

SUBMARINES, BLIMPS, TRAINS, AND SHIPS: TRANSPORTATION PROPOSALS FOR PRUDHOE BAY CRUDE OIL, 1968-77.

Ross Coen, University of Alaska – Fairbanks, P.O. Box 82718, Fairbanks, AK 99708

Upon discovery in 1968 of the Prudhoe Bay (Alaska) oil field, North America's largest at 20 billion barrels, the immediate challenge facing the oil industry was how to bring these vast reserves to market. Alaska's North Slope is a notoriously unforgiving environment with long winters of continual darkness punctuated by temperatures of 65 degrees Fahrenheit below zero. The subsurface of the tundra remains permanently frozen, even in summer, while the surface layer becomes spongy and fragile from June to September.

Within months of the strike, the industry began surveying a pipeline route from the North Slope south toward Fairbanks. Other transportation ideas received consideration, however, including a fleet of nuclear submarines crossing under the polar ice cap, jumbo jet tankers and dirigibles, rail cars and tanker trucks, and even an aerial tramway. One proposal, the use of ice-breaking tankers to ship the crude oil through the Northwest Passage to the U.S. east coast, merited enough serious consideration that the industry spent \$40 million testing its feasibility. Commissioned by Humble Oil (now Exxon) in 1969-70, the *S.S. Manhattan* was reconfigured with ice-breaking capabilities and became the first commercial vessel to complete the Northwest Passage.

The intent of this paper is to detail some of the proposals for bringing Prudhoe Bay crude oil to market. These transportation ideas – whether meritorious or outlandish – fall squarely within Alaska's frontier myth and pioneer spirit where daring and ingenuity in the face of the natural environment are both encouraged and rewarded.

A CENTURY OF OIL IN LOUISIANA

Don Davis, Center for Coastal Energy and Environmental Resources, Room E302, Howe-Russell Geoscience Complex, Baton Rouge, LA 70803, 225-578-3481

Louisiana's first producing oil well was completed in 1901. From this beginning, the industry expanded throughout Louisiana, with all 64 parishes (counties) being involved. In 1947 the industry discovered marketable hydrocarbon offshore in Ship Shoal Block 32. This event gave birth to the offshore industry. Although production numbers declined in the 1980s and early 1990s, the lure of large finds in deepwater off Louisiana's coast rekindled interest in this hydrocarbon province. Auger, Mars, Mensa, Neptune, Thunder Horse, Ursa and many other deepwater fields are now part of the country's oil and gas inventory.

Recent technological innovations, coupled with new state incentives, have lowered the costs to find hydrocarbon reserves and improved the probability of discovering these reserves. As a result, there is renewed interest in Louisiana prospects. In this regard, oil companies are investing millions in leasing and exploration programs. The state is