reefs of the Northwestern Hawaiian Islands. Part 1: Species and distribution. *Pacific Science*, 58(2): 211-230.

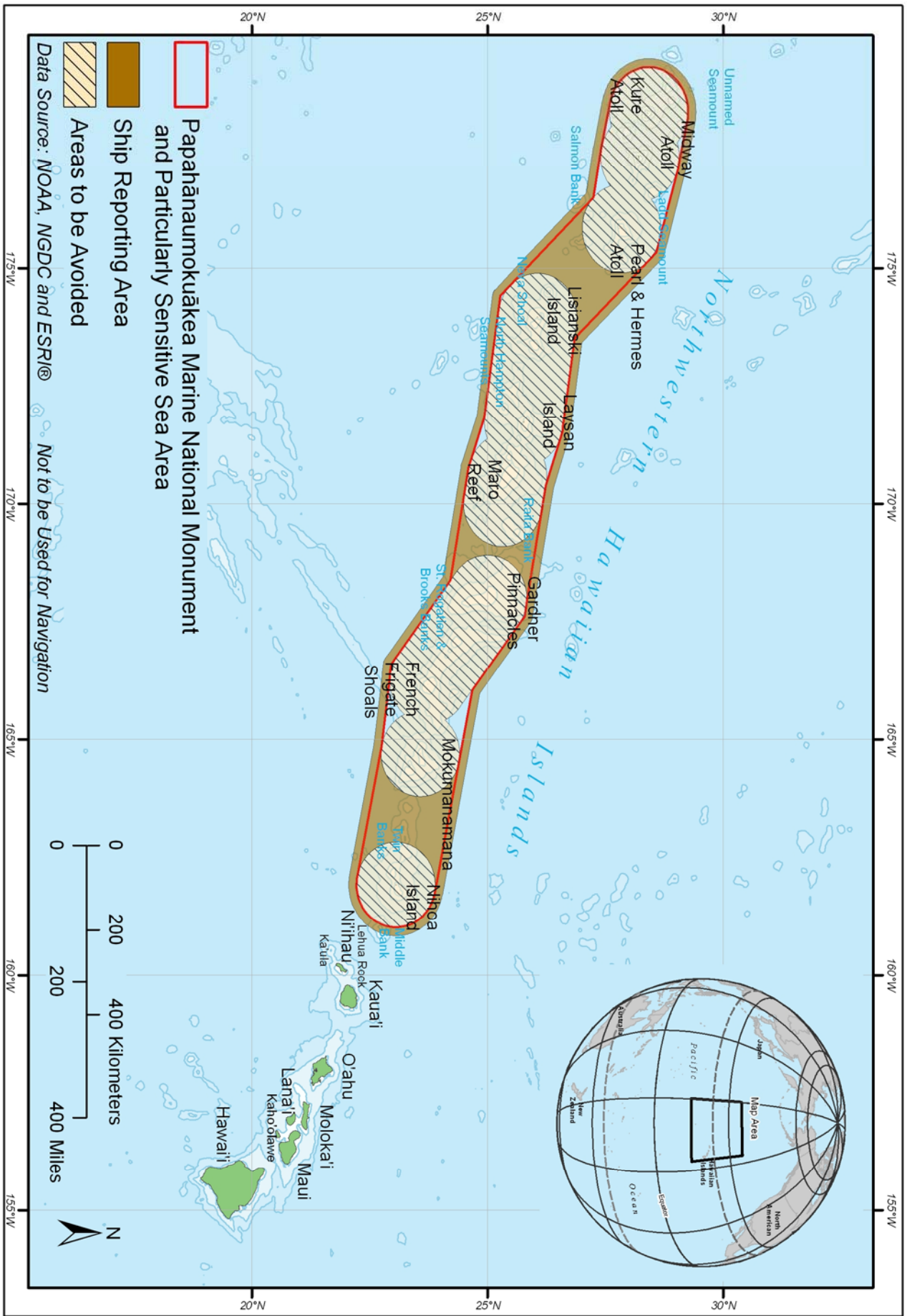
7 Appendices

Appendix 1 – Map of the PSSA and ATBAs

Appendix 2 – Boundary Coordinates of expanded ATBAs

Appendix 3 – Boundary Coordinates for Ship Reporting Area

Appendix 4 – Ship Reporting System Reporting Requirements



APPENDIX 2 – GEOGRAPHICAL COORDINATES

**AREAS TO BE AVOIDED
PAPAHANAUMOKUAKEA MARINE NATIONAL MONUMENT**

Reference chart: United States 540, 2008 edition; 19016, 2008 edition; 19019, 2008 edition; 19022, 2008 edition.
These charts are based on World Geodetic System 1984 Datum (WGS-84) and astronomic datum.

**Kure Atoll, Midway Atoll,
and Pearl and Hermes Atoll
Point LATITUDE LONGITUDE**

1 27°14'.76 N 176°29'.87 W
2 27°24'.95 N 177°33'.31 W
3 27°35'.87 N 178°29'.90 W
4 27°36'.64 N 178°33'.93 W
5 27°37'.53 N 178°37'.32 W
6 27°38'.60 N 178°40'.65 W
7 27°39'.85 N 178°43'.90 W
8 27°41'.28 N 178°47'.05 W
9 27°42'.89 N 178°50'.10 W
10 27°44'.66 N 178°53'.03 W
11 27°46'.59 N 178°55'.83 W
12 27°48'.67 N 178°58'.49 W
13 27°50'.89 N 179°01'.00 W
14 27°53'.22 N 179°03'.39 W
15 27°55'.69 N 179°05'.61 W
16 27°58'.29 N 179°07'.61 W
17 28°01'.01 N 179°09'.47 W
18 28°03'.81 N 179°11'.10 W
19 28°06'.71 N 179°12'.53 W
20 28°09'.67 N 179°13'.75 W
21 28°12'.70 N 179°14'.75 W
22 28°15'.78 N 179°15'.54 W
23 28°18'.91 N 179°16'.11 W
24 28°22'.04 N 179°16'.45 W
25 28°24'.72 N 179°16'.56 W
26 28°25'.20 N 179°16'.57 W
27 28°25'.81 N 179°16'.56 W
28 28°28'.35 N 179°16'.44 W

64 28°20'.09 N 175°04'.91 W
65 28°16'.05 N 175°01'.92 W
66 28°11'.78 N 174°59'.33 W
67 28°07'.29 N 174°57'.23 W
68 28°02'.63 N 174°55'.68 W
69 27°57'.84 N 174°54'.62 W
70 27°53'.01 N 174°54'.05 W
71 27°48'.12 N 174°54'.05 W
72 27°43'.28 N 174°54'.62 W
73 27°38'.48 N 174°55'.71 W
74 27°33'.81 N 174°57'.32 W
75 27°29'.30 N 174°59'.43 W
76 27°25'.00 N 175°02'.03 W
77 27°20'.93 N 175°05'.07 W
78 27°17'.18 N 175°08'.59 W
79 27°13'.73 N 175°12'.47 W
80 27°10'.59 N 175°16'.67 W
81 27°07'.88 N 175°21'.25 W
82 27°05'.57 N 175°26'.09 W
83 27°03'.66 N 175°31'.15 W
84 27°02'.22 N 175°36'.40 W
85 27°01'.29 N 175°41'.78 W
86 27°00'.73 N 175°47'.22 W
87 27°00'.68 N 175°52'.74 W
88 27°01'.09 N 175°58'.16 W
89 27°01'.99 N 176°03'.53 W
90 27°03'.34 N 176°08'.81 W
91 27°05'.12 N 176°13'.91 W
92 27°07'.37 N 176°18'.79 W
93 27°09'.98 N 176°23'.40 W
94 27°13'.02 N 176°27'.74 W
95 27°13'.77 N 176°28'.70 W

33 24°37'.42 N 169°30'.78 W
34 24°35'.00 N 169°35'.64 W
35 24°33'.02 N 169°40'.66 W
36 24°31'.34 N 169°45'.88 W
37 24°30'.31 N 169°51'.08 W
38 24°29'.68 N 169°56'.53 W
39 24°29'.56 N 170°01'.81 W
40 24°29'.61 N 170°04'.57 W
41 24°35'.77 N 170°44'.39 W
42 24°36'.29 N 170°47'.58 W
43 24°37'.18 N 170°50'.37 W
44 24°37'.76 N 170°52'.17 W
45 24°56'.23 N 171°50'.19 W
46 25°16'.61 N 174°24'.84 W
47 25°29'.56 N 174°38'.45 W
48 25°33'.28 N 174°42'.03 W
49 25°37'.33 N 174°45'.20 W
50 25°41'.68 N 174°47'.84 W
51 25°46'.23 N 174°50'.05 W
52 25°50'.93 N 174°51'.77 W
53 25°55'.80 N 174°52'.91 W
54 26°00'.71 N 174°53'.47 W
55 26°05'.67 N 174°53'.61 W
56 26°10'.59 N 174°53'.07 W
57 26°15'.46 N 174°52'.08 W
58 26°20'.20 N 174°50'.57 W
59 26°24'.75 N 174°48'.44 W
60 26°29'.15 N 174°45'.94 W
61 26°33'.26 N 174°42'.96 W
62 26°37'.11 N 174°39'.49 W
63 26°40'.60 N 174°35'.63 W
64 26°43'.75 N 174°31'.43 W

21 23°55'.85 N 163°52'.59 W
22 23°51'.17 N 163°50'.56 W
23 23°46'.33 N 163°48'.98 W
24 23°41'.37 N 163°47'.99 W
25 23°36'.34 N 163°47'.56 W
26 23°31'.27 N 163°47'.60 W
27 23°26'.27 N 163°48'.28 W
28 23°21'.34 N 163°49'.50 W
29 23°16'.53 N 163°51'.14 W
30 23°11'.96 N 163°53'.47 W
31 23°07'.54 N 163°56'.15 W
32 23°03'.46 N 163°59'.38 W
33 22°59'.65 N 164°03'.01 W
34 22°56'.27 N 164°07'.10 W
35 22°53'.22 N 164°11'.49 W
36 22°50'.60 N 164°16'.18 W
37 22°48'.48 N 164°21'.16 W
38 22°46'.73 N 164°26'.28 W
39 22°45'.49 N 164°31'.60 W
40 22°44'.83 N 164°37'.03 W
41 22°44'.65 N 164°42'.51 W
42 22°44'.92 N 164°47'.99 W
43 22°45'.11 N 164°49'.52 W
44 22°45'.39 N 164°51'.48 W
45 22°45'.17 N 164°51'.53 W
46 22°50'.26 N 165°34'.99 W
47 22°55'.50 N 166°19'.63 W
48 22°55'.93 N 166°23'.32 W
49 22°57'.41 N 166°36'.00 W
50 23°03'.75 N 166°45'.00 W
51 23°05'.48 N 166°47'.45 W
52 24°12'.70 N 168°22'.86 W
53 24°12'.88 N 168°22'.78 W
54 24°16'.05 N 168°27'.28 W
55 24°19'.15 N 168°31'.66 W
56 24°22'.27 N 168°35'.95 W
57 24°25'.71 N 168°39'.94 W
58 24°29'.51 N 168°43'.55 W
59 24°33'.67 N 168°46'.63 W
60 24°38'.06 N 168°49'.29 W
61 24°42'.68 N 168°51'.46 W
62 24°47'.45 N 168°53'.12 W
63 24°52'.34 N 168°54'.28 W
64 24°57'.32 N 168°54'.82 W
65 25°02'.32 N 168°54'.95 W
66 25°07'.30 N 168°54'.43 W
67 25°12'.19 N 168°53'.32 W
68 25°16'.99 N 168°51'.76 W
69 25°21'.57 N 168°49'.60 W
70 25°25'.94 N 168°46'.93 W
71 25°30'.09 N 168°43'.86 W
72 25°33'.89 N 168°40'.42 W
73 25°37'.37 N 168°36'.52 W
74 25°40'.49 N 168°32'.24 W
75 25°43'.24 N 168°27'.68 W
76 25°45'.57 N 168°22'.82 W
77 25°47'.43 N 168°17'.76 W
78 25°48'.79 N 168°12'.47 W
79 25°49'.72 N 168°07'.09 W
80 25°50'.11 N 168°01'.62 W
81 25°50'.18 N 168°00'.09 W

29 28°31'.49 N 179°16'.10 W
30 28°34'.61 N 179°15'.54 W
31 28°37'.69 N 179°14'.75 W
32 28°40'.71 N 179°13'.74 W
33 28°43'.68 N 179°12'.54 W
34 28°46'.58 N 179°11'.13 W
35 28°49'.39 N 179°09'.52 W
36 28°52'.11 N 179°07'.70 W
37 28°54'.72 N 179°05'.70 W
38 28°57'.21 N 179°03'.51 W
39 28°59'.58 N 179°01'.15 W
40 29°01'.81 N 178°58'.62 W
41 29°03'.90 N 178°55'.93 W
42 29°05'.83 N 178°53'.10 W
43 29°07'.60 N 178°50'.13 W
44 29°09'.21 N 178°47'.04 W
45 29°10'.64 N 178°43'.84 W
46 29°11'.89 N 178°40'.54 W
47 29°12'.95 N 178°37'.16 W
48 29°13'.82 N 178°33'.71 W
49 29°14'.50 N 178°30'.21 W
50 29°14'.99 N 178°26'.66 W
51 29°15'.28 N 178°23'.08 W
52 29°15'.36 N 178°19'.49 W
53 29°15'.25 N 178°15'.90 W
54 29°14'.94 N 178°12'.32 W
55 29°14'.43 N 178°08'.78 W
56 29°03'.47 N 177°12'.07 W
57 29°02'.55 N 177°07'.29 W
58 28°38'.96 N 175°35'.47 W
59 28°38'.67 N 175°34'.35 W
60 28°34'.91 N 175°19'.74 W
61 28°26'.24 N 175°10'.65 W
62 28°24'.61 N 175°08'.95 W
63 28°24'.53 N 175°09'.04 W

**Lisianski Island, Laysan
Island, Maro Reef, and Raita
Bank**

Point LATITUDE LONGITUDE

1 26°50'.89 N 173°30'.79 W
2 26°36'.00 N 171°37'.70 W
3 26°35'.49 N 171°33'.84 W
4 26°35'.10 N 171°30'.84 W
5 26°34'.07 N 171°27'.50 W
6 26°33'.35 N 171°25'.16 W
7 26°14'.26 N 170°23'.04 W
8 26°08'.69 N 169°48'.96 W
9 26°08'.36 N 169°49'.03 W
10 26°07'.62 N 169°45'.83 W
11 26°06'.03 N 169°40'.57 W
12 26°03'.97 N 169°35'.64 W
13 26°01'.51 N 169°30'.91 W
14 25°58'.65 N 169°26'.45 W
15 25°55'.32 N 169°22'.34 W
16 25°51'.67 N 169°18'.60 W
17 25°47'.78 N 169°15'.19 W
18 25°43'.54 N 169°12'.34 W
19 25°39'.05 N 169°09'.93 W
20 25°34'.37 N 169°08'.08 W
21 25°29'.54 N 169°06'.76 W
22 25°24'.61 N 169°05'.93 W
23 25°19'.63 N 169°05'.64 W
24 25°14'.65 N 169°05'.93 W
25 25°09'.69 N 169°06'.66 W
26 25°04'.85 N 169°08'.02 W
27 25°00'.17 N 169°09'.96 W
28 24°55'.66 N 169°12'.35 W
29 24°51'.35 N 169°15'.14 W
30 24°47'.37 N 169°18'.48 W
31 24°43'.69 N 169°22'.22 W
32 24°40'.34 N 169°26'.31 W

65 26°46'.49 N 174°26'.87 W
66 26°48'.90 N 174°22'.09 W
67 26°50'.79 N 174°17'.03 W
68 26°52'.20 N 174°11'.79 W
69 26°53'.21 N 174°06'.43 W
70 26°53'.74 N 174°00'.98 W
71 26°53'.74 N 173°55'.48 W
72 26°53'.29 N 173°50'.02 W
73 26°52'.56 N 173°44'.58 W
74 26°51'.85 N 173°39'.14 W
75 26°51'.13 N 173°33'.69 W
76 26°50'.75 N 173°30'.87 W

**Gardner Pinnacles, French
Frigate Shoals, and Necker
Island**

Point LATITUDE LONGITUDE

1 25°49'.64 N 167°52'.66 W
2 25°49'.10 N 167°52'.65 W
3 25°48'.99 N 167°48'.35 W
4 25°47'.09 N 167°36'.72 W
5 25°39'.84 N 167°26'.48 W
6 25°35'.10 N 167°19'.79 W
7 25°10'.43 N 166°45'.00 W
8 24°40'.91 N 166°03'.36 W
9 24°35'.64 N 165°34'.99 W
10 24°23'.78 N 164°31'.12 W
11 24°23'.59 N 164°31'.14 W
12 24°23'.31 N 164°29'.74 W
13 24°21'.85 N 164°24'.52 W
14 24°20'.10 N 164°19'.39 W
15 24°17'.75 N 164°14'.56 W
16 24°14'.99 N 164°09'.97 W
17 24°11'.86 N 164°05'.69 W
18 24°08'.30 N 164°01'.80 W
19 24°04'.48 N 163°58'.23 W
20 24°00'.27 N 163°55'.22 W

**Nihoa Island
Point LATITUDE LONGITUDE**

1 23°52'.82 N 161°44'.54 W
2 23°52'.10 N 161°41'.20 W
3 23°51'.18 N 161°37'.92 W
4 23°50'.08 N 161°34'.71 W
5 23°48'.79 N 161°31'.58 W
6 23°47'.33 N 161°28'.55 W

APPENDIX 2 – GEOGRAPHICAL COORDINATES

**AREAS TO BE AVOIDED
PAPAHANAUMOKUAKEA MARINE NATIONAL MONUMENT**

Reference chart: United States 540, 2008 edition; 19016, 2008 edition; 19019, 2008 edition; 19022, 2008 edition.
These charts are based on World Geodetic System 1984 Datum (WGS-84) and astronomic datum.

7 23°45'.69 N 161°25'.62 W	78 23°49'.55 N 162°16'.16 W
8 23°43'.88 N 161°22'.81 W	79 23°51'.24 N 162°10'.99 W
9 23°41'.92 N 161°20'.13 W	80 23°52'.44 N 162°05'.63 W
10 23°39'.80 N 161°17'.60 W	81 23°53'.14 N 162°00'.25 W
11 23°37'.54 N 161°15'.21 W	82 23°53'.36 N 161°54'.75 W
12 23°35'.14 N 161°12'.99 W	83 23°53'.09 N 161°49'.28 W
13 23°32'.62 N 161°10'.93 W	84 23°52'.82 N 161°47'.09 W
14 23°29'.99 N 161°09'.05 W	85 23°52'.39 N 161°44'.67 W
15 23°27'.25 N 161°07'.35 W	
16 23°24'.42 N 161°05'.85 W	
17 23°21'.51 N 161°04'.54 W	
18 23°18'.52 N 161°03'.43 W	
19 23°15'.48 N 161°02'.53 W	
20 23°12'.39 N 161°01'.84 W	
21 23°09'.27 N 161°01'.35 W	
22 23°06'.13 N 161°01'.09 W	
23 23°02'.97 N 161°01'.03 W	
24 22°59'.82 N 161°01'.19 W	
25 22°56'.69 N 161°01'.57 W	
26 22°53'.58 N 161°02'.15 W	
27 22°50'.51 N 161°02'.95 W	
28 22°47'.50 N 161°03'.95 W	
29 22°44'.55 N 161°05'.15 W	
30 22°41'.67 N 161°06'.54 W	
31 22°38'.88 N 161°08'.13 W	
32 22°36'.19 N 161°09'.90 W	
33 22°33'.61 N 161°11'.85 W	
34 22°31'.14 N 161°13'.97 W	
35 22°28'.81 N 161°16'.25 W	
36 22°26'.61 N 161°18'.69 W	
37 22°24'.56 N 161°21'.26 W	
38 22°22'.66 N 161°23'.97 W	
39 22°20'.92 N 161°26'.80 W	
40 22°19'.35 N 161°29'.74 W	
41 22°17'.95 N 161°32'.78 W	
42 22°16'.73 N 161°35'.90 W	
43 22°15'.70 N 161°39'.10 W	
44 22°14'.85 N 161°42'.37 W	
45 22°14'.20 N 161°45'.68 W	
46 22°13'.73 N 161°49'.03 W	
47 22°13'.47 N 161°52'.41 W	
48 22°13'.40 N 161°55'.80 W	
49 22°13'.53 N 161°59'.18 W	
50 22°13'.85 N 162°02'.55 W	
51 22°14'.31 N 162°05'.45 W	
52 22°14'.37 N 162°05'.89 W	
53 22°14'.59 N 162°06'.88 W	
54 22°15'.87 N 162°12'.18 W	
55 22°17'.70 N 162°17'.31 W	
56 22°19'.97 N 162°22'.20 W	
57 22°22'.73 N 162°26'.84 W	
58 22°25'.88 N 162°31'.15 W	
59 22°29'.41 N 162°35'.09 W	
60 22°33'.28 N 162°38'.61 W	
61 22°37'.47 N 162°41'.72 W	
62 22°41'.93 N 162°44'.34 W	
63 22°46'.63 N 162°46'.47 W	
64 22°51'.48 N 162°48'.05 W	
65 22°56'.46 N 162°49'.09 W	
66 23°01'.50 N 162°49'.58 W	
67 23°06'.58 N 162°49'.49 W	
68 23°11'.61 N 162°48'.89 W	
69 23°16'.57 N 162°47'.70 W	
70 23°21'.36 N 162°45'.98 W	
71 23°26'.02 N 162°43'.75 W	
72 23°30'.40 N 162°41'.01 W	
73 23°34'.51 N 162°37'.83 W	
74 23°38'.26 N 162°34'.18 W	
75 23°41'.69 N 162°30'.18 W	
76 23°44'.72 N 162°25'.79 W	
77 23°47'.36 N 162°21'.11 W	

APPENDIX 3 – GEOGRAPHICAL COORDINATES

**SHIP REPORTING AREA
PAPAHANAUMOKUAKEA MARINE NATIONAL MONUMENT**

Reference chart: United States 540, 2008 edition; 19016, 2008 edition; 19019, 2008 edition; 19022, 2008 edition.
These charts are based on World Geodetic System 1984 Datum (WGS-84) and astronomic datum.

1 Outer Boundary

Point LATITUDE LONGITUDE

1 29°25'.47 N 178°16'.97 W
2 28°43'.73 N 175°13'.84 W
3 27°00'.77 N 173°25'.78 W
4 26°44'.91 N 171°28'.07 W
5 26°24'.23 N 170°20'.59 W
6 25°56'.43 N 167°32'.10 W
7 24°50'.20 N 165°58'.69 W
8 24°05'.52 N 161°56'.86 W
9 24°05'.29 N 161°56'.62 W
10 24°04'.37 N 161°51'.53 W
11 24°03'.44 N 161°46'.45 W
12 24°02'.41 N 161°41'.39 W
13 24°01'.31 N 161°36'.35 W
14 23°59'.68 N 161°31'.55 W
15 23°57'.85 N 161°26'.85 W
16 23°55'.54 N 161°22'.31 W
17 23°52'.96 N 161°17'.92 W
18 23°50'.12 N 161°13'.72 W
19 23°46'.94 N 161°10'.08 W
20 23°43'.49 N 161°06'.47 W
21 23°39'.71 N 161°03'.09 W
22 23°35'.72 N 161°00'.14 W
23 23°31'.59 N 160°57'.46 W
24 23°27'.32 N 160°55'.23 W
25 23°22'.74 N 160°53'.71 W
26 23°18'.29 N 160°52'.17 W
27 23°13'.57 N 160°51'.04 W
28 23°08'.68 N 160°50'.46 W
29 23°03'.70 N 160°50'.17 W
30 22°58'.67 N 160°50'.35 W
31 22°53'.84 N 160°51'.04 W
32 22°49'.11 N 160°52'.20 W
33 22°44'.46 N 160°53'.56 W
34 22°40'.03 N 160°55'.52 W
35 22°35'.73 N 160°57'.68 W
36 22°31'.54 N 161°00'.25 W
37 22°27'.57 N 161°03'.23 W
38 22°23'.76 N 161°06'.64 W
39 22°20'.24 N 161°10'.23 W
40 22°17'.02 N 161°14'.13 W
41 22°14'.04 N 161°18'.34 W
42 22°11'.35 N 161°22'.80 W
43 22°09'.19 N 161°27'.45 W
44 22°07'.29 N 161°32'.11 W
45 22°05'.87 N 161°36'.94 W
46 22°04'.62 N 161°41'.89 W
47 22°03'.94 N 161°47'.09 W
48 22°03'.41 N 161°52'.36 W
49 22°03'.41 N 161°57'.51 W
50 22°03'.82 N 162°02'.83 W
51 22°04'.49 N 162°08'.04 W
52 22°05'.43 N 162°13'.12 W
53 22°05'.97 N 162°16'.41 W
54 22°06'.29 N 162°16'.85 W
55 22°34'.57 N 164°47'.27 W
56 22°47'.60 N 166°38'.23 W
57 24°03'.82 N 168°27'.91 W
58 24°25'.76 N 170°45'.39 W
59 24°46'.54 N 171°53'.03 W
60 25°07'.60 N 174°28'.71 W
61 27°05'.82 N 176°35'.51 W
62 27°27'.32 N 178°38'.66 W
63 27°28'.93 N 178°43'.56 W
64 27°30'.64 N 178°48'.40 W
65 27°32'.74 N 178°52'.96 W
66 27°35'.06 N 178°57'.30 W
67 27°37'.89 N 179°01'.49 W
68 27°40'.90 N 179°05'.60 W
69 27°44'.17 N 179°09'.41 W

70 27°47'.74 N 179°12'.85 W
71 27°51'.45 N 179°16'.00 W
72 27°55'.32 N 179°18'.82 W
73 27°59'.33 N 179°21'.13 W
74 28°03'.49 N 179°23'.15 W
75 28°07'.82 N 179°24'.76 W
76 28°12'.31 N 179°26'.18 W
77 28°16'.95 N 179°27'.05 W
78 28°21'.61 N 179°27'.63 W
79 28°26'.18 N 179°27'.77 W
80 28°30'.87 N 179°27'.48 W
81 28°35'.61 N 179°26'.95 W
82 28°40'.09 N 179°25'.75 W
83 28°44'.46 N 179°24'.31 W
84 28°48'.70 N 179°22'.50 W
85 28°52'.81 N 179°20'.43 W
86 28°56'.71 N 179°17'.77 W
87 29°00'.58 N 179°14'.92 W
88 29°04'.18 N 179°11'.69 W
89 29°07'.62 N 179°08'.20 W
90 29°10'.86 N 179°04'.37 W
91 29°13'.76 N 179°00'.21 W
92 29°16'.24 N 178°55'.78 W
93 29°18'.51 N 178°51'.26 W
94 29°20'.45 N 178°46'.50 W
95 29°22'.26 N 178°41'.67 W
96 29°23'.52 N 178°36'.64 W
97 29°24'.53 N 178°31'.54 W
98 29°25'.16 N 178°26'.31 W
99 29°25'.42 N 178°20'.92 W
100 29°25'.29 N 178°16'.70 W

**2 Inner Boundary Around
Kure Atoll, Midway Atoll,
and Pearl and Hermes Atoll
Point LATITUDE LONGITUDE**

1 27°14'.76 N 176°29'.87 W
2 27°24'.95 N 177°33'.31 W
3 27°35'.87 N 178°29'.90 W
4 27°36'.64 N 178°33'.93 W
5 27°37'.53 N 178°37'.32 W
6 27°38'.60 N 178°40'.65 W
7 27°39'.85 N 178°43'.90 W
8 27°41'.28 N 178°47'.05 W
9 27°42'.89 N 178°50'.10 W
10 27°44'.66 N 178°53'.03 W
11 27°46'.59 N 178°55'.83 W
12 27°48'.67 N 178°58'.49 W
13 27°50'.89 N 179°01'.00 W
14 27°53'.22 N 179°03'.39 W
15 27°55'.69 N 179°05'.61 W
16 27°58'.29 N 179°07'.61 W
17 28°01'.01 N 179°09'.47 W
18 28°03'.81 N 179°11'.10 W
19 28°06'.71 N 179°12'.53 W
20 28°09'.67 N 179°13'.75 W
21 28°12'.70 N 179°14'.75 W
22 28°15'.78 N 179°15'.54 W
23 28°18'.91 N 179°16'.11 W
24 28°22'.04 N 179°16'.45 W
25 28°24'.72 N 179°16'.56 W
26 28°25'.20 N 179°16'.57 W
27 28°25'.81 N 179°16'.56 W
28 28°28'.35 N 179°16'.44 W
29 28°31'.49 N 179°16'.10 W
30 28°34'.61 N 179°15'.54 W
31 28°37'.69 N 179°14'.75 W
32 28°40'.71 N 179°13'.74 W
33 28°43'.68 N 179°12'.54 W
34 28°46'.58 N 179°11'.13 W

35 28°49'.39 N 179°09'.52 W
36 28°52'.11 N 179°07'.70 W
37 28°54'.72 N 179°05'.70 W
38 28°57'.21 N 179°03'.51 W
39 28°59'.58 N 179°01'.15 W
40 29°01'.81 N 178°58'.62 W
41 29°03'.90 N 178°55'.93 W
42 29°05'.83 N 178°53'.10 W
43 29°07'.60 N 178°50'.13 W
44 29°09'.21 N 178°47'.04 W
45 29°10'.64 N 178°43'.84 W
46 29°11'.89 N 178°40'.54 W
47 29°12'.95 N 178°37'.16 W
48 29°13'.82 N 178°33'.71 W
49 29°14'.50 N 178°30'.21 W
50 29°14'.99 N 178°26'.66 W
51 29°15'.28 N 178°23'.08 W
52 29°15'.36 N 178°19'.49 W
53 29°15'.25 N 178°15'.90 W
54 29°14'.94 N 178°12'.32 W
55 29°14'.43 N 178°08'.78 W
56 29°03'.47 N 177°12'.07 W
57 29°02'.55 N 177°07'.29 W
58 28°38'.96 N 175°35'.47 W
59 28°38'.67 N 175°34'.35 W
60 28°34'.91 N 175°19'.74 W
61 28°26'.24 N 175°10'.65 W
62 28°24'.61 N 175°08'.95 W
63 28°24'.53 N 175°09'.04 W
64 28°20'.09 N 175°04'.91 W
65 28°16'.05 N 175°01'.92 W
66 28°11'.78 N 174°59'.33 W
67 28°07'.29 N 174°57'.23 W
68 28°02'.63 N 174°55'.68 W
69 27°57'.84 N 174°54'.62 W
70 27°53'.01 N 174°54'.05 W
71 27°48'.12 N 174°54'.05 W
72 27°43'.28 N 174°54'.62 W
73 27°38'.48 N 174°55'.71 W
74 27°33'.81 N 174°57'.32 W
75 27°29'.30 N 174°59'.43 W
76 27°25'.00 N 175°02'.03 W
77 27°20'.93 N 175°05'.07 W
78 27°17'.18 N 175°08'.59 W
79 27°13'.73 N 175°12'.47 W
80 27°10'.59 N 175°16'.67 W
81 27°07'.88 N 175°21'.25 W
82 27°05'.57 N 175°26'.09 W
83 27°03'.66 N 175°31'.15 W
84 27°02'.22 N 175°36'.40 W
85 27°01'.29 N 175°41'.78 W
86 27°00'.73 N 175°47'.22 W
87 27°00'.68 N 175°52'.74 W
88 27°01'.09 N 175°58'.16 W
89 27°01'.99 N 176°03'.53 W
90 27°03'.34 N 176°08'.81 W
91 27°05'.12 N 176°13'.91 W
92 27°07'.37 N 176°18'.79 W
93 27°09'.98 N 176°23'.40 W
94 27°13'.02 N 176°27'.74 W
95 27°13'.77 N 176°28'.70 W

**3 Inner Boundary Around
Lisianski Island, Laysan
Island, Maro Reef, and
Raita Bank
Point LATITUDE
LONGITUDE**

1 26°50'.89 N 173°30'.79 W
2 26°36'.00 N 171°37'.70 W

3 26°35'.49 N 171°33'.84 W
4 26°35'.10 N 171°30'.84 W
5 26°34'.07 N 171°27'.50 W
6 26°33'.35 N 171°25'.16 W
7 26°14'.26 N 170°23'.04 W
8 26°08'.69 N 169°48'.96 W
9 26°08'.36 N 169°49'.03 W
10 26°07'.62 N 169°45'.83 W
11 26°06'.03 N 169°40'.57 W
12 26°03'.97 N 169°35'.64 W
13 26°01'.51 N 169°30'.91 W
14 25°58'.65 N 169°26'.45 W
15 25°55'.32 N 169°22'.34 W
16 25°51'.67 N 169°18'.60 W
17 25°47'.78 N 169°15'.19 W
18 25°43'.54 N 169°12'.34 W
19 25°39'.05 N 169°09'.93 W
20 25°34'.37 N 169°08'.08 W
21 25°29'.54 N 169°06'.76 W
22 25°24'.61 N 169°05'.93 W
23 25°19'.63 N 169°05'.64 W
24 25°14'.65 N 169°05'.93 W
25 25°09'.69 N 169°06'.66 W
26 25°04'.85 N 169°08'.02 W
27 25°00'.17 N 169°09'.96 W
28 24°55'.66 N 169°12'.35 W
29 24°51'.35 N 169°15'.14 W
30 24°47'.37 N 169°18'.48 W
31 24°43'.69 N 169°22'.22 W
32 24°40'.34 N 169°26'.31 W
33 24°37'.42 N 169°30'.78 W
34 24°35'.00 N 169°35'.64 W
35 24°33'.02 N 169°40'.66 W
36 24°31'.34 N 169°45'.88 W
37 24°30'.31 N 169°51'.08 W
38 24°29'.68 N 169°56'.53 W
39 24°29'.56 N 170°01'.81 W
40 24°29'.61 N 170°04'.57 W
41 24°35'.77 N 170°44'.39 W
42 24°36'.29 N 170°47'.58 W
43 24°29'.18 N 170°50'.37 W
44 24°37'.76 N 170°52'.17 W
45 24°56'.23 N 171°50'.19 W
46 25°16'.61 N 174°24'.84 W
47 25°29'.56 N 174°35'.45 W
48 25°33'.28 N 174°42'.03 W
49 25°37'.33 N 174°45'.20 W
50 25°41'.68 N 174°47'.84 W
51 25°46'.23 N 174°50'.05 W
52 25°50'.93 N 174°51'.77 W
53 25°55'.80 N 174°52'.91 W
54 26°00'.71 N 174°53'.47 W
55 26°05'.67 N 174°53'.61 W
56 26°10'.59 N 174°53'.07 W
57 26°15'.46 N 174°52'.08 W
58 26°20'.20 N 174°50'.57 W
59 26°24'.75 N 174°48'.44 W
60 26°29'.15 N 174°45'.94 W
61 26°33'.26 N 174°42'.96 W
62 26°37'.11 N 174°39'.49 W
63 26°40'.60 N 174°35'.63 W
64 26°43'.75 N 174°31'.43 W
65 26°46'.49 N 174°26'.87 W
66 26°48'.90 N 174°22'.09 W
67 26°50'.79 N 174°17'.03 W
68 26°52'.20 N 174°11'.79 W
69 26°53'.21 N 174°06'.43 W
70 26°53'.74 N 174°00'.98 W
71 26°53'.74 N 173°55'.48 W
72 26°53'.29 N 173°50'.02 W
73 26°52'.56 N 173°44'.58 W

APPENDIX 3 – GEOGRAPHICAL COORDINATES

SHIP REPORTING AREA
PAPAHANAUMOKUAKEA MARINE NATIONAL MONUMENT

Reference chart: United States 540, 2008 edition; 19016, 2008 edition; 19019, 2008 edition; 19022, 2008 edition.
These charts are based on World Geodetic System 1984 Datum (WGS-84) and astronomic datum.

74 26°51'.85 N 173°39'.14 W
75 26°51'.13 N 173°33'.69 W
76 26°50'.75 N 173°30'.87 W

**4 Inner Boundary Around
Gardner Pinnacles, French
Frigate Shoals, and Necker
Island**

Point LATITUDE LONGITUDE

1 25°49'.64 N 167°52'.66 W
2 25°49'.70 N 167°52'.65 W
3 25°48'.99 N 167°48'.35 W
4 25°47'.09 N 167°36'.72 W
5 25°39'.84 N 167°26'.48 W
6 25°35'.10 N 167°19'.79 W
7 25°10'.43 N 166°45'.00 W
8 24°40'.91 N 166°03'.36 W
9 24°35'.64 N 165°34'.99 W
10 24°23'.78 N 164°31'.12 W
11 24°23'.59 N 164°31'.14 W
12 24°23'.31 N 164°29'.74 W
13 24°21'.85 N 164°24'.52 W
14 24°20'.10 N 164°19'.39 W
15 24°17'.75 N 164°14'.56 W
16 24°14'.99 N 164°09'.97 W
17 24°11'.86 N 164°05'.69 W
18 24°08'.30 N 164°01'.80 W
19 24°04'.48 N 163°58'.23 W
20 24°00'.27 N 163°55'.22 W
21 23°55'.85 N 163°52'.59 W
22 23°51'.17 N 163°50'.56 W
23 23°46'.33 N 163°48'.98 W
24 23°41'.37 N 163°47'.99 W
25 23°36'.34 N 163°47'.56 W
26 23°31'.27 N 163°47'.60 W
27 23°26'.27 N 163°48'.28 W
28 23°21'.34 N 163°49'.50 W
29 23°16'.53 N 163°51'.14 W
30 23°11'.96 N 163°53'.47 W
31 23°07'.54 N 163°56'.15 W
32 23°03'.46 N 163°59'.38 W
33 22°59'.65 N 164°03'.01 W
34 22°56'.27 N 164°07'.10 W
35 22°53'.22 N 164°11'.49 W
36 22°50'.60 N 164°16'.18 W
37 22°48'.48 N 164°21'.16 W
38 22°46'.73 N 164°26'.28 W
39 22°45'.49 N 164°31'.60 W
40 22°44'.83 N 164°37'.03 W
41 22°44'.65 N 164°42'.51 W
42 22°44'.92 N 164°47'.99 W
43 22°45'.11 N 164°49'.52 W
44 22°45'.39 N 164°51'.48 W
45 22°45'.17 N 164°51'.53 W
46 22°50'.26 N 165°34'.99 W
47 22°55'.50 N 166°19'.63 W
48 22°55'.93 N 166°23'.32 W
49 22°57'.41 N 166°36'.00 W
50 23°03'.75 N 166°45'.00 W
51 23°05'.48 N 166°47'.45 W
52 24°12'.70 N 168°22'.86 W
53 24°12'.88 N 168°22'.78 W
54 24°16'.05 N 168°27'.28 W
55 24°19'.15 N 168°31'.66 W
56 24°22'.27 N 168°35'.95 W
57 24°25'.71 N 168°39'.94 W
58 24°29'.51 N 168°43'.55 W
59 24°33'.67 N 168°46'.63 W
60 24°38'.06 N 168°49'.29 W
61 24°42'.68 N 168°51'.46 W

62 24°47'.45 N 168°53'.12 W
63 24°52'.34 N 168°54'.28 W
64 24°57'.32 N 168°54'.82 W
65 25°02'.32 N 168°54'.95 W
66 25°07'.30 N 168°54'.43 W
67 25°12'.19 N 168°53'.32 W
68 25°16'.99 N 168°51'.76 W
69 25°21'.57 N 168°49'.60 W
70 25°25'.94 N 168°46'.93 W
71 25°30'.09 N 168°43'.86 W
72 25°33'.89 N 168°40'.42 W
73 25°37'.37 N 168°36'.52 W
74 25°40'.49 N 168°32'.24 W
75 25°43'.24 N 168°27'.68 W
76 25°45'.57 N 168°22'.82 W
77 25°47'.43 N 168°17'.76 W
78 25°48'.79 N 168°12'.47 W
79 25°49'.72 N 168°07'.09 W
80 25°50'.11 N 168°01'.62 W
81 25°50'.18 N 168°00'.09 W

**5 Inner Boundary Around
Nihoa Island**

Point LATITUDE LONGITUDE

1 23°52'.82 N 161°44'.54 W
2 23°52'.10 N 161°41'.20 W
3 23°51'.18 N 161°37'.92 W
4 23°50'.08 N 161°34'.71 W
5 23°48'.79 N 161°31'.58 W
6 23°47'.33 N 161°28'.55 W
7 23°45'.69 N 161°25'.62 W
8 23°43'.88 N 161°22'.81 W
9 23°41'.92 N 161°20'.13 W
10 23°39'.80 N 161°17'.60 W
11 23°37'.54 N 161°15'.21 W
12 23°35'.14 N 161°12'.99 W
13 23°32'.62 N 161°10'.93 W
14 23°29'.99 N 161°09'.05 W
15 23°27'.25 N 161°07'.35 W
16 23°24'.42 N 161°05'.85 W
17 23°21'.51 N 161°04'.54 W
18 23°18'.52 N 161°03'.43 W
19 23°15'.48 N 161°02'.53 W
20 23°12'.39 N 161°01'.84 W
21 23°09'.27 N 161°01'.35 W
22 23°06'.13 N 161°01'.09 W
23 23°02'.97 N 161°01'.03 W
24 22°59'.82 N 161°01'.19 W
25 22°56'.69 N 161°01'.57 W
26 22°53'.58 N 161°02'.15 W
27 22°50'.51 N 161°02'.95 W
28 22°47'.50 N 161°03'.95 W
29 22°44'.55 N 161°05'.15 W
30 22°41'.67 N 161°06'.54 W
31 22°38'.88 N 161°08'.13 W
32 22°36'.19 N 161°09'.90 W
33 22°33'.61 N 161°11'.85 W
34 22°31'.14 N 161°13'.97 W
35 22°28'.81 N 161°16'.25 W
36 22°26'.61 N 161°18'.69 W
37 22°24'.56 N 161°21'.26 W
38 22°22'.66 N 161°23'.97 W
39 22°20'.92 N 161°26'.80 W
40 22°19'.35 N 161°29'.74 W
41 22°17'.95 N 161°32'.78 W
42 22°16'.73 N 161°35'.90 W
43 22°15'.70 N 161°39'.10 W
44 22°14'.85 N 161°42'.37 W
45 22°14'.20 N 161°45'.68 W
46 22°13'.73 N 161°49'.03 W

47 22°13'.47 N 161°52'.41 W
48 22°13'.40 N 161°55'.80 W
49 22°13'.53 N 161°59'.18 W
50 22°13'.85 N 162°02'.55 W
51 22°14'.31 N 162°05'.45 W
52 22°14'.37 N 162°05'.89 W
53 22°14'.59 N 162°06'.88 W
54 22°15'.87 N 162°12'.18 W
55 22°17'.70 N 162°17'.31 W
56 22°19'.97 N 162°22'.20 W
57 22°22'.73 N 162°26'.84 W
58 22°25'.88 N 162°31'.15 W
59 22°29'.41 N 162°35'.09 W
60 22°33'.28 N 162°38'.61 W
61 22°37'.47 N 162°41'.72 W
62 22°41'.93 N 162°44'.34 W
63 22°46'.63 N 162°46'.47 W
64 22°51'.48 N 162°48'.05 W
65 22°56'.46 N 162°49'.09 W
66 23°01'.50 N 162°49'.58 W
67 23°06'.58 N 162°49'.49 W
68 23°11'.61 N 162°48'.89 W
69 23°16'.57 N 162°47'.70 W
70 23°21'.36 N 162°45'.98 W
71 23°26'.02 N 162°43'.75 W
72 23°30'.40 N 162°41'.01 W
73 23°34'.51 N 162°37'.83 W
74 23°38'.26 N 162°34'.18 W
75 23°41'.69 N 162°30'.18 W
76 23°44'.72 N 162°25'.79 W
77 23°47'.36 N 162°21'.11 W
78 23°49'.55 N 162°16'.16 W
79 23°51'.24 N 162°10'.99 W
80 23°52'.44 N 162°05'.63 W
81 23°53'.14 N 162°00'.25 W
82 23°53'.36 N 161°54'.75 W
83 23°53'.09 N 161°49'.28 W
84 23°52'.82 N 161°47'.09 W
85 23°52'.39 N 161°44'.67 W

The following vessels passing through the Monument without interruption must participate in the ship reporting system: 1) Vessels of the United States; 2) All other ships 300 gross tonnage or greater, heading to or coming from a U.S. port or place; and 3) All other ships experiencing an emergency in the Reporting Area, heading to or coming from a U.S. port or place. All ships other than those described above, including sovereign immune vessels, are encouraged to participate.

Immediately upon crossing the reporting area boundary, notification should be sent as a direct e-mail trnwhi.notifications@noaa.gov in the prescribed format and data syntax shown. Use of batch message routing services which may delay receipt of a report should not be used. Failure to follow the exact format (e.g. extra information, extraneous characters, or double spacing) may cause the automated computer system to reject your report. Note: Report transmission costs via INMARSAT-C will be assumed by NOAA.

ENTRY NOTIFICATION FORMAT

Immediately upon entering the Reporting Area, vessels required to participate must provide the following information.

Telegraphy	Function	Information Required	Example Field Text
	System identifier	CORAL SHIPREP //	CORAL SHIPREP//
A	Ship	Vessel name / call sign / flag / IMO number / Federal documentation or State registration number if applicable //	A/OCEAN VOYAGER/C5FU8/BAHAMAS/IMO 9359165//
B	Date, time (UTC), and month of entry	A 6-digit group giving day of month (first two digits), hours and minutes (last four digits) in coordinated universal time, suffixed by the letter Z (indicating time in UTC), and three letters indicating month //	B/271107Z DEC//
C	Position	A 4-digit group giving latitude in degrees and minutes, suffixed with the letter N (indicating north), followed by a single / , and a five digit group giving longitude in degrees and minutes, suffixed with the letter W (indicating west) // [Report in the World Geodetic System 1984 Datum (WGS-84)]	C/2728N/17356W//
E	True course	3-digit number indicating true course //	E/180//
F	Speed in knots and tenths	3-digit group indicating knots decimal tenths //	F/20.5//
I	Destination and estimated time of arrival	Name of port city / country / estimated arrival date and time group expressed as in (B) //	I/SEATTLE/USA/311230Z DEC//
L	Intended route through the reporting area	Route information should be reported as a direct rhumbline (RL) course through the reporting area and intended speed (expressed as in E and F) or a series of way points (WP). Each waypoint entry should be reported as latitude and longitude, expressed as in (C), and intended speed between waypoints (as in F) // (Note: As many "L" lines as needed may be used to describe the vessel's intended route.)	L/RL/215/20.5// -OR- L/WP/2734N/17352W/20.5// L/WP/2641N/17413W/20.5// L/WP/2605N/17530W/20.5//
O	Vessel draft in meters	Maximum present static draft reported in meters decimal centimeters //	O/11.50//
P	Categories of Hazardous Cargoes*	Classification Code (e.g. IMDG, IBC, IGC, INF) / and all corresponding Categories of Hazardous Cargoes (delimited by commas) // Note: If necessary, use a separate "P" line for each type of Classification Code.	P/IMDG/1.4G,2.1,2.2,2.3,3.4,1.6,1.8,9//
Q	Defects or deficiencies**	Brief details of defects, damage, deficiencies or limitations that restrict maneuverability or impair normal navigation // (If none, enter the number zero.)	Q/Include details as required//
R	Pollution incident or goods lost overboard**	Description of pollution incident or goods lost overboard within the Monument, the Reporting Area, or the U.S. Exclusive Economic Zone // (If none, enter the number zero.)	R/0//
T	Contact information of ship's agent or owner	Name / address / and phone number of ship's agent or owner //	T/JOHN DOE/GENERIC SHIPPING COMPANY INC, 6101 ACME ROAD, ROOM 123, CITY, STATE, COUNTRY 12345/123-123-1234//
U	Ship size (length overall and gross tonnage) and type	Length overall reported in meters decimal centimeters / number of gross tons / type of ship (e.g. bulk carrier, chemical tanker, oil tanker, gas tanker, container, general cargo, fishing vessel, research, passenger, OBO, RORO) //	U/294.14/54592/CONTAINER SHIP//
W	Persons	Total number of persons on board //	W/15//

* Categories of hazardous cargoes means goods classified in the International Maritime Dangerous Goods (IMDG) Code; substances classified in chapter 17 of the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) and chapter 19 of the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code); oils as defined in MARPOL Annex I; noxious liquid substances as defined in MARPOL Annex II; harmful substances as defined in MARPOL Annex III; and radioactive materials specified in the Code for the Safe Carriage of the Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes in Flasks on Board Ships (INF Code).

** In accordance with the provisions of the MARPOL Convention, ships must report information relating to defects, damage, deficiencies or other limitations as well as, if necessary, information relating to pollution incidents or loss of cargo. Safety related reports must be provided to CORAL SHIPREP without delay should a ship suffer damage, failure or breakdown affecting the safety of the ship (Item Q), or if a ship makes a marked deviation from a route, course or speed previously advised (Item L). Pollution or cargo lost overboard must be reported without delay (Item R).

PRIOR NOTIFICATION OF ENTRY FORMAT

Vessels of the United States less than 300 gross tonnage that are not equipped with onboard email capability must provide the following Prior Notification of Entry at least 72 hrs, but no longer than 1 month, prior to entry date, utilizing the data syntax described above. Notification may be made via the following communication methods, listed in order of precedence: email trnwhi.notifications@noaa.gov; fax [1-808-397-2662]; telephone [1-866-478-NWHI (6944)], 1-808-

System identifier:	PRIOR NOTICE //
Items:	A, B, C (as applicable), I, L, O, P (as applicable), Q, T, U, W

EXIT NOTIFICATION FORMAT

Immediately upon leaving the Reporting Area, vessels required to participate must provide the following information.

Vessels of the United States less than 300 gross tonnage that are not equipped with onboard email capability must provide the following Exit Notification information within 12 hrs of leaving the Reporting Area. Notification may be made via the following communication methods, listed in order of precedence: email trnwhi.notifications@noaa.gov; fax [1-808-397-2662]; telephone [1-866-478-NWHI (6944)], 1-808-395-NWHI (6944)].

Telegraphy	Function	Information Required	Example Field Text
	System identifier	CORAL SHIPREP //	CORAL SHIPREP//
A	Ship	Vessel name / call sign / flag / IMO number / Federal documentation or State registration number if applicable //	A/OCEAN VOYAGER/C5FU8/BAHAMAS/IMO 9359165//
B	Date, time (UTC), and month of exit	A 6-digit group giving day of month (first two digits), hours and minutes (last four digits), suffixed by the letter Z indicating time in UTC, and three letters indicating month//	B/271657Z DEC//
C	Position	A 4-digit group giving latitude in degrees and minutes, suffixed with the letter N (indicating north), followed by a single / , and a five digit group giving longitude in degrees and minutes, suffixed with the letter W (indicating west) // [Report in the World Geodetic System 1984 Datum (WGS-84)]	C/2605N/17530W//
R	Pollution incident or goods lost overboard	Description of pollution incident or goods lost overboard within the Monument, the Reporting Area, or the U.S. Exclusive Economic Zone // (If none, enter the number zero.)	R/0//

Example Entry Report:

CORAL SHIPREP//
A/SEA ROVER/WFSU/USA/IMO 8674208/DOC 602011//
B/010915Z JUN//
C/2636N/17600W//
E/050//
F/20.0//
I/LOS ANGELES/USA/081215Z JUN//
L/RL/050/20.0//
O/10.90//
P/IMDG/3.4,1.6,1,8,9//
Q/0//
R/0//
T/JOHN DOE/CONTAINER SHIPPERS INC, 500 PORT ROAD, ROOM 123, LOS ANGELES, CA, USA 90050/213-123-1234//
U/199.90/27227/CONTAINER SHIP//
W/15//

Example Exit Report:

CORAL SHIPREP//
A/SEA ROVER/WFSU/USA/IMO 8674208/DOC 602011//
B/011515Z JUN//
C/2747N/17416W//
R/0//