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## Annex D – Maritime Heavy Weather Plan

### A. PURPOSE

This annex provides guidance to the Hawaiian Islands and maritime community within the U.S. Coast Guard (USCG) Captain of the Port (COTP) Honolulu Zone on steps that should be taken and critical risk factors to consider before, during, and after heavy weather. It should be used by all marine interests to prepare plans for terminals, facilities, vessels and marine operations.

This plan is developed to ensure that critical Maritime Transportation System (MTS) ports within the Sector Honolulu COTP Zone have taken all practical precautions for severe weather, including the worst-case scenario, a direct hit by a major hurricane.

#### **Sector Honolulu COTP Zone MTS Ports:**

- Hawaii: Hilo, Kawaihae
- Maui: Kahului
- Lanai: Kaunapau
- Molokai: Kaunakakai
- Oahu: Honolulu, Kalaeloa Barber's Point
- Kauai: Nawiliwili, Port Allen
- American Samoa: Pago Pago

For hurricanes, most of the preventive provisions and requirements of this Annex are intended to be enacted prior to the onset of sustained Tropical Storm Force Winds, when hurricane conditions (winds and surge) are predicted to follow. However, when Gale Forces Winds are expected, but hurricane conditions are not predicted to follow, the COTP may elect to implement some of the requirements outlined in this plan. In any case, due to the unpredictable nature of tropical storms and hurricanes, marine interests should plan for the worst case.

### B. Key Terms and Definitions

1. Storm Terminology: The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) provides advance warning of tropical storms and hurricanes on a national basis. The Central Pacific Hurricane Center (CPHC) identifies and tracks storms between Longitudes 140° West to 180° and gives warnings of those storms affecting the Hawaiian Islands and North of the equator. Information from these two agencies can be obtained online at: <http://www.weather.gov/Hawaii> and <http://www.weather.gov/cphc>, respectively. Please note that a storm need not be considered a hurricane for the provisions of this plan to be enacted by the COTP.

2. General: The following terminology is used throughout this plan:

Terminology	Sustained Wind Speed
Gale Force Winds (Storm/Hurricane conditions not expected)	39-54 MPH
Tropical Storm Force Winds	Cyclonic winds 39-73 MPH
Hurricane Force Winds	74 MPH or greater

3. Storm Alert Status: The NWS and CPHC will issue warnings as storms intensify and move closer to our area. The following is a summary of the alert conditions:

NWS Alert	When Issued
Wind Advisory	Sustained winds of 30-39 MPH for an hour or more, and/or gusts of 50 to 57 MPH.
High-Wind Warning	Sustained winds of 40 MPH or greater for an hour or more, and/or gusts of 58 MPH or higher. The NWS also uses the following terms to describe the risks posed by tropical storm or hurricane force winds to a geographic area.
Tropical Storm Watch	Issued when Tropical Storm conditions (sustained winds of 39 to 73 mph) are possible within the specified area within 48 hours.
Tropical Storm Warning	Issued when Tropical Storm conditions (sustained winds of 39 to 73 mph) are possible within the specified area within 36 hours.
Hurricane Watch	Issued when Hurricane conditions (sustained winds of 74 mph or greater) are possible within your area. Hurricane Watches are normally issued 48 hours before anticipated tropical storm force winds.
Hurricane Warning	Issued when Hurricane conditions (sustained winds of 74 mph or greater) are possible within your area. Hurricane Warnings are normally issued 36 hours before anticipated tropical storm force winds.

4. Hurricane Categories: The strength of a hurricane is measured by its maximum sustained wind speeds. Hurricanes are categorized as follows:

Hurricane Category	Sustained Wind Speed
Category 1	74 -95 mph / 64-82 kts (Very dangerous winds will produce some damage)
Category 2	96-110 mph / 83-95 kts (Extremely dangerous winds will cause extensive damage)
Category 3	111-129 mph / 96-112 kts (Devastating damage will occur)
Category 4	130-156 mph / 113-136 kts (Catastrophic damage will occur)
Category 5	≥ 157 mph / ≥ 137 kts (Catastrophic damage will occur)

**Note: Categories Three, Four, and Five are MAJOR STORMS.**

5. Port Heavy Weather Conditions (PHWC): PHWC are set by the COTP for commercial ports and are used to describe restrictions needed to protect life, vessels, facilities, ports, and the environment for severe weather. The NWS provides both Earliest Time of Arrival and Most Likely Time of Arrival wind products which are used to determine Port Heavy Weather Condition changes. The COTP generally references the Earliest Time of Arrival when determining PHWC. These conditions may be changed for each specific commercial port as the threat of severe weather increases, or as the storm approaches our area.

Port Condition	When Set	Port Status
Hurricane Seasonal Alert	01 June – 30 Nov (return to this condition after passage of storm during season).	OPEN
Whiskey	Sustained Tropical Storm Force Winds are <b>predicted</b> within 72 hours.	OPEN
X-Ray	Sustained Tropical Storm Force Winds are <b>predicted</b> within 48 hours.	OPEN
Yankee	Sustained Tropical Storm Force Winds are <b>predicted</b> within 24 hours.	RESTRICTED – vessel/facility control measures in effect
Zulu	Sustained Tropical Storm Force Winds are <b>predicted</b> within 12 hours.	CLOSED – all vessel traffic and waterside operations except for activities approved by COTP

**NOTE: Storm movements impacting the time between Port Conditions may be less than listed.**

## C. RESPONSIBILITIES

1. General: The primary responsibility for natural disaster preparation and response rests with affected individuals, private industry, state and local governments. This plan provides recommended actions to be taken by the maritime community with the goal of having everyone prepared for an approaching storm. This plan cannot foresee all situations or conditions and does not reduce or replace the responsibility of any person or organization to exercise prudent judgement in the preparation for and response to heavy weather conditions.

The COTP will close ports and waterways whenever conditions pose an unacceptably high risk to vessel and facility safety. Post heavy weather recovery emphasis is put on immediate surveys of channel blockage and prioritization of steps necessary to resume essential, then normal vessel traffic.

Preparations for the arrival of a storm are critical to the safety and security of the port. Timely preventative actions can significantly eliminate or reduce the loss of life and property and it is the responsibility of everyone in the maritime community to take appropriate precautions.

2. **COTP Responsibilities:** The USCG is one of several Federal agencies that respond to actual or threatened natural disasters or emergencies. The COTP is responsible for the safety and security of the ports within a zone that includes the islands and atolls of the Hawaiian island chain and American Samoa. The COTP will oversee actions intended to safeguard the port against damage caused by heavy weather.

Upon initial notification of a storm that has the potential for affecting the COTP zone, the COTP will begin tracking the storm. The COTP will issue Broadcast Notice to Mariners (BNM) on VHF-FM Channels 16 and 22A, when a storm's trajectory, speed, or strength poses a threat to the Hawaiian Islands. The intent of issuing a BNM is to ensure that reasonable and timely preparations can be made by the maritime community to minimize damage from heavy weather. In America Samoa, Industry will receive these same notifications via phone calls from the local USCG representative to the COTP.

The COTP will issue Marine Safety Information Bulletins (MSIB) via email distribution and posting on Homeport in addition to BNMs. The intent of issuing BNMs and MSIBs is to ensure that reasonable and timely preparations can be made by the maritime community to minimize damage from heavy weather. In America Samoa, Industry will receive these same notifications via phone calls from the local USCG representative to the COTP.

The COTP will attempt to pass updates on forecasted closure times at least twice per day through the Maritime Transportation Recovery Unit (MTSRU).

## **Port Heavy Weather Conditions Preparations**

### **Hurricane Season Preparedness 01 Jun to 30 Nov:**

Making preparedness part of annual planning alleviates the rush to do these things when a storm is approaching. These efforts include:

- Updating internal contact lists and phone numbers.
- Any updated company numbers used by the Coast Guard to disseminate correspondence should be emailed to D14-DG-SH-SecHono-MTSRU@uscg.mil and addressed to the attention of the MTSRU Team.
- Reviewing contingency plans to minimize disruptions and ensure your business or organization is back up-and-running as early as possible.
- Attending port briefs by the Coast Guard helps understand actions that the Coast Guard will be taking before, during and after the storm.
- Determining what preparedness actions your staff and workforce will need to take.
- Ensuring that your business has the proper tools and equipment that is needed for safeguarding your vessel and/or facility.

**Port Condition Whiskey – sustained 39 MPH winds are expected within 72 hours:**

Preparations for the arrival of a storm are critical to the safety and security of the port. Specific actions and expectations should include the following:

- Port Status: Open to all commercial traffic.
- All operators should monitor the Central Pacific Hurricane Center for updates on storm track and the projected “Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds”.
- The Coast Guard will issue a BNM and email out MSIBs.
- The COTP may restrict the operations of, or deny entry into the port to, vessels transporting oil or certain hazardous materials.
- The COTP will minimize the number of vessels in port. Prior to the setting of Whiskey, Operators of vessels 200 GTs and greater wishing to remain in port must submit a mooring plan to the DOT-Harbors if planning to moor in a state owned or operated commercial harbor.
- The COTP, in consultation with DOT-Harbors, will review each request on a case-by-case basis. Requests to remain in port can be found at the end of this Annex. These requests should be emailed to: [D14-DG-SH-SecHono-MTSRU@uscg.mil](mailto:D14-DG-SH-SecHono-MTSRU@uscg.mil).
- For DOT-Harbors, requests should be sent to the appropriate email below:
  - [OahuDistrict.heavyweather.request@hawaii.gov](mailto:OahuDistrict.heavyweather.request@hawaii.gov)
  - [KauaiDistrict.heavyweather.request@hawaii.gov](mailto:KauaiDistrict.heavyweather.request@hawaii.gov)
  - [MauiDistrict.heavyweather.request@hawaii.gov](mailto:MauiDistrict.heavyweather.request@hawaii.gov)
  - [HawaiiDistrict.heavyweather.request@hawaii.gov](mailto:HawaiiDistrict.heavyweather.request@hawaii.gov)
  - DOT-Harbors may require more information which can be found at: <http://hidot.hawaii.gov/harbors/hurricane-preparedness/>
- Oceangoing vessels with permission to remain in port should be moored to piers designed to moor vessels of their respective size during heavy weather.
- Open areas of piers should be cleared of possible debris hazards. Timely correction of hazardous conditions will reduce the loss of life and property during heavy weather.
- Vessel transits may be permitted under safe forecasted weather conditions.
- In accordance with the Memorandum of Understanding (MOU) between U.S. Navy Region Hawaii and Coast Guard Sector Honolulu, commercial vessels may be allowed to anchor in Pearl Harbor for pre-hurricane situations. Commercial vessels that desire to anchor in Pearl Harbor must submit their vessel information, reasoning and intent to the COTP through the MTSRU for possible clearance by Joint Base Pearl Harbor Hickam as soon as practical.

**Port Condition X-Ray – sustained 39 MPH winds are expected within 48 hours:**

- Port Status: Open to all commercial traffic.

- All vessels should prepare to complete cargo operations and depart port within 36 hours.

**Port Condition Yankee – sustained 39 MPH winds are expected within 24 hours:**

- Port Status: Closed to incoming traffic without specific written approval of the COTP.
- All cargo operations must stop, within the next 12 hours.
- All lightering and bunkering operations are to cease.
- Vessel operators must coordinate with DOT-Harbors through the MTSRU to make arrangements in advance to remain in port.

**Port Condition Zulu – sustained 39 MPH winds are expected within 12 hours:**

- Port Status: Closed.
- Requests to continue terminal, facility or vessel operations require coordination and approval by COTP and DOT-Harbors. All requests to transit or continue operations should be communicated through the MTSRU. Any operations occurring within the port without specific permission may result in a civil penalty for violation of safety zones set by the COTP.

**Response (During and Immediately After the Storm):**

Immediately after the storm passes, the Coast Guard will be focused on reestablishing port operations. Coast Guard mission emphasis will be on: (1) conducting urgent Search and Rescue (SAR), (2) survey channel entries, (3) spill response, and (4) port reopening. Port operations will be focused on reopening the port.

**Recovery (After the Storm):**

During recovery, the Coast Guard, United States Army Corps of Engineers, and State will jointly conduct surveys of channel blockage and prioritize steps to resume essential—then normal—vessel traffic. Plans for re-opening the port will be closely coordinated with MTSRU to minimize risk of damage to vessels and assess the conditions of channels, aids to navigation, waterfront facilities, piers, and other infrastructure. The COTP, in conjunction with the State DOT-Harbors in Hawaii and the Territorial Emergency Management Coordinating Office (TEMCO) / Department of Port Administration in America Samoa, will begin sending Port Assessment Teams (PATs) to accessible areas of the zone. PATs will document all activities using logs, photographs and any other appropriate means. The Coast Guard will issue an updated BNTM and email out an MSIB to notify the reopening of the port and any special conditions.

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**Evacuation vs. Lay-up:***Vessel Evacuations:*

There are few safe havens within the COTP Zone in Honolulu and America Samoa. As a result, the safety and security of our ports are maximized when the number of commercial vessels in port during heavy weather events is limited. Accordingly, commercial ocean-going vessels and ocean-going tug/barge combinations 200 GTs and over will be required to depart when hurricanes approach.

The following factors should be considered when planning vessel evacuations:

1. Harbor Tugs – Masters and agents of deep draft vessels and tug/barges that require assistance during docking and transit should keep in mind that there is very limited availability of harbor tugs. For this reason, vessel owners/operators should make arrangements in advance with the harbor tug owners/operators for departing the port prior to Port Heavy Weather Condition Yankee (24 hours prior to storm making landfall). Failure to do so may result in difficulty in scheduling harbor tugs and/or delays that may make it difficult to evade the storm at sea. Plan to depart the port early, and anticipate some scheduling conflicts caused by the simultaneous departure of many deep draft vessels.
2. Pilots – Pilots generally stop working when conditions at the sea buoy prevent safe transfer from ship to pilot boat, or at the on-set of sustained Gale Force Winds. For this reason, vessel owners/operators should make arrangements in advance with the Pilots for departing the port prior to Port Heavy Weather Condition Yankee (24 hours prior to storm making landfall). Failure to do so may result in difficulty in scheduling harbor tugs and/or delays that may make it difficult to evade the storm at sea.

*Lay-Up Vessels:*

1. No vessel will be permitted to enter or remain in lay-up status during the hurricane season, except as provided below. Laid-up vessels unable to depart, before June 1 in the Hawaiian Islands and November 1 in America Samoa, each year must obtain written permission from the COTP and DOT-Harbors (for Hawaii) to remain in port. This is done by completing the “Request to Remain in Port” form, attached to this annex. Requests that are not fully or properly completed will not be considered, and the vessel will not receive the written permission. Requests, at a minimum, shall include a lay-up plan containing specific provisions for all categories of hurricanes.
2. If a vessel of over 200 GTs experiences an unplanned situation where it is unable to evacuate, the vessel owner/operator shall complete the “Request to Remain in Port” form. This request should be made as soon as possible but no later than when Port Heavy Weather Condition X-Ray (48 hours prior to storm making landfall). Requests submitted after that will not be considered. This is

vital due to the time it will take for the Coast Guard and DOT-Harbors to evaluate each vessel's request.

3. For purposes of this policy, a vessel is considered in lay-up status if it is not operational or undergoing repairs or contracted to commence repairs within seven (7) days. A vessel is considered operational only if it is manned, has valid certificates from the Flag Administration, and is prepared to conduct cargo operations or sail within 14 days of entering port.

Vessels Under 200 GTs:

1. The COTP defers to DOT-Harbors on the decision to allow vessels under 200 GTs to remain in a commercial port. Therefore, vessels that are under 200 GTs who plan on mooring in port (State facility or pier) during a heavy weather event should coordinate with DOT-Harbors. This includes any vessel experiencing an unplanned situation where it is unable to evacuate. Vessel requests to remain in port should be provided to DOT-Harbors.
2. DOT-Harbors information on requests to remain in port can be found at: <http://hidot.hawaii.gov/harbors/hurricane-preparedness/>
3. For DOT-Harbors, requests should be sent to the appropriate email below:
  - a. [OahuDistrict.heavyweather.request@hawaii.gov](mailto:OahuDistrict.heavyweather.request@hawaii.gov)
  - b. [KauaiDistrict.heavyweather.request@hawaii.gov](mailto:KauaiDistrict.heavyweather.request@hawaii.gov)
  - c. [MauiDistrict.heavyweather.request@hawaii.gov](mailto:MauiDistrict.heavyweather.request@hawaii.gov)
  - d. [HawaiiDistrict.heavyweather.request@hawaii.gov](mailto:HawaiiDistrict.heavyweather.request@hawaii.gov)
4. Requests should be made as soon as possible but no later than setting of Port Heavy Weather Condition X-Ray (48 hours prior to storm making landfall).

This will make it possible for the State to ensure that all appropriate actions are being taken throughout the port and that all safety concerns are being addressed ahead of time and not at the last minute. This will also make it possible to ensure that the port or harbor that a vessel operator or owner plans to use is sufficient for safe mooring during heavy weather. It is important to note that some harbors may not be safe due to their location, exposure to open waters and/or the direction that a storm might approach. If you have questions on this, please contact DOT-Harbors at (808) 587-2050.

**Request to Remain in Port—Commercial Vessel Survey:**

This vessel information is required prior to the setting of Port Condition Whiskey. The request is subject to approval and will be reviewed by the Coast Guard Captain of the Port and DOT-Harbors Division. In order to reduce requirements, Sector Honolulu will accept DOT-Harbors requests found at <http://hidot.hawaii.gov/harbors/hurricane-preparedness/>. These requests should be emailed to [D14-DG-SH-SecHono-MTSRU@uscg.mil](mailto:D14-DG-SH-SecHono-MTSRU@uscg.mil) and should also be sent to the appropriate email below:

- [OahuDistrict.heavyweather.request@hawaii.gov](mailto:OahuDistrict.heavyweather.request@hawaii.gov)

- [KauaiDistrict.heavyweather.request@hawaii.gov](mailto:KauaiDistrict.heavyweather.request@hawaii.gov)
- [MauiDistrict.heavyweather.request@hawaii.gov](mailto:MauiDistrict.heavyweather.request@hawaii.gov)
- [HawaiiDistrict.heavyweather.request@hawaii.gov](mailto:HawaiiDistrict.heavyweather.request@hawaii.gov)

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