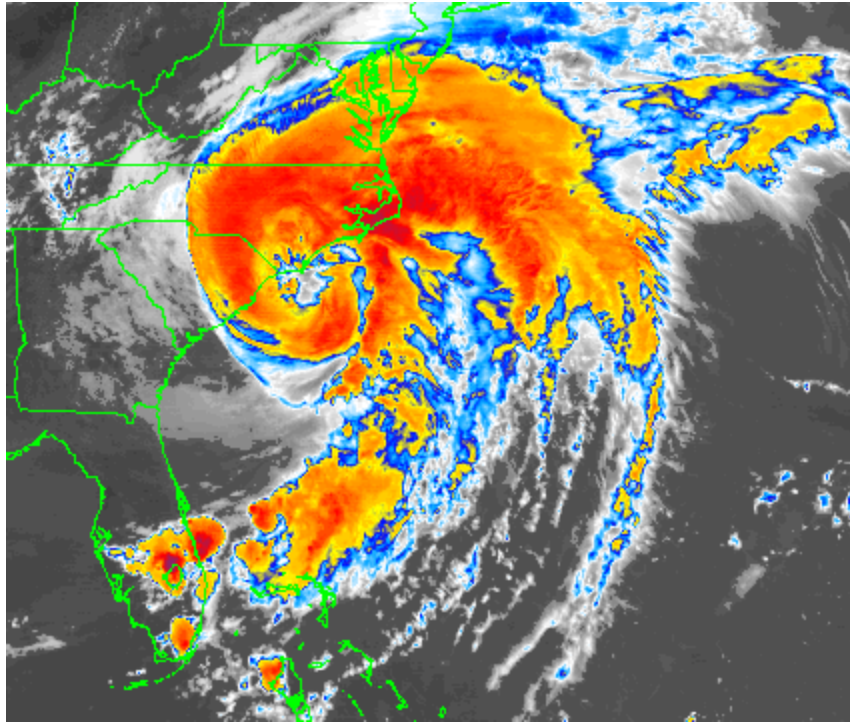


UNCLASSIFIED

COMMANDER
USCG SECTOR HAMPTON ROADS
4000 COAST GUARD BLVD
PORTSMOUTH, VA 23703

TAB C TO APPENDIX 21 TO ANNEX C TO SECTOR HAMPTON ROADS OPLAN 9753-08
PORT OF HAMPTON ROADS MARITIME SEVERE WEATHER CONTINGENCY PLAN

The Port of Hampton Roads



Maritime Severe Weather Contingency Plan

U. S. COAST GUARD
Sector Hampton Roads

Updated: April 2017

TABLE OF CONTENTS

<u>TOPIC</u>	<u>Page</u>
Table of Contents	ii
Record of Changes	iii
INTRODUCTION	
Background	1
Authority	1
Applicability and Purpose	2
Amendments	2
Distribution	2
COTP ACTIONS AND DECISIONS	
General	3
Port Conditions	3
Information Sources	3
Specific Pre-Storm Actions	4
Specific Post-Storm Actions	6
RECOMMENDED STORM PREPARATIONS	
General	7
Vessels	8
Waterfront Facilities	9
ANNEXES	
Annex A - Remaining in Port Checklists for Oceangoing Vessels	
Annex B - Storm Preparation Checklists for Vessels	
Appendix 1 - Recommended Precautionary Measures for Ships	
Appendix 2 - Recommended Precautionary Measures for Barges	
Annex C - Storm Preparation Checklists for Waterfront Facilities	
Annex D - Cargo of Particular Hazard and Certain Dangerous Cargo	

RECORD OF CHANGES

CHANGE NO.	DATE OF CHANGE
1	JULY 92
2	MAY 93
3	JUNE 96
4	APRIL 97
5	MAY 99
6	MAY 00
7	MAY 01
8	AUGUST 02
9	JUNE 03
10	APRIL 04
11	FEBRUARY 05
12	MAY 2005
13	AUGUST 2005
14	JUNE 2007
15	MAY 2008
16	MARCH 2008
17	JUNE 2009
18	APRIL 2010
19	APRIL 2012
20	OCTOBER 2014
21	APRIL 2017

INTRODUCTION

Background

From June 1st to November 30th each year the communities and ports of the Atlantic Coast face the threat of hurricanes. Atlantic and Gulf Coast hurricanes routinely make landfall and adversely impact shoreline communities. On average, hurricanes kill over 50 people and cause more than \$100 million in property damage each year.

Hampton Roads is particularly vulnerable to the hazards associated with hurricanes. Flooding and hurricane force winds can combine to cause substantial damage and problems in our port, including:

- ◆ Bridge damage;
- ◆ Vessel damage;
- ◆ Waterfront facility damage;
- ◆ Cargo handling equipment damage;
- ◆ Clog critical waterways with debris;
- ◆ Disruption to aids to navigation;
- ◆ Topple stacks of containers and petroleum and chemical storage tanks;
- ◆ Undermine the structural integrity of piers and wharfs; and
- ◆ Vessels run aground.

Threatened as we are by these hazards, it is important that the entire port community share a common understanding of the measures required to increase our hurricane readiness.

NOTE: Any reference to “vessel” implies both self and non self-propelled, except where noted. For non self-propelled, the term also implies to supporting tugs associated with barges.

Authority

The provisions of Title 33, Code of Federal Regulations (CFR), Parts 160 and 165, describe the authority that Coast Guard Captains of the Port (COTPs) can use to ensure the safety of their ports. Specifically, COTPs are authorized to:

- ◆ Establish safety zones;
 - ◆ Direct the handling, loading, unloading, storage and movement of dangerous cargoes aboard waterfront facilities; and
 - ◆ Order vessels to operate or anchor, in whatever manner is necessary to protect life, property, and the environment.
-

Applicability and Purpose

This plan is applicable to all waterfront facilities, vessels and barges within the COTP, Hampton Roads, Virginia Zone defined in Title 33, CFR, Part 3.25-10. Its purpose is:

- ◆ To advise the maritime community of the sequence and timing of COTP decisions and actions during periods when the port is threatened by a hurricane; and,
 - ◆ To recommend actions that should be taken by vessels and waterfront facilities to minimize storm related deaths, injuries, property damage and threats to the environment.
-

Amendments

Amendments will be incorporated into this plan by U.S. Coast Guard Sector Hampton Roads following a formal annual review. However, suggestions and changes may be offered at any time, especially following the implementation of the plan during exercises or actual hurricane emergencies.

Distribution

This plan is available on the USCG Internet Portal Homeport – Homeport.uscg.mil. Select Hampton Roads from the list of Port Directories. We believe this is the best way to distribute the plan to all interested parties. Paper copy distribution will be limited, but copies may requested by calling the Contingency Preparedness & Force Readiness Department at (757) 483-8443.

COTP ACTIONS AND DECISIONS

General

Port Conditions are set by COTP Hampton Roads in advance of an arriving tropical cyclone, be it a hurricane, tropical storm, or severe weather event and are based on when gale force winds associated with the storm are predicted to arrive at the Virginia Capes (marked by the Chesapeake Bay Entrance Buoy "CH" northeast of Cape Henry). Gale force winds are defined as sustained winds of 34 knots (39 mph). These predictions are based on information obtained from the National Weather Service and the National Hurricane Center. The intent of setting Port Conditions is to provide the marine community with sufficient time to make preparations in order to minimize damage from heavy weather.

Port Conditions

The four Port Conditions are listed below. Note that the actual time of implementation for each Port Condition is at the COTP discretion based on weather conditions, forecasts, and other amplifying information and may differ from the timelines listed below.

- ◆ **WHISKEY:** Sustained gale force winds are predicted to arrive at the Virginia Capes within 72 hours.
 - ◆ **X-RAY:** Sustained gale force winds are predicted to arrive at the Virginia Capes within 48 hours.
 - ◆ **YANKEE:** Sustained gale force winds are predicted to arrive at the Virginia Capes within 24 hours. This condition is also used after the storm passes, because vessel traffic control measures will still be in effect.
 - ◆ **ZULU:** Sustained gale force winds are predicted to arrive at the Virginia Capes within 12 hours.
 - ◆ The COTP Hampton Roads may set modified Port Condition to align the forecasted impacts of a severe weather event.
-

**Information
Sources**

The COTP will make information about changes in Port Conditions available to the port community in the following ways:

- ◆ The Army Corps of Engineers, Virginia Department of Emergency Management (VDEM) Office of Preparedness, Norfolk and Virginia EOCs, Virginia Department of Transportation (VDOT), Virginia Pilot's Association, Chesapeake & Interstate Pilots Association, Virginia International Terminals (VIT), Virginia Port Authority (VPA), Port of Richmond, Naval Station Norfolk Port Operations, CG LNO to US Fleet Forces Command, Hampton Roads Maritime Association, Sector Maryland-National Capitol Region, Maryland Pilots, Baltimore Maritime Exchange, and other port partners will be notified via a Port Partners conference call each time there is a change in Port Condition.
- ◆ A Marine Safety Information Bulletin (MSIB) will be released and a Safety Marine Information Broadcast (SMIB) will be broadcast for each change on Port Condition.
- ◆ Vessels will be notified via a Broadcast Notice to Mariners (BNM). Hurricane BNMs will be broadcast on Channel 16 and Channel 22A VHF-FM.
- ◆ An electronic copy of this plan and any other pertinent storm information can be accessed on the USCG Internet Portal HOMEPORT at Homeport.uscg.mil.
- ◆ **For questions concerning Port Conditions and to report navigation hazards, please contact the Sector Command Center (SCC), who can be reached 7 days a week, 24 hours a day, at (757) 638-6641, ext. 2 or the SCC Port Condition Hotline, (757) 668-5555, ext. 3.**

Specific Pre-Storm Actions

In addition to setting port conditions, the COTP will take the following actions commensurate with each Port Condition based on the below anticipated timelines. Note that the actual time of implementation for each Port Condition is at the COTP discretion based on weather conditions, forecasts, and other amplifying information and may differ from the timelines listed below.

◆ **WHISKEY** (gale force winds within 72 hours):

Port Status: Open to all commercial traffic.

Convene a meeting with representatives of the Virginia Port Authority, Virginia International Terminals, Virginia Pilots Association, Maryland Pilots Association, Chesapeake & Interstate Pilots Association, Naval Station Norfolk Port Operations, Virginia Department of Transportation, Virginia Maritime Association, Virginia Office of Preparedness, and other port partners to identify and address concerns over port status, activities, and emergency preparations.

Coordinate with the Virginia Pilot's Association to assign adequate hurricane anchorage areas.

Issue a Marine Safety Information Bulletin (MSIB) that specifies:

- All self-propelled oceangoing vessels over 500 GT and all oceangoing barges and their supporting tugs will report their intention to depart or remain in port.
- All self-propelled oceangoing vessels over 500 GT and all oceangoing barges and their supporting tugs remaining in port will complete a **REMAINING IN PORT CHECKLIST FOR OCEANGOING VESSELS** (Annex A) and submit to the COTP within 24 hours for approval.

The Coast Guard will have increased harbor patrols and will advise vessel and facility operators of any conditions that require immediate action or correction.

Advise port stakeholders of intentions to set the next port condition.

◆ **X-RAY** (gale force winds within 48 hours):

Port Status: Open to all commercial traffic.

All **REMAINING IN PORT CHECKLISTS FOR OCEAN GOING VESSELS** (Annex A) must be submitted to the COTP for approval.

The Coast Guard will continue to contact waterfront facilities to determine the intentions of the facility and any vessels or oceangoing barges moored thereto.

**Specific Pre-Storm Actions,
(X-Ray, cont'd)**

Individually assess vessels desiring to remain in port, and issue COTP Orders as appropriate.

Contact deep draft vessels at anchor and determine their intentions.

Inspect wharf and pier areas with waterfront facility representatives during harbor patrols.

◆ **YANKEE** (gale force winds expected within 24 hours):

Port Status: Vessel traffic control measures in effect.

Issue a MSIB controlling vessel movements and activities as appropriate, that may include:

- Close the Port of Hampton Roads to all inbound commercial vessel traffic (based on COTP discretion). Port closure will not apply to vessels which are capable of completing the cargo load/discharge cycle in less than 12 hours. The area affected by this order includes all Navigable Waters of the United States within 30 nautical miles of Thimble Shoal Light (offshore jurisdiction extends only to twelve nautical miles).
- Outline anticipated port closure timelines and/or restrictions.
- Each waterfront facility must request permission from the COTP for all self-propelled oceangoing vessels over 500 GT and all oceangoing barges that desire to remain in port at that facility. If permission is granted, the facility must ensure the safe mooring of such vessels at that facility. If permission is not granted, then such vessels must put to sea or move to an approved anchorage.

The COTP will approve or direct, as necessary, final mooring arrangements for vessels remaining in port.

◆ **ZULU** (gale force winds expected within 12 hours):

Port Status: Close the port to all commercial vessel traffic (potentially including vessel transits within the port based on COTP discretion) including vessel transits within the port). This prohibition will not apply to vessels which have requested and received approval from the COTP to transit the port. The approval of the COTP will only be granted if the transit can be made safely and mooring or anchorage space has been identified; or if the vessel is departing to sea, only if the vessel can reach safe water prior to encountering hurricane conditions. The area affected by this order will include all Navigable Waters of the United States within 30 nautical miles of Thimble Shoal Light (twelve nautical miles offshore).

**Specific Pre-Storm Actions
(Zulu, cont'd)**

Issue a MSIB prohibiting vessel movement and activities.

Suspend cargo operations involving bulk liquid dangerous cargoes (including bunkering and lightering operations), unless permission is requested and an approval granted. Approval will be given on a case-by-case basis. This approval provision does not apply to operations involving Cargo of Particular Hazard or Certain Dangerous Cargoes, which in every case must be suspended. Definitions for these specified cargoes are found in Annex D of this plan.

Specific Post-Storm Actions

As soon as practicable following the passage of the storm, the COTP will:

- ◆ Return to Port Condition Yankee
- ◆ Establish and enforce a Safety Zone restricting vessel movements until the navigation channels can be surveyed and declared safe for passage.
- ◆ Coordinate completion of channel surveys.
- ◆ Conduct maritime damage and risk assessments emphasizing channels, bridges, anchorages, piers and wharves.
- ◆ Organize a post-hurricane meeting (conference call) with senior representatives from the following organizations to assess, outline, and prioritize the maritime transportation system recovery effort for the COTP Zone:
 - Army Corps of Engineers
 - U.S. Navy
 - Virginia Port Authority
 - Virginia International Terminals
 - Virginia Department of Emergency Management
 - Virginia Department of Environmental Quality
 - Virginia Department of Transportation
 - Virginia Pilot's Association
 - Virginia Maritime Association
 - Virginia Office of Preparedness
 - Federal Emergency Management Agency (if appropriate)
 - National Oceanic and Atmospheric Administration
 - National Weather Service
 - Other USCG units
 - Maryland agencies, as appropriate

RECOMMENDED STORM PREPARATIONS

General

This part of the plan contains general recommended precautionary measures that vessels and waterfront facilities can take to reduce the potential for loss of life, injury, or property damage from a hurricane. The safety precautions contained in this part are not the only precautions that may be necessary to fully prepare a vessel or facility. The unique characteristics of the vessel or facility, and the unique attributes of the storm may dictate the need for additional measures and/or modifications to the measures contained in these recommendations.

The COTP will continuously review the status of all hurricane preparations (vessel and facility) and direct the correction of dangerous conditions. The COTP will issue orders only to those vessels or facilities that fail to initiate appropriate action.

Nothing in these recommendations shall be construed as relieving the masters, owners, operators, and agents of vessels or the owners, operators, and persons-in-charge of waterfront facilities from their primary responsibility for the safety of such vessels or waterfront facilities during a hurricane. Similarly, in no way should any of these recommendations be understood as the COTP advocating personnel being placed in life threatening situations to secure property.

Vessels

When the port is threatened by hurricane force winds and severe storm surge, the recommended course of action for all seaworthy vessels is evasion at sea. Departure to sea should commence well before the expected arrival of hurricane force winds. A late departure could endanger lives, the port or the environment. Vessels will not be permitted to move (including shifting berthing) during Port Condition ZULU without the prior approval of the COTP.

Those ships unable to evade the storm at sea should anchor within the designated hurricane anchorages. Only barges, to include inland and oceangoing, and ships incapable of operating under their own power should remain moored to wharves, piers or other fixed structures. Nothing in this paragraph is meant to limit the right of a facility owner, operator, and/or person-in-charge to deny a vessel permission to remain moored to his/her facility during a hurricane. All vessels that intend to remain in port should consider the appropriateness of taking on additional ballast or cargo to improve their stability. Fully loaded vessels normally fare better than light vessels in hurricanes.

For vessels remaining in port, it is incumbent upon the vessel's master or owner to make all appropriate arrangements for berthing, mooring or anchoring including tug service or any other precaution, as necessary, to ensure the safety of the vessel and to prevent damage to the port. The COTP encourages discussions between vessel masters or owners and the managers or operators of facilities to ensure awareness of the physical capabilities and limitations of both the vessels and the facilities. All heavy weather mooring and anchoring arrangements are subject to the approval of the COTP. Should a vessel be unable to make satisfactory arrangements, the COTP shall make the final determination as to the best mooring or anchoring location and requirements.

Conventional oceangoing barges and their supporting tugs, other than integrated tug barges (ITBs), cannot reasonably be expected to evade or ride out a hurricane force storm at sea. In good weather with minimal sea state, these tug and barge units will typically make 4-6 knots at sea. In moderate weather and moderate sea state, the speed of these tug and barge units will be reduced by as much as 50%, (moderate seas will often precede hurricanes by hundreds of miles). Tugs and barges require good weather to enter port. This means that tug and barge units caught offshore in bad weather (moderate seas or above) may be unable to enter a port and may be required to ride out the storm at sea or risk a difficult entry to port. Either of these options is generally high risk and undesirable. Therefore, the COTP will not order oceangoing barges and their tug escorts out of port or prevent them from entering port during Port Condition WHISKEY.

Annex B contains a checklist of detailed vessel and barge recommendations.

**Waterfront
Facilities**

Waterfront facilities should secure hazards and halt cargo operations in advance of the storm's arrival to prevent unnecessary damage to life, property or the environment.

When Port Condition ZULU is set the COTP will suspend cargo operations involving all bulk liquid dangerous cargoes, unless specific approval is granted by the COTP. Cargo operations with Cargoes of Particular Hazard or Certain Dangerous Cargoes (Annex D) will NOT be granted approval.

The COTP will suspend operations when weather conditions threaten to reduce safety to an unacceptable level and the facility does not voluntarily suspend cargo operations.

Facilities that do not intend to allow vessels to remain moored at their facility during the storm must provide sufficient notice to the vessel to allow time for the vessel to move to a safe mooring, hurricane anchorage or depart to sea. It must be understood that the initial decision to allow a vessel to remain moored to a facility for the duration of a hurricane rests primarily with the facility owner, operator, and/or person-in-charge. The facility must then request permission and receive approval from the COTP for all self-propelled oceangoing vessels over 500 GT and all oceangoing barges to remain at the facility. The owner, operator and/or person-in-charge of a facility and the masters, owners, operators, and/or agents of a vessel are primarily responsible for the safety and security of their facilities and vessels. The COTP will not arbitrate disputes between facilities and the vessels moored thereto. The COTP will continuously review the status of all vessel and facility hurricane preparations and direct the correction of dangerous conditions. The COTP will issue orders only to those vessels or facilities that fail to initiate appropriate action.

Annex C contains a checklist of detailed waterfront facility recommendations.



Richard J. Wester
Captain, U.S. Coast Guard
Captain of the Port Hampton Roads

ANNEXES:

Annex A - Remaining in Port Checklists for Oceangoing Vessels

Self Propelled Vessels Over 500 Gross Tons
Oceangoing Barges and Supporting Tugs

Annex B - Storm Preparation Checklist for Vessels

Appendix 1 - Recommended Precautionary Measures for Ships
Appendix 2 - Recommended Precautionary Measures for Barges

Annex C - Storm Preparation Checklist for Waterfront Facilities

Annex D - Cargo of Particular Hazard and Certain Dangerous Cargo

ANNEX A to the Hampton Roads Severe Weather Contingency Plan

REMAINING IN PORT CHECKLIST FOR OCEANGOING VESSELS¹

SELF PROPELLED VESSELS OVER 500 GROSS TONS

The person in charge of the vessel must submit a Remaining Inport Checklist for approval by the Captain of the Port.

Vessels remaining in port must have their decks clear of missile hazards, potential pollution hazards and flammable materials. All persons in charge must ensure that hatches are secured for heavy weather. These conditions are subject to verification by Coast Guard personnel.

The following information must be included.

1. Name, call sign and official number of vessel.
2. Nationality of the vessel (flag).
3. Vessel particulars, as applicable (length, breadth, draft, air draft, gross tonnage, hull type, horsepower, single or twin screw).
4. Name of the master.
5. Name, address and phone number of the agent, charterer or operator, and owner.
6. Reason why the vessel is not leaving port.
7. Current vessel drafts – port forward, starboard forward, port aft and starboard aft.
8. Provide a full stowage plan and manifest to determine particular cargo and pollution hazards.
9. Provide 24-hour contact information of qualified individuals (QI) who have been empowered in writing by the owners to make on-site decisions and authorize expenditures for any required pollution response or salvage.
10. Provide a full insurance disclosure to the Captain of the Port. If the vessel is moored to a facility, provide the insurance information to the facility.
11. Number of personnel to remain on the vessel and their qualifications.
12. Amount of ballast the vessel may hold.
13. Amount of bunkers, lube oil and diesel oil on board.
14. Estimated draft with the vessel in ballast.
15. Name of the berth and location.
16. Depth of water in the vessel's berth at mean low water.
17. Availability of the vessel's main propulsion.
18. Describe how the vessel will be secured to the berth. Submit a diagram showing the mooring arrangements with the size, length and lead of mooring lines or wire.
19. Operational status of machinery on board (i.e., engines, generators, fire fighting pumps, bilge pumps, anchors, mooring machinery, etc.)
20. Any unusual conditions affecting the vessel's seaworthiness.

¹ Checklists can also be found at <http://homeport.uscg.mil>, Port Directory – Hampton Roads.

ANNEX A to the Hampton Roads Severe Weather Contingency Plan

REMAINING IN PORT CHECKLIST FOR OCEANGOING VESSELS

OCEAN GOING BARGES AND SUPPORTING TUGS

The person in charge of the barge(s) and assist tug(s) must submit in writing a mooring plan for approval by the Captain of the Port.

Tugs and barges remaining in port must have their decks clear of missile hazards, potential pollution hazards and flammable materials. All persons in charge must ensure that hatches are secured for heavy weather. These conditions are subject to verification by Coast Guard personnel.

The following information must be included in the mooring plan submission.

1. Name, call sign and official number of tug and barge.
2. Nationality of the tug and barge.
3. Name of the master of the tug.
4. Name, address and phone number of the owner / operator, charterer, and/or agent.
5. Reason why the tug and barge is remaining in port.
6. Current vessel drafts – port forward, starboard forward, port aft and starboard aft.
7. Provide a full stowage plan and manifest to determine particular cargo and pollution hazards.
8. Provide 24-hour contact information of qualified individuals (QI) who have been empowered in writing by the owners to make on-site decisions and authorize expenditures for any required pollution response or salvage.
9. Provide a full insurance disclosure to the Captain of the Port. If the barge is moored to a facility, provide the insurance information to the facility.
10. Tug and barge particulars for each vessel, as applicable (length, breadth, draft, air draft, gross tonnage, hull type, horsepower, single or twin screw).
11. Ballast capabilities.
12. Will the tug be tending the barge(s) while in port?
13. Name and rating of personnel to remain on the tug.
14. Amount of lube oil and diesel oil on board the tug and barge(s).
15. Name of the berth and location.
16. Describe how the vessel will be secured to the berth. Submit a diagram showing the mooring arrangements with the size, length and lead of mooring lines or wire.
17. Operational status of machinery on board the tug and barge(s) (i.e., engines, generators, fire fighting pumps, bilge pumps, anchors, mooring machinery, etc.)
18. Any unusual conditions affecting either the tug's or barges(s)' seaworthiness.

STORM PREPARATION CHECKLIST FOR VESSELS

Appendices 1 and 2 to this Annex contain detailed precautionary measures appropriate to ships and barges, respectively, which intend to shelter in port either at anchor or moored.

I. PORT CONDITION WHISKEY (72 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)

DATE/TIME/INITIALS

- _____ (a) Review vessel's operational schedule.
- _____ (b) Review vessel heavy weather plans and take appropriate action.
- _____ (c) If unable to get underway, evaluate the safety of the present berth. If necessary, develop plans to shift to an alternate location or berth. The plans should include the number and source of tugs, the permits required, and the agency responsible for approving them, and safety / security arrangements appropriate to the new mooring / berth.
NOTE: This recommendation primarily applies to vessels at local repair facilities, or vessels in lay berths (moored or at anchor).
- _____ (d) Set a continuous Channel 16 VHF-FM radio watch.

II. PORT CONDITION X-RAY (48 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)

DATE/TIME/INITIALS

- _____ (a) Vessels and barges intending to remain at their moorings during the hurricane should obtain the permission of the owner, operator, or person-in-charge of the waterfront facility and determine the conditions the facility will require.
- _____ (b) Vessels intending to remain in port at anchor during the hurricane should contact the Virginia Pilot's Association to obtain a hurricane anchorage assignment. The Virginia Pilot's Association will report the identity and location of vessels anchored in hurricane anchorages to the COTP.
NOTE 1: Vessels desiring to remain at an anchorage other than a hurricane anchorage assigned by the Virginia Pilot's Association must request the permission from the COTP.
NOTE 2: Barges shall not anchor during a hurricane unless approved by the COTP.

**III. PORT CONDITION YANKEE
(24 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)**

DATE/TIME/INITIALS

_____ (a) Vessels intending to anchor in port during the hurricane should prepare to proceed to anchorage prior to port closure.

_____ (b) Vessels intending to weather the hurricane at sea should prepare to depart the port prior to port closure.

_____ (c) Vessels and barges intending to remain moored at a waterfront facility during the hurricane should prepare to proceed to the facility (if not already there) or shift berths as needed prior to port closure. Prior to this action, in the case of self-propelled oceangoing vessels over 500 GT or oceangoing barges, the waterfront facility must request permission from the COTP.

**IV. PORT CONDITION ZULU
(12 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)**

DATE/TIME/INITIALS

_____ (a) Ensure the vessel or barge is securely moored or anchored and prepared for hurricane conditions.

_____ (b) Suspend cargo transfer operations as required by weather conditions or the COTP as stated on page 6 of this plan.

_____ (c) Discontinue all transits of the port as required by the COTP.

_____ (d) Report any hazardous conditions or breakaways of vessels directly to the COTP as soon as possible.

Appendix 1 - Recommended Precautionary Measures for Vessels

Appendix 2 - Recommended Precautionary Measures for Barges

APPENDIX 1 TO ANNEX B to the Hampton Roads Severe Weather Contingency Plan

**RECOMMENDED PRECAUTIONARY MEASURES FOR
VESSELS**

Applies to vessels:

<u>Moored</u>	<u>Anchored</u>	<u>Precautionary Measures</u>	
X		1.	Mooring lines doubled up with due consideration given to the effects of predicted storm surge.
X		2.	Outboard anchor rigged at short stay.
X	X	3.	Sufficient number of officers and crew onboard to tend mooring lines, and/or get underway.
X	X	4.	Vessel ballasted to ensure maximum safety.
X	X	5.	All side ports, hatches, portholes, and other openings are closed and secured.
X	X	6.	Bilge pumps and manifolds are ready for immediate use.
X	X	7.	All fire fighting equipment is ready for immediate use.
X	X	8.	At least one (1) pilot ladder is rigged on each side of the vessel.
X		9.	A gangway, or other suitable means of accessing the vessel from the pier, is rigged.
X	X	10.	At least one (1) fire warp is rigged on the bow and another on the stern. In order to expedite the establishment of an emergency tow, a portion of each fire warp should be draped overboard and allowed to hang no more than six (6) feet above the waterline.
X	X	11.	Spare mooring lines and/or wires should be readily available.
X	X	12.	A continuous radio watch should be maintained on Channel 16 VHF-FM (156.8 MHZ) by a person who speaks English fluently.
	X	13.	At least two anchors should be set.
	X	14.	Vessel should remain ready to get underway in 15 minutes.
	X	15.	Utilize any available drag circle alarm functions on installed navigation equipment.

APPENDIX 2 TO ANNEX A to the Hampton Roads Severe Weather Contingency Plan

RECOMMENDED PRECAUTIONARY MEASURES FOR BARGES

Applies to barges:

<u>Moored</u>	<u>Anchored</u>	<u>Precautionary Measures</u>	
	X	1.	All available anchors are deployed.
X		2.	Mooring lines doubled up with due consideration given to the effects of predicted storm surge. Special attention should be paid to barges moored in the proximity of bridges.
X		3.	Sufficient personnel are available ashore to respond to emergencies.
X	X	4.	All hatches, portholes and other openings are closed and secured.
X		5.	Fire fighting equipment is available and ready for immediate use.
	X	6.	At least one (1) fire warp is rigged on the bow and another on the stern. In order to expedite the establishment of an emergency tow, a portion of each fire warp should be draped overboard and allowed to hang no more than six (6) feet above the waterline.
X	X	7.	Spare mooring lines and/or wires should be readily available.

STORM PREPARATION CHECKLIST FOR WATERFRONT FACILITIES

I. PORT CONDITION WHISKEY (72 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)

DATE/TIME/INITIALS

- _____ (a) Review facility contingency plans.
Note: Plans to nest barges with other vessels or to anchor barges must be approved by the COTP.
- _____ (b) Review vessel arrival schedules.
- _____ (c) Review operational schedules to identify shipments of Cargoes of Particular Hazard, Hazardous Material, and/or Dangerous Cargoes arriving via highway or rail vehicles.

II. PORT CONDITION X-RAY (48 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)

DATE/TIME/INITIALS

- _____ (a) Determine the special needs and intentions of vessels moored at the facility.
- _____ (b) Determine whether vessels desiring to remain moored to the facility during the hurricane will be allowed to do so. Notify the vessel master, vessel agent, and the COTP of the facility's decision.
NOTE: The COTP may direct the vessel or facility to take certain precautions to correct conditions which threaten the port or the environment, one of which may be to direct the vessels to proceed to sea or anchor.
- _____ (c) Set a time for the voluntary suspension of cargo handling operations. In doing so, ensure that vessels have ample time to hire and schedule labor, arrange pilots, contract tugs/towboats, and safely complete the transit to sea or a hurricane anchorage prior to the setting of Port Condition ZULU. Notify the COTP of the time established.

III. PORT CONDITION YANKEE (24 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)

DATE/TIME/INITIALS

- _____ (a) Secure missile hazards and clear nonessential equipment and loose gear from all wharves and piers.
- _____ (b) Secure or move hazardous material and dangerous cargo to a safe location. Individual drums of hazardous material should be palletized and banded. When palletized drums are stowed inside, they should be elevated off the floor in a well-ventilated warehouse. When stowed outside, palletized drums should be sheltered from the weather as much as possible, and in no case stacked more than two high. Stacked pallets of drums should also be braced and dunnaged to prevent shifting and/or toppling. Grounded containers should be stacked no more than 3 high. Empty containers should be moved to less flood prone areas if possible.
NOTE: Use Title 49 of the Code of Federal Regulations Parts 171-178 as a stowage and segregation guide, if the drums to be consolidated contain hazardous materials from different Hazard Classes/Divisions.
- _____ (c) Advise the COTP of any dangerous cargo which cannot be secured or moved to a safe location.
- _____ (d) Prepare to secure cargo operations involving liquid bulk dangerous cargoes in advance of the COTP setting Port Condition ZULU, unless permission is requested and approval is received from the COTP. Operations involving Cargoes of Particular Hazard or Certain Dangerous Cargoes will be secured, without exception, at Port Condition ZULU.
- _____ (e) Ensure all self-propelled oceangoing vessels over 500 GT and all oceangoing barges have departed moorings (unless permission has been granted by the COTP for such vessels to remain in port at the facility moorings).

**IV. PORT CONDITION ZULU
(12 HOURS BEFORE ARRIVAL OF GALE FORCE WINDS)**

DATE/TIME/INITIALS

- _____ (a) Secure cargo operations involving liquid bulk dangerous cargoes, unless permission is granted from the COTP. Operations with Cargoes of Particular Hazard or Certain Dangerous Cargoes will be secured in all cases.

- _____ (b) Oil transfer terminals should drain all loading arms and transfer hoses of product, blank off hoses, empty and clean small discharge containment.

- _____ (c) All small craft owned by the facility that can be hauled out or trailered should be removed from the water and secured well away from the effects of possible storm surge and high winds.

ANNEX D to the Hampton Roads Severe Weather Contingency Plan

CARGO OF PARTICULAR HAZARD

"Cargo of Particular Hazard" is defined in Title 33 of the Code of Federal Regulations section 126.3 (33 CFR 126.3). Cargoes of Particular Hazard are:

1. Division 1.1 or 1.2 explosives,
2. Ammonium nitrate products, division 5.1 (oxidizing),
3. Division 4.3 dangerous when wet products in excess of 60 metric tons,
4. Division 2.3 and 6.1 poison inhalation hazard products,
5. Class 7 highway route controlled quantity radioactive material or fissile material.

CERTAIN DANGEROUS CARGO

"Certain Dangerous Cargo" is defined in Title 33 of the Code of Federal Regulations section 160.204 (33 CFR 160.204). Certain Dangerous Cargoes are:

1. Division 1.1 or 1.2 explosives,
2. Division 1.5D blasting agents for which a permit is required,
3. Division 2.3 poisonous gas that is also a material poisonous by inhalation, and that is in a quantity in excess of 1 metric ton per vessel,
4. Division 5.1 oxidizing materials for which a permit is required,
5. A liquid material that has a primary or subsidiary classification of Division 6.1 poisonous material that is also a material poisonous by inhalation, and that is in a bulk packaging, or that is in a quantity in excess of 20 metric tons per vessel when not in bulk packaging.
6. Class 7 highway route controlled quantity radioactive material or fissile material,
7. Bulk liquefied chlorine gas and bulk liquefied gas cargo that is flammable and/or toxic,
8. The following bulk liquids: acetone cyanohydrin, allyl alcohol, chlorosulfonic acid, crotonaldehyde, ethylene chlorohydrin, ethylene dibromide, methacrylonitrile, oleum (fuming sulfuric acid), and propylene oxide, alone or mixed with ethylene oxide.
9. The following bulk solids: Ammonium nitrate products and fertilizer, division 5.1 (oxidizing).