

Winter MLSOC Meeting

- New format for the MLSOC winter meeting (always held the day before AGU)
 - Business meeting in the morning
 - Afternoon was dedicated to science presentations from recent two years of *R/V Marcus Langseth* cruises.
 - An emphasis was placed on having a mix of students and PI's to present their initial research findings. (4 students and 7 PI's)
 - We closed with spectacular presentations by Steve Holbrook (Cascadia: Community cruise) and Nathan Bangs (Costa Rica: 3D data).



COAST: Cascadia Open-Access Seismic Transects



W. Steven Holbrook

Graham Kent

Katie Keranen

Paul Johnson

Anne Trehu

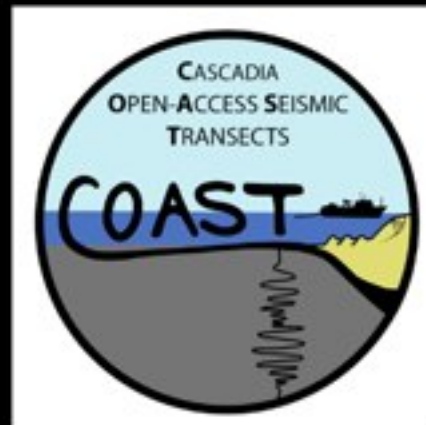
Harold Tobin

Jeff Beeson

Jackie Caplan-Auerbach

Ashton Flinders

The COAST 2012 Team



R/V *Langseth* cruise MGL1212

Astoria, Oregon - Astoria, Oregon

July 12-24, 2012

Vital Statistics:

- ~1100 km MCS data acquired
- Full coverage multibeam bathymetry in deeper water (>2 km)
- Gravity, magnetic data acquired
- No 3.5 kHz data (mech failure)

Seismic Acquisition:

- 8-km, 636-channel streamer (2D)
- 36-gun, 6600 cu. in. array
- Two tow depths for guns and streamer: 9 m and 15 m (data comparison)
- Onshore Reftek piggyback conducted (Trehu/Abers)

R/V Langseth cruise MGL1212

Scientific & Operational Goals:

- Locate the offshore plate boundary
- Identify downdip variations in plate boundary structure
- Determine the nature of the plate boundary interface (subducting sediment, etc.)
- Quantify upstream inputs to ETS zone (porosity, fluid pressure, etc.)
- Image offshore methane system
- Produce data in support of future 2D and 3D seismic surveys of Cascadia margin

Education & Outreach Goals:

1. Conduct an Open-Access cruise:

- All geophysical data immediately available

Raw data: www.marine-geo.org/tools/search/entry.php?id=MGL1212

Migrated stacks: www.ig.utexas.edu/sdc/cruise.php?cruiseIn=mgl1212

2. Conduct an Open-Participation cruise:

- Shipboard party selected from ~60 applicants
- Every available berth filled

R/V Langseth cruise MGL1212: Open-Participation



R/V *Langseth* cruise MGL1212: Open-Participation

PI's:

W. Steven Holbrook, Univ. of Wyoming
Graham Kent, Univ. of Nevada
Katie Keranen, Univ. of Oklahoma

Honorary PI's:

Harold Tobin, Univ. of Wisconsin
Jackie Caplan-Auerbach, WWU

Postdocs:

Emily Roland, USGS-Anchorage
Danielle Sumy, USGS-Pasadena

Students:

Kate Allstadt, Univ. of Washington
Robert Anthony, New Mexico Tech
Shahar Barak, Stanford Univ.
Jeff Beeson, Oregon State Univ.
Janine Buehler, Scripps Inst. of Oceanography
Brian Covellone, Univ. of Rhode Island
Brady Flinchum, Univ. of Nevada
Ashton Flinders, Univ. of New Hampshire
Will Fortin, Univ. of Wyoming
Dalton Hawkins, Univ. of Oklahoma
Annie Kell, Univ. of Nevada
Dara Merz, Western Washington Univ.
Marie Salmi, Univ. of Washington

20 Participants: 5 faculty, 2 postdocs, 13 grad students

14 institutions represented

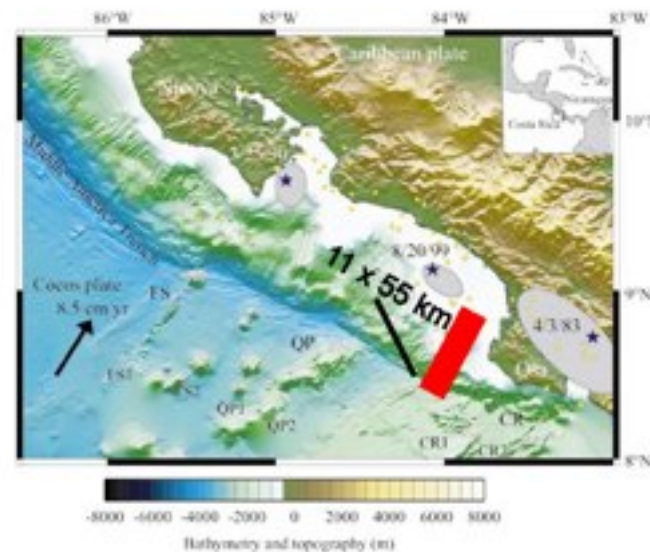
13 "newbies":

8 people had never been to sea

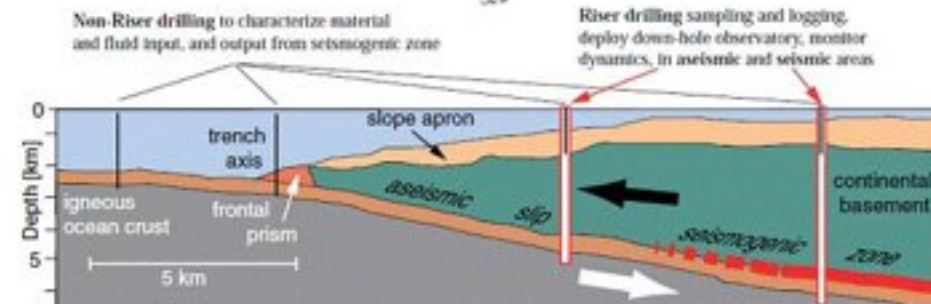
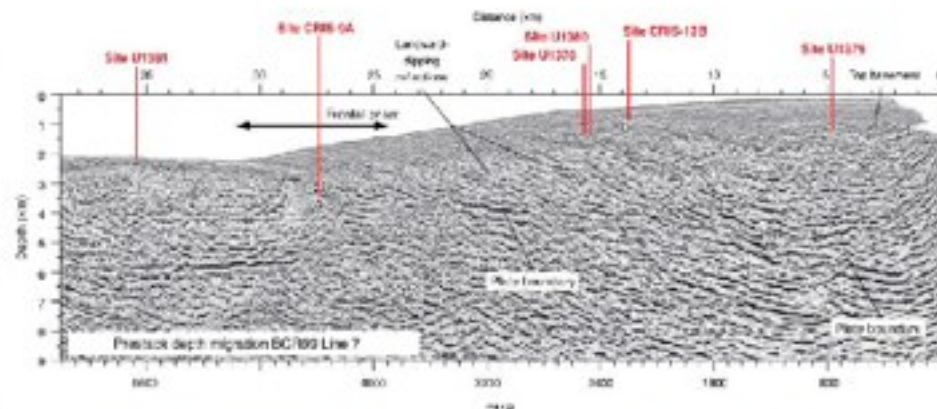
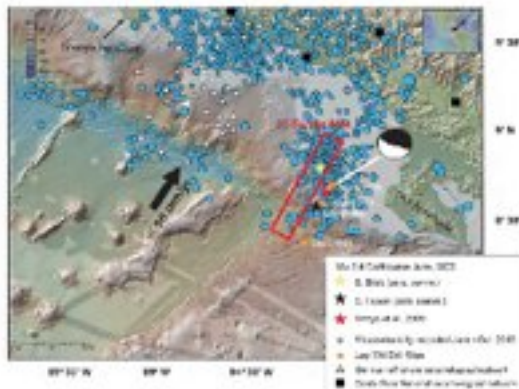
5 others had never participated in an MCS cruise

A 3D look into the Costa Rica subduction zone

Nathan Bangs
Kirk McIntosh
Eli Silver
Cesar Ranero
Jared Kluesner



Leg 334 Drilling Sites and planned Leg 344 Sites



MLSOC activities

- Expanding the *Langseth* listserv
- Initiating a bi-monthly newsletter to keep the community aware
- Continue the science focus for the Winter meeting
- Try again to solicit “Letters of Interest/Intent” from the community
- Encourage Community Cruises
- Encourage 3D seismic PI’s to produce short videos of their datasets. This can capture the magic.

2013 Science Schedule (~187 Operating days)


- *January/February- Maintenance*
- *March:* Transit to Galveston, TX
- *April/May:* Canales- Mid-Atlantic Ridge (Bermuda to Azores)
- *June/July:* Sawyer- Galicia Basin– (Vigo to Vigo, Spain)
- *July/August:* Hey– S. Reykjavik Ridge – (Reykjavik to Reykjavik)

RFP Pending:

- *Sept/October: BGR- Svalbard Margin - (Reykjavik to Reykjavik) ?? ~30-40 days 2D Seismic*

Possible Atlantic Projects for 2014-2015

- Canadian Geological Survey – Hudson Bay (~25-35 days) –Fall 2015
- USGS Cruises –Extended Continental Shelf (ECS) Mapping Project possible on Atlantic Coast in 2014 and 2015
- Geoprism Project -- Fall 2014
- New Jersey Margin 3D, etc. in Summer 2014



L-DEO Office of Marine Operations:
UNOLS FIC Meeting
March 5, 2013
SIO, San Diego, CA

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Outline:

1. OMO Office Update
2. 2013 Schedule – Atlantic Ocean
3. Possible 2014-2015 Projects
4. Update on Glosten Winch Plan
5. Maintenance Period Updates
6. SSSE and Ocean Instrumentation
Proposal Review

OMO Office Activities:

1. Maritime Union Negotiations almost complete for next 5-years.
2. Export Control Licenses & Technology Control Plans now moving forward at CU/LDEO (Gravimeter/POS-MV)
3. Contracts/Permitting 3rd Party Science-PGE & SONGS Projects. PG&E Cancelled and SONGS postponed
4. Germany- Seismic surveys – NE Atlantic (Fall 2013)?
Canadian Geo. Survey- Hudson Bay/Strait (Fall 2015)?
5. Syntrak Spare Electronics shipment arrived from Western-Geco in Norway – Provides 100% spares for ship and possible 2nd portable system as well.
6. Discussions with ION and others ongoing for possible seismic system upgrades, etc.
7. Hosted RVTEC – February, 2013 --~90-100 Attendees.

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Glosten Winch Plan Implementation

Update on Glosten Winch Plan:

- Decision made by NSF to re-deploy R/V Wecoma CTD and coring winches and mid-ship's crane to Langseth. Installation begins in late 2013. New winch control house to be installed in new mid-ship location following final equipment layout design in late 2013
- Bridge ship check by Glosten and Jenson Marine for modifications – Goal is to improve visibility on port and starboard. Also includes bridge improvements (eg. Adding head to bridge)

On right, photo of Langseth leaving OSU Marine Facility on Feb.27 for transit to Atlantic.



Maintenance Update- Winter 2013

Maintenance Highlights:

Ship Systems:

- New Oil Water Separator and Scrubbers
- Ariel Compressor repairs and vibration testing
- Deck, engine room fans, and laundry vent repairs
- MG Set evaluation and installation of new power management controllers.
- *Propulsion clutch control system repairs*
- *Wireless controls deck hydraulics*
- *Effer crane repairs*
- *ABS and USCG Annuals –Completed COI*
- *Cooling system heat exchangers major service*

Science Systems

- Additional 30kv of targeted UPS added in lab –
- Seismic Acoustics upgraded from SIPS to DigiRange
- Streamer Reel 4 gearbox repaired and other reels evaluated
- Computer network upgraded
- Pinger pole constructed and installed

2013 SSSE Proposal Projects:

OMO Priority:

- | | |
|--|------------|
| 1. PA System Replacement | \$ 210,124 |
| 2. Science Workboat Davit Replacement | \$129,644 |
| 3. Wireless controls/valves (A-Frame, capstans,etc.) | \$ 92,213 |
| (Completes wireless control system) | |

OMO Request: \$431,981

2013 Ocean Instrumentation Proposal

2013 Ocean Instrumentation Funded Projects:

OMO Priority:

- | | |
|--|-----------|
| 1) BARO-16 Vane swap (\$20K) and associated hardware (3) | \$ 64,000 |
| 2) 50%-Doors for improving towing Source Arrays (3) | \$ 22,000 |

OMO Funded: \$86,000