

Joint Working Group on Vessel Strikes and Acoustic Impacts



Co-Chairs

Lance Morgan, MCBI; CBNMS SAC

Jackie Dragon, Greenpeace; GFNMS SAC alternate

Working Group Members

Michael Jasny, Natural Resources Defense Council

Carol Keiper, Oikonos

John Calambokidis, Cascadia Research

Frances Gulland, The Marine Mammal Center

John Hildebrand, Acoustician Scripps

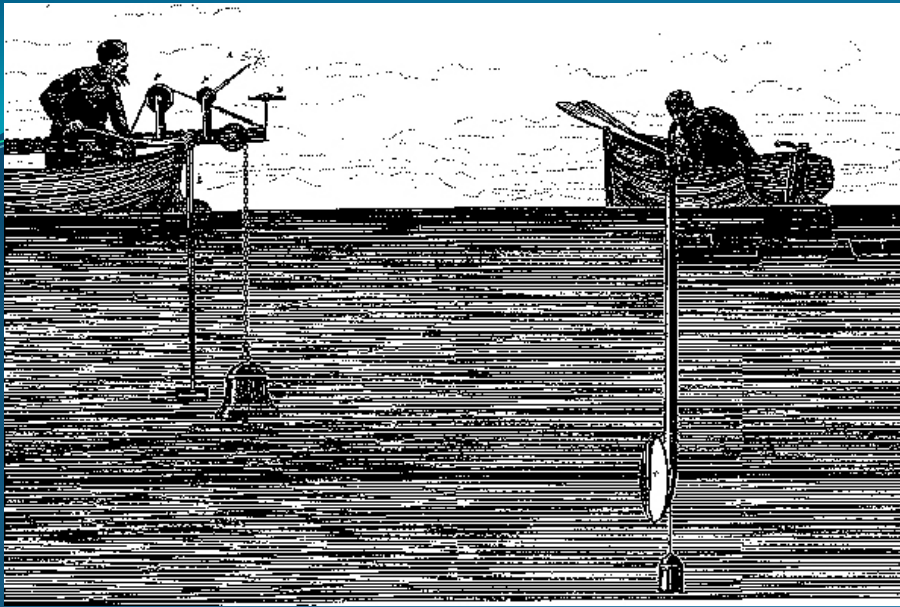
John Berge, Pacific Marine Shipping Association

Kathy Metcalf, Chamber of Shipping of America

Captain Bill Mahoney, APL Maritime, Ltd.

CDR, Kiley Ross, USCG Inspections and Investigations Branch Chief

Peter Fischel, SW Regional Office NMFS



Technical Experts/Acoustics

Leila Hatch, Stellwagen Bank National Marine Sanctuary

Chris Miller, Naval Postgraduate School

Brandon Southall, Southall Environmental Associates, Inc.

Megan McKenna, Marine Mammal Commission

Ingrid Overgard, Farallones Marine Sanctuary Association

Priority Acoustic Objectives

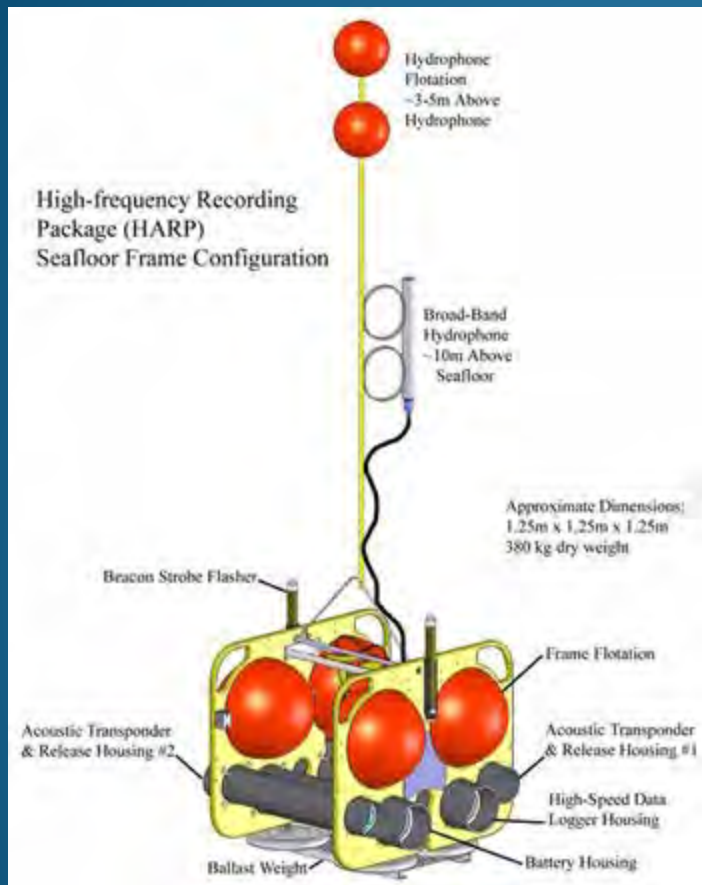
- 1) Monitor long term trends in anthropogenic sound in the sanctuaries
- 2) Determination of occurrence of marine mammal species acoustically that cannot be monitored with current visual surveys (sperm whales and beaked whales). Add additional understanding to the distribution and abundance of blue and humpback whales in between at sea surveys and at night.
- 3) Evaluation of effects of sound on marine mammals in the sanctuaries
- 4) Provide acoustic information necessary to support and monitor management efforts

Acoustics:

- Ocean basin noise has increased $\sim 3\text{dB}/\text{year}$
- Shallow water sites are generally quieter than deep ocean sites
- 10% of commercial vessel have engine or propeller damage
- Best predictors of noise level were speed, length, month, wave height
- NOAA- national efforts
- IMO- New ship design standards



Research Potential



Passive Acoustic Monitoring Devices (HARPs) have the potential to:

- Verify ship noise by vessel class, size, speed and aspect for radiated noise measurement
- Provide evidence of changes in call patterns in response to ship close approaches
- Apply vessel noise model to AIS tracks to estimate regional noise levels.
- AIS + PAM = regional noise profile
- Provide data for consideration of Acoustic Marine Protected Areas

Possible Management Actions/Acoustics:

- Consolidate or re-route shipping lanes to reduce ensonification
- Set speed restrictions
- Identify the noisiest ships- then manage through speed restrictions or port incentives
- Work with port authorities to provide incentives for use of ship quieting technologies or compliance with ship quieting guidelines
- Establish ambient noise base criterion for “good environmental status” within the region or area of concern and basing management efforts on achieving that status.
- Engage in consultations per NMSA, ESA, MMPA
- Work with appropriate regional planning bodies, such as West Coast Governors Agreement
- Petition IMO for the designation of a PSSA, and advocating for measures at IMO to protect the PSSA from noise related impacts

PARS Update

- The USCG will propose a shift of the TSS for the entrance to SF Bay and LA/LB ports to the IMO.
- Domestic USCG rulemaking process will proceed in-parallel to the IMO process, with FR notice published the same day as IMO adoption.
- ONMS and NMFS will be collaborating with USCG
- USCG will have a draft proposal ready at the end of February to submit to the inter-agency US delegation in March. The US delegation approved proposal has to be submitted to the NAV subcommittee by March 31st for the meeting in July.

Next Meetings:



April 12-13

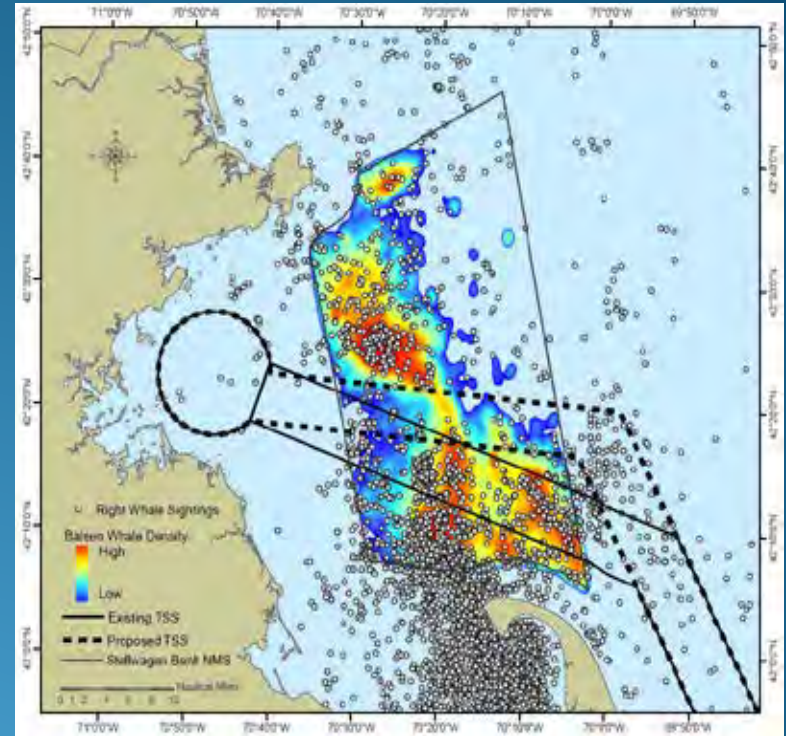
May 17

June 7 Final Recommendations

<http://www.dosits.org/>

Proposed Analyses

- AIS Analysis of Ship Speed
 - Archival
 - Real-Time Data to Inform Management
- Acoustic Profile of Sanctuary
 - John Hildebrand?
- Maps of Whale and Vessel Distribution in Sanctuary
 - Michael Carver, ACCESS
 - Carol Keiper, Biogeographic Assessment



Other Issues:

- Prioritize Species (Blues, Humpbacks, Fins, Grays)
- Vessels of Opportunity for Monitoring
- Measurable Outcomes (We want 'em!)
- Correction Factor (How many whales actually get struck by ships in the region?)
- Identify Key Partners
- Recommended Traffic Lanes to Avoid Whales
- Complex Relationship Between Strikes and Noise
- Socio-Economic Impacts