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1 Largest U.S. Tanker Spill Spews Oil Off Alaska Coast

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Veterinarians and volunteers join to wash off the oil.

By Malcolm W. Browne
Special to the New York Times

Valdez, Alaska, April 3—Caribbees by the hundreds are pouring into makeshift hospitals for oiled seabirds here, where conditions have begun to resemble those in a battle-field situation. The Valdez Bird and Animal Rescue Center was created on March 24, within hours after the tanker Exxon Valdez ran aground on a reef 14 miles south of here. Since then, three gashes in the tanker hull have poured about 10 million gallons of crude oil into Prince William Sound, killing or endangering great numbers of animals. For more than a week after the accident, few animals injured by the oil spill were found or collected. But by last weekend a flood of victims began, and veterinarians were getting little sleep.

"This place is like a MASH unit at this point," Mr. Berkow said. "We have to work as fast as we can to stay ahead of the game."

2 Exxon Vessel Hits Reef, Fouling Water That Is Rich in Marine Life

By Philip Shaberoff

A tanker filled to capacity with crude oil ran aground and ruptured yesterday 25 miles from the southern end of the Trans Alaska Pipeline, spewing hot cargo into Alaska's waters, some life water rich in marine life.

By venting the ship, the Exxon Valdez, had sent more than 270,000 barrels of oil into Prince William Sound, making this the largest tanker spill in United States history.



3 THE NEW YORK TIMES NATIONAL THURSDAY, FEBRUARY 15, 1990

Mate on Tanker Faults Helmsman in Accident

Second Day on Stand

This was the second day of Mr. Cousins's testimony in Anchorage Superior Court, where the 43-year-old Captain Hazelwood is standing trial for the felony counts of second-degree criminal mischief and misdemeanor charges of reckless endangerment, negligent discharge of oil and operating a vessel while intoxicated. The maximum penalty for conviction on all counts is seven years, three months in prison and fines totaling \$61,000.

The cross-examination was conducted by Dick Madson, who asked the witness, "Mr. Cousins, isn't it correct that in your mind there's no doubt that if that 10-degree right rudder had been executed, the ship would have cleared Bligh Head by a substantial margin?"

Mr. Cousins described the night of the accident as extremely dark and misty. He said that about an hour before the grounding on the ship's radar screen he actually saw the ice from the deck. Mr. Cousins said, but he repented it to Captain Hazelwood who decided to divert the tanker from normal shipping lanes.

Mr. Cousins and a helmsman, Robert Kagan, were at the wheel when the 987-foot tanker ran aground, spilling nearly 11 million gallons of crude oil in the nation's worst oil spill.

Grounding Interrupts Call

Mr. Cousins said that before he called he began to believe that Mr. Kagan was not properly following his orders to make a sharp change in the ship's course.

never worked with Mr. Kagan before and had heard rumors the seaman had problems with steering on another voyage.

The testimony came in the cross-examination by Captain Hazelwood's lawyer, who sought to show that all the procedures about the tanker were moving smoothly until the helmsman failed to execute a 10-degree right turn.

Mr. Cousins, who was told by Captain Hazelwood to take command of the tanker about 10 minutes before it went aground, suggested that Mr. Kagan caused the spill by not following orders to turn the wheel hard.

He said he was convinced that had the helmsman followed orders, the ship would have missed by several miles the rocky reef that the ultimately hit.

To emphasize the necessity of these skills, news clippings about the devastation caused by the 1989 crash and oil spill of the Exxon Valdez have been included for class discussion. Share a transparency of the clippings. The third article especially points out the importance of measurement; testimony of the Exxon Valdez' captain focused on the helmsman's inability to make a full 10° turn.

To introduce *Navigating in the Dark* you may choose Option 1 or Option 2. Option 1 involves sending two students out of the room and then having everyone watch them as they try to follow a path devised by another student on the overhead. Option 2 has all students try to draw two given paths without knowing where islands are, and then having each student self-assess how well the instructions were followed.

NAVIGATING IN THE DARK

Map—

Course written by:

Course navigated by:

Instructions:

There +

Here +

Note: After the first heading from "Here," all headings are measured as in "LOGO," from the direction you are facing after the last move.

TELLING SOMEONE WHERE TO GO

■ INTRODUCTION—OPTION 1

Prepare an overhead transparency of the *Demo Map* (p. 73) and two transparencies of the blank *Navigation Sheet* (p. 75). Send two brave students out of the room so they will be "in the dark" about the details of the map. You may want to arrange a place for them to be for 5 to 15 minutes.

Have students work in pairs. Give each pair a paper copy of the *Demo Map*, protractors, and centimeter rulers. Each pair is to draw a path from "Here" to "There." No curves allowed; legs of all paths are to be straight lines.

Use the transparency of the *Demo Map* to show students that they should start their paths at the plus sign and not on the end of the arrow head. You may want to show how you would draw and measure your first leg, but let them know they may choose any initial direction they want.

After they draw their paths, they write distance and heading instructions using centimeters and