TAB 3

Need for Dual Escort Vessels

- Reasons to Retain Dual Escort Vessel System
- Prince William Sound Weather Conditions
- Escorts as Ice Scouts
- Examples of Tanker Assists by Escort Vessels
- Prince William Sound Oil Spill Response Gap
- Oil Spill Prevention is a Reasonable and Prudent Investment

Need for Dual Escort Vessels

Reasons to Retain the Dual Escort Vessel System

To the citizens and stakeholders in the Prince William Sound and larger oil spill region, there is no question that the dual escort vessel system is a proven safety system that must remain in effect for ***all*** laden oil tankers – including those with double hulls. Here are just a few of the reasons for keeping this dual escort vessel system in place:

- A laden double-hull oil tanker may carry 50 million gallons or more of crude oil onboard. This is more than ***four times*** the amount of oil spilled by the *Exxon Valdez*. And the trend has been to continue to build larger ships with additional oil capacity.

- The weather conditions and navigational challenges within Prince William Sound leave little margin for error if a tanker experiences a loss of steering or propulsion, or another emergency.

- When needed, escort vessels act as Ice Scouts, reporting back to the tanker on ice conditions and potential hazards.

- The Prince William Sound Dual Escort Vessel System is already in place, with robust operating procedures and a proven track record of preventing oil spills and accidents.

- Studies have shown that the harsh environmental conditions in Prince William Sound make oil spill response or clean-up difficult and at times potentially ineffective, especially during winter months. The key to protecting not only Prince William Sound but the entire *Exxon Valdez* oil spill region – fish and wildlife, habitat, people, their livelihoods, and our shared national interest in maintaining uninterrupted oil transportation – is to ***prevent*** oil spills from occurring at all.

- The cost of operating the extra escort vessel for the Prince William Sound dual escort vessel system (funded by the oil industry) is extremely small in comparison to the extraordinary damages that an oil spill may cause and the staggering costs associated with cleaning up and restoring an area that has been impacted by an oil spill.

- In many respects, double hulls are a major improvement over single hulls for oil tankers, but double hulls, in and of themselves, are not a guarantee against accidents that can cause great harm.

Prince William Sound Weather Conditions

Prince William Sound can be a harsh, dynamic, and unforgiving operating environment, especially for a laden tanker navigating the narrow passages, icebergs, and rocky shoals within the Sound.

In some areas of the Sound, winter storms may produce wave heights in excess of 30 feet. Wind speeds may approach 100 miles per hour. "Williwaw" winds and "barrier jets" can create sudden, unpredicted gusts in excess of 100 miles per hour, which means that even with precautions in place to limit tanker movements during periods of rough weather, isolated and unpredictable wind phenomena can still cause serious problems for an oil-laden tanker.

Escorts as Ice Scouts

The two-tug escort system has been configured so that one of the escorts can act as an Ice Scout during times when sea ice and icebergs may be present in the vessel traffic lanes.

Tanker navigating through icebergs in Prince William Sound.

Sea ice in recent years has been present in Prince William Sound throughout the entire year. However, the most hazardous ice conditions occur from March through May, when the winter ice begins to melt and large icebergs calve off from the glaciers. The use of Ice Scouts reduces the risk of tanker collisions or accidents by providing immediate and timely information to the tanker about the ice conditions, so that the tanker can steer clear of those hazards. The Ice Scouts also provide updates on local ice conditions to the Coast Guard.

Examples of Tanker Assists by Escort Vessels

There have been a number of instances when Prince William Sound escort vessels have successfully provided assistance to tankers in distress. Here are several examples:

- The tanker *Polar Enterprise* experienced an engineering casualty while making its approach to the Valdez Marine Terminal. An emergency fuel shut-off valve malfunction caused the port main engine to stall. Two escorts were already alongside the vessel at the time of the casualty, and the escorts were able to provide the necessary assistance. (April 20, 2009)

- The tanker *Kenai* suffered an engineering casualty to its main propulsion system. The vessel's master requested escort vessel assistance prior to shutting down the vessel's main engines. (October 10, 2002)

- The tanker *Kenai* experienced a casualty to its steering system and drifted to within 100 yards of Middle Rock in Valdez Narrows. The vessel was towed back on course by an escort vessel. (October 20, 1992)

- The tanker *Exxon North Slope* experienced an engineering casualty (shaft vibration) while departing Prince William Sound. The vessel radioed for escort assistance and returned under escort to Knowles Head anchorage. (March 4, 1992)

- The tanker *Arco Prudhoe Bay* experienced a gyrocompass casualty in Port Valdez. The vessel was escorted to the container terminal for repairs. (November 14, 1990)

- The tanker *Atigun Pass* experienced a complete engineering casualty near Bligh Reef. The escort tug held the vessel in the shipping lanes until the engineering casualty was corrected. (September 20, 1989)

Prince William Sound Oil Spill Response Gap

Technological advances in oil spill response systems have contributed to more proficient oil spill response operations. Yet, there are still times when existing technologies may not be able to operate, because of the limitations of environmental conditions. The term "***response gap***" refers to the period of time during which activities that cause an oil spill are conducted (for example, tanker transits), ***while conditions would preclude the safe or effective deployment of oil spill response systems.***

A response gap analysis was recently completed for two points on the Prince William Sound tanker transit route. Data sets on wind, sea state, temperature, and visibility were built using weather buoy observations from the past five years. The operating limits of the mechanical oil spill response equipment in use in the region were estimated based on published literature, manufacturer ratings, and best professional judgment. These limits were then applied to the historical data sets in three categories – response possible, response impaired, and response impossible. Limiting factors were considered both in terms of independent and cumulative impacts. When two or more factors existed to make a response impaired, then response was considered impossible for that period of time.

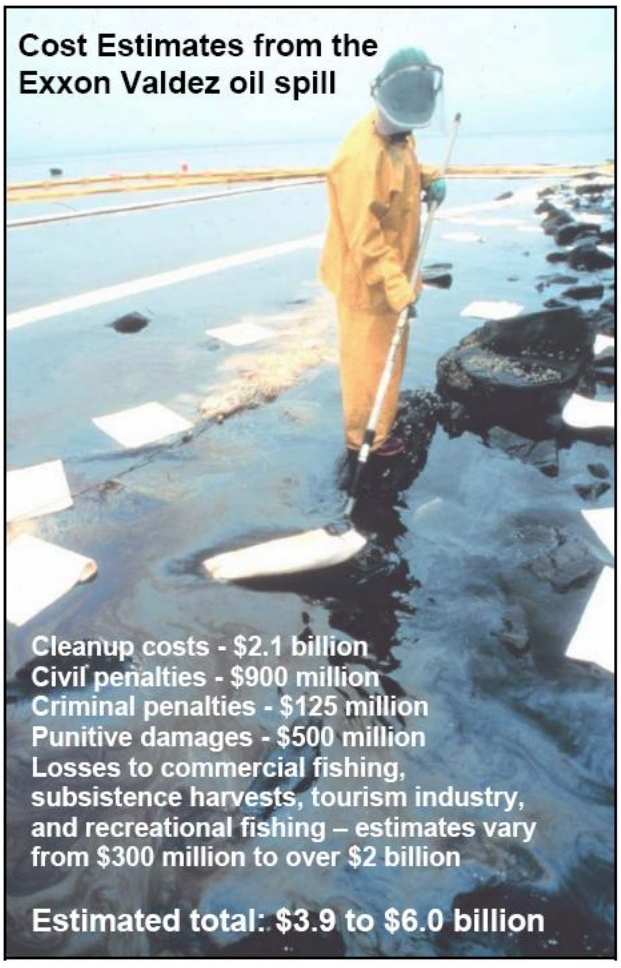
The Prince William Sound response gap analysis found that a response gap – during which no oil spill response activities would be safe or feasible – ***existed in parts of the Sound 38% of the time on average. During the winter season, the response gap existed 65% of the time at one location.***

This means that there are significant time periods during which laden tankers are moving oil through Prince William Sound under conditions where, if a spill should occur, existing technologies would not be able to effectively contain or clean up the oil. This gap underscores the need for dual escort vessels, as they provide a critical prevention function during times when spill response is not feasible.

The response gap analysis ***did not*** consider ice conditions, which could exacerbate the response gap in areas where sea ice is present, because it is extremely challenging to clean up an oil spill in the presence of sea ice.

Oil Spill Prevention is a Reasonable and Prudent Investment

Based on estimates published by the *Exxon Valdez* Oil Spill Trustee Council, the 1989 oil spill cost well over 3 billion dollars in cleanup costs, damages, and civil and criminal penalties. Losses to commercial fishing, tourism, subsistence use, and sports fishing are much harder to estimate, but were significant. Add in punitive damages along with interest and the total cost lies somewhere between $3.9 and $6.0 billion. The bottom line is that oil spills are extraordinarily expensive, and the monetary costs are only one aspect of this expense.



There are ongoing costs associated with oil spill planning and response that will continue as tankers are used to transport oil – regardless of whether those tankers are single- or double-hull. In light of these ongoing oil spill prevention and response costs, and in comparison with the price tag for another major oil spill, the incremental costs associated with maintaining the dual escort vessel system are minimal. In fact, the Prince William Sound dual escort vessel system is probably the least costly, and most effective, insurance available to prevent future spills in the Exxon Valdez oil spill region.