Sharing the Shelf

The people onshore
- Subsistence
- Cultural Stress
- Economy
- New tax base?

Marine fauna
- Protected species
  - Whales
  - Seals
  - Polar bears
  - Birds
- Fish and fisheries
- Noise in the ocean
Research Planning

- Environmental Studies FY-07 Plan
  - Chukchi Sea Workshop
    - Held November 1 – 3
  - North Aleutian Basin Workshop
    - Held November 28 – 30

- Physical Oceanography
- Subsistence
- Sociology
- Economics
- Marine Mammals
- Fish
- Birds
- Fate and Effects of Discharges
Arctic Offshore Technology Assessment of Exploration and Production Options for Cold Regions of the US Outer Continental Shelf

**Objective:**
- Conduct a technology assessment for US OCS oil and gas operations in cold regions
- to determine what may be technically feasible in ice-covered and open water conditions.
Sea Spray Icing of Drilling and Production Platforms

Objective: to develop methods for quantifying the occurrence and severity of sea spray icing on oil exploration and drill rigs in the Chukchi and Beaufort Seas.

- By May 2008, algorithms will provide the ability to process weather data to determine sea spray icing severity on offshore structures.
Assessment of Superstructure Ice Protection As Applied to Offshore Oil Operations Safety

Objective: to assess potential methods for improving safety on drilling and production vessels and platforms operating in the Chukchi and Beaufort Seas and experiencing superstructure icing by May 2008.

- Identify ice protection technologies and evaluate their effectiveness for enhancing operational safety.

- Assess the potential safety improvements following application of these technologies to operations in the marine icing environment.

- Identify research needs and make recommendations for development of new technologies icing.

US Army Corps of Engineers
Engineer Research and Development Center
Design Options for Offshore Pipelines in the US
Beaufort and Chukchi Seas

Objective: to provide design options for Pipelines with Arctic hazards such as strudel scour, upheaval buckling, and ice gouging

• Design options include evaluation of pipeline configuration, material selection, design parameters, operating conditions, application of strain-based and design methods.

• Design issues include construction, operations, integrity management, maintenance and intervention.

C-CORE
Seabed Scour and Buried-Pipeline Deformation due to Ice Ridges

**Objective:** to study factors affecting soil and pipeline deformation below scouring ice ridges in the Arctic
Environmental Studies-Ongoing about Sea Ice

- Mapping over-flooding of the landfast ice zone.
- Mapping surface currents in the Beaufort Sea.

www.salmonproject.org
Recent Environmental Studies-Completed

Mapping Ice Conditions in the Beaufort and Chukchi Seas

Lead systems dynamics

Landfast Ice

Before Mid-Winter Break-Out Events of the Landfast Ice  After
Oil Spill Research and Exercises
International Oil in Ice Workshop 2007

Objective: To discuss recent advances in the cleanup of oil spills in ice and cold climates and to guide future R&D in areas of common interest

Registration is now open through WWW.SLROSS.COM

- October 10-12 -- Marriott Hotel in Anchorage, AK

- Workshop funders
  - Minerals Management Service
  - Alaska Clean Seas
  - Alaska Department of Environmental Conservation
  - Cook Inlet Spill Prevention and Response
  - Prince William Sound Oil Spill Recovery Institute
  - U.S. Coast Guard.
Planning Support for an Experimental Oil Spill in Pack Ice

Objective: plan an experimental oil spill in pack ice offshore Eastern Canada in 2007/2008 to test current technology

- Partnering with the Department of Fisheries and Oceans Canada - Center for Offshore Oil and Gas Environmental Research and the Canadian Coast Guard.
Detection of Oil on and Under Ice

**Objective:** to assess the technical feasibility and cost of developing and incorporating airborne oil detection systems in future field trials with oil and ice.

Co-funded by
- MMS,
- Alaska Clean Seas
- Alaska Department of Environmental Conservation

Image of helicopter flying over snowy terrain.
Arctic Oil and Gas Activities in an Ice Diminished Environment

- Arctic nations will pursue oil and gas
- Offshore, current cold weather technology is probably well-adapted to warming conditions
- Onshore operations will change
- Nearshore operations would be affected
- Will ice “be reliable”? 
How to meet Challenges posed by possible climate changes

- Management based on high quality science coupled with engineering
- Adaptive management of resources and activities
- Research and incentives for new technology
- Monitoring and Evaluating changes
Partnerships (present and future information sources)

- AOOS – Alaska Ocean Observing System
  - [www.aoos.org](http://www.aoos.org)

- ARLIS – Alaska Resources Library and Information Services
  - [www.arlis.org](http://www.arlis.org)

- Coastal Marine Institute
  - University of Alaska

- NSSI – North Slope Science Initiative
  - DOI, State of Alaska, North Slope Borough, et al
http://www.mms.gov/alaska/

MMS Starts Preparation of New 5-Year OCS Leasing Program

The MMS solicited input from interested and affected parties as part of the process to prepare the new 5-year offshore oil and gas leasing program for 2005-2010. A notice in the Federal Register requested comments and suggestions for preparing the new program as well as information on issues and alternatives that should be addressed in the accompanying environmental statement. The comments received have been posted on this web site.

New Study Now Available

The Minerals Management Service (MMS) of the Department of the Interior has released a summary of the availability of a new study report, "Geological Maturity of the North Slope of Alaska: Data from 1995 to 1997, Final Report." The study results will be used to verify the status of hydrocarbon resources. The report describes a database of geologic and hydrocarbon data that reveals the "hydrocarbon potential" of the North Slope of Alaska. A GeoBase search by plume or by analyst allows investigators to access data associated with geologic or hydrocarbon surveys.

Alaska OCS Region

Welcome to the Alaska OCS Region, which manages the Outer Continental Shelf (OCS) Region of the Minerals Management Service (MMS) of the Department of the Interior. Our mission is to manage the mineral resources of the Outer Continental Shelf in an environmentally sound and safe manner.

If this is your first visit to the Alaska Region web, be sure to check out the Regional Director's Update and the Navigation Tips pages. If you have any suggestions for improvements or were unable to locate the information you were searching for, be sure to sign our GuestBook and let us know what you would like to see.

MMS issues draft Environmental Impact Statement for the proposed Liberty Development Project in the Beaufort Sea, Alaska. For the full text of the draft EIS and related documents click here.