# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

**Date:** September 18, 1990

**In reply refer to:** M-90-59

Mr. Dallas L. Peck
Director
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, Viginia 22092

About 0009, on March 24, 1989, the U.S. tankship EXXON VALDEZ, loaded with about 1,263,000 barrels of crude oil, grounded on Bligh Reef in Prince William Sound, near Valdez, Alaska. At the time of the grounding, the vessel was under the navigational control of the third mate. There were no injuries, but about 258,000 barrels of cargo were spilled when eight cargo tanks ruptured, resulting in catastrophic damage to the environment. Damage to the vessel was estimated at $25 million, the cost of the lost cargo was estimated at $3.4 million, and the cost of the cleanup of the spilled oil during 1989 was about $1.85 billion.[1]

During the midwinter months in Valdez, Alaska, the sun is above the horizon for as little as 5 1/2 hours per day, and daylight, including twilight, may total only 7 1/2 hours. Moreover, Valdez is in the region of the North Pacific storm track, and visibility there is frequently reduced by fog, precipitation, and reduced natural light owing to cloud cover. To ensure the safe passage of shipping through the Valdez Arm and to move the number of ships required to service the Alaskan pipeline adequately, parties associated with tankship movements need current, reliable information about icebergs in the waterway. This information may also enable accurate predictions of ice calving for ship scheduling and routing purposes. Such predictions can only be made if the state of the glacier and the volume of ice calving are closely monitored.

When the Port of Valdez first opened as an oil terminal, the U.S. Geological Survey was closely monitoring the Columbia Glacier, but since then, the level of monitoring has been reduced to a periodic aerial observation of the glacier terminus. The Safety Board concludes that this effort is inadequate to provide the detailed information required to estimate the number and size of icebergs expected to enter the shipping lanes.

[1] For more detailed information, read Marine Accident Report--"Grounding of the U.S. Tankship EXXON VALDEZ on Bligh Reef, Prince William Sound Near Valdez, Alaska, March 24, 1989" (NTSB/MAR-90/04).

Therefore, the National Transportation Safety Board recommends that the U.S. Geological Survey:

> Intensify efforts to monitor the state of the Columbia Glacier, particularly to identify the amount of ice calving from the glacier and any changes in the rate that might affect the number and size of icebergs emanating from the glacier, and make this information available to agencies, such as the U.S. Coast Guard, tasked with assuring the safety of shipping into and out of Valdez Harbor. (Class II, Priority Action) (M-90-59)

Also, the Safety Board issued Safety Recommendations M-90-26 through -31 to the Exxon Shipping Company and all companies operating in Prince William Sound; M-90-32 through -43 to the U.S. Coast Guard; M-90-44 through -47 to the Environmental Protection Agency; M-90-48 and -49 to the Alaska Regional Response Team; M-90-50 through 52 to the State of Alaska; and M-90-53 through -58 to the Alyeska Pipeline Service Company. The Safety Board also reiterated Safety Recommendation M-88-1 to the U.S. Coast Guard and Safety Recommendations I-89-1 through -12 to the Department of Transportation.

The National Transportation Safety Board is an independent Federal agency with the statutory responsibility "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-90-59 in your reply.

KOLSTAD, Chairman, COUGHLIN, Vice Chairman, and LAUBER and BURNETT, Members, concurred in this recommendation.

By: James L. Kolstad
Chairman