



Invitation to Attend MMS Meeting

February 27, 2004

Minerals Management Service -Alaska Outer Continental Shelf Region Research Sponsorship Meeting on the Mapping of Surface Currents from High Frequency Radar in the Beaufort Sea and Cook Inlet

Date: March 31-April 1, 2004

Location: University of Alaska, Anchorage (Meeting location and directions will follow within the next week)

On behalf of the Minerals Management Service (MMS), we cordially invite you to attend a research sponsorship meeting on the mapping of surface currents in Alaska using high frequency (HF) radar. The meeting will be held at the University of Alaska, Anchorage, Alaska on March 31 and April 1, 2004. The current meeting agenda is attached.

Purpose

MMS is in the early planning stages of a pilot project to map surface currents in the Cook Inlet and Beaufort Sea using high frequency radar. This project is a proposed National Oceanographic Partnership Program (NOPP) pilot project. The purpose of this meeting is to ascertain the technical information needed such as site logistics, permits, computer hardware and software, power requirements, technical expertise, and budget required to deploy and maintain the HF radar units and provide continuous mapping of surface currents within these areas. A second important objective is to identify interested parties willing to share in the technical, logistical, and monetary support towards the successful implementation and sustainability of this project. The meeting will explore these possibilities.

Proposed Pilot Project Areas

Cook Inlet

The Cook Inlet is a 350-Km long estuary located in south-central Alaska (Figure 1). A portion of the Cook Inlet has year-round oil and gas exploration and production. The Lower Cook Inlet is on the current MMS five year oil and gas leasing schedule.

The currents in the Cook Inlet are complex. Cook Inlet is characterized by extreme tidal variations up to 12.2 meters, and when combined with a shallow bottom can produce strong currents as high as 8 knots. The convergence and divergence of different water masses produces strong rip tides as well.

This meeting will provide important information for the successful implementation of surface current mapping within Lower Cook Inlet .



Figure 1. This is a map of the proposed Cook Inlet Lease Sale Area (gray blocks). The pilot project would attempt to partially overlap the MMS lease blocks shown in gray.

Beaufort Sea

The Alaska North Slope and adjacent Beaufort Sea produce approximately 20% of the United States' oil. A portion of the oil is produced from hydrocarbon reservoirs beneath the seabed in the Beaufort Sea. The Northstar Oil Field produces oil from State of Alaska and Federal leases.

The area of interest within the Beaufort Sea as shown below is ice covered for over nine months of the year. The meeting and subsequent pilot project will determine the feasibility of mapping Beaufort Sea nearshore currents during the open water season.

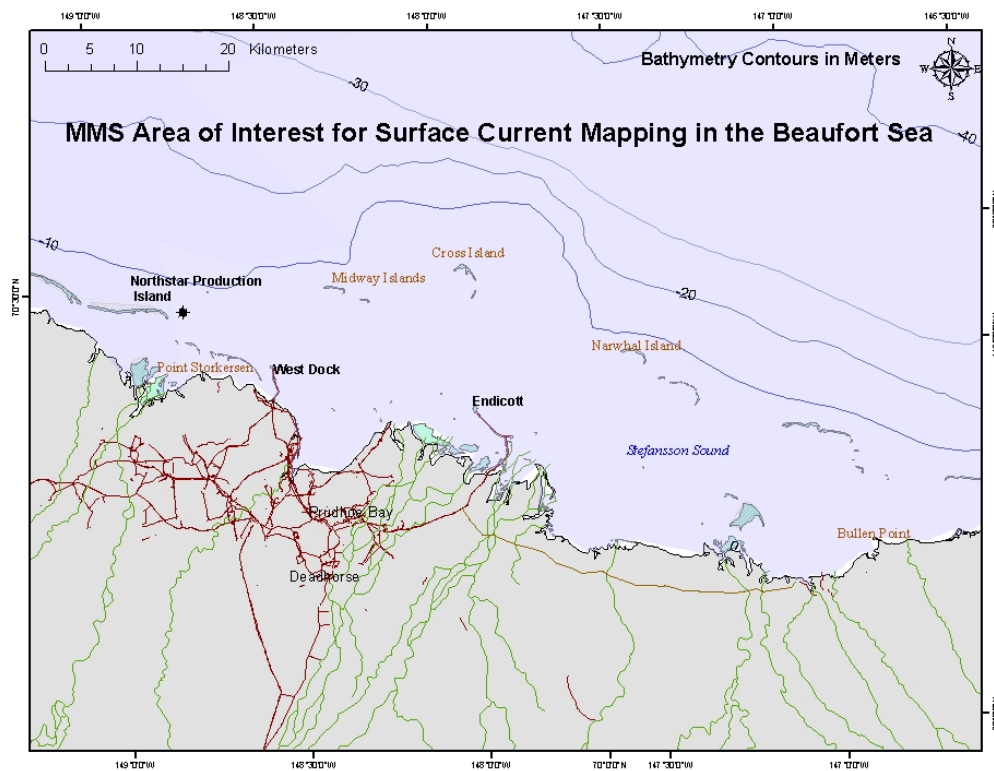


Figure 2. This map displays a portion of the Beaufort Sea and North Slope coastal area between the Northstar Production Island in the west and Stefansson Sound in the east. The red and brown lines are the pipelines. West Dock and Endicott are oil production facilities.

Proposed Meeting Framework

The meeting includes two invited talks on the theory and operation of HF radars for surface current mapping and examples of application at various locations. Dr. Pierre Flament (University of Hawaii) will present the introductory basics and applications

using beam-forming linear-phased arrays. He will briefly introduce the application of HF radar for mapping surface winds and using bi-static arrangements for transmit and receive antennas. Dr. Scott Glenn (Rutgers University, LEO-15) will talk about applications of collocated transmit and receive antennas using Direction-Finding algorithms and briefly cover the concept of ship detection.

A presentation by Dr. Dave Musgrave (University of Alaska Fairbanks) will address the issues regarding site selection in Cook Inlet and the Beaufort Sea and remote power and data transmission. A panel will discuss and field questions on the general application of HF radar for surface current mapping and its particular application in Alaskan waters. Posters on various aspects of HF radar in Alaska will be available for viewing throughout the meeting.

Representatives from governmental agencies and private companies will discuss what potential contributions they can contribute to the pilot project. Participants will develop the outline for recommendations for the pilot project.

Participants will be able to voice concerns and interests in surface current mapping and other products from HF radar in Cook Inlet, Beaufort Sea and other Alaskan waters.

Hotel Information

We have reserved a block of rooms at the Marriott Residence Inn, 1025 35th Avenue, Anchorage, Alaska 99508. The hotel is next door to MMS and offers complimentary airport shuttle service and full breakfast. Room rates are \$95.00 per night plus 8% tax. To reserve a room, please call (800) 314-0781 and ask for the MMS group rate.

If you have any questions, please contact Mr. Warren Horowitz, MMS at (907) 271-6554 or email at: Warren.Horowitz@mms.gov. Please let us know if you will attend by contacting the MMS meeting coordinator, Ms. Kathy Mitchell at (714) 850-4830, or email: kmitchell@mbcnet.net. **PLEASE RESPOND BY 8 MARCH 2004.**

Cordially,

MBC Applied Environmental Sciences



Kathryn L. Mitchell
Project Manager