

NOAA WEATHER RADIO BROADCASTS

CITY	STATION	FREQUENCY	BROADCAST TIMES
Crescent City, CA/Palmer Butte, OR	KIH-37	162.55 MHz WX1	Continuously
Eureka/Mt.Pierce, CA	KEC-82	162.40 MHz WX2	Continuously
Point Arena/Cold Springs, CA	KIH-30	162.55 MHz WX1	Continuously
Mt. Unumhum, CA	KEC-49	162.55 MHz WX1	Continuously
Mt. Unumhum, CA	WWF-64	162.45 MHz WX5	Continuously
Mt. Pise, CA	KHB-49	162.40 MHz WX2	Continuously
Sacramento, CA	KEC-57	162.55 MHz WX1	Continuously
San Luis Obispo, CA	KIH-31	162.55 MHz WX1	Continuously

These VHF-FM radio stations, locations shown on the map, are managed 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:

KIH-37, Crescent City, CA/Palmer Butte, OR

- Forecasts and warnings for coastal waters out to 60 miles from Cape Blanco, OR to Cape Mendocino, CA.
- Weather reports from stations along the coast from Cape Blanco, OR to Point Arena, CA.
- Buoy reports from nearby coastal and offshore Buoys.

KEC-82, Eureka/Mt.Pierce, CA

- Forecasts and warnings for coastal waters out to 60 miles from Pt. St. George, CA to Point Arena, CA.
- Weather reports from stations along the coast from Cape Blanco, OR to Point Arena, CA.
- Buoy reports from nearby coastal and offshore Buoys.

KIH-30, Point Arena/Cold Springs, CA

- Forecasts and warnings for coastal waters out to 60 miles from Cape Mendocino, CA to Pigeon Point, CA.
- Weather reports from stations along the coast from Cape Blanco, OR to Point Arena, CA.
- Buoy reports from nearby coastal and offshore Buoys.
- Offshore waters forecast (60-250 miles offshore) from Point St. George, CA to Point Conception, CA.

KEC-49, Mt Umunhum, CA

- Forecasts and warnings for Monterey Bay Area and coastal waters from Point Arena, CA to Point Conception, CA.
- Weather reports from stations in Monterey Bay Area and along the coast from Point Arena, CA to Point Piedras Blancas, CA.
- Offshore waters forecast (60-250 miles offshore) from Point St. George, CA to Point Conception, CA.

KHB-49, Mt. Pise, CA

- Forecasts and warnings for San Francisco Bay Area, coastal and offshore waters from Point Arena, CA to Point Pinos, CA.
- Weather reports from stations in the San Francisco Bay Area and along the coast from Point Arena, CA to Point Piedras Blancas, CA.

KEC-57, Sacramento, CA/WWF-64, Monterey, CA

- Forecasts and warnings for: coastal waters from Point Arena to Point Conception; the San Francisco, San Pablo and Suisun Bays; West Delta, Lower Sacramento Valley and Northern San Joaquin Valley.
- Weather reports from Point Arena to Point Conception, the San Francisco Bay Area, Monterey Bay Area, Upper and Lower Sacramento Valley, and Lower San Joaquin Valley.

KIH-31, San Luis Obispo, CA

- Forecasts and warnings for coastal waters from Point Pinos, CA to Mexican Border.
- Weather reports from stations along the coast from Monterey Airport to Santa Barbara Airport.
- Offshore waters forecast (60-250 miles offshore) from Point St. George, CA to Point Conception, CA.

BROADCASTS OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

CITY	FREQUENCY (kHz)	BROADCAST TIMES/UTC
San Francisco, CA	2670 kHz followed by an initial call on 2182 kHz	0203, 1403
Humboldt Bay, CA	2670 kHz followed by an initial call on 2182 kHz	0303, 1503
San Francisco, CA	Ch. 22A (157.1 MHz) followed by an initial call on Ch. 16 (156.8 MHz)	1630, 1900, 2130 (Winter)
Humboldt Bay, CA	Ch. 22A (157.1 MHz) followed by an initial call on Ch. 16 (156.8 MHz)	1615, 2315

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

Copies of these charts are available for \$1.25 each from:
 FAA Distribution Division, AVN-530
 National Aeronautical Charting Office
 Riverdale, MD 20737-1199
 Telephone: 1-(800)-638-8972
<http://chartmaker.ncd.noaa.gov>
 Or can be viewed at the following web site: <http://www.nws.noaa.gov/om/marine/pub.htm>

HIGH SEAS RADIOTELEPHONE WEATHER BROADCASTS FOR NORTH PACIFIC

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

Transmission mode: Single Sideband, suppressed carrier

START BROADCAST (UTC) HIGH SEAS RADIOTELEX (SITOR) WEATHER BROADCASTS FOR NORTH PACIFIC

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

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 Fort Collins, CO and WWVH in Honolulu, HI commonly known to mariners as "Time Tick" used as an aid in celestial navigation. Included in these are hourly voice broadcasts of current highseas storm warnings for the Atlantic and Pacific provided by the National Weather Service.

WWW (FORT COLLINS, CO) FREQUENCIES : 2.5, 5, 10, 15, 20 MHz (AM)

TIMES OF BROADCAST

8 minutes past the hour
 9 minutes past the hour
 10 minutes past the hour

BROADCAST AREA

Atlantic highseas warnings
 Atlantic highseas warnings
 Pacific highseas warnings

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

TIMES OF BROADCAST

48 - 51 Minutes past the hour

BROADCAST AREA

Pacific highseas warnings

THE PACIFIC RADIOFACSIMILE BROADCAST SCHEDULE

IS POSTED AT:

<http://www.mpc.ncep.noaa.gov/>

THEN CLICK PACIFIC FAX

COMMENTS ON THE SCHEDULE OR QUALITY OF CHARTS:

E-MAIL : Timothy.Rulon@noaa.gov

DIAL-A-BUOY

Mariners can obtain the latest coastal and offshore weather observations through a new telephone service called Dial-A-Buoy. This service provides wind and wave measurements taken within the last hour at stations located in coastal waters around the United States and in the Great Lakes.

To access Dial-A-Buoy, dial 228/688-1948 using a touch tone or cellular phone. Enter the five-digit station identifier in response to the prompt. The Dial-A-Buoy menu tree has a selection for the caller to receive a map of buoy station identifiers via return call fax. Station identifiers also can be obtained at the following web site: <http://seaboard.ndbc.noaa.gov>.

INTERNET ADDRESSES

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

National Weather Service Office - San Francisco Bay Area at Monterey
<http://www.wrh.noaa.gov/Monterey>

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

National Weather Service Office - Los Angeles
<http://www.nwsla.noaa.gov/>

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

National Weather Service - Marine Dissemination and forecasts
<http://www.nws.noaa.gov/om/marine/home.htm>

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

NATIONAL WEATHER SERVICE PRODUCTS 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 in under three hours, however, performance may vary widely and receipt cannot be guaranteed. To get started in using the NWS FTPMAIL service, follow these simple direction to the FTPMAIL "help" file (7 bytes).

Address: ftpmail@weather.noaa.gov

Subject: (not required)

Body: help

Direct any questions to 301-713-1677, extension 128,
 or 301-713-0882, extension 122.

BOATING IN COASTAL WATERS

On the Pacific coast there are roughly two TIDES each day. These are caused by the gravitational pulls of the moon and the sun and are simply changes in the level of the water. TIDES are the vertical rise and fall of the water; TIDAL CURRENT is the horizontal flow. As the tide rises and falls, the tidal current FLOODS and EBBs. The movement toward shore or upstream is the FLOOD; the movement away from shore or downstream is the EBB. The period between the changes when there is no horizontal movement is called SLACK water. In the northern California rivers these currents gain considerable velocity, particularly when the EBB current is reinforced by the river runoff. When a swift EBB current meets heavy seas rolling in from the Pacific at the shallow river entrance (the BAR), the two opposing forces cause the seas to "pile up" and "break". This is the most dangerous condition. Even on calm days a swift EBB may create a bar condition which is too rough for small craft. Boaters should be TIDAL CONSCIOUS and cross from harbor to ocean on SLACK or FLOOD, or when the sea is calm. If you are inside the bar when rough conditions exist, the obvious thing to do, of course, is remain inside. If you find yourself trapped outside a rough bar on an EBB, it would be wise to wait a few hours until the FLOOD (in-flowing current). There also exists, in many of the river entrances, shallow areas called "sands", "shoals", "spits", "flats" or other names, on which the waves build up to the point where they are extremely dangerous to small boats. These areas should be avoided at all times.

Fog is frequently encountered in coastal waters during the summer months and is often heavy enough to reduce visibility to a matter of feet. Landmarks and aids to navigation are lost from view. When fishing off a harbor entrance, operators should make frequent observations of their position and at the first signs of fog, proceed to a buoy and then, if practical, return to the harbor. All boats operating in coastal waters should carry National Ocean Service charts of the particular area in which they are boating. Upon departure and return to the harbor, the compass course and the time required to run between buoys should be recorded for reference. It must be remembered that metal objects placed near the compass cause compass error.

DEFINITIONS

Wind Waves - Local short period waves generated from the action of wind on the water surface.

Wind Wave Height - Vertical distance between and wind wave crest and the succeeding wind wave trough (independent of swell waves).

Significant Wave Height - The average wave height (trough to crest) of the highest 1/3 of all individual waves (smaller waves are usually not seen in the background of the larger waves). This is usually what an experienced observer will report.

Swell - Waves generated by distant winds. Swells characteristically exhibit smoother, more regular and uniform crests and a longer period than wind waves.

Wave Period - The time, in seconds, between the passage of consecutive wave crests past a fixed point.

Combined Seas - Generally referred to as seas. Used to describe the combination or interaction of wind waves and swell in which the separate components are not distinguished. This includes the case when swell is negligible or is not considered in describing sea state. When used, seas should be considered as being the same as the significant wave height.