Marine Seismic Research Oversight Committee
Annual Meeting (MSROC)

Sunday December 10, 2017

10:00 am to 5:00 pm

10:00 – 10:15 AM: Introduction and meeting overview (Pat Hart)
MSROC overview
Meeting goals

10:15 – 10:45 AM: NSF Briefing and discussion (Maurice Tivey)
NSF Seismic Capabilities Solicitation
NSF OBS Solicitation

10:45 – 11:00 AM: UNOLS Update (Jon Alberts)
UNOLS office recompetition
Global Class- FIC & Science Mission Requirements

11:00 – 11:30 AM: L-DEO Update and discussion (Sean Higgins)

11:30 – Noon: IODP and MSROC (Sean Gulick)

Noon – 1:00 PM: Lunch (not provided)

1:00 – 1:15 PM: OBSIC (Del Bohnenstiehl)
Update from OBS Symposium (held Sept 18-19, 2017- Portland, ME.)

1:15 – 1:30 PM: Alaska Amphibious Community Seismic Experiment - Marine Seismic Community Update (Emily Roland)

1:30 – 1:45 PM: New Zealand *Langseth* Programs (Nathan Bangs)

1:45 – 2:15 PM: Regional Framework and International tasks discussion (Pat Hart)
Letters of Interest for seismic programs using capabilities similar to the *Langseth*

2:15 – 2:45 PM: Growing experience with high-resolution 3D marine seismic in research and industry (Tip Meckel/Bureau of Economic Geology- Univ. of TX-Austin)

2:45 – 3:00 PM: USGS Coastal and Marine Geology high-resolution marine seismic capabilities (Maureen Walton/USGS)

3:00 – 3:15 PM: Marine Seismic Assets task discussion (Pat Hart)

3:15 – 3:30 PM: Break

3:30 – 3:45 PM: Seismic Data Acquisition Training Cruise for Early Career Scientists (Anne Trehu)

3:45 – 4:00 PM: Training and Outreach task discussion (Pat Hart)

4:00 – 5:00 PM: Revisit earlier topics / open discussion as needed (Pat Hart)

~5:00 PM: Adjourn meeting

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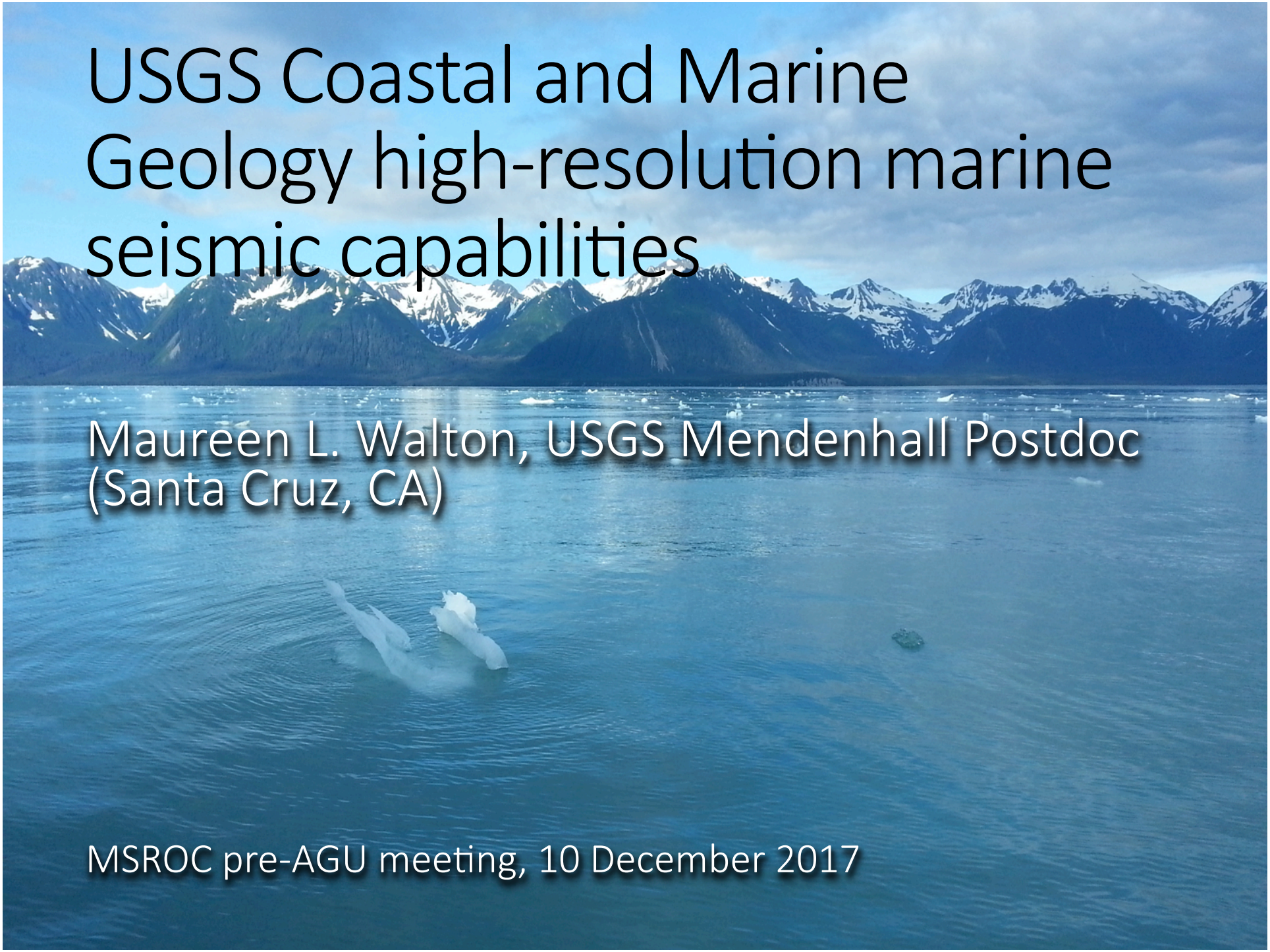

USGS Coastal and Marine Geology high-resolution marine seismic capabilities

Maureen L. Walton, USGS Mendenhall Postdoc (Santa Cruz, CA)

MSROC pre-AGU meeting, 10 December 2017

Discussion questions for enabling broader use of high-resolution marine seismic assets:

- Would a comprehensive inventory of high-resolution seismic acquisition equipment (sources, receivers, recording systems, etc.) create easier access to these assets. Only NSF owned or USGS and University owned also?
- What role should or could MSROC have in developing and maintaining a distributed seismic assets instrument pool?
- Is there a possible strategy for insuring any equipment loaned between institutions? Or are the current informal lending procedures sufficient?
- What is the best procedure for technical support personnel from one institution to be included in projects run by another institution?
- High-pressure compressors, necessary for air gun operations, are a gap in U.S. government and academic seismic assets and need to be leased from industry. Should portable compressors be purchased and added to an equipment pool?

Thoughts on a possible ultra-high res 3D training cruise in ~2019:

- This would be fundamentally different from the 2017 Revelle training cruise
- The goal would be to identify region and geologic problem where high-res 3D would be of value to another agency (perhaps USGS, DOE or BOEM) or currently funded project to share costs
- Limited slots would be available for trainees as high-res 3D operations require experienced operational crew. Therefor it may be best to have two or three nearshore legs to allow more participation.
- Ideally, trainees would have some marine seismic experience and this cruise would provide knowledge of the complexity of high-res 3D operations and the value of the data
- The Gulf of Mexico is a good regional option; available ships and compressors, good seismic imaging, extensive existing publically available seismic database and complex geologic targets of interest to DOE and BOEM

Example of positive impact from MLSOC:

- MLSOC distributed a Marine Seismic Questionnaire in summer 2016 and received 263 responses.

- Among the many results, the need for at-sea marine seismic experience for early career scientists was identified.

- This finding helped motivate the very successful September 2017 UNOLS Marine Seismic Training Cruise using the R/V *Revelle.*

- Cruise participants, with Valerie Sahakian as primary contact, have submitted a Letter of Interest to MSROC and will be submitting a formal proposal to NSF for a Cascadia seismic research cruise following up on results obtained during the training cruise