



NOAA WEATHER RADIO BROADCASTS

CITY	STATION	FREQUENCY	BROADCAST TIMES
Eureka/Mt. Pierce, CA	KEC-82	162.40 MHz	Continuously
Astoria, OR	KEC-91	162.40 MHz	Continuously
Astoria, OR	WNG-697	162.525 MHz	Continuously
Brookings, OR	KIH-37	162.55 MHz	Continuously
Coos Bay, OR	KIH-32	162.40 MHz	Continuously
Eugene, OR	KEC-42	162.40 MHz	Continuously
Florence, OR	WNG-674	162.500 MHz	Continuously
Medford, OR	WXL-85	162.40 MHz	Continuously
Mt. Ashland, OR	WWF-97	162.475 MHz	Continuously
Neahaknie, OR	WWF-94	162.425 MHz	Continuously
Newport, OR	KIH-33	162.55 MHz	Continuously
Portland, OR	KIG-98	162.55 MHz	Continuously
Port Orford, OR	WNG-596	162.425 MHz	Continuously
Roseburg, OR	WXL-98	162.55 MHz	Continuously
Salem, OR	WXL-96	162.475 MHz	Continuously
Tillamook, OR	WWF-95	162.475 MHz	Continuously
Forks, WA	KXL-27	162.425 MHz	Continuously
Neah Bay, WA	KIH-36	162.55 MHz	Continuously
Olympia/Capitol Peak, WA	WXM-62	162.475 MHz	Continuously
Puget Sound, WA	WWG-24	162.425 MHz	Continuously
Seattle, WA	KHB-60	162.55 MHz	Continuously
Woodland, WA	WNG-604	162.525 MHz	Continuously

These VHF-FM radio stations, locations shown on the map, are operated by the National Weather Service. This is a continuous broadcast, 24 hours a day. Broadcasts are updated every 3 to 6 hours and amended as required. In addition to state and local public forecasts, weather and wave observations from shore stations, buoys, and gages, the following marine information is included:

1. Marine forecasts and warnings for coastal waters (out to 60 miles), including Strait of Juan de Fuca and the inland waters of western Washington, and Grays Harbor and Columbia River Bar forecasts.
2. Offshore waters forecast (60-250 miles offshore) from Cape Flattery, WA to Point Conception, CA.
3. State forecasts and local public forecasts.
4. Selected weather observations from Coast Guard, buoys, and other stations in western Oregon, western Washington, northern California, and southwestern British Columbia.

Whenever severe weather warnings are necessary, the broadcasts will be updated and the transmission devoted to "upto-the-minute" information on storm dangers.

HIGH SEAS RADIOTELEPHONE
WEATHER BROADCASTS FOR NORTH PACIFIC

CITY	STATION	FREQUENCY (kHz)	BROADCAST TIMES/UTC
Point Reyes, CA	NMC	4426.0 (A3J)	0430, 1030
	(USCG)	8764.0 (A3J)	0430, 1030, 1630, 2230
		13089.0 (A3J)	0430, 1030, 1630, 2230
		17314.0 (A3J)	1630, 2230

Transmission mode: Single Sideband, suppressed carrier

HIGH SEAS RADIOTELEX (SITOR)
WEATHER BROADCASTS FOR NORTH PACIFIC

CITY	STATION	FREQUENCY (kHz)	BROADCAST TIMES/UTC
Point Reyes, CA	NMC	8416.5	0000, 1800
	(USCG)	16806.5	0000, 1800

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 preceeding 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 diffrent 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.

BUOY AND C-MAN DATA AVAILABLE VIA E-MAIL (FTPMAIL)

Current buoy and C-MAN data is now available in a very compact form via [http](http://ftp.noaa.gov):, [ftp](ftp://ftp.noaa.gov):, or e-mail (FTPMAIL).

Via [http](http://www.ndbc.noaa.gov/data/latest_obs/):
http://www.ndbc.noaa.gov/data/latest_obs/

Via [ftp](ftp://www.ndbc.noaa.gov/data/latest_obs/):
ftp://www.ndbc.noaa.gov/data/latest_obs/

Via e-mail (FTPMAIL)
<http://weather.noaa.gov/pub/fax/buoydata.txt> (instructions)

Send an e-mail to: ftpmail@weather.noaa.gov
Subject Line: Put anything you like
Body: open www.ndbc.noaa.gov
cd data
cd latest_obs
get 42007.txt
get gdil1.txt
quit

CANADIAN VOICE MARINE WEATHER FORECASTS

CITY	TRANSMITTER SITE	FREQUENCY (kHz/MHz)	BROADCAST TIMES/(PST)
Vancouver, BC	Mt. Parke	161.65 (Ch. 21B)	Continuous broadcast
	Bowen Island	162.475	Continuous broadcast
	Aldergrove	162.55 (XLA-852)	Continuous broadcast
	Mt Helmcken	162.475 (XLA-726)	Continuous broadcast
Victoria, BC	Mt. Tuam	162.40 (CFA-240)	Continuous broadcast
	Sheringham Point	2054	0520, 0820, 1120 1420, 1720, 2020 2320
			Continuous broadcast
			0450, 0750, 1050 1350, 1650, 1950 2250
Tofino, BC	Alberni	162.40	0930, 1530, 2100
	Amphitrite Point	2054	Continuous broadcast
		4125	Continuous broadcast
		161.65 (Ch. 21B)	Continuous broadcast
	Mt. Ozzard	162.40	Continuous broadcast
	Nootka	162.55	Continuous broadcast
	Eliza Dome	162.55	Continuous broadcast
	Cape Lazo	162.55	Continuous broadcast

WEATHER NOTES

One feature of nearly all of the small boat harbors on the Oregon and Washington coasts is that each is located on the mouth of a river, which means that each has a bar where the water is more shallow than the main channel. During times of change in tide, the water across these bars becomes very rough, often making passage of small boats hazardous. The ebb tide usually has the rougher water. Care must be taken to time departure and return to avoid these rough bar conditions.

On the Oregon coast, during the summertime, the wind often increases to strong north to northwest during afternoon and evening hours. Sport boat fisherman who are unfamiliar with the coast should be particularly alert for small craft advisories that may be posted for these hours. Depending on the expected weather, it may be desirable to plan on returning to port before noon to avoid the strong winds in the afternoon.

Radiofax charts for the Northwest Pacific are posted at:

<http://weather.noaa.gov/fax/ptreyes.shtml>

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

NOAA Weather Radio	
Channel	Frequency
CH WX 1	162.550
CH WX 2	162.400
CH WX 3	162.475
CH WX 4	162.525
CH WX 5	162.450
CH WX 6	162.500
CH WX 7	162.425

BROADCASTS OF MARINE WEATHER FORECASTS
AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

CITY	STATION	FREQUENCY (kHz)	BROADCAST TIMES/(PST)
Astoria, OR	NMW	2670	9:33 am, 9:33 pm
	(USCG)	157.1 MHz (Ch. 22A)	
North Bend, OR	NOE	2670	10:03 am, 10:03 pm
	(USCG)	157.1 MHz (Ch. 22A)	
Humboldt Bay, CA	NMC-11	2670	7:03 am, 7:03 pm
	(USCG)	157.1 MHz (Ch. 22A)	8:15 am, 3:15 pm
Port Angeles, WA	NOW	2670 (A3J)	10:15 am, 10:15 pm
	(USCG)	157.1 MHz (Ch. 22A)	
Portland, OR	NMW44	157.1 MHz (Ch. 22A)	9:45 am
	NMW43	157.1 MHz (Ch. 22A)	10:30 am, 10:30 pm
Seattle, WA	(USCG)		

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 the 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 life jacket on and keep a weather eye out for: the approach of dark and 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).
 - Prepare for rough sea conditions.

INTERNET ADDRESSES

National Weather Service Western Region Headquarters
<http://www.nws.noaa.gov>

National Weather Service Office - Seattle, WA
<http://www.wrh.noaa.gov/sew/>

National Weather Service Office - Portland, OR
<http://www.wrh.noaa.gov/pgr/>

National Weather Service Office - Medford, OR
<http://www.wrh.noaa.gov/mfr/>

National Weather Service Office - Eureka, CA
<http://www.wrh.noaa.gov/eka/>

National Weather Service - MSC charts
<http://www.nws.noaa.gov/om/marine/pub.htm>

National Weather Service - Marine Dissemination
<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 marine.weather@noaa.gov

NWS PRODUCTS VIA WWV, WWVH HF VOICE

The National Institute of Standards and Technology (NIST) broadcasts a time and frequency service from stations WWV in Boulder, CO and WWVH in Honolulu, HI commonly known to mariners as the "Time Tick" used as an aid in celestial navigation. Included in these are hourly voice broadcasts of current highseas storm warnings for the Atlantic, Pacific and the Gulf of Mexico provided by the National Weather Service.

WWV (BOULDER, CO)
FREQUENCIES : 2.5, 5, 10, 15, 20 MHz (AM)

TIMES OF BROADCAST	BROADCAST AREA
8 minutes past the hour	Atlantic highseas warnings
9 minutes past the hour	Atlantic highseas warnings
10 minutes past the hour	Pacific highseas warnings

WWVH (HONOLULU, HI)
FREQUENCIES : 2.5, 5, 10, 15 MHz (AM)

TIMES OF BROADCAST	BROADCAST AREA
48 - 51 Minutes past the hour	Pacific highseas warnings

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>