

STATEMENT OF

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BEFORE THE

**SUBCOMMITTEE ON MERCHANT MARINE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
U.S. SENATE**

ON

**U.S. COAST GUARD POLAR ICEBREAKING ACTIVITIES
AND RELATED MATTERS**

MARCH 14, 1984

Mr. Chairman and Members of the Subcommittee:

My name is Virgil W. Rinehart, and I am the Acting Director, Office of Advanced Ship Development and Technology, of the Maritime Administration, Department of Transportation. I am pleased to appear before the Subcommittee on Merchant Marine to comment upon the interests of the Maritime Administration in the polar seas (especially in the Arctic regions), the role of Coast Guard icebreakers in pursuing those interests, and related matters.

In July 1981, a representative of the Maritime Administration appeared before the Subcommittee on Merchant Marine of the House Merchant Marine and Fisheries Committee to testify on the Development of Arctic Marine Transportation Capability. He commented on the value to the nation of the Prudhoe Bay oil field and other potential Arctic oil and gas fields, the inherent attractiveness of maritime transportation to supplement the single existing pipeline to bring these resources to market, and the potential benefits for the nation that development of Arctic marine transportation systems might have "in terms of the objectives of the Merchant Marine Act, 1936, and in other contexts as well."

In the past two and a half years, there have been many developments, including the transfer of the Maritime Administration from the Department of Commerce to the Department of Transportation. Neither this development nor others have changed the basic views of the Maritime Administration on these matters; indeed they have reinforced them. Despite the recent dry hole at

Mukluk Island in the Beaufort Sea, North Slope operators still contend the U.S. Beaufort Sea holds attractive prospects for an "elephant class" field.

There are other strong exploratory efforts in the Bering and Chukchi Seas. In its report, "U.S. Arctic Oil and Gas," issued in December 1981, the National Petroleum Council expressed its belief that large fields of oil and gas exist there. Further, we believe that year-round tanker operations in the Bering Sea are feasible, and perhaps north of the Bering Straits, although the reliability there is not yet proven. We are aware of activities within this country and overseas which reinforce our belief that within ten years we will see Arctic tankers in operation year-round in some of these areas.

Because of the importance of these issues to the nation as a whole, and to the maritime industries in particular, for nearly 15 years the Maritime Administration has studied the Arctic marine environment and the technical and economic feasibility of operating commercial vessels there on a year-round basis. We have funded some 25 studies of Arctic-related subjects from the ice-dynamics of the Arctic ocean to the design of specific transportation systems. In addition, we have participated in the preparation of the National Petroleum Council report previously mentioned, in studies by the National Academy of Sciences, and in the activities of the

Interagency Arctic Policy Group. The report of this latter group to the National Security Council last year led to the issuance by the President of National Security Decision Directive No. 90, entitled "United States Arctic Policy." We believe that involvement by the Maritime Administration in these various activities has had a very important effect in bringing Arctic tanker operations as close to reality as they are.

Undoubtedly the most important activity has been the so-called "trafficability studies," carried out over the past five years in cooperation with the Coast Guard, the State of Alaska, twelve companies of the Alaska Oil and Gas Association (AOGA), and the Ministry of Transport, Canada. In one year a U.S. shipyard participated, and last year the Interagency Ship Structure Committee funded some very important work measuring ice forces on the hull.

Each participant had its own reason for wanting to collect data. Our reason for co-funding this research was to measure ice conditions and ship performance at various times of the year over various routes that commercial ships might use. Our research was designed to examine such factors as ice thickness and coverage, ridge frequencies and profiles, ship's power and speed, and fuel costs. By collecting such data over a period of years, a better means of predicting the costs of delivering a unit of cargo, such as a barrel of oil, could be determined. Furthermore, confidence

in potential year-round tanker operation was increased, and hence the possibility that companies would build and operate commercial ships was improved. The Coast Guard wanted to collect performance data on its current icebreakers in order to use them more efficiently and to design even better ships in the future. The AOGA companies wanted ice data in order to evaluate the feasibility of exploration and development of various lease sites. By this cooperative approach, each participant gained much more than it could have on its own and at less cost. We are extremely grateful for the use of the Coast Guard icebreakers, and I am certain that the other participants share this view.

We are aware that this Subcommittee is very interested in the Nation's icebreaker requirements for the future. The Administration is equally interested in this issue. The number, type, method of acquisition and operation of future U.S. government icebreakers is now the subject of a comprehensive Polar Icebreaker Requirements Study being performed by an interagency group headed by the Coast Guard. Until that study is completed, it is not appropriate for me to comment on the probable results. It seems clear that some icebreakers will be needed for national security and research support purposes.

While future Arctic tankers will have the capability to transit heavy ice without icebreaker support, severe ice conditions and other unforeseen circumstances may require outside assistance.

The experience of the Soviet vessels transiting the Northern Sea Route this past winter indicates that even the most ice-capable vessels operated by experienced ice seamen are not free from harm's way. Such accidents are likely to occur from time to time; thus the need for icebreaker assistance to alleviate the risk of loss of life and property and possible damage to the environment must be addressed. The capabilities of both the Canadian government and the oil industry should be considered when this problem is addressed.

Finally, let me reiterate my belief that development of Arctic resources and routine operation of Arctic tankers in the Bering and Chukchi seas will be accomplished in a relatively brief time. There is an opportunity for competitive U.S. maritime industries here. I believe such participation is important to the Nation in order to assure that we will be able to transport our own oil to our own ports with our own ships - if necessary. In the U.S., the funding, development and operation of these facilities almost certainly will be the responsibility of the private sector. Even so, as in the case of the Alyeska Pipeline, there will be public issues, such as environmental matters, safety of life, development and enforcement of vessel standards, and other law enforcement, in which the Federal Government will play a significant role.

Mr. Chairman, thank you for providing the opportunity for the Maritime Administration to express its views on these important matters. I will be pleased to answer any questions you or the Members of the Subcommittee may have.