

MLSOC AGU Meeting — December 11, 2016 L-DEO Office of Marine Operations

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Langseth 2016 Schedule

- NSF –Reece 2D/OBS –S.Atlantic (Jan.2- Feb.25)
- NSF-NERC- Rychert Passive OBS Deployment- E. Equatorial Atlantic— (Feb.28-April 1)
- Transit from Cape Verde to Jacksonville, FL (April 2-13)
- Maintenance BAE Jacksonville- (April 13- May18)
- Layup- SUNY Maritime Pier- (May 20- August 6)
- Shipyard- ISR, Tampa, FL- (August 11- October 5)
- Transit from Tampa to Arica, Chile (October 6- 21)
- Trehu "PICTURES" Project- N. Chile- (Oct. 22- Dec 10)
- Valparaiso Anchorage- (Dec.13-Jan.6)

Langseth -Drydock- Aug.-Sept. 2016



Shipyard at International Ship Repair, Tampa, FL

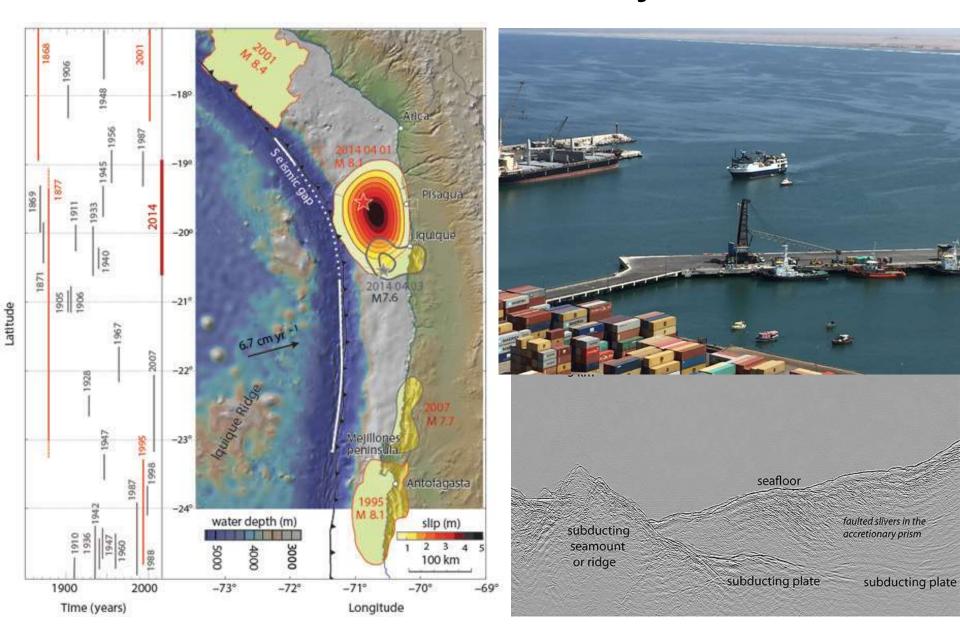
- Painting hull, decks, house
- All tanks and sea valves inspected and tested
- New hot water system heater and tanks installed and potable water tank painting
- Pulled tail shafts and rudders
- Aft streamer deck repairs
- Hydraulic and steering system repairs
- Deck hydraulics
- Replaced ADCP and 12kHz transducers in pod
- Installed new DS-80 Speed Log
- Installed new SeaPath 330
- Wireless Controls Project completed



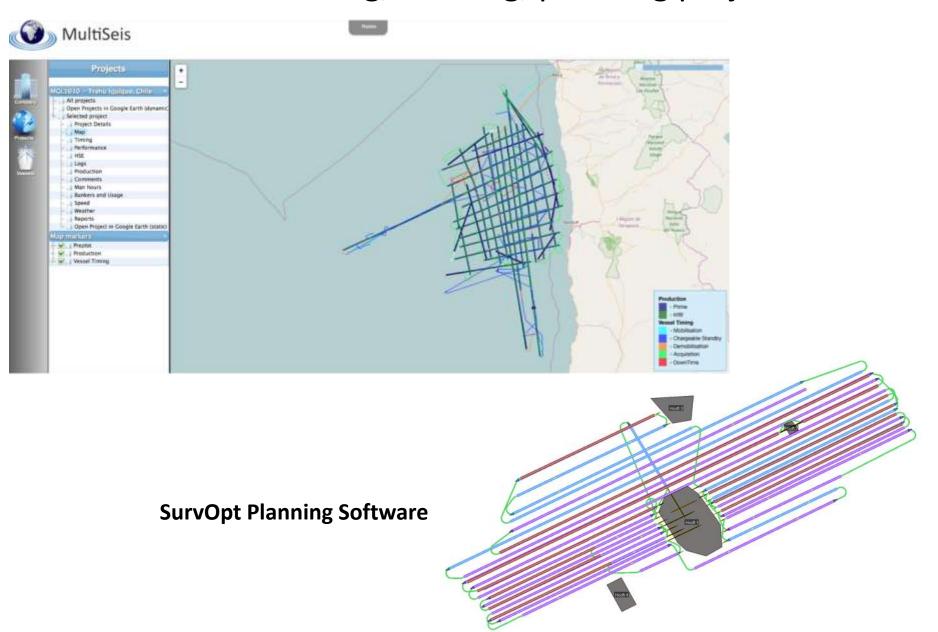
Langseth Draft 2017-18 Schedule

- NSF –Bangs, et al 2D –(15km-12.6 MCS)- S. Chile (Jan.8- Feb.20)
- 55
- NSF- McIntosh –SHIRE Project- New Zealand (Oct-Nov)
- NSF –Bangs et al.-Hikurangi 3D- (Jan-Feb)

Trehu "Pictures" Project



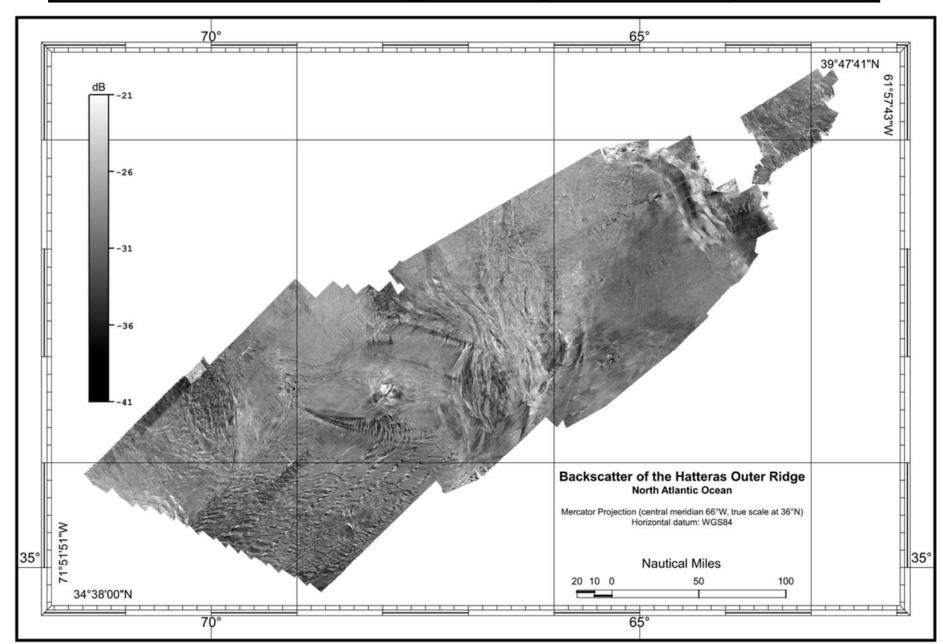
Tools for communicating, tracking, planning projects



Tools for communicating and tracking project



NOAA-UNH Multibeam_ECS Project Results (B.Calder)



Environmental Permitting and Compliance

New NMFS Acoustic Guidance for future cruises

Incidental Harassment Authorization (MMPA) and Biological Opinion(ESA) are key documents that define project and compliance requirements

State Dept. Clearances for foreign EEZ's are required and can have additional environmental and reporting requirements.

Acoustic Studies at OMO

Shima Abadi, Maya Tolstoy, et al

J. Acoust. Soc. Am. 2015

"Sound source localization technique using a seismic streamer and its extension for whale localization during seismic surveys"

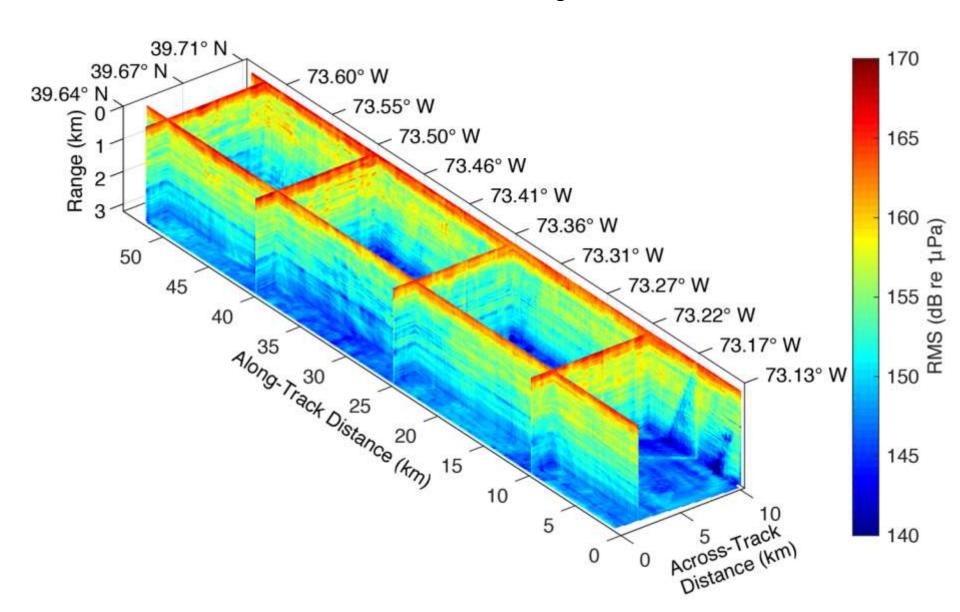
Tim Crone, Maya Tolstoy, Helene Carton --- G-Cubed 2014

"Estimating shallow water sound power levels and mitigation radii for the R/V Marcus G. Langseth using an 8 km long MCS Streamer"

Tim Crone, Maya Tolstoy, et al (in prep)

"Analysis of NJ Margin from 2D MCS Streamer Data
300,000 shots along 79 lines of 2D data"

NJ Margin Project: 3D Volume of db levels in RMS along 3km 2D Streamer



2016 Equipment Acquisition From Western Pride

<u>Salvaged Equipment – Cost \$160K including shipping –</u>

Ariel Compressors Gangway Variety of other parts (doors, parts)

Engine spares Plumbing Spares Evap System

Compressor Spares Lead-In Winches Removable Traversing Gooseneck

SERCEL Seal 408 Streamer System 2015

NSF Funded Seal 408 with Sentinel Solid Streamers

Seismic System Upgrade

Purchase included 20km streamer



Future 3D Need is about 8km either by leasing or purchase.

Lease prices are \$300-400K based on recent quotes. Limited options.

OMO has worked on a new purchase from CGG to purchase for about \$400K

2016 Notable OMO Staff Changes

James O'Loughlin – Captain on Langseth retired after 34 years on Conrad, Ewing, and Langseth.

Carlos Gutierrez: Announced retirement after 43 continuous years in early 2016. Worked on all LDEO ships (Vema, Conrad, Ewing, and Langseth since 1973.

