



OCS Study MMS 2006-026



Proceedings of the Chukchi Sea Science Update Meeting

October 31 and November 1, 2005

Anchorage, Alaska

Organized by Minerals Management Service
Alaska Outer Continental Shelf Region
Anchorage, Alaska

With logistical assistance by
MBC Applied Environmental Sciences
Costa Mesa, California

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Introduction

General Background

The Outer Continental Shelf Lands Act, as amended, established a policy for the management of oil and natural gas in the Outer Continental Shelf (OCS) and for protection of the marine and coastal environments. The Act authorizes the conduct of studies in areas or regions of sales to determine the “environmental impacts on the marine and coastal environments of the OCS and the coastal areas which may be affected by oil and gas development.” The Minerals Management Service (MMS) is the administrative agency responsible for leasing submerged Federal lands.

The National Environmental Policy Act (NEPA) of 1969 requires use of the natural and social sciences in any planning and decision making that may have an effect on the human environment. To this end the MMS develops and participates in Environmental Impact Statements (EIS), environmental assessments (EA), and other decision documents. To support these efforts the Environmental Studies Program (ESP) conducts needed studies in the range of relevant disciplines including physical oceanography, fate and effects, biology, protected species, social science, and economics. The studies may be on marine environment data acquisition and data analysis, literature survey, monitoring, and socioeconomic analysis. The ESP also holds information transfer meetings periodically and workshops on special selected topics as needed. The MMS Scientific Committee reviews the MMS ESP annually and the National Research Council reviews it periodically. The MMS ESP continually attempts to maintain the highest scientific standards by working with and responding to their recommendations.

Background related to Chukchi Sea Science Update Meeting

MMS has held two oil and gas lease sales in the Chukchi Sea, 1988 and 1991. Resulting exploration detected some oil and gas (e.g., Shell’s Burger Prospect) but ultimately the leases were relinquished. In 2005 industry expressed interest in the Chukchi Sea.

[Subsequent to holding the Meeting, MMS in February 2006 released its *Draft Proposed Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*. In that Program MMS proposes lease sales in the Chukchi Sea in the years 2007, 2010, and 2012. Whether, when, and in which Planning Areas Lease Sale(s) may be held depends on decisions of

the Secretary of Interior for the forthcoming *Final Outer Continental Shelf Oil and Gas Leasing Program 2007-2012.*]

Objective To provide MMS analysts with up-to-date information on the Chukchi Sea Planning Area in preparing potential NEPA documents and assessments of pre-sale activities, such as further seismic exploration.

Agenda and Power Point Presentations

For the agenda, speakers and their subjects click on the icon "CSSU final agenda". For the presentation by each speaker in Power Point, click on the folder "CSSU Presentations" and then on the icons for the desired presentations.

MMS Chukchi Sea Science Update
3801 Centerpoint Drive, Anchorage

Monday October 31

Introduction

8:00 Welcome, meeting objectives, and time table (unless otherwise noted, each speaker would have 20 m to talk and 10 m to answer questions)

Dee Williams, MMS, Anchorage

Security measures in the MMS office

Karen Weerheim, MMS, Anchorage

8:10 Chukchi Sea Activity (1989-1991)

Dave Roby, MMS, Anchorage

8:20 Chukchi Sea Planning Area, Lease Sale 193, Proposed Scenario

Jim Lima, MMS, Anchorage

Oceanographic conditions in the NE Chukchi

Chaired by Caryn Smith and Tom Dunning Newbury, MMS, Anchorage

8:30 Overview—Satellite Observed Variability of the Arctic Ice Cover

Josefino Comiso, NASA Goddard, Greenbelt, MD

9:00 Break

9:15 Circulation and Water Mass Modification Processes on the Chukchi Sea Shelf

Tom Weingartner, UAF Institute of Marine Science (IMS), Fairbanks

9:45 Chlorophyll Distributions and Surface Primary Productivity from Space

Josefino Comiso, NASA Goddard, Greenbelt, MD

10:15 Benthic Fauna in the Northeastern Chukchi Sea

Ken Dunton and Susan Schonberg, University of Texas, Port Aransas

11:15 General Discussion, chaired by Caryn Smith and Tom Dunning Newbury

11:30 Lunch break

Marine-mammals in the NE Chukchi Sea

Chaired by Lisa Rotterman, MMS, Anchorage

1:00 Bowhead Whales in the Chukchi Sea

Craig George, NSB Dept. of Wildlife Management (DWM), Barrow

- 1:30 Beluga Whales
Robert Suydam, NSB DWM, Barrow
- 2:00 Ice Seals in the Chukchi Sea
Lori Quakenbush, AK Dept. of Fish and Game (ADF&G), Fairbanks
- 2:30 Pacific Walrus
Joel GarlichMiller and John Trent, USFWS, Anchorage
- 3:00 Break
- 3:15 Pacific walrus and subsistence
Caleb Pungowiyi, Marine Mammal Commission Special Advisor on Native Affairs, former Chair of Eskimo Walrus Comm., Kotzebue
- 3:45 Chukchi Sea: Polar Bear Information
Scott Schliebe, USFWS, Anchorage
- 4:15 Polar Bears in the Chukchi Sea
George Durner, Steven Amstrup, Geoff York, Eric Regehr, Kristin Simac, Torsten Bentzen, and David Douglas, USGS Alaska Science Center, Anchorage
- 4:45 General Discussion, chaired by Lisa Rotterman

Tuesday November 1

- 8:00 Trace Metals in Sediments, Northeastern Chukchi Sea
Sathy Naidu, UAF-IMS, Fairbanks

Marine and FW Fishes in the NE Chukchi Sea

Chaired by Jeff Childs, MMS, Anchorage

- 8:30 Fishes of the Northern Bering Sea and Chukchi Sea
Catherine Mecklenburg, Point Stephens Research, Auke Bay; David Stein, Smithsonian; Boris Sheiko and Natalia Chernova, Russian Academy of Sciences, St. Petersburg; and T. Anthony Mecklenburg, Pt. Stephens Research
- 9:00 Marine Fish Resources in the Chukchi Sea
Brenda Holladay, UAF, Fairbanks

9:30 Nearshore and Freshwater Fish of the Chukchi Region
Craig George, NSB DWM, Barrow

10:00 General Discussion, chaired by Jeff Childs (15 min)

10:15 Break

Marine and coastal birds in the NE Chukchi Sea

Chaired by Jeff Gleason, MMS, Anchorage

10:30 Steller's and Spectacled Eiders in the Northeast Chukchi Sea
Sarah Conn, USFWS, Fairbanks

11:00 King and Common Eiders
Robert Suydam, NSB DWM, Barrow; and Lori Quakenbush, ADF&G,
Fairbanks

11:30 Migration Ecology of Loons in Northwest Alaska
Joel Schmutz, USGS Alaska Science Center, Anchorage

12:00 Lunch break

1:00 Status of Long-tailed Ducks in the Chukchi Sea
Paul Flint, USGS Alaska Science Center, Anchorage

1:30 Marine and Coastal Birds in the NE Chukchi Sea—Shorebirds
Richard Lanctot, USFWS, Anchorage, and Audrey Taylor, UAF,
Fairbanks

2:30 General Discussion, chaired by Jeff Gleason, MMS, Anchorage

2:45 Break

Subsistence and sociocultural resources

Chaired by Mike Burwell and Dee Williams, MMS, Anchorage

3:30 Shishmaref—Recent Changes in a Chukchi Coastal Village
Josh Wisniewski, UAF Department of Anthropology, Fairbanks

4:00 General Discussion, chaired by Mike Burwell and Dee Williams, MMS,
Anchorage

End of Chukchi Sea Science Update