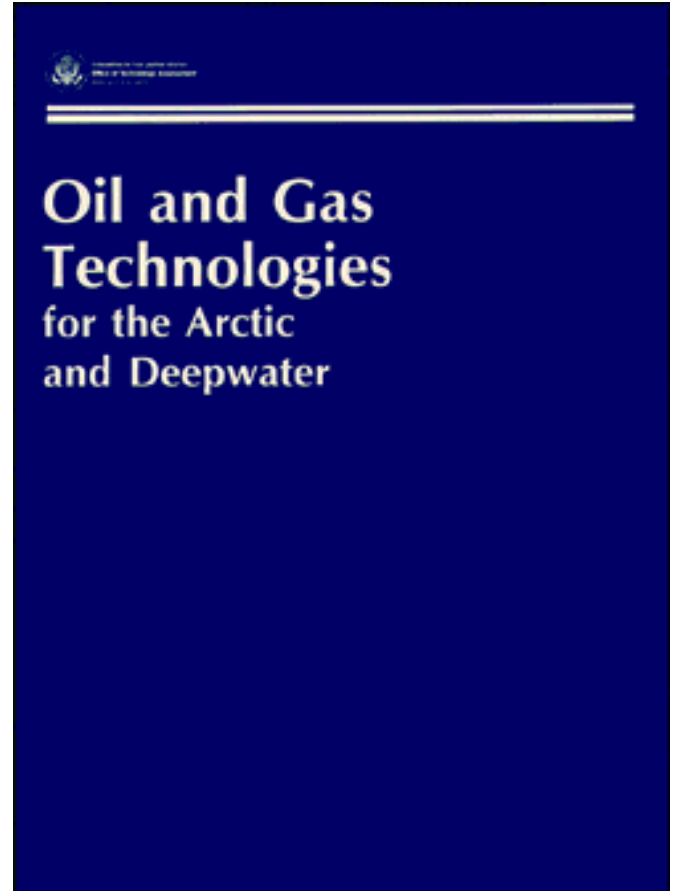


*Oil and Gas Technologies for the Arctic and
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Foreword

Nearly 2 billion acres of offshore public domain is owned by the United States adjacent to Alaska and the lower 48 States. Much of the Nation's future domestic petroleum supply is expected to come from this area. Areas of highest potential apparently occur in deeper water and in the Arctic where operating conditions are severe, development costs high, and financial risks immense. As the pace of exploration increases in these 'frontier' regions, questions arise about the technologies needed to safely and efficiently explore and develop oil and gas in harsh environments.

The Office of Technology Assessment undertook this assessment at the joint request of the House Committees on Interior and Insular Affairs and on Merchant Marine and Fisheries. The study explores the range of technologies required for exploration and development of offshore energy resources and assesses associated economic factors and financial risks. It also evaluates the environmental factors related to energy activities in frontier regions and considers important government regulatory and service programs.

In March 1985, the Secretary of the Interior announced the Administration's proposed new 5-year offshore leasing program that will determine the pace of oil and gas exploration in Federal offshore waters through 1991. The proposed leasing schedule will be under review by the 99th Congress, with final approval slated for the Summer of 1986. OTA's report on Arctic and deepwater oil and gas is intended to provide a timely and useful reference for the Congress as it reflects on the Department of the Interior's proposed program.

OTA is grateful to the Offshore Technologies Advisory Panel and participants in OTA's workshops for their help in the assessment. Splendid cooperation was received from a number of executive agencies during the course of the study, including the Minerals Management Service, National Oceanic and Atmospheric Administration, and the U.S. Coast Guard. Special thanks go to the Arctic Environmental Information and Data Center of the University of Alaska and its Director, David Hickok, for field assistance to OTA in Alaska.



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