



WEATHER RULES FOR SAFE BOATING

Before setting out:
Obtain the latest available weather forecast for the boating area. The NOAA Weather Radio continuous broadcasts (VHF-FM) are the best way to keep informed of expected weather and sea conditions. If you hear on the radio that warnings are in effect, don't venture out on the water unless you are confident your boat can be navigated safely under forecast conditions of wind and sea.

While afloat:
1. Keep a weather eye out for: the approach of dark, threatening clouds, which may foretell a squall or thunderstorm; any steady increase in wind or sea; any increase in wind velocity opposite in direction to a strong tidal current. A dangerous rip tide condition may form steep waves capable of broaching a boat.

2. Check radio weather broadcasts for latest forecasts and warnings.

3. Heavy static on your AM radio may be an indication of nearby thunderstorm activity.

4. If a thunderstorm catches you while afloat, you should remember that not only gusty winds but also lightning poses a threat to safety.

- stay below deck if possible.
- keep away from metal objects that are not grounded to the boat's protection system.
- don't touch more than one grounded object at the same time (or you may become a shortcut for electrical surges passing through the protection system).
- put on a life jacket and prepare for rough sea conditions.

BROADCASTS OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

| City | Station | Frequency, kHz/MHz | Broadcast times (local) CST |
|---|--------------|--|--|
| Mobile, AL | NOQ (USCG) | ~ CH 22A *# 2670 kHz | 0420, 0620, 1020, 1620 0420, 0620, 1020, 1620 |
| New Orleans, LA | NMG (USCG) | ~ CH 22A *# 2670 kHz NAVTEX(G) 518 kHz | 0435, 0635, 1035, 1635 0435, 0635, 1035, 1635, 2350 0100, 0500, 0900, 1300, 1700, 2100 |
| Galveston, TX | NOY (USCG) | ~ CH 22A *# 2670 kHz | 0450, 0650, 1050, 1650 0450, 0650, 1050, 1650 |
| Corpus Christi, TX | NOY-8 (USCG) | ~ CH 22A *# 2670 kHz | 0440, 0640, 1040, 1640 0440, 0640, 1040, 1640 |
| USCG VHF broadcasts normally contain coastal forecasts. HF broadcasts normally contain offshore forecasts. Marine warnings are broadcast upon receipt. | | | |
| * Broadcast 1 hour later during Daylight Saving Time. ° Preceded by announcement on 2182 kHz ~ Preceded by announcement on ch. 16. # Single Sideband, suppressed carrier, carrier frequency. | | | |

OTHER MARINE WEATHER SERVICES CHARTS AVAILABLE

| | | | |
|-------|-------------------------------------|-----------|--|
| MSC-1 | Eastport, ME to Montauk Point, NY | MSC-8 | Mexican Border to Point Conception, CA |
| MSC-2 | Montauk Point, NY to Manasquan, NJ | MSC-9 | Point Conception, CA to Point St. George, CA |
| MSC-3 | Manasquan, NJ to Cape Hatteras, NC | MSC-10 | Point St. George, CA to Canadian Border |
| MSC-4 | Cape Hatteras, NC to Savannah, GA | MSC-11/12 | Great Lakes |
| MSC-5 | Savannah, GA to Apalachicola, FL | MSC-13 | Hawaiian Waters |
| MSC-6 | Apalachicola, FL to Morgan City, LA | MSC-14 | Puerto Rico and Virgin Islands |
| MSC-7 | Morgan City, LA to Brownsville, TX | MSC-15 | Alaskan Waters |
| | | MSC-16 | Guam and the Northern Mariana Islands |

These charts are also posted at: <http://www.nws.noaa.gov/om/marine/pub.htm>

Copies of these charts are available from: FAA/National Aeronautical Charting Office
Distribution Division, AVN-530
6303 Ivy Lane, suite 400
Greenbelt, MD 20770
(301) 436-8301
(800) 638-8972 toll free, U.S. only
(301)436-6829 FAX
Email: 9-AMC-chartsales@faa.gov
<http://chartmaker.ncd.noaa.gov>
or your local chart agent: <http://chartmaker.ncd.noaa.gov/nsd/states.html>

Nautical charts for navigating these coastal areas are available from local marinas, marine supply stores, and the above address.

NOAA Weather Radio (NWR), Specific Area Message Encoder (SAME), and NWR Coverage

NOAA Weather Radio broadcasts on 162.40, 162.425, 162.45, 162.475, 162.50, 162.525 and 162.55 MHz can usually be received 20-40 miles from the transmitting antenna site, depending on terrain and the quality of the receiver used. Where transmitting antennas are on high ground, the range is somewhat greater, reaching 60 miles or more. The VHF-FM frequencies used for these broadcasts require narrow-band FM receivers. The National Weather Service recommends receivers having a sensitivity of one microvolt or less for a quieting factor of 20 decibels.

Some receivers are equipped with a warning alarm device that can be turned on by means of a tone signal controlled by the National Weather Service office concerned. This signal is transmitted for 13 seconds preceding an announcement of a severe weather warning.

In addition, the Federal Communications Commission (FCC) has approved the special SAME code to delineate marine areas. Mariners with NWR receivers equipped with SAME should check out:

<http://www.nws.noaa.gov/om/marine/wxradio.htm>
for information on how to program their receivers.

For a listing of marine area and zone codes for SAME, go to:
<http://www.nws.noaa.gov/geodata/catalog/wsom/html/marinewreas.htm>

The NOAA Weather Radio coverage areas are estimates. For these maps, transmitter antenna performance are assumed to be omni-directional. As a result, actual coverage can be different from that depicted on this map. Coverage that is significantly different than depicted on this map should be reported to the local NWS forecast office.

EXPLANATION OF MARINE ADVISORIES/WARNINGS

SMALL CRAFT ADVISORY: Issued to alert mariners to sustained winds 20 to 33 knots and/or forecast seas 7 feet or greater that are/is expected for more than two hours.

GALE WARNING: A warning of sustained winds or frequent gusts in the range of 34 to 47 knots inclusive, either predicted or occurring, and not directly associated with a tropical cyclone.

STORM WARNING: A warning of sustained winds or frequent gusts in the range of 48 to 63 knots inclusive, either predicted or occurring, and not directly associated with a tropical cyclone.

HURRICANE FORCE WIND WARNING: A warning of sustained winds or frequent gusts of 64 knots or greater, either predicted or occurring, NOT associated with a tropical cyclone.

SPECIAL MARINE WARNING: Issued for severe local storms, for winds 34 knots or greater, and/or hail three-quarters inch in diameter or larger, and/or waterspouts.

TROPICAL STORM WARNING: Issued for a tropical cyclone in which the maximum sustained surface wind ranges from 34 to 63 knots inclusive.

HURRICANE WARNING: Issued for a tropical cyclone in which the maximum sustained surface wind is 64 knots or greater.

NOTE: A "TROPICAL STORM WATCH" or "HURRICANE WATCH" is issued whenever a tropical storm or hurricane becomes a threat to a coastal area. The "WATCH" is not a warning, but indicates that the tropical cyclone is near enough that persons in the area covered by the "WATCH" should listen to their radios for subsequent advisories and be ready to take precautionary action in case tropical storm or hurricane warnings are issued.

DIAL-A-BUOY

Dial-A-Buoy gives mariners an easy way to obtain reports via a cell phone. Dial-A-Buoy provides wind and wave measurements taken within the last hour at National Data Buoy Center (NDBC) buoy and Coastal-Marine Automated Network (C-MAN) stations. The stations operated by NDBC, part of the National Weather Service, are located in the Atlantic, Pacific, Gulf of Mexico, and the Great Lakes. The Dial-A-Buoy service has since expanded to include stations owned and operated by other organizations including the United Kingdom Met Office and Environment Canada. To access Dial-A-Buoy, dial (228) 688-1948 using any touch tone or cell phone. For internet users, more information is at: <http://seaboard.ndbc.noaa.gov/dial.shtml>

INTERNET ADDRESSES

National Weather Service Current Weather Data
<http://www.nws.noaa.gov>

National Data Buoy Center
<http://seaboard.ndbc.noaa.gov>

U.S. Coast Guard Navigation Center
<http://www.navcen.uscg.gov>

National Weather Service Southern Region Headquarters
<http://www.srh.noaa.gov>

National Weather Service Marine Products
<http://www.nws.noaa.gov/om/marine/home.htm>

National Weather Service Radiofax Products
<http://weather.noaa.gov/fax/marine.shtml>

NATIONAL WEATHER SERVICE RADIOFAX AND TEXT FORECASTS AVAILABLE VIA E-MAIL (FTPMAIL)

National Weather Service radiofax charts and text forecasts are available via e-mail. The FTPMAIL server is intended to allow Internet access for mariners and other users who do not have direct access to the World Wide Web, but who are equipped with an e-mail system. Turnaround is generally under one hour, however, performance may vary widely and receipt cannot be guaranteed. To get started in using the NWS FTPMAIL service, follow these simple directions to the FTPMAIL "help" file (11 bytes).

Address: ftpmail@weather.noaa.gov
Subject: (not required)
Body: help

Direct any questions to 301-713-1677, extension 128, or 301-713-1677, extension 127.

NOAA WEATHER RADIO BROADCASTS

| CITY | STATION | FREQUENCY | BROADCAST TIMES |
|--------------------|---------|-------------|----------------------------|
| Bay City, TX | WWG-40 | 162.425 MHz | Continuously, 24 hrs a day |
| Beaumont, TX | WXK-28 | 162.475 MHz | Continuously, 24 hrs a day |
| Brownsville, TX | WWG-34 | 162.55 MHz | Continuously, 24 hrs a day |
| Corpus Christi, TX | KHB-41 | 162.55 MHz | Continuously, 24 hrs a day |
| Galveston, TX | KHB-40 | 162.55 MHz | Continuously, 24 hrs a day |
| Houston, TX | KGG-68 | 162.40 MHz | Continuously, 24 hrs a day |
| Lake Charles, LA | KHB-42 | 162.40 MHz | Continuously, 24 hrs a day |
| Lafayette, LA | WXK-80 | 162.55 MHz | Continuously, 24 hrs a day |
| Morgan City, LA | KIH-23 | 162.475 MHz | Continuously, 24 hrs a day |
| Port O'Connor, TX | WXL-26 | 162.475 MHz | Continuously, 24 hrs a day |
| Riviera, TX | WNG-609 | 162.525 MHz | Continuously, 24 hrs a day |

These VHF-FM radio stations, locations shown on the map, are managed by the National Weather Service. Broadcasts are updated every 3 to 6 hours and amended as required. Broadcast contents vary, but in general contain the following types of information.

1. Descriptions of the weather patterns affecting the southern part of the United States.
2. Regional and state forecasts with outlook for the third day.
3. Marine forecasts and warnings for coastal waters.
4. Weather observations from selected National Weather Service and Coast Guard stations.
5. Precipitation summaries and reports.
6. Local weather observations and forecasts.
7. Watches, warnings, statements and bulletins concerning adverse and severe weather.

RADIO WWW/WWWH STORM INFORMATION BROADCASTS

HIGH SEAS STORM INFORMATION for the North Atlantic and North Pacific is provided mariners through a cooperative program of two Department of Commerce agencies: the National Weather Service of the National Oceanic and Atmospheric Administration and the National Institute of Standards and Technology. Bulletins are compiled by the National Weather Service and broadcast every hour by the National Institute of Standards and Technology's Frequency and Time Broadcast Services Radio Stations — WWW, Fort Collins, Colorado and WWWH, Kauai, Hawaii. These are the radio stations that sailors and others listen to for daily time checks.

WWW (FORT COLLINS, CO)

FREQUENCIES : 2.5, 5, 10, 15, 20 MHz

The weather broadcast is in 45-second segments separated by a 15-second interval.

| TIMES OF BROADCAST | BROADCAST AREA |
|-------------------------|---|
| 8 minutes past the hour | Storm information for western North Atlantic, |
| 9 minutes past the hour | including Gulf of Mexico and Caribbean Sea. |

SAFETY RULES FOR SMALL BOAT OPERATORS

1. Never leave shore without an approved life preserver for each person aboard.
2. Check the weather before departure. Leave an itinerary of your trip with a responsible individual.
3. Equip your vessel with safety flares...know how to use them...replace outdated items.
4. Know the limitations of yourself, your crew, and your vessel.
5. If your vessel cannot reach a safe harbor prior to the arrival of severe weather...close all hatches, keep all unnecessary crew below and away from grounded metal objects. Sailing vessels should reduce sail immediately and be prepared to change course to head into possible strong outflow winds produced by thunderstorms.
6. Navigation is crucial particularly for the Gulf of Mexico where shoal waters, reefs, and obstructions abound. Research your trip thoroughly and prepare an approach route to your harbor.
7. Learn the rules of navigation...they may save your life. Never cross bows of large commercial vessels or barges.
8. It is often safer to remain offshore than to attempt to to enter unfamiliar shallow waters or harbors at night or during periods of reduced visibility.

Radiofax charts for the Gulf of Mexico, Caribbean, Tropical Atlantic, and Tropical East Pacific are posted at:

<http://weather.noaa.gov/pub/fax/hfgulf.txt>

Comments on the schedule or quality of charts
Email: Timothy.Rulon@noaa.gov