
Minerals Management Service
Acoustic Monitoring and Mitigation Systems:
Status and Applications for Use by Regulated Offshore Industries

November 17-19, 2009
Boston Park Plaza Hotel & Towers
50 Park Plaza at Arlington Street, Boston, MA 02116

PROPOSED AGENDA

Meeting Objective: Learn about, discuss and better understand the current status of acoustic hardware and software tools for marine mammal monitoring and mitigation as applied to offshore industries. This will include the capability, applicability, feasibility, availability, cost and other benefits and limitations of acoustic systems as they pertain to different marine mammal and operational contexts. The discussion will focus on currently available acoustic systems, along with some potentially beneficial applications under development.

Tuesday, November 17, 2009

8:00 am Registration and Continental Breakfast

9:00 am Welcome, Meeting Objectives and Agenda, Participant Introductions

Robert LaBelle, Deputy Associate Director, Offshore Energy & Minerals
Management, Minerals Management Service
Gail Bingham, RESOLVE, *facilitator*

9:45 am Session I: Setting the Stage

Goals: Understand the present requirements for acoustic monitoring and mitigation of industry activities that fall within the Minerals Management Service's jurisdiction and highlight key concepts for assessing what kinds of improvements are desirable and the capabilities of existing tools to provide solutions.

Robert LaBelle, Deputy Associate Director, Offshore Energy & Minerals
Management, Minerals Management Service

Questions and Discussion

10:30 am BREAK

10:45 am Session I: Setting the Stage [continued]

Presentation: "A Pragmatic Approach: Finding Functional Solutions
Recognizing the Capabilities and Limitations of Existing Technology"

William T. Ellison, Marine Acoustics

Presentation: “*Framing the Discussion Using an Acoustical Ecology Perspective*”

Christopher Clark, Cornell University Bioacoustics Research Program

Questions and Discussion (for both presentations)

12:15 LUNCH on your own

1:30 pm Session II: The Sensor - Passive Monitoring (“fixed” systems)

Goals: Understand the state-of-the-art regarding existing, fixed passive acoustic monitoring tools applicable to basic requirements for regulated offshore industries (e.g., animals present, and what kind) and to special cases where some form of research must accompany the basics (e.g., How many animals? What are they doing?). Information in this session will address questions such as: What can be learned from long-term fixed or short-term fixed passive acoustic recording systems? For what kinds of sounds and under what conditions are these technologies best suited and most applicable? What monitoring and mitigation protocols are needed to achieve scientifically acceptable levels of resolutions so as to adequately address risk criteria requirements? What are the limitations and concerns of different existing solutions, under different circumstances, and when/how can these limitations be overcome? What is the commercial availability of these systems? (Operational issues will be discussed in Session V.)

Overview Presentation:

Renata S. Sousa-Lima, Cornell University Bioacoustics Research Program

Case Examples:

Leila Hatch, Stellwagen Bank National Marine Sanctuary, NOAA

Bill Streever, BP

Roy Wyatt, Seiche Measurements Limited

Discussion (with response panel)

3:45 am BREAK

4:00 pm Session II: The Sensor - Passive Monitoring (“towed” systems)

Goals: Understand the capabilities of towed passive acoustic systems as applied to basic requirements (e.g., animals present, what kind, and within mitigation range) and to special cases where some form of research must accompany the basics (e.g., Distribution of animals? How did they respond?). Information in this session will address questions such as: Under what situations might this technology be useful or most applicable? For what kinds of sounds and under what conditions is this technology best suited and most applicable? What are the limitations and concerns, under different circumstances, and when/how can these limitations be overcome? What is the commercial availability of these systems? What other practical considerations should be understood? (Operational issues will be discussed in Session V)

Overview Presentation:

Aaron Thode, Scripps Institution of Oceanography

Case Examples

Mary Jo Barkasi, RPS Energy

David Hanney, Jasco Research

Claudio Fossati, Cibra, University of Pavia

Clarification Questions [*plenary discussion resumes in the morning*]

5:30 pm Adjourn

Wednesday, November 18, 2009

8:00 am Continental Breakfast and Informal Conversation

8:45 am Open Day 3

9:00 am Session II: The Sensor - Passive Monitoring (“towed” systems) [continued]

Discussion (with response panel)

10:00
w/break

Session II: The Sensor – Active Acoustic

Goals: Learn about the capabilities and limitations or concerns about available technologies and discuss the circumstances, if any, in which these technologies could be used in a way that addresses concerns.

Overview Presentation:

Jim Theriault, Defence Research & Development Canada

Case Examples:

Frank Reier Knudson, Simrad

Peter Stein, Scientific Solutions, Inc.

Gordon Hastie, SMRU Ltd

Discussion (with response panel)

Noon LUNCH on own

1:15 pm Session III: Signal Processing
Goals: Understand the capabilities and limitations of various software options currently available. Discuss desired performance characteristics in different situations, and the pros and cons, and feasibility, of standardization.

Overview Presentation:

David Mellinger, Oregon State University Hatfield Marine Science Center

Case Examples:

Doug Gillespie, Scottish Oceans Institute, University of St. Andrews

Christopher Clark, Cornell University Bioacoustics Research Program

Discussion

3:45 am BREAK

4:00 pm Session IV: Reporting Metrics

Overview Presentation:

Aaron Thode, Scripps Institution of Oceanography

Questions and Discussion

5:00 pm Adjourn

Thursday, November 19, 2009

8:00 am Coffee/Tea and Informal Conversation

8:30 am Open Day 3

8:45 am Session V: Operations and the Operator
Goals: Discuss the operational issues associated with operating acoustic monitoring systems on a variety of vessel types and/or other circumstances, operator qualifications and training, the pros and cons of standardization and certification, safety issues, etc.

Interactive Panel

James Cashour, RPS Energy

Philip Fontana, Polarcus

David Hedgeland, PGS

Major Smith, BHP Billiton

Bernard Padovani, CGGVeritas

Discussion

10:45 am BREAK

11:00 am Session VI: Open Session

Goals: General participant discussion of issues identified during the workshop that need additional time to explore.

12:00 pm LUNCH on your own

1:15 pm Session VII: View to the Future

Goals: Summarize key needs and discuss what hardware and software technology is (or is not) on the near horizon to meet these needs.

3:00 Closing Session

Interactive “Listening Panel” *Summarize and provide perspectives on highlights of the workshop.*

Christopher Clark, Cornell University Bioacoustics Research Program

William T. Ellison, Marine Acoustics

Howard Rosenbaum, Wildlife Conservation Society

Brandon Southall, SEA, Inc.

Bill Streever, BP

Closing Remarks

James Kendall, Chief, Environmental Division, (invited)

Minerals Management Service

4:00 Adjourn