

**U.S. DEPARTMENT OF COMMERCE**  
National Oceanic and Atmospheric Administration

National Weather Service

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

**PACIFIC OCEAN**

**EXPLANATION OF ADVISORIES/WARNINGS**

**SMALL CRAFT ADVISORY:** Issued to alert mariners to sustained winds 21 to 33 knots. A Small Craft Advisory for Hazardous Seas (SCASH) is issued for seas 10 feet or greater. 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, 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, and/or waterspouts. TSUNAMI WATCH: Tsunami expected in 3 to 6 hours. TSUNAMI WARNING: Tsunami expected within 3 hours.

**NATIONAL WEATHER SERVICE TELEPHONE NUMBERS**

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

NWS OFFICE	TELEPHONE	OFFICE HOURS/LOCAL TIME
Eureka, CA	707-443-6484	24 hours
Medford, OR	541-776-4305	24 hours
Portland, OR	503-261-9246	24 hours
Seattle, WA	206-526-6087	8:00am - 3:00pm MF
Recorded forecast only at other times.		
In Canada:		
Vancouver, BC	604-644-9010	24 hours (recording)
	604-666-3655	24 hours (recording)

**Physical Oceanographic Real-Time System (PORTS)**

PORTS is an integrated system of water level data, winds, pressure, air/water temperatures, Mean Lower Low Water (MLLW) datum, water density, visibility, waves, and other elements. PORTS was developed in response to stress on national waterways. High water can cause floods while low water can cause ships to ground. For more information and access to PORTS for Tacoma, WA, please check out: [http://coops.nos.noaa.gov/d\\_ports.html](http://coops.nos.noaa.gov/d_ports.html)

**BOATING IN COASTAL WATERS**

On the Pacific Northwest 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 the shore or downstream is the EBB. The period between the changes when there is no horizontal movement is called SLACK water. At the mouths of the rivers emptying into the Pacific Ocean along the Oregon and Washington coastline, 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 or 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", "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 error.

**COASTAL MARINE FORECAST AREAS WITH WARNING AND FORECAST ZONES**

**NWS OFFICE**

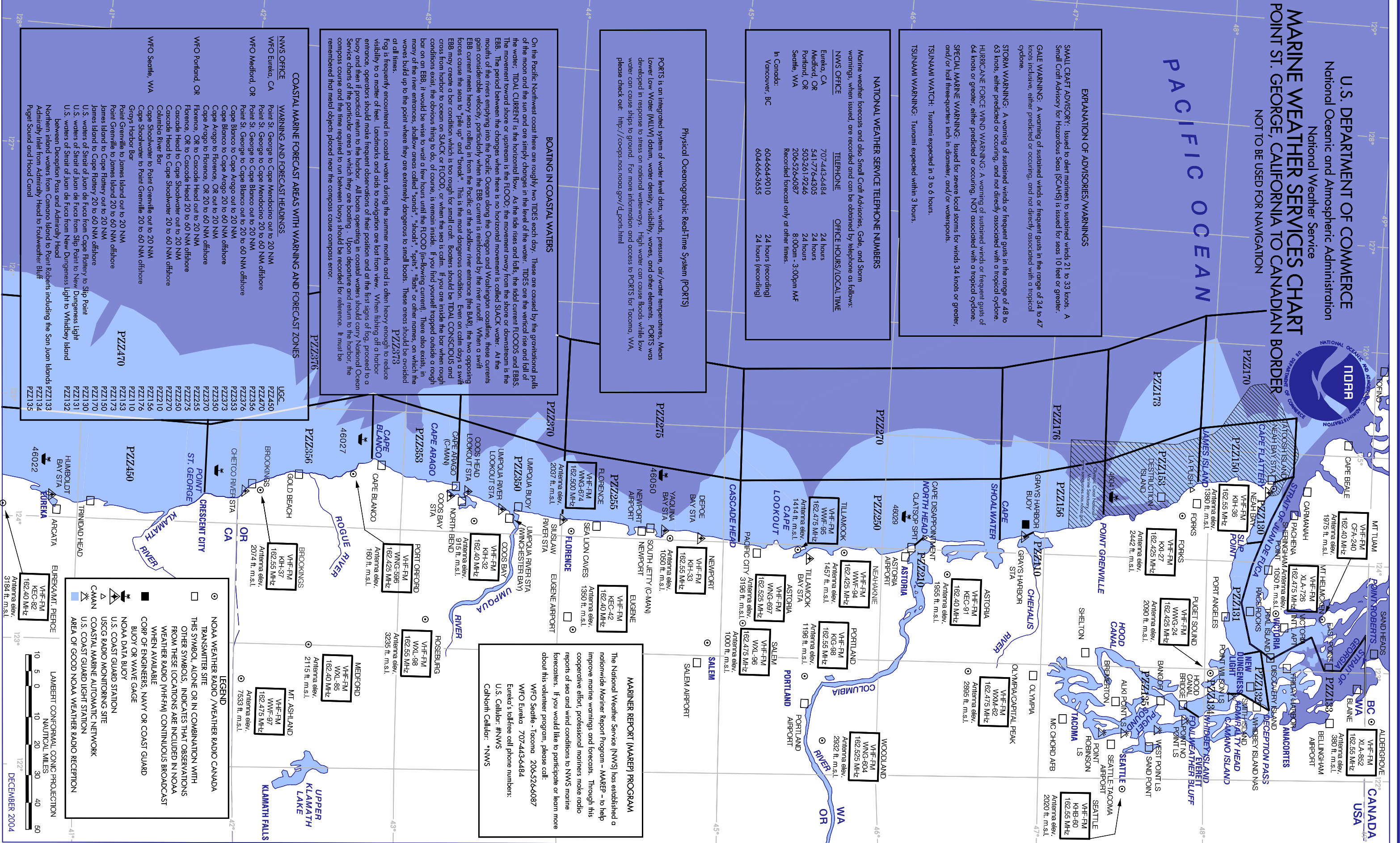
**WARNING AND FORECAST HEADINGS**

WFO Eureka, CA  
Point St. George to Cape Mendocino out to 20 NM  
Point St. George to Cape Blanco out to 20 NM  
Point St. George to Cape Blanco out to 20 to 60 NM offshore

WFO Medford, OR  
Cape Blanco to Cape Arago out to 20 NM  
Cape Blanco to Cape Arago out to 20 NM  
Cape Arago to Cape Arago out to 20 NM  
Cape Arago to Florence, OR out to 20 NM  
Cape Arago to Florence, OR out to 20 NM offshore  
Florence, OR to Cascade Head out to 20 NM  
Cascade Head to Cascade Head out to 20 NM  
Cascade Head to Cape Shoowater out to 20 NM  
Columbia River Bar

WFO Portland, OR  
Cape Shoowater to Point Grenville out to 20 NM  
Cape Shoowater to Point Grenville out to 20 NM offshore  
Groyes Harbor Bar  
Point Grenville to James Island out to 20 NM  
Point Grenville to James Island out to 20 NM offshore  
James Island to Cape Flattery out to 20 NM  
James Island to Cape Flattery out to 20 NM offshore  
U.S. waters of Strait of Juan de Fuca from Cape Flattery to Slip Point  
U.S. waters of Strait of Juan de Fuca from Slip Point to New Dungeness Light  
U.S. waters of Strait of Juan de Fuca from New Dungeness Light to Whidbey Island  
Northern Inland waters from Camano Island to Point Roberts including the San Juan Islands  
Admiralty Inlet from Admiralty Head to Fowlweather Bluff  
Pigeat Sound and Hood Canal

**WFO Seattle, WA**



**MARINER REPORT (MAREP) PROGRAM**

The National Weather Service (NWS) has established a nationwide Mariner Report Program - MAREP - to help improve marine warnings and forecasts. Through this cooperative effort, professional mariners make radio reports of sea and wind conditions to NWS marine forecasters. If you would like to participate or learn more about this volunteer program, please call:

WFO Seattle - Tacoma 206-526-6087  
WFO Eureka 707-443-6484  
Eureka's tollfree call phone numbers:  
U.S. Calller: #NWS  
CallNorth Calller: \*NWS