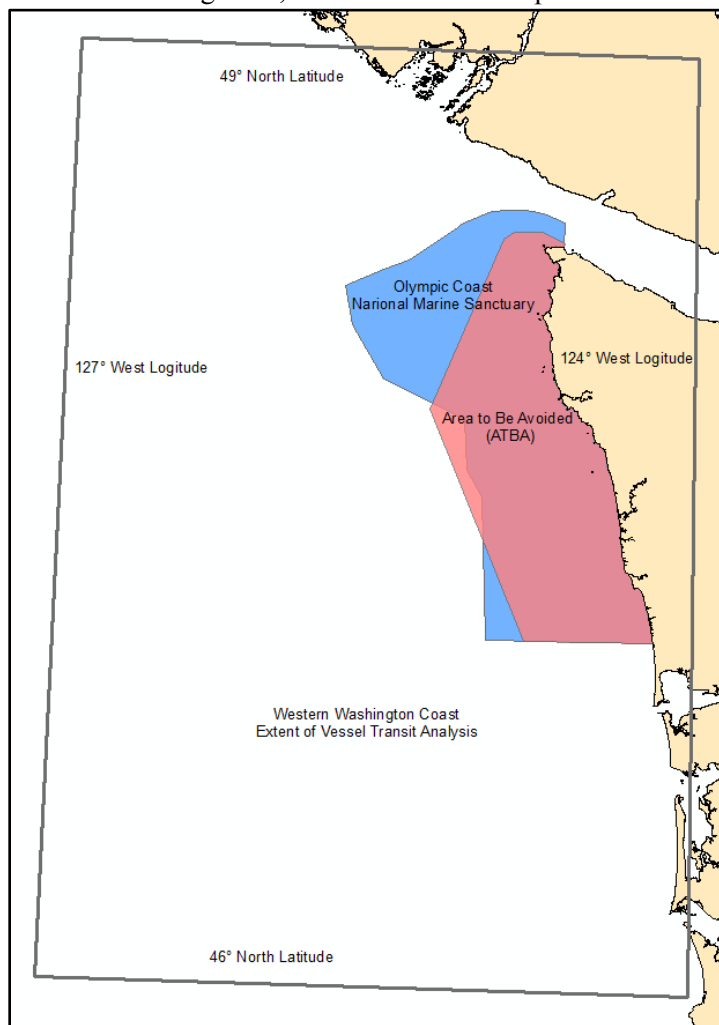


## Vessel Transits Through Olympic Coast National Marine Sanctuary and Area to Be Avoided (ATBA) - 2012 Estimated Compliance

Designated in 1994, Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) is a place of regional, national and global significance. The sanctuary, which is connected to both the Big Eddy Ecosystem and the California Current Large Marine Ecosystem, is the site of one of North America's most productive marine regions and spectacular, undeveloped shorelines. Potential release of oil or other hazardous material from a marine accident is regarded as the most serious threat to resources within and qualities of the sanctuary. Prevention of spills is therefore one of OCNMS's highest priorities. As a steward of these vitally important natural resources, OCNMS will continue to collaborate with other agencies and user groups to reduce the potential for oil spills and improve contingency planning for spill response.

The International Maritime Organization (IMO) has designated an Area to Be Avoided (ATBA) off the coast of Washington to reduce the risk of marine casualties including oil spills, and the resulting environmental damage to Olympic Coast National Marine Sanctuary. See the attached informational flyer or visit <http://olympiccoast.noaa.gov/protect/incidentresponse/atba.html>.

Certain vessels are advised to transit outside of this ATBA. OCNMS, in cooperation with the U.S. and Canadian coast guards, monitors vessel compliance under this voluntary program. Since 2004 the



Washington State Department of Ecology has published estimated ATBA compliance rates as part of their annual Vessel Entries and Transits for Washington Waters (VEAT) publication. Due to a number of changes to monitoring efforts that took place in 2012, OCNMS was not able to complete its analysis in time for it to be included in Washington state's 2012 VEAT report. To make these data available, OCNMS is producing its own estimated compliance report for 2012.

In 2012 the sanctuary changed data sources from Canadian Coast Guard radar data to data from vessel's Automatic Identification System transceivers received by satellite (S-AIS). This change in the data source provides both an improvement in spatial data coverage (the southern part of the sanctuary is now included), as well as a reduced number of positions describing transits (S-AIS data has occasional gaps in coverage), and a loss of some value-added information formerly provided by Canadian Coast Guard vessel traffic operators, such as information on tugs towing oil or chemical barges. For the initial analysis of the S-AIS data, the geographic area from 46° to 49° North Latitude and from 124° to

127° West Longitude was selected, an area covering the entire outer coast of Washington state (see figure).

Due to use of different data sources, there are some changes in vessel type categorization between 2011 and 2012, as outlined in the table below. When possible we attempted to be consistent with previous vessel type descriptions, as well as those vessel types that are in common usage, e.g., such as those used by Lloyd's Register.

<b>2011 Vessel Types</b>	<b>2012 Vessel Types</b>
Bulk Carrier	Bulk Carrier
Ore-Bulk-Oil Vessel (OBO)	
Cable Layer	Cable Layer
General Cargo Ship	Cargo Ship
Heavy Load Carrier	
Non-oil Tanker	
Chemical Tanker	Chemical Carrier
Container Ship	Container Ship
	Dredger
Fishing Vessel	Fishing Vessel
(LPG) and (LNG) Carrier	Liquefied Gas Carrier
Oil Tanker	Oil Tanker
Cruise Ship	Passenger Ship
	Pollution Control
	Private Vessel
Refrigerated Ship	Refrigerated Cargo
	Research Ship
Roll-on Roll-off Vessel	RoRo Cargo Ship
	Supply Ship
	Tug
Articulated Tank Barge	
Tugs with Chemical Barge	
Tugs with Oil Barge	
Vehicle Carrier	Vehicle Carrier

Another major change occurred on December 1, 2012, when the applicability of the ATBA changed from a minimal tonnage of 1,600 gross tons to 400 gross tons. For this reason in 2012 we are reporting two distinct periods, January-November 2012 and December 2012. The following is the revised IMO language for this modification to the ATBA:

In order to reduce the risk of a marine casualty and resulting pollution and damage to the environment of the Olympic Coast National Marine Sanctuary, all ships and barges that carry oil or hazardous materials in bulk as cargo or cargo residue, and all ships 400 gross tons and above solely in transit should avoid the area bounded by a line connecting the following geographical positions (see the attached flyer for coordinates).

**January – November 2012<sup>1</sup>**  
**(vessels > 1600 GT)**

<b>Vessel Type</b>	<b>Outer Washington Coast Transits<sup>2</sup></b>	<b>Transits passing through the Sanctuary<sup>3</sup></b>	<b>Transits passing through the ATBA within the Sanctuary<sup>4</sup></b>	<b>Estimated ATBA Compliance Rate<sup>5</sup></b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Bulk Carrier	4750	1311	15	98.9%
Cable Layer	24	5	0	100.0%
Cargo Ship	336	110	2	98.2%
Chemical Carrier	368	154	0	100.0%
Container Ship	2141	725	6	99.2%
Dredger	35	1	1	0.0%
Fishing Vessel	203	70	36	48.6%
Liquefied Gas Carrier	17	3	0	100.0%
Oil Tanker	946	484	3	99.4%
Passenger Ship	470	180	0	100.0%
Pollution Control	0	0	0	
Private Vessel	6	2	0	100.0%
Refrigerated Cargo	14	7	0	100.0%
Research Ship	20	9	1	88.9%
RoRo Cargo Ship	289	79	2	97.5%
Supply Ship	37	8	1	87.5%
Tug	8	5	2	60.0%
Vehicle Carriers	846	328	2	99.4%
<b>TOTAL</b>	<b>10510</b>	<b>3481</b>	<b>71</b>	<b>98.0%</b>

<sup>1</sup> The data goes through November 2012, as the provisions of the ATBA changed on December 1, 2012. In 2012 the sanctuary started using Satellite AIS data. This allows monitoring in the entire sanctuary. There was also a change in how vessel types are attributed to vessels. For this reason care should be taken in comparing this year's data with previous years.

<sup>2</sup> The vessel transits in Column 1 are from S-AIS data and include commercial vessels greater than 1,600 gross tons. This is a larger geographic area than has been reported on in previous years.

<sup>3</sup> Column 2 includes a subset of the S-AIS vessel transits through the sanctuary.

<sup>4</sup> Column 3 includes a subset of the sanctuary vessel transits that also go through the ATBA. These are vessels potentially not complying with the provisions of the ATBA.

<sup>5</sup> Column 4 shows the percentage of vessels transiting through the sanctuary that stayed out of the ATBA. {Column 4 = 1 – (Column3/Column2)}. This is used as an estimate of compliance with ATBA provisions.

**December 2012<sup>6</sup>**  
**(vessels > 400 GT)**

<b>Vessel Type</b>	<b>Outer Washington Coast Transits<sup>7</sup></b>	<b>Transits passing through the Sanctuary<sup>8</sup></b>	<b>Transits passing through the ATBA within the Sanctuary<sup>9</sup></b>	<b>Estimated ATBA Compliance Rate<sup>10</sup></b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Bulk Carrier	400	144	2	98.6%
Cable Layer	0	0	0	
Cargo Ship	40	16	1	93.8%
Chemical Carrier	22	13	0	100.0%
Container Ship	197	79	1	98.7%
Dredger	1	1	0	100.0%
Fishing Vessel	4	1	0	100.0%
Liquefied Gas Carrier	0	0	0	
Oil Tanker	93	51	0	100.0%
Passenger Ship	1	1	1	0.0%
Pollution Control	0	0	0	
Private Vessel	1	1	1	0.0%
Refrigerated Cargo	1	1	0	100.0%
Research Ship	0	0	0	
RoRo Cargo Ship	35	13	0	100.0%
Supply Ship	5	4	2	50.0%
Tug	43	29	5	82.8%
Vehicle Carriers	61	31	1	96.8%
<b>TOTAL</b>	<b>904</b>	<b>385</b>	<b>14</b>	<b>96.4%</b>

Lower compliance rates in December may be due to the lack of knowledge by smaller vessels (between 400 and 1600 gross tons) of recent changes to the ATBA. OCNMS is working with the U. S. and Canadian coast guards and the maritime industry to inform vessel owners and managers of these changes. The last time the provisions of the ATBA changed in 2002, there was period where compliance dropped, but improved over time. OCNMS anticipates that this pattern may be repeated with the 2012 change as well.

<sup>6</sup> The provisions of the ATBA changed on December 1, 2012. This table includes additional vessels that are now subject to the revised ATBA provisions. In 2012 the sanctuary started using Satellite AIS data. This allows monitoring in the entire sanctuary. There was also a change in how vessel types are attributed to vessels. For this reason care should be taken in comparing this year's data with previous years.

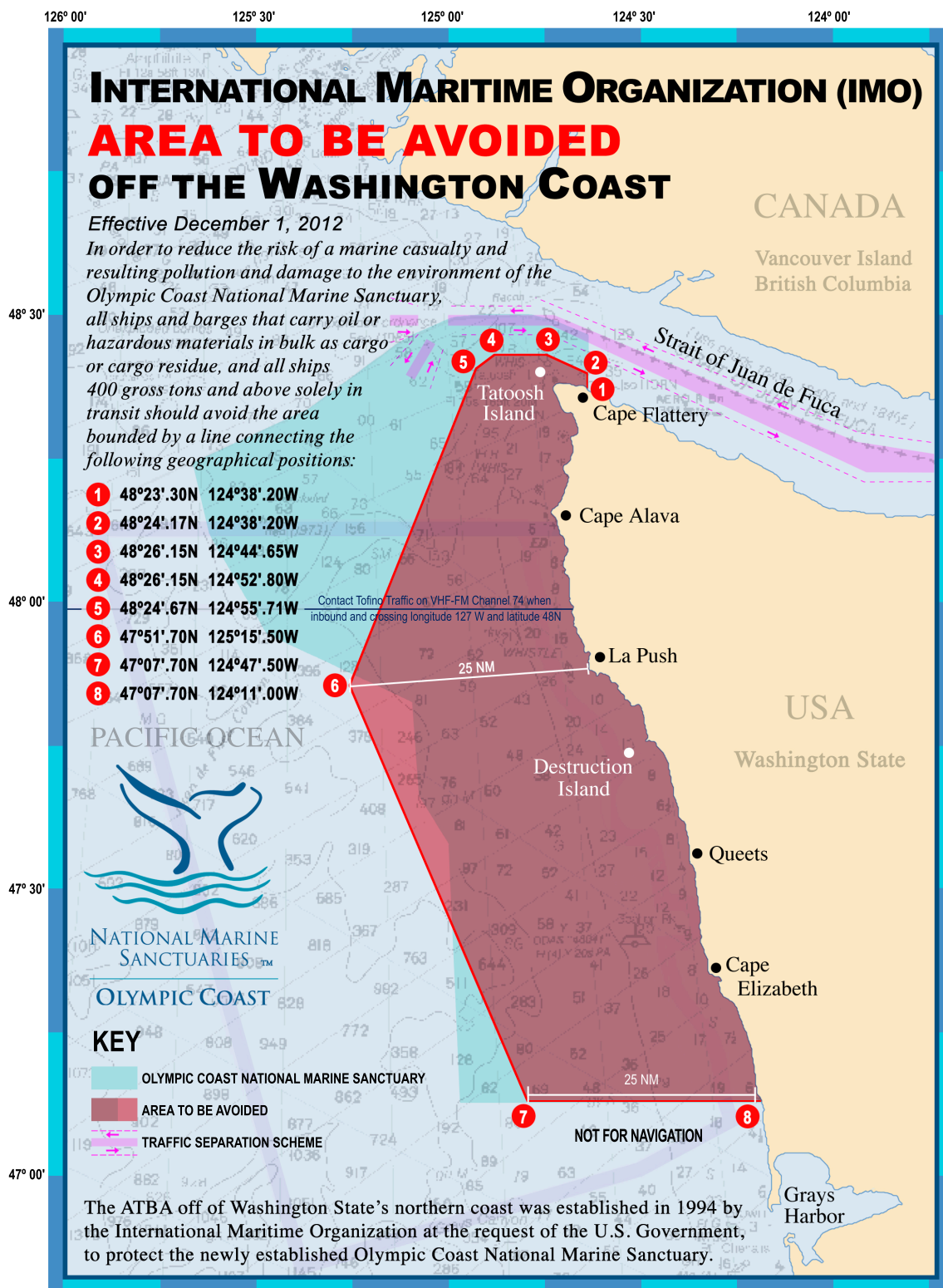
<sup>7</sup> The vessel transits in Column 1 are from S-AIS data and include commercial vessels greater than 400 gross tons. This is a larger geographic area than has been reported on in previous years.

<sup>8</sup> Column 2 includes a subset of the S-AIS vessel transits through the sanctuary.

<sup>9</sup> Column 3 includes a subset of the sanctuary vessel transits that also go through the ATBA. These are vessels potentially not complying with the provisions of the ATBA.

<sup>10</sup> Column 4 shows the percentage of vessels transiting through the sanctuary that stayed out of the ATBA.  $\{\text{Column 4} = 1 - (\text{Column 3} / \text{Column 2})\}$ . This is used as an estimate of compliance with ATBA provisions.





### Why does the IMO establish ATBAs?

- The IMO establishes ATBAs in defined areas where navigation is very hazardous or where it is important to avoid casualties.

### Why is it important for vessels to remain offshore and avoid this area?

- Reduces risk of vessel grounding on shore
- Reduces risk of collision with small vessels traveling close to shore
- Allows more time for assistance to arrive to help a disabled vessel
- Increases protection of coastal resources
- In the event of an oil spill:
  - Allows more time for spill cleanup and containment crews to arrive
  - Decreases the chance of spill impacts on the shoreline
  - Increases spill evaporation and degradation time

### How were the boundaries of the ATBA chosen?

- The boundaries were chosen to protect Sanctuary resources most at risk from vessel casualties.
- The boundaries are compatible with the Traffic Separation Scheme

### How was the vessel applicability chosen for the ATBA?

- Vessels greater than 400 gross tons were selected because of the substantial amount of bunker fuel that they carry and the risk that a spill would pose to sanctuary resources
- Vessels that carry oil or hazardous materials in bulk as cargo or cargo residue were selected due to the risk that a spill would pose to sanctuary resources
- The ATBA applies to vessels solely in transit and does not apply to vessels engaged in activities otherwise allowed in the sanctuary, such as fishing and research. The ATBA also does not apply to government vessels, although they are encouraged to avoid the area when solely in transit.

### Natural characteristics of the Olympic Coast National Marine Sanctuary:

- 128 species of seabirds within the Sanctuary
- 29 species of whales, dolphins, and other marine mammals reside or visit the area
- Washington State's only sea otter population
- Many species of fish and shellfish harvested for commercial, subsistence or recreational purposes
- Over 300 species of resident intertidal invertebrates, aquatic plants, and fish
- Diverse habitat types supporting complex food chains, including kelp communities, rocky intertidal zones, sand beaches, and offshore rocks
- Within the usual and accustomed fishing grounds of the Hoh, Makah, Quileute tribes and the Quinault Indian Nation
- Adjacent to Olympic National Park, Washington Islands National Wildlife Refuges, and Washington State Seashore Conservation Area

#### FOR MORE VESSEL TRAFFIC INFORMATION:

U.S.C.G. Sector Puget Sound, Waterways Management Division  
1519 Alaskan Way S, Seattle, WA 98134  
Phone: 206-217-6051  
e-mail: [SectorPugetSoundWWM@uscg.mil](mailto:SectorPugetSoundWWM@uscg.mil)  
<http://www.uscg.mil/d13/cvts/>



#### FOR MORE SANCTUARY INFORMATION OR COPIES OF THIS PUBLICATION:

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