

Aleutian Subarea

Total Spills: 683
Total Volume: 469,439
Average Spill Size: 687
Average Spills/Year: 68
Average Volume/Year: 46,944

Top 5 Causes

Cause	Spills	Gallons
Human Error	38	342,282
Grounding	16	65,095
Overfill	191	13,970
Tank Failure	4	10,080
Valve Failure	30	6,089

Top 5 Products

Product	Spills	Gallons
Bunker	4	360,432
Diesel	399	87,572
Aviation Fuel	31	7,046
Gasoline	16	5,539
Freon	1	2,000

Top 5 Facility Types

Facility Type	Spills	Gallons
Vessel	320	412,204
Cannery	57	16,128
Noncrude Terminal	28	13,735
Air Transportation	41	8,119
Other	63	7,353

NOTE: The data summary above excludes spills reported in pounds and potential spills.



Shoreline: 6,500 miles
Land Area: 7,300,000 acres or 11,400 square miles

The Aleutian Subarea includes the southern portion of the Alaska Peninsula as well as the Aleutian archipelago. The major islands in the region include Unimak, Unalaska, Umnak, Atka, Adak, Attu, and the Pribilof Islands of St. George and St. Paul. The region includes two Local Emergency Planning Districts (LEPD): the Aleutians East Borough LEPD and the Aleutian and Pribilof Islands LEPD. Major communities include the cities of Unalaska, Sand Point, and St. Paul. Industrial activity is limited to seafood processing, although Unalaska is a major port for freight into the region and a waypoint for freight shipments to Asia.

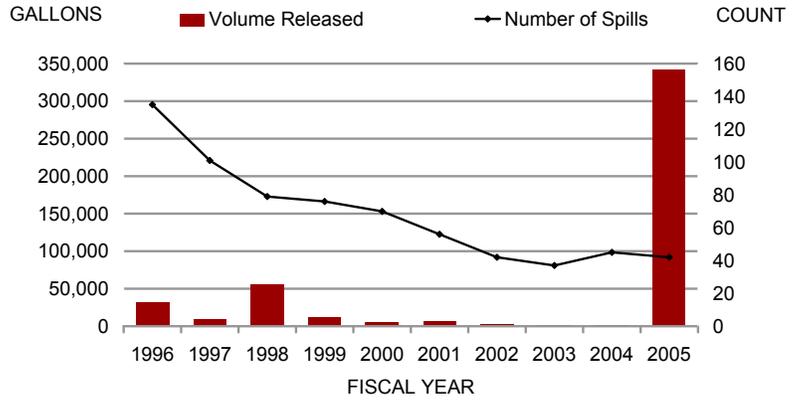
Discernible Trends

- The total number of spills in the Aleutian subarea appear to be on a general decline during this period.
- In terms of spill frequency related to the time of year, there appears to be a distinct period from October to January when a lesser number of spills occur. Further study may reveal that seasonal trends could be related to the fishery openers that occur along the Aleutian chain.
- Spills greater than 1,000 gallons in size were on a general decline following the November 1997 grounding of the M/V Kuroshima. However, the December 2004 grounding of the Selendang Ayu resulted in the huge spike in total volume spilled during that fiscal year.
- Spills from vessels were most common and accounted for 47% of the total number of spills, and 88% of the total volume spilled.
- Primary spill causes were relatively evenly distributed between Other causes (21%), Structural/Mechanical (33%), and Human Factors (42%). In terms of volume released, Human Factors causes resulted in 77% of the total volume released.
- Noncrude oil was the primary product spilled in 98% of the spills, and contributed to 99% of the total volume spilled.

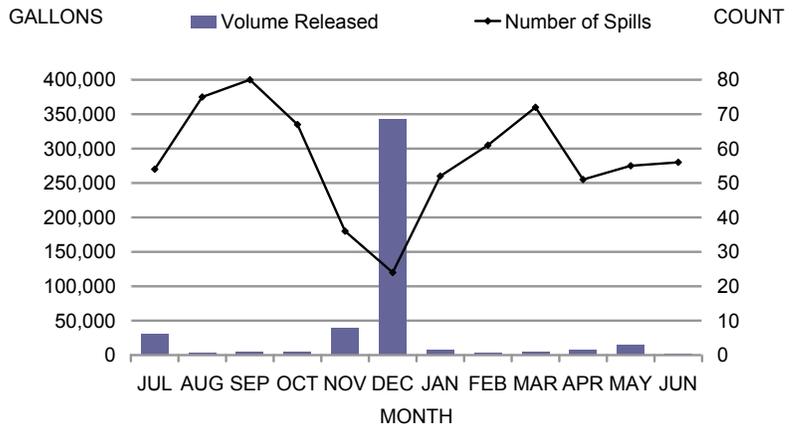


M/V Kuroshima, aground at Summer Bay, Unalaska Island, November 1997.

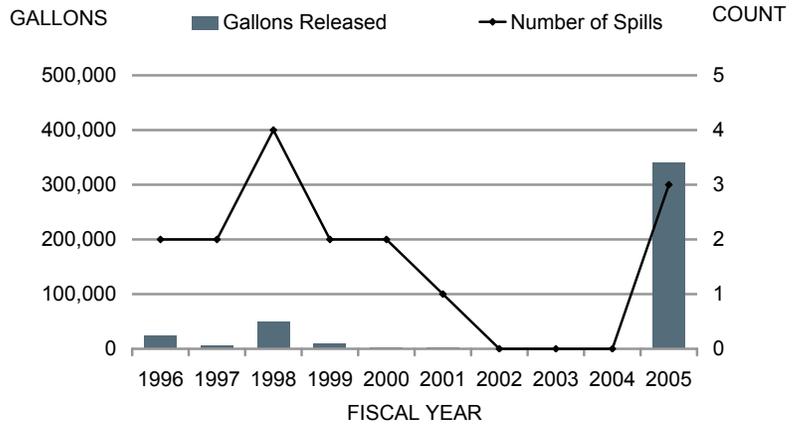
All Spills by Fiscal Year



All Spills by Month



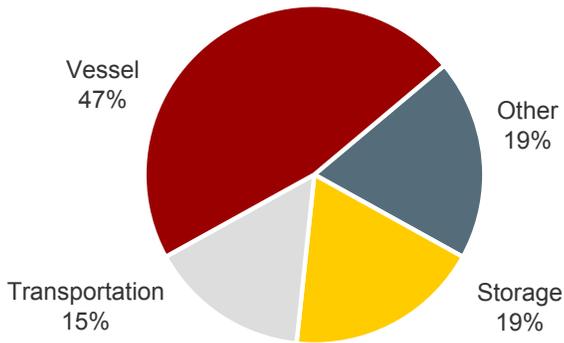
Spills >1,000 gallons



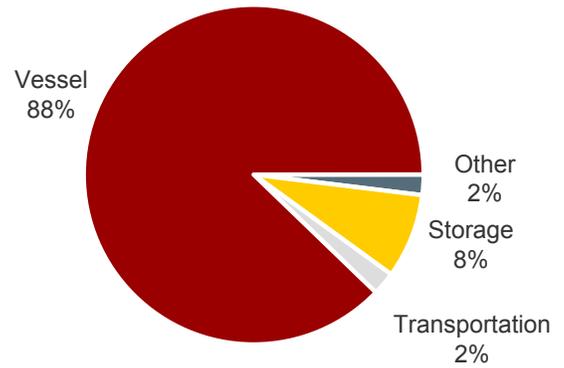
NOTE: Graphs do not include spills reported in pounds or potential spills.

Aleutian Subarea Spills by Facility Type

Number of Spills

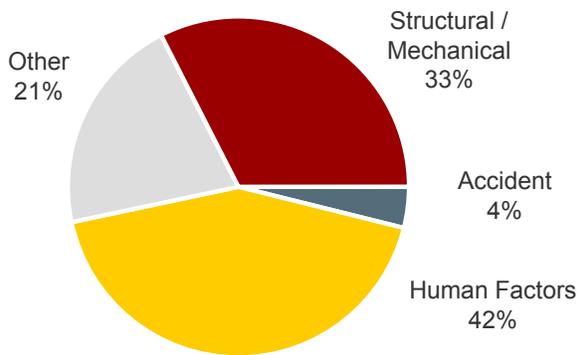


Gallons Released

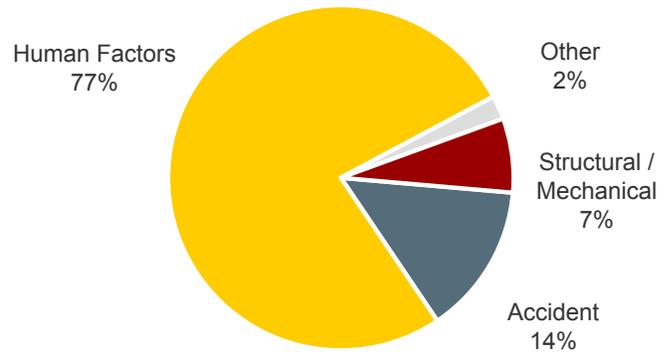


Aleutian Subarea Spills by Cause

Number of Spills



Gallons Released

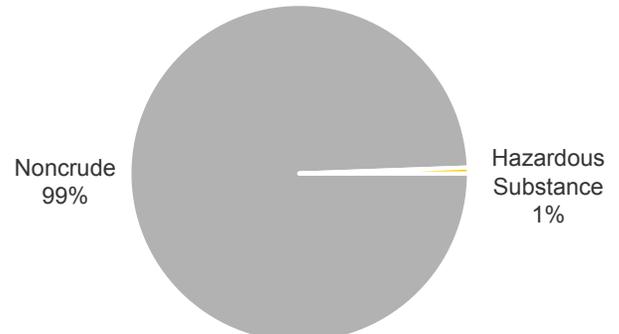


Aleutian Subarea Spills by Product

Number of Spills



Gallons Released

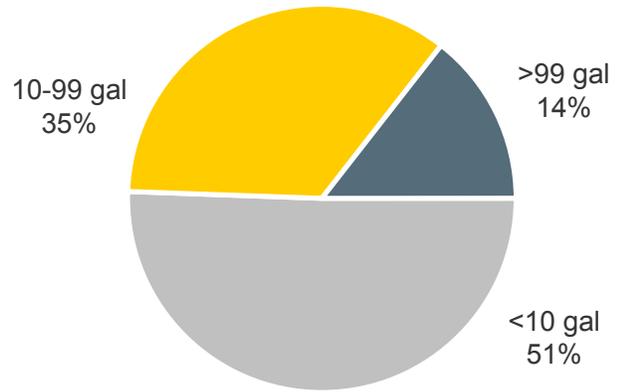


NOTE: Graphs do not include spills reported in pounds or potential spills.

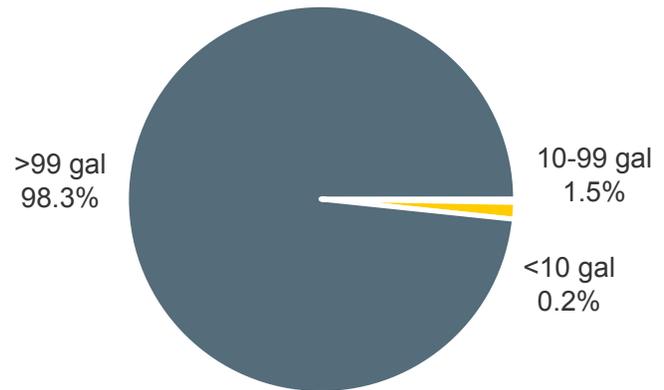
Aleutian Subarea Spills by Size Class

- More than half of the spills reported during the 10-year period were less than 10 gallons in size.
- More than 98% of the total volume released was attributable to spills with a volume greater than 99 gallons.

Number of Spills



Gallons Released



NOTE: Graphs do not include spills reported in pounds or potential spills.

Aleutian Subarea Spills at Regulated vs. Unregulated Facilities

Numerous oil facilities and vessels operating in Alaska are subject to Alaska's spill response planning and financial responsibility statutes. This section summarizes spills from:

- facilities and vessels required by statute to have an approved oil discharge prevention and contingency plan; and,
- non-tank vessels which are required to have an approved certificate of financial responsibility are also included.

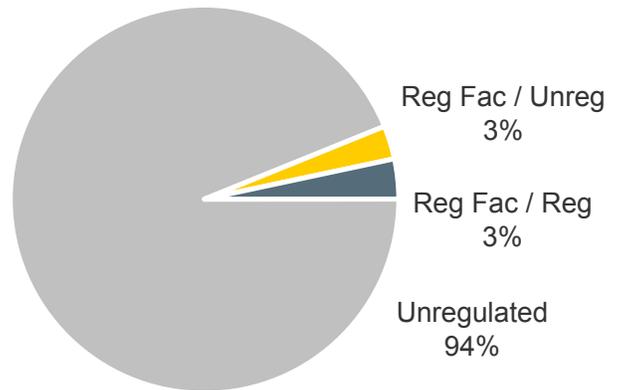
Spills from underground storage tanks are not included in this analysis.

Alaska's contingency planning requirements apply to specific aspects (components) of a facility's or vessel's operations. The analysis in this report distinguishes between spills from regulated versus unregulated components. Examples of spills from unregulated components include:

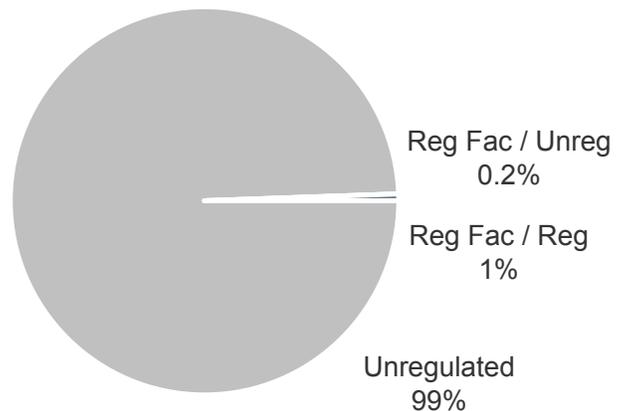
- a spill from a vehicle at a regulated facility;
- a spill from a fuel tank (below the regulatory threshold of 10,000 barrels) at a regulated facility

- More than 90% of the spills and nearly 100% of the total volume released during the 10-year period were from unregulated facilities, primarily Vessels.

Number of Spills

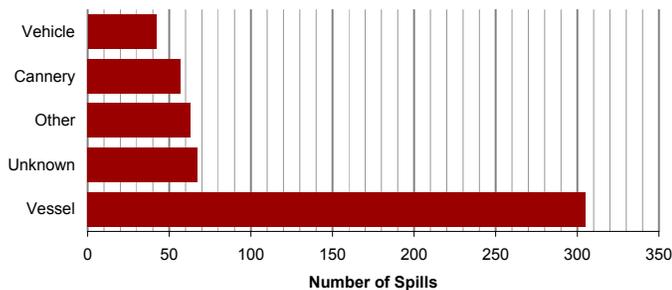


Gallons Released

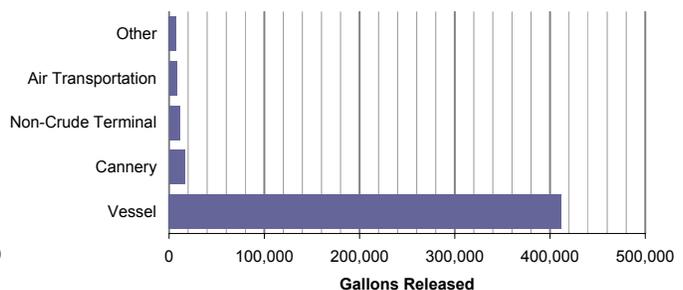


Top Unregulated Facilities

Number of Spills



Gallons Released



NOTE: Graphs do not include spills reported in pounds or potential spills.

Major Spills in the Aleutian Subarea

Spill Date	Location	Spill Name	Facility Type	Product	Gallons
12/26/1988	East of Shumagin Islands	Tank Barge 283	Vessel	Diesel	2,041,662
12/8/2004	Unalaska Island, Skan Bay	M/V Selendang Ayu	Vessel	IFO 380, Diesel	335,732
3/5/1981	Attu Island	M/V Dae Rim	Vessel	Diesel	109,998
1/17/1989	Amchitka Island	T/B Foss 256	Vessel	Diesel	83,958
1/11/1989	Unalaska Island	M/V Chil Bo San	Vessel	Diesel	60,984
11/26/1997	Unalaska, Summer Bay	M/V Kuroshima	Vessel	Bunker	38,976
2/1/1988	Nikolski	F/V Alaska Star	Vessel	Diesel	35,952
12/10/1988	Akun Island	M/V Aoyagi Maru	Vessel	Diesel	31,962
2/27/1989	Dutch Harbor	M/V Swallow	Vessel	Diesel	29,988
12/10/1986	Adak	Adak Tank	Tank	JP-5	27,006
2/17/1988	Yunalaska Island	F/V Captain Billy	Vessel	Diesel	16,002
12/3/1988	Shemya Island	F/V Opty	Vessel	Diesel	16,002
7/22/1995	Seguam Island	F/V Northern Wind	Vessel	Diesel	14,994
3/8/1987	Uluak Island	F/V Birgit	Vessel	Diesel	12,012
11/3/1988	Atka Island	F/V City of Seattle	Vessel	Diesel	12,012
5/6/1987	Uliaga Island	F/V Tae Woong	Vessel	Diesel	10,500
2/8/1991	Unalaska, Reese Bay	F/V Skagit Eagle	Vessel	Diesel	9,954
7/5/1995	Akutan	Trident Seafood	Cannery	Diesel	9,954
5/8/1999	Unamak Island	F/V Controller Bay	Vessel	Diesel	7,980
4/12/1993	Umnak Island	F/V Phoenix	Vessel	Diesel	6,972
10/15/1989	Chuginadak Island	F/V Polar Command	Vessel	Diesel	4,998
1/00/1990	Sand Point	Trident Seafood	Cannery	Diesel	4,998
2/20/1989	St. Paul Island	M/V Yard Arm Knot	Vessel	Diesel	3,500
3/00/1985	Akutan	Unknown	Unknown	Diesel	3,360
12/8/1986	St. Paul Island	F/V Jamie Lynn	Vessel	Diesel	3,000
8/13/1991	Atka Island	F/V Greenhope	Vessel	Diesel	2,982
5/11/2001	Cold Bay	F/V Kristen	Vessel	Diesel	2,982
5/11/1987	North of Unimak Pass	Tank Vessel	Vessel	Diesel	2,674
10/24/1996	Tanaga Island	F/V Rebecca B	Vessel	Diesel	1,512
2/19/1997	Akun Island	F/V Lisa Jo	Vessel	Diesel	1,176
8/10/1995	Akutan	Akutan	Cannery	Fish Oil	1,008
9/10/2000	False Pass	Peter Pan	Cannery	Diesel	1,008

Data Sources:

Department of Environmental Conservation

US Coast Guard

NOAA

Aleutian Subarea Contingency Plan for Oil and Hazardous Substance Discharges/Releases, September 1999

Contingency Plan Facilities in the Aleutian Subarea

Facility Name	Facility Type
Island Tug and Barge, Ltd. Barges ⁽¹⁾	Barge
Crowley Barges ⁽¹⁾	Barge
Sea Coast Transportation Barges ⁽¹⁾	Barge
Sirius Maritime Barges	Barge
Sause Brothers, Inc -- Klamath	Barge
Spot Charter - Adak Petroleum LLC	Tank Vessel
Fictitious Spot Charter Tanker - DW	Tank Vessel
Crowley Tanker Vessel	Tank Vessel
Chembulk New Orleans	Tank Vessel
Renda	Tank Vessel
Peter Pan Seafoods King Cove Shore Plant	Noncrude Terminal
Trident Akutan Bulk Fuel Storage Facility	Noncrude Terminal
Frosty Fuel Cold Bay Bulk Plant	Noncrude Terminal
City of St. Paul Bulk Fuel Storage	Noncrude Terminal
Delta Western - St. Paul Delta Fuel	Noncrude Terminal
USAF Eareckson Air Station	Noncrude Terminal
Offshore Systems, Inc - Dutch Harbor	Noncrude Terminal
Trident Seafood Sand Point Fuel Plant	Noncrude Terminal
Delta Western Dutch Harbor Tank Farm	Noncrude Terminal
North Pacific Fuel - Ballyhoo	Noncrude Terminal
North Pacific Fuel - Capt. Bay Tank Farm	Noncrude Terminal
North Pacific Fuel - Resoff Tank Farm	Noncrude Terminal
North Pacific Fuel - Westward Seafoods	Noncrude Terminal
Delta Western - St. George Delta Fuel	Noncrude Terminal
Adak Bulk Fuel Facility-Aleut Corp	Noncrude Terminal

NOTES:

(1) Authorized to operate statewide

Active Contaminated Sites in the Aleutian Subarea

This table summarizes the number of active contaminated site cleanup projects in the Aleutian subarea as of August 20, 2007.

Primary Contaminant	Sites	%
Petroleum	185	76%
Hazardous Substances	59	24%
Total	244	

Aleutian Subarea Spill Preparedness and Response Initiatives

Response Corps and Equipment Depots

Community	CRSA	Conex	Nearshore	Other Equipment
Dutch Harbor	■	●	▲	
King Cove	■	●		

Aleutian Island Risk Assessment

DEC, the U.S. Coast Guard, and the Transportation Research Board of the National Academies have executed a memorandum of agreement with the goal of establishing a study framework for conducting a large-scale comprehensive maritime transportation risk assessment.

Vessel Traffic Study

DEC (thru a contractor) produced the initial Vessel Traffic in the Aleutian Subarea report in April 2005. This vessel traffic study was subsequently updated in September 2006. The report is available on the DEC website at:

http://www.dec.state.ak.us/spar/perp/docs/060920vesselreport_s.pdf

Ports and Waterway Safety Assessment (PAWSA)

The initial PAWSA meeting for the Aleutians was held in July 2006. The PAWSA work group will focus primarily on vessel traffic through the Unimak Pass area as this is an area of high concentrations of vessel traffic and hence the location of greatest concern for the Coast Guard and the State of Alaska. Further details on the PAWSA are also available on the DEC website at:

http://www.dec.state.ak.us/spar/perp/ai_risk/ai_risk.htm

Arctic Marine Shipping Assessment (AMSA)

DEC staff is also assisting with the AMSA initiative which is led by the U.S. Arctic Research Council at the request of the eight Arctic member nations. This study will further research arctic vessel traffic including traffic through the Aleutian Islands.

Aleutian Potential Places of Refuge (PPOR) and Geographic Response Strategies (GRS) Development

DEC is sponsoring both of these initiatives which commenced in January 2007. The PPOR project will identify approximately 70 different locations where a vessel in distress could seek shelter along the Aleutian chain. The GRS project provides detailed, pre-planned spill response tactics for protecting extremely sensitive resources. Due to funding limitations, DEC is initially focusing its efforts on developing GRS for the Unalaska Island and vicinity. As funding becomes available, DEC will proceed with developing GRS for the remainder of the Aleutians. DEC website-<http://www.dec.state.ak.us/spar/perp/aippor/home.htm>

Unalaska/Dutch Harbor Disabled Vessel Workgroup

Following the near grounding of the Salica Frigo on March 9, 2007, the Mayor of Unalaska convened an ad-hoc workgroup to discuss ways to enhance the ability of local tug assets to respond to a distressed vessel in need of assistance due to engine failure, rudder failure, or any other failure which compromises the safe navigation of a vessel. DEC is a participating agency and has committed to purchasing an emergency towing system (ETS) for vessels greater than 50,000 DWT and the City of Unalaska is purchasing an ETS for vessels less than 50,000 DWT. The goal of the system design is to make the system deployable from a rescue vessel or deployable from a disabled vessel. The towing systems will be located in Unalaska. DEC project website: <http://www.dec.state.ak.us/spar/perp/aiets/home.htm>

Aleutian Subarea Contingency Plan for Oil and Hazardous Substance Spills and Releases

The current plan is dated September 1999, and is undergoing revision. The plan pre-dates the M/V Selendang Ayu incident, and the update will include improvements to the entire plan based on the information and lessons learned from that incident. Additionally, the GRS and PPOR currently under development, along with the vessel traffic study will be incorporated into the plan. The target date for publishing the revision to the plan is Spring 2008.