

Date: 1100 ADT July 27, 2006
To: NOAA SSC John Whitney

FROM: NOAA/Hazardous Materials Response Division
Modeling and Simulation Studies
Seattle, WA 98115

SUBJECT: RoRo Cougar Ace, Offshore Aleutian Islands, AK

FOR ADDITIONAL INFORMATION, PLEASE CONTACT CJ Beegle-Krause
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We have looked at the issue of a vessel drifting offshore of the Aleutians Islands. These notes are based on the following information:

The RoRo Cougar Ace has been drifting (reported taking on water and rolling over 80 degrees from vertical) since July 24th. The vessel is carrying a total of 1.4 million gallons of bunker fuel. The USCG continues to track the vessel.

If any of this initial information is incorrect, please let us know ASAP as it would affect any trajectory implications.

1) 24-hour Wind Forecast

SE winds 25-30 knots decreasing to SW winds at 15 knots.

2) Trajectory

Oceanography of the Region: The northern Pacific Ocean in the area of the vessel is categorized by weak currents, primarily in the zonal (east-west) direction. The NOAA Ocean Surface Current Analysis – Realtime (OSCAR) satellite derived surface currents show this in Picture 1 at the end of this document. These weak currents are unlikely to drive the movement of either the vessel or the oil.

Nearer to the Aleutian Islands, the Alaskan Stream is a relatively freshwater current that flows westward south of the Aleutian Islands. The tidal forces around the Aleutian Islands create a generally clockwise circulation around the individual islands, with a net flow of surface water northward through the passes between the islands.

Vessel

The last two positions of the vessel (271500Z 49-05.200N, 173-25.600W and 241601Z 49-07.700N, 173-26.100W) indicate that the vessel is moving at approx. 2-1/2 knots northward, which translates to a net drift of 60 nm in one day.

Potential Oil Spill

If a release occurs, please call SSC John Whitney immediately so that we can produce specific incident trajectory.

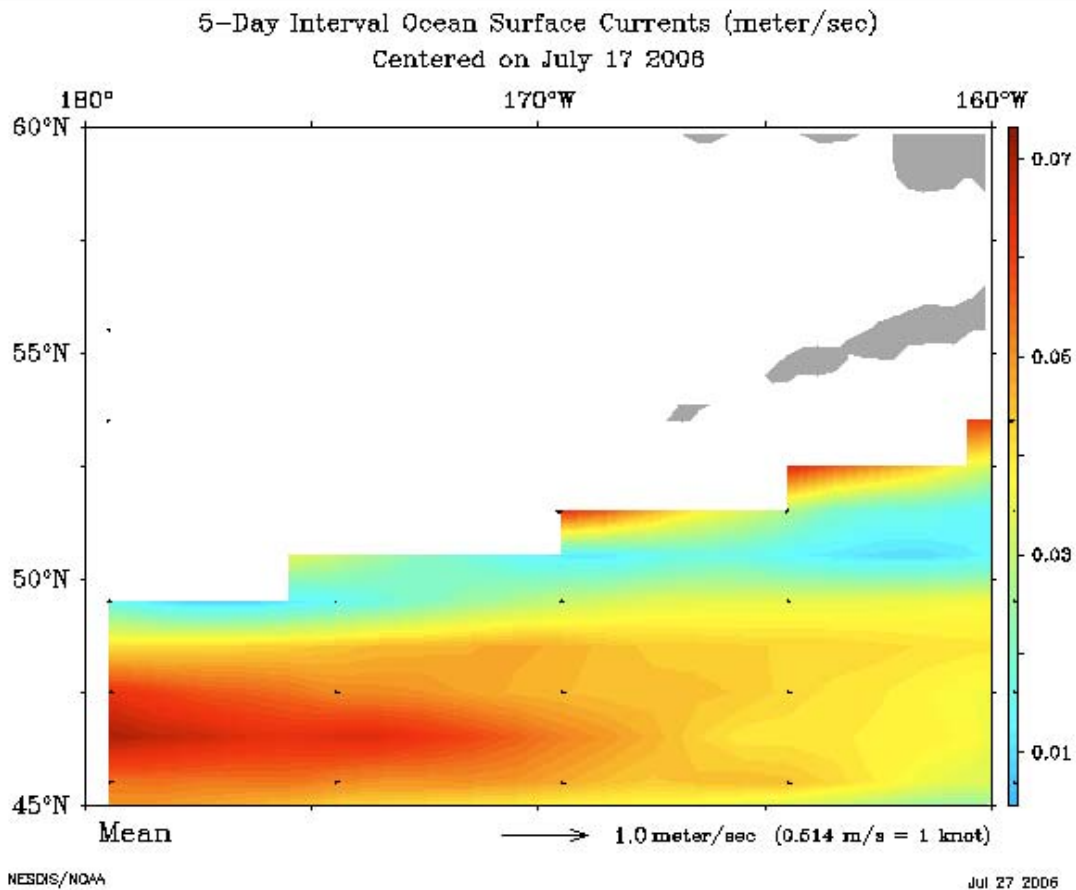
The IFO poses a potentially long term problem. If released near a coastline with onshore winds, the oil could reach the shoreline. "Near" in this case is probably <=40 nm for oil to reach the shoreline within 2 days (assuming 25 knots winds directed onshore). If the oil spilled farther offshore or was broken up into tarballs by local wave conditions, these tarballs could poses a scattered threat to the Aleutian Islands for

several weeks, which is beyond our prediction ability. Any oil spilled more than 100 nm from shore would be difficult to detect above background tarball levels.

Any diesel oil spilled with some distance from shore is unlikely to pose a significant problem. Diesel oils generally evaporate quickly, leaving a stain on shorelines that would weather quickly in the wave conditions on most Aleutian Islands.

Ocean Surface Current Analyses - Realtime Latitude-Longitude Plot

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Picture 1. The NOAA Ocean Surface Current Analyses – Realtime (OSCAR) currents are show above. Red shading indicates an eastward velocity component and blue shading indicates a westward velocity component. Note the velocity scale arrow at the bottom of the pictures which is less than 2 knots. The arrows displayed in the pictures are so small as to be difficult to see.