

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service



MARINE WEATHER SERVICES CHART
POINT CONCEPTION, CALIFORNIA TO POINT ST. GEORGE, CALIFORNIA
NOT TO BE USED FOR NAVIGATION

LEGEND

- ⊙ NOAA WEATHER RADIO TRANSMITTER SITE
- ◻ AREA OF GOOD NOAA WEATHER RADIO RECEPTION
- ◻ THIS SYMBOL, ALONE OR IN COMBINATION WITH OTHER SYMBOLS, INDICATES THAT OBSERVATIONS FROM THESE LOCATIONS ARE INCLUDED IN NOAA WEATHER RADIO (VHF-FM) CONTINUOUS BROADCAST WHEN AVAILABLE
- CORP OF ENGINEERS, NAVY OR COAST GUARD BUOY OR WAVE GAGE
- * NOAA DATA BUOY
- ⚓ U.S. COAST GUARD STATION
- ⚓ U.S. COAST GUARD LIGHT STATION
- ◆ NWS OFFICE
- ▨ MARINE SANCTUARY

For information on voluntary observations from mariners, including VOS, MAREP, and MAROB programs, please check the following website:
<http://www.nws.noaa.gov/on/marine/voluntary.htm>

NATIONAL WEATHER SERVICE TELEPHONE NUMBERS

Marine weather forecasts and also Small Craft Advisories, Gale, Storm, and Hurricane warnings, when issued, are recorded and can be obtained by telephone as follows:

| WFO | TELEPHONE | OFFICE HOURS/LOCAL TIME |
|----------------------------|---------------|-------------------------|
| Eureka, CA | 707-443-6484 | 24 hours |
| | 707-443-7062* | 24 hours |
| San Francisco Bay Area, CA | 831-656-1725* | 8:00am - 4:00pm MF |
| Located in Monterey, CA | | 8:00am - 4:00pm MF |
| Los Angeles, CA | 805-988-6610 | 9:30am - 3:00pm Daily |

*24 hour recording
Recorded Forecast only at other hours

EXPLANATION OF ADVISORIES/WARNINGS

SMALL CRAFT ADVISORY: Issued to alert mariners to sustained (more than two hours) weather or sea conditions, either present or forecast, that might be hazardous to small boats. Boaters/mariners will be able to receive the Small Craft Advisory by keeping a NOAA Weather Radio station or the Coast Guard and commercial radio stations that transmit marine weather information. The threshold conditions for the Small Craft Advisory are sustained winds or frequent gusts greater than 22 knots and/or 10 ft. seas. Decision as to the degree of hazard will be left to the boat operator, based on experience and the size and type of boat. There is no legal definition of the term "small craft".

GALE WARNING: Issued to indicate winds within the range of 34 to 47 knots are either present or forecast for the area.

STORM WARNING: Issued to indicate winds of 48 knots or above, no matter how high the speed, are either present or forecast for the area.

SPECIAL MARINE WARNING: Issued whenever a severe local storm, or strong wind of brief duration is imminent and is not covered by existing warnings or advisories.

TSUNAMI WATCH: Tsunami expected in 3 to 6 hours.

TSUNAMI WARNING: Tsunami expected within 3 hours.

MARINE WEATHER STATEMENT: Issued as a follow-up to special Marine Warnings or other vital marine information (hazardous surf).

NOAA WEATHER RADIO

NOAA Weather Radio broadcasts on 162.40 (WX2), 162.425 (WX4), 162.450 (WX5), 162.475 (WX3), 162.500 (WX6), 162.525 (WX7), and 162.550 (WX1) 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 can reach 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 and a quieting factor of 20 decibels.

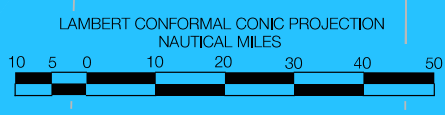
Some receivers are equipped with a warning alarm device that can be turned on automatically by means of a tone signal controlled by the National Weather Service office issuing the warning. This signal is transmitted for 13 seconds preceding an announcement of a severe weather warning.

The NWR coverage areas indicated on this map 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.

COASTAL MARINE FORECAST AREAS WITH WARNING AND FORECAST ZONES

| NWS OFFICES | WARNING AND FORECAST HEADINGS | UGC* |
|-----------------------------|---|--------|
| WFO Eureka, CA | Point St. George to Cape Mendocino out to 20 NM | PZZ450 |
| | Point St. George to Cape Mendocino 20 to 60 NM offshore | PZZ470 |
| | Cape Mendocino to Point Arena out to 20 NM | PZZ455 |
| | Cape Mendocino to Point Arena 20 to 60 NM offshore | PZZ475 |
| WFO San Francisco Bay Area, | Point Arena to Pigeon Point out to 20 NM | PZZ550 |
| | Point Arena to Pigeon Point 20 to 60 NM offshore | PZZ570 |
| | Pigeon Point to Point Piedras Blancas out to 20 NM | PZZ555 |
| | Pigeon Point to Point Piedras Blancas 20 to 60 NM offshore | PZZ575 |
| | San Francisco, San Pablo, Suisun Bays and West Delta | PZZ530 |
| | Monterey Bay | PZZ535 |
| WFO Los Angeles, CA | Point Arguello to Point Piedras Blancas and westward to 60 NM | PZZ670 |

* Universal Geographic Code



DISCREPANCY REPORTS SOLICITED
Reports of discrepancies in this chart and any other comments are appreciated and will be used in preparing the next edition.
e-mail: marine.weather@noaa.gov

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 Radiifax 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.

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.

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.