NOAA Weather Radio (NWR) Marine Frequencies and Information

NOAA Weather Radio (NWR) Frequencies Seven Frequencies in the VHF Public Service Band	
162.400 MHz	162.500 MHz
162.425 MHz	162.525 MHz
162.450 MHz	162.550 MHz
162.475 MHz	
Note: Channel numbers, e.g., WX1, WX2, etc. have no special significance but are often designated this way in consumer equipment. Other channel numbering schemes are also possible.	

The NWR 

network continuously broadcasts local and nearshore coastal marine forecasts produced by local Weather Forecast Offices. Coastal stations broadcast predicted tides and real time observations from buoys and coastal meteorological stations operated by the National Data Buoy Center. Based on user demand, where feasible, NWS also broadcasts Offshore and Open Lake forecasts.

Tp use NWR, you must program your radio to the right frequency. As you transit along the coastline, you will will need to reset your radio to continue receiving NWR broadcasts.

Coverage

The NWR network provides near continuous coverage for most coastal areas served by NWS offices. Typical coverage is 25 nautical miles offshore. To expand NWR coverage in Alaska, NWS and U.S. Coast Guard (USCG) established a network of low-power 5-watt NWR transmitters at USCG "high" sites from the Dixon Entrance to Bristol Bay, AK. These low power transmitters operate on standard NWR frequencies under joint licensing with the NWS. (For more information, see NWR at USCG Sites in Alaska.) Locations of coastal NWR stations are listed in the Station Listing and Coverage page. Click on "Call Sign" to see the NWR broadcast footprint.

Several NWR transmitters are Marine-Only, broadcasting marine information on a more rapid cycle than possible with All-Hazard transmitters. These transmitters are typically established as part of a cooperative effort between the local marine community and NWS. For information on how to establish a Marine-Only transmitter in your area, contact NWS.

Equipment

Channel numbers on some receivers, e.g., WX1, WX2, have no special significance. Most VHF marine radiotelephones have the ability to receive NWR broadcasts; however, NWS recommends having a separate NWR receiver aboard so mariners may maintain a simultaneous watch on NWR and marine VHF channels. Information on Rules which require listening to your VHF marine radio are available courtesy of the USCG Maritime Telecommunications Information Webpage.

Audio

If you hear words in a broadcast which you feel need to have the pronunciation adjusted, forward your comments to the appropriate NWS forecast office so they can attempt to improve the pronunciation.

1050 Hz Warning Alarm TONE ALERTS
NWS transmits an automated 1050 Hz tone that automatically activates compatible NWR receivers when a severe weather situation exists anywhere in the transmitter's coverage area. Many (but not all) NWR receivers incorporate this feature. Many VHF marine radiotelephones incorporate this feature, however some require an active NWR channel and using a non-scanning mode for the highest level of effectiveness. **Therefore, NWS again recommends having a separate NWR receiver aboard to maintain a simultaneous watch on NWR and marine VHF channels.**

In accordance with national policy, and at forecaster discretion, the 1050 Hz tone may not be transmitted for marine events. This is done to avoid frequently alerting users ashore.

Specific Area Message Encoding (SAME) ALERTS

A digital encoding system incorporating technology known as SAME allows receivers equipped with the SAME feature to automatically sound an alert for only certain weather conditions or within a limited geographic, area such as a county or a marine zone. Unlike the 1050 Hz Warning Alarm Tone, the Event Codes listed in Table * (bottom of page) are always transmitted using SAME codes. Note that few VHF marine radiotelephones contain the SAME feature. Most marine radios require selecting an active NWR channel and using a non-scanning mode for the highest level of effectiveness.

*You must program the NWR receiver to the proper **station frequency**, **SAME geographic codes(s)**, and **SAME event codes(s)**, for it to function as intended. SAME codes for all NWS marine zones can be found in the Marine Text Forecasts by Zone section.*

SAME Geographic Codes

NWS uses 6-digit SAME geographic codes to program SAME-capable NWR receivers to receive alert messages for user-specified areas. To maintain weather awareness, mariners are highly encouraged to enter the SAME geographic codes for nearby land areas.

This is particularly critical because many navigable marine areas, such as rivers, smaller bays and tributaries, are not part of designated NWS marine zones. Consult the NWR County by County page for these codes.

For a listing of marine SAME geographic codes, see the marine portion of Marine Text Forecasts by Zone. Here is a simple text listing of all marine SAME geographic codes. Although SAME geographic codes exist for offshore forecast zones, Great Lakes MAFORs and forecast synopses, they are not broadcast on NWR. The first digit of the marine SAME geograpahic code is 0, the second and third digits correspond to the "pseudo" state code, corresponding to broad coastal areas, as follows:

State Code	The Marine Area

73	Western North Atlantic Ocean, and along U.S. East Coast, from Canadian border south to Currituck Beach Light, NC.
75	Western North Atlantic Ocean, and along U.S. East Coast south of Currituck Beach Light, NC, following the coastline into Gulf of America to Ocean Reef, FL, including the Caribbean.
77	Gulf of America, and along the U.S. Gulf Coast from the Mexican border to Ocean Reef, FL
57	Eastern North Pacific Ocean, and along U.S. West Coast from Canadian border to Mexican border
58	North Pacific Ocean near Alaska, and along Alaska coastline, including the Bering Sea and the Gulf of Alaska
59	Central Pacific Ocean, including Hawaiian waters
65	Western Pacific Ocean, including Mariana Islands waters
61	South Central Pacific Ocean, including American Samoa waters
91	Lake Superior
92	Lake Michigan
93	Lake Huron
94	Lake St. Clair
96	Lake Erie
97	Lake Ontario
98	St. Lawrence River above St. Regis

As one example, when consulting the marine codes for the Atlantic, the marine zone for the Chesapeake Bay from North Beach to Drum Point, MD, is zone 534. Since the "pseudo" state code is 73, the 6 digit SAME geographic code is 073534.

Similarly, NWS recommends that mariners program their NWR receivers with the SAME geographic codes of regional marine areas to maintain a greater level of weather awareness.

SAME Geographic Codes For Mariners In Transit

For mariners in transit who are using NWR receivers or marine VHF radios with SAME capability, NWS recommends programming the radio to the All County Code Option, if available, to avoid the need to enter each discrete SAME geographic code as the vessel moves along the coast. In this mode, the receiver will alarm for all watches, warnings and emergency messages, much like a conventional warning alarm receiver ensuring the greatest margin of safety.

For NWR SAME receivers able to receive SAME alerts for all counties within a given state, set the county code portion of the SAME geographic code to 000 for a state (e.g., 024000 for Maryland). The SAME geographic codes for marine areas use pseudo-state codes listed in the table above.

Similarly, a mariner on Chesapeake Bay in Maryland using an NWR receiver with a SAME alert capability for receiving alerts for all counties within a given state would enter a SAME geographic code of 073000 to receive warnings of any marine weather event in the general area, rather than having to program the receiver for several neighboring marine zones. **Entering the SAME geographic code for Maryland, 024000, would not alert the user for any marine weather events.**

As another example, a mariner in transit using an NWR receiver with SAME and "all-state" code capability could enter 073000 to receive all broadcasted NWR warnings for marine areas between the Canadian border and Currituck Beach Light, NC. Once again, you must change NWR frequencies as you travel along the coastline.

SAME Event Codes

Some receiver equipment allows users to specific the Event Codes for which they wish to be notified. If the receiver contains this feature, the mariner should program their receiver for the following SAME event codes which are applicable to marine zones. See Emergency Alert System/NWR-SAME Event Codes and your receiver's operating manual for further information on event codes, including those for non-weather events.

SAME Codes for Mariners and Coastal Residents	
EVENT	**SAME EVENT CODE**
Coastal Flood Watch	CFA
Coastal Flood Warning	CFW
Extreme Wind Warning	EWW
Hurricane Watch*	HUA
Hurricane Warning*	HUW
Hurricane Local Statement*	HLS
Severe Thunderstorm Watch	SVA
Severe Thunderstorm Warning	SVR
Severe Weather Statement	SVS
Special Marine Warning	SMW
Special Weather Statement	SPS
Storm Surge Warning	SSW
Tornado Watch	TOA
Tornado Warning	TOR

Tropical Storm Watch*	TRA
Tropical Storm Warning*	TRW
Tsunami Watch	TSA
Tsunami Warning	TSW

* Not applicable to Great Lakes and Alaska forecast areas

INTERFERENCE: Read this report on the susceptibility of interference to VHF Marine transceivers from NWR transmitters.