

Transit From Portland to Astoria, OR

MGL1001

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

No Production

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

Line Charge Analysis

Sailed Km

05/05/2010

| | |
|---------|--------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

Time Activity Analysis

05/05/10

| | |
|------------------------|-------|
| Recording | 0.00 |
| Maneuvering | 0:00 |
| Weather Instruments | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Streamer Damage | 0.00 |
| Transit | 6:22 |
| Port Call | 17:48 |
| Medical Transfer | 0:00 |
| Work Boat Ops | 0:00 |
| Total: | 24.00 |

Transit From Portland to Astoria, OR

MGL1001

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 17:48 | Alongside Dock Portland |
| 17:48 | 24:00 | Transit Down River to Astoria |

UTC Midnight (24:00) Position / Heading:

Pos 46 15.53 N
123 34.75 W
HDG: 277Deg
SPEED: 11.00 Kts

Weather:

Winds WSW 15-20 kts.
Seas 1-2 ft.

Comments

Local time is UTC-7

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Blackwood

Daily Summary:

The day started out with us along side in Portland, OR. Around 14:50 GMT the vessel was switched from Shore power back its own internal electrical system. All Science system were powered up to start system checks. At 16:00 all Science Systems were confirmed online and operational with the exception of the PCo2 and TSG as there is still some outstanding welding to complete. When the engineers have some free time tomorrow we hope to have it completed. 17:48 all lines were clear and the vessel got underway for Astoria.

Tomorrow: Expect to arrive in Astoria ~02:00 GMT were we will load the remaining Science Equipment (Doors, PV2000's, Tailbuoy Frames, and Spare Tail Stretches.) in preparation for getting underway the following morning for Hawaii.

Best Regards
Robert Steinhaus

Transit From Portland to Astoria, OR

MGL1001

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

No Production

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

Line Charge Analysis

Sailed Km

05/06/2010

| | |
|---------|--------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

Time Activity Analysis

05/06/10

| | |
|------------------------|-------|
| Recording | 0.00 |
| Maneuvering | 0:00 |
| Weather Instruments | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Streamer Damage | 0.00 |
| Transit | 02:45 |
| Port Call | 21:15 |
| Medical Transfer | 0:00 |
| Work Boat Ops | 0:00 |
| Total: | 24.00 |

Transit From Portland to Astoria, OR

MGL1001

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 17:48 | Alongside Dock Portland |
| 17:48 | 24:00 | Transit Down River to Astoria |

UTC Midnight (24:00) Position / Heading:

Pos 46.1933 N
123.793 W
HDG: 245 Deg
SPEED: 0 Kts

Weather:

Winds WSW 10-15 kts.
Seas 1-2 ft.

Comments

Local time is UTC-7

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Blackwood , Tim Newberger(5/6)

Daily Summary:

The day started out with in transit from Portland to Astoria. At ~02:45 GMT we arrived in Astoria. The Majority of the day was spent on loading the Science Equipment and securing the vessel for sea. Science Equipment loaded today was 3 x Baro 15 defectors, 2 x Tailbuoy Frames, 1 x PV2000 Head Float, and two spider reels loaded with Taildrags. We also off loaded for storage 2 x 10 ton winches and 2 x Old Gun Hose Bundles. Engine room continued to test and make adjustments on Main Engines and the Pitch Controllers. Contract on to finish up some welding on the After Peak Tanks and on the Sensor Bay in the USS.

Tomorrow: Finish installing sensor in the USS system, so this can be started up shortly after crossing the bar to begin the TSG and PCo2 Testing. Continue to get vessel read for sea and once underway make sure everything remains secure. Begin Transit to Hawaii.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

No Production

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

Line Charge Analysis

Sailed Km

05/07/2010

| | |
|---------|--------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

Time Activity Analysis

05/07/10

| | |
|------------------------|-------|
| Recording | 0.00 |
| Maneuvering | 0:00 |
| Weather Instruments | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Streamer Damage | 0.00 |
| Transit | 0:20 |
| Main Engines | 09:21 |
| Port Call | 14:19 |
| Medical Transfer | 0:00 |
| Work Boat Ops | 0:00 |
| Total: | 24.00 |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 14:19 | Alongside Dock Astoria |
| 14:19 | 23:40 | Sea Trials on Main Engines |
| 23:40 | 24:00 | Transit to Honolulu, Hawaii. |

UTC Midnight (24:00) Position / Heading:

Pos 46 11.17N N
 124 10.75 W
HDG: 216 Deg
SPEED: 10.76 Kts

Weather:

Winds ESE 15-20 kts.
Seas 1-3 ft.

Comments

Local time is UTC-7

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

Daily Summary:

We started the day along side Pier 1 Astoria, OR. Shortly after day break local time (14:19 GMT) we got underway for a series of sea trials to test the new engine control system. We used this time to bring up all the Science Systems and get them in logger so their data could be recorded. Also we continued to work on finishing up the last bit of welding on the Sensor Bay for the USS. The majoring of the day was taken up with installing the sensor and repairing the few leaks that were found in the system. TSG and PCo2 are both currently online and look to be functioning properly. Also work on setting up the EM122 and Knudsen, both also seem to be functioning properly and a BIST test for the EM122 has been send to the office. At 23:30 Sea Trials were complete and the Tech reps from Rolls Royce and Bill Blackwood disembarked the vessel via small boat back to shore. Vessel immediately got underway for Hawaii.

Tomorrow: Continue Transit to Honolulu, Hawaii. Work on finishing install the Sensor Bay to the USS in the Bow Thruster room. Continue updating Streamer Histories. Work on cleaning and organizing the ET shop after this last push to get all science systems up and running.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

No Production

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

Line Charge Analysis

Sailed Km

05/08/2010

| | |
|---------|--------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

Time Activity Analysis

05/08/10

| | |
|------------------------|-------|
| Recording | 0.00 |
| Maneuvering | 0:00 |
| Weather Instruments | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Streamer Damage | 0.00 |
| Transit | 24:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |
| Medical Transfer | 0:00 |
| Work Boat Ops | 0:00 |
| Total: | 24.00 |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 24:00 | Transit to Honolulu, Hawaii. |

UTC Midnight (24:00) Position / Heading:

| | |
|--------|-------------|
| Pos | 43 15.83 N |
| | 128 41.91 W |
| HDG: | 228 Deg |
| SPEED: | 11.5 Kts |

Weather:

| | |
|-------|-------------|
| Winds | N 5-10 Kts. |
| Seas | 1-3 ft. |

Comments

Local time is UTC-7

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

Daily Summary:

Vessel continued on it transit to Hawaii. During the day we continue to tune in the New Knudsen and launched a T-7 XBT to get a profile into the EM122. We finished up the Piping for the USS Sensor Bay and the system is now completely up and operational. We completed the serial data run for the MicroSV in the USS Sensor Bay. Near the end of the day we did a calibration on the load cell for the CTD winch

Tomorrow: Continue Transit to Honolulu, Hawaii. We will launch another T-7 XBT in the morning. We also plan on tensioning Streamer 1 during the day weather permitting. We will monitor all science systems throughout the day while continuing to take care of things that are on the work list.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

No Production

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

Line Charge Analysis

Sailed Km

05/09/2010

| | |
|---------|--------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

Time Activity Analysis

05/09/10

| | |
|------------------------|-------|
| Recording | 0.00 |
| Maneuvering | 0:00 |
| Weather Instruments | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Streamer Damage | 0.00 |
| Transit | 24:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |
| Medical Transfer | 0:00 |
| Work Boat Ops | 0:00 |
| Total: | 24.00 |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|---|
| 00:00 | 17:00 | Transit to Honolulu, Hawaii. |
| 17:00 | 19:30 | Deployed Streamer #1, Continued Transit to Honolulu, Hawaii. |
| 19:30 | 21:20 | Retrieved Streamer #1, Continued Transit to Honolulu, Hawaii. |
| 21:20 | 24:00 | Transit to Honolulu, Hawaii. |

UTC Midnight (24:00) Position / Heading:

Pos 40 25.44 N
132 51.93 W
HDG: 226 Deg
SPEED: 10.6 Kts

Weather:

Winds WNW 20-25 Kts.
Seas 3-6 ft.

Comments

Local time is UTC-7

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

Daily Summary:

Vessel continued on it transit to Hawaii. During the day we launched a T-7 XBT. We deployed and retrieved Streamer #1 so as to re-tension it on its reel. We ran another BIST test on the EM122 which it passed.

Tomorrow: Continue Transiting to Honolulu, Hawaii. We plan on stopping the vessel for a brief period of time (~10min) to retrieve a water sample over the side of the ship. This sample will be used as a control sample to compare with the readings the PCo2 is giving. Also while the vessel is stopped we will take the opportunity to deploy a T-5 XBT and run a BIST test on the EM122 with the ship quite in the water. The rest of the day will be taken up by working on times from the Science Work List.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

No Production

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

Line Charge Analysis

Sailed Km

05/10/2010

| | |
|---------|--------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

Time Activity Analysis

05/10/10

| | |
|------------------------|-------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 22:30 |
| Ship Repair | 1:30 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 16:00 | Transit to Honolulu, Hawaii. |
| 16:00 | 17:30 | Vessel turned head Seas and Stopped to do repairs on leaking Water Tight doors.. |
| 17:30 | 24:00 | Transit to Honolulu, Hawaii. |

UTC Midnight (24:00) Position / Heading:

Pos 37 51.66 N
 136 29.00 W
HDG: 227 Deg
SPEED: 10.1 Kts

Weather:

Winds WSW 5-10 kts.
Seas 3-5 ft.

Comments

Local time is UTC-7

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

Daily Summary:

Vessel continued on it transit to Hawaii. In the morning (Local Time) the vessel was stopped so the main deck could be cleared of water, while repairs to the hatch to the Port Aft Dry Lab could be made. While the vessel was stopped we took the opportunity to launch a couple of T-5 XBT. We also ran another BIST test on the EM122 with the vessel stopped in the water to check the ships noise. In addition Tim Newberger had a chance to collect a couple of control samples from over the side of the ship for PCo2 Measurements. Later in the day water was notice to be coming in to the IT/SO office through the over head. The leak was traced to the through deck penetrations for the A-Frame Lights and some electrical cables for the old deck crane. These leaks will remain until the vessel is in better weather and can affect repairs. Twice during the day the Stbd main engine had to be taken offline so the engineers could make repairs. The rest of the day was spent working on Items from the Science Work list.

Tomorrow: Continue Transiting to Honolulu, Hawaii, while working on the Science Work List items.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/11/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/11/10 |
|--------------------------------------|-----------------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 24:00 |
| Ship Repair | 0:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

UTC Midnight (24:00) Position / Heading:

| | |
|--------|-------------|
| Pos | 34 52.22 N |
| | 140 33.82 W |
| HDG: | 225 Deg |
| SPEED: | 10.2 Kts |

Weather:

| | |
|-------|---------------|
| Winds | SW 15-20 kts. |
| Seas | 3-5 ft. |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 24:00 | Transit to Honolulu, Hawaii. |

4. Comments

Local time is UTC-8

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

5. Daily Summary:

Vessel continued on it transit to Hawaii. We dropped a T-7 XTB and updated the Profile in the EM122. We also continued the updating of Streamer Histories (inventory), as well as finishing up the cleaning and re-origination of the Tech Shop and Stores. We also continue to work on other items from the Science Work List. There continues to be issues with the Stbd Pitch control which the Engine room is working through, but for now the Stbd propeller is under Emergency Control.

Tomorrow: Continue Transiting to Honolulu, Hawaii. We plan on working on the deck penetrations above the IT/SO office tomorrow, as well as sorting through the PMI rods on the OBS deck. We will also start to setup the tipping rain gauge and PAR Sensor to be mounted on top of the winch control booth. We will also continue working on other items Science Work List items.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/12/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/12/2010 |
|--------------------------------------|-------------------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 23:55 |
| Ship Repair | 0:05 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

UTC Midnight (24:00) Position / Heading:

| | |
|--------|-------------|
| Pos | 31 49.28 N |
| | 144 33.51 W |
| HDG: | 204 Deg |
| SPEED: | 0.2 Kts |

Weather:

| | |
|-------|---------------|
| Winds | SE 10-15 kts. |
| Seas | 2-4 ft. |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 23:55 | Transit to Honolulu, Hawaii |
| 23:55 | 24:00 | Stopped vessel to do some Trouble shooting on Stbd Pitch Issues. |

4. Comments

Local time is UTC-8

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

5. Daily Summary:

Vessel continued on it transit to Hawaii. We dropped a T-7 XTB and updated the Profile in the EM122. We continued the updating of Streamer Histories (inventory), as well as worked on getting a PosNet Tailbuoy GPS pod operational. We also start trying to sort out the Data Interface for the Tipping Rain Gauge and PAR sensor. We continued to work on other items from the Science Work List. There continues to be issues with the Stbd Pitch control which the Engine room is working through, but for now the Stbd propeller is under Emergency Control. Also repaired the Deck penetrations above the IT/SO office and re-installed the overhead.

Tomorrow: Continue Transiting to Honolulu, Hawaii. We will continue with the updating of Streamer Histories as well as working on the PosNet GPS Tailbuoy Pod and the Auxiliary MET sensors (Rain Gauge and PAR Sensor) in addition continuing to work on other items Science Work List items. While the vessel is stopped for trouble shooting of the Stbd Pitch issues, we will drop at T-5 XBT as well as take another control water sample for the PCo2 over the side of the vessel.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/13/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/13/2010 |
|--------------------------------------|-------------------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 23:45 |
| Ship Repair | 0:15 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

UTC Midnight (24:00) Position / Heading:

| | |
|--------|-------------|
| Pos | 28 49.77 N |
| | 148 21.17 W |
| HDG: | 224 Deg |
| SPEED: | 11.3 Kts |

Weather:

| | |
|-------|--------------|
| Winds | S 15-20 kts. |
| Seas | 4-6 ft. |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 00:15 | Stopped vessel to do some Trouble shooting on Stbd Pitch Issues. |
| 00:15 | 24:00 | Transit to Honolulu, Hawaii |

4. Comments

Local time is UTC-9

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

5. Daily Summary:

Vessel continued on it transit to Hawaii. While the vessel was stopped shortly after day change for so the Engine room could do some more trouble shooting of the Stbd Pitch issues, we dropped a T-5 XTB to update the Profile in the EM122. We dropped another T-7 later in the day, but did not update the EM-122 Profile. We completed updating of Streamer Histories (inventory). We also test PosNet Tailbuoy GPS pod (1391) to make sure we had an operational unit. We continued to work on other items from the Science Work List. There continues to be issues with the Stbd Pitch control which the Engine room is working through, but Stbd propeller is still under Emergency Control.

Tomorrow: Continue Transiting to Honolulu, Hawaii. We plan on having a training class on the operation of the PCo2 with Tim Newberger and Science Techs and continue to work on other items from the science work list.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/14/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/14/2010 |
|--------------------------------------|-------------------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 23:45 |
| Ship Repair | 0:15 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

UTC Midnight (24:00) Position / Heading:

| | |
|--------|-------------|
| Pos | 25 51.96 N |
| | 152 00.02 W |
| HDG: | 223 Deg |
| SPEED: | 10.8 Kts |

Weather:

| | |
|-------|---------------|
| Winds | SE 10-15 kts. |
| Seas | 4-6 ft. |

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 24:00 | Transit to Honolulu, Hawaii |

4. Comments

Local time is UTC-9

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

5. Daily Summary:

Vessel continued on it transit to Hawaii. We dropped another T-7 during the day and update the EM-122 Profile. We continued to work on other items from the Science Work List. There continues to be issues with the Stbd Pitch control which the Engine room is working through, but Stbd propeller is still under Emergency Control.

Tomorrow: Continue Transiting to Honolulu, Hawaii. We will have a training class on the operation of the PCo2 with Tim Newberger as well as install Rain Gauge and PAR Sensor. We also plan on Tensioning Streamer #2 during the day as well as continuing to work on other items from the science work list.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/15/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/15/2010 |
|--------------------------------------|-------------------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0.00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 24:00 |
| Ship Repair | 0:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

UTC Midnight (24:00) Position / Heading:

Pos: 23 04.44N
155 21.49W

Cos: 234 deg
Speed: 10.2kts

Weather:

Wind: W@18.3kts
Seas: 2-4ft. Depth: 4196m

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations
Cc: Reports Group
Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|-------------------------------|
| 00:00 | 24:00 | Transit to Honolulu, Hawaii |

4. Comments

Local time is UTC-9

Science technical staff currently on board:

McKiernan, Ng, Steinhaus,

LDEO Staff currently on board:

Tim Newberger

5. Daily Summary:

Vessel continued on it transit to Hawaii. We dropped another T-7 during the day and update the EM-122 Profile. We continued to work on other items from the Science Work List. There continues to be issues with the Stbd Pitch control which the Engine room is working through, but Stbd propeller is still under Emergency Control. We also complete the training by Tim Newberger on the PCo2, as well as re-tensioned Streamer #2.

Tomorrow: We will continue the transiting to Honolulu, Hawaii arriving at the sea buoy mid-afternoon GMT (~09:00 Local). We will pick up at the Sea buoy the on-signing Scientist, Personnel, Technicians, Contractors, and Personnel that are need to complete the JMS/NSF Ship inspection. As well as conduct the EM-122 Sea Acceptance Test (SAT) and make repairs on the pitch and engine control systems over the following three days.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/16/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/16/2010 |
|--------------------------------------|-------------------|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 0:00 |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 1:50 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 22:10 |
| Ship Repair | 0:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |

Total: 24.00

UTC Midnight (24:00) Position / Heading:

Pos: 21 16.00 N
158.29.23 W

Cos: 220 deg

Speed: 2.3 kts

Weather:

Wind: WNW@ 10-15 kts

Seas: 2-4 ft.

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 18:00 | Transit to Honolulu, Hawaii |
| 18:00 | 19:30 | Standing by Honolulu Sea Buoy |
| 19:30 | 19:50 | Water Taxi Along Side Transferring Science Party for JMS/NSF Inspection and Multibeam SAT. |
| 19:50 | 24:00 | Transit to Multibeam Testing Site |

4. Comments

Local time is UTC-9

Science technical staff currently on board:

Ng, Steinhaus, & Johnson

Science Party and other Staff currently on board:

Newberger, Rupert, Diebold, & O'Hara (LDEO), Holik (NSF), Coburn (JMS), Shore & McGovern (U Hawaii), Harris & Hohing (Kongsberg), Gobet & Whyte (Rolls Royce)

5. Daily Summary:

Vessel continued on it transit to Hawaii. On arrival at the Sea buoy the vessel had to wait a shore time for the launch to arrive with the Science Party for the JMS/NSF Ship Inspection, as well as two Field Service Techs from Kongsberg for the EM122 SAT. Also join the vessel were two Field Service Techs from Rolls Royce to trouble shooting the Stbd Pitch and Control Issues. Once everyone was onboard the vessel started the transit to the EM122 Test Site. During the Transit the new people joining were given a safety orientation briefing. In addition a brief Pre Survey planning meeting was held. During this time the Rolls Royce Techs began their trouble shooting of the Stbd Pitch and Engine Control Issues. During the personnel transfer one Science Tech (McKiernan) was sent ashore, at Doctors request, to receive medical treatment for an injury he suffered a few days earlier.

Tomorrow: We will start the EM122 Sea Acceptance Test (SAT) as well as trouble shooting the Stbd Pitch & Engine Control issues..

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/17/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/17/2010 |
|--------------------------------------|---|
| Recording | 0.00 |
| Line Change | 0:00 |
| Weather | 0:00 |
| Instrument | 24:00 Multibeam Calibration and Testing |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0:00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 0:00 |
| Ship Repair | 0:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |
| Total: | 24.00 |

UTC Midnight (24:00) Position / Heading:

Pos: 21 08.82 N
159 00.57 W

Cos: 203 deg
Speed: 2.0 kts

Weather:

Wind: ESE @ 5-10 kts
Seas: 1-3 ft.

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 17:53 | EM-122 Patch Test Calibration w/ Seapath |
| 17:53 | 19:11 | Transit to EM-122 Survey Area |
| 19:11 | 24:00 | EM-122 Ship Noise Test. |

4. Comments

Local time is UTC-9

Science technical staff currently on board:

Ng, Steinhaus, & Johnson

Science Party and other Staff currently on board:

Newberger, Rupert, Diebold, & O'Hara (LDEO), Holik (NSF), Coburn (JMS), Shore & McGovern (U Hawaii), Harris & Hohing (Kongsberg), Gobet & Whyte (Rolls Royce)

5. Daily Summary:

The entire day was use for Calibration of the EM-122 and Checking Ships Noise to the Array. During the Calibration the Engine room was able to do some trouble shooting of the Stbd Engine Pitch and Control Issues. Throughout the Day different parts of the JMS/NSF ship inspection took place.

Tomorrow: We will continue with the JMS/NSF Ship Inspection. We will start the Multibeam Survey as well as do a CTD cast to 2500m. The Engine room will continue to work on the Stbd Engine Pitch and Control issues. If time permits we will try to do another Patch Test with the EM-122 using the PosMV system.

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/18/2010 | Sailed Km |
|------------|-----------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/18/2010 |
|--------------------------------------|---|
| Recording | 0.00 |
| Line Change | 0:00 |
| CTD | 1:22 |
| Instrument | 18:58 Multibeam Calibration and Testing |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0:00 |
| Demobilization | 0.00 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 3:40 |
| Ship Repair | 0:00 |
| Main Engines | 0:00 |
| Port Call | 0:00 |
| Total: | 24.00 |

UTC Midnight (24:00) Position / Heading:

Pos: 21 10.57 N
158 11.26 W

Cos: 090 deg
Speed: 11.1 kts

Weather:

Wind: NW @ 30 kts
Seas: 4-6 ft.

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 05:43 | EM-122 Patch Test & Survey |
| 05:43 | 07:04 | CTD Station #1 (2500m) |
| 07:04 | 12:04 | Multibeam Survey |
| 12:04 | 13:48 | Attempted to run EM122 Calibration with POSMV. |
| 13:48 | 20:20 | Multibeam Survey (Seapath) |
| 20:20 | 24:00 | Transit Honolulu Sea buoy. |

4. Comments

Local time is UTC-10

Science technical staff currently on board:

Ng, Steinhaus, & Johnson

Science Party and other Staff currently on board:

Newberger, Rupert, Diebold, & O'Hara (LDEO), Holik (NSF), Coburn (JMS), Shore & McGovern (U Hawaii), Harris & Hohing (Kongsberg), Gobet & Whyte (Rolls Royce)

5. Daily Summary:

Most of the day was used to continue to run test on the EM122. However time was taken out to do a CTD cast to 2500m. We also attempted to run the EM-122 SAT test with the POSMV, but it was found out that our version was not compatible. Just before the end of the day we wrapped up the Multibeam survey and start the transit back to Honolulu Sea Buoy to drop off some of the Scientist that were onboard to participate in the EM122 Sea Acceptance Test (SAT). Throughout the day the NSF/JMS Ship Inspection continue as well as Rolls Royce continue trouble shooting and repairs to the Stbd Main Engine Pitch and Control system.

Tomorrow: We will start the day by continuing to Transit to Honolulu Sea Buoy drop off some of Scientist that were onboard to participate in the EM122 Sea Acceptance Test (SAT). Once the transfer has been made the vessel will return off shore to continue to running addition test on the EM122 as well as continuing to trouble shot and repairs to the Stbd Main Engine Pitch and Control issues. The vessel will remain offshore until ~ 09:00 local where it will return to Honolulu to undertake a port call at the University of Hawaii's dock facility..

Best Regards
Robert Steinhaus

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

1. PRODUCTION SUMMARY

| 05/19/2010 | <u>Sailed Km</u> |
|-------------------|-------------------------|
| Prime | 0.0000 |
| Infill | 0.0000 |
| Reshoot | 0.0000 |
| Total: | 0.0000 |

2. STATISTICAL ANALYSIS (DECIMAL HOURS)

| <u>Time Activity Analysis</u> | 05/19/2010 |
|--------------------------------------|--|
| Recording | 0.00 |
| Line Change | 0:00 |
| CTD | 0:00 |
| Instrument | 3:20 Multibeam Calibration and Testing |
| Hydraulics | 0:00 |
| Source | 0.00 |
| Streamer | 0.00 |
| Seismic Air Compressor | 0.00 |
| Mobilization | 0:00 |
| Demobilization | 0:10 |
| Streamer Control | 0.00 |
| Cetaceans - PAM | 0:00 |
| Transit | 7:28 |
| Ship Repair | 8:08 |
| Main Engines | 0:00 |
| Port Call | 4:54 |
| Total: | 24.00 |

UTC Midnight (24:00) Position / Heading:

Pos: 21 19.96 N
157 53.17 W

Cos: 200 deg
Speed: 0 kts

Weather:

Wind: SE @ 15-20 kts
Seas: Calm

Transit From Astoria, OR to Honolulu, Hawaii

MGL1002

R/V Marcus G. Langseth

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

3. TIME SUMMARY

| Start | End | Description / Comments |
|--------------|------------|--|
| 00:00 | 02:00 | Transit Honolulu Sea buoy |
| 02:00 | 02:10 | At Honolulu Sea Buoy |
| 02:10 | 06:07 | Transit to Multibeam Survey and Testing Area |
| 06:07 | 09:27 | Multibeam Survey and Testing Area |
| 09:27 | 17:45 | Main Engine Trouble Shooting and Testing |
| 17:45 | 19:06 | Transit to Pier #45 Honolulu, Hawaii. |
| 19:06 | 24:00 | Vessel Along Side Pier #45 Honolulu, Hawaii. |

4. Comments

Local time is UTC-10

Science technical staff currently on board:

Ng, Steinhaus, & Johnson

Science Party and other Staff currently on board:

Newberger

5. Daily Summary:

We started off the day in transit to the Honolulu Sea Buoy to disembark the Science Party (O'Hara (LDEO), Holik (NSF), Coburn (JMS), Shore & McGovern (U Hawaii)) via Water Taxi. Once they were disembarked we the vessel returned off shore to conduct some more EM-122 Test Lines with FM and Dual Swath modes on and off. Once those test were completed we handed the Engine room continued to Trouble shoot Engine Control Issues. Later in the day we made our way back to Honolulu where we berthed at Pier #45. Once tied up Rupert, Diebold (LDEO) Harris & Hohing (Kongsberg) disembarked the vessel.

Tomorrow: Continue Port Call at Pier #45 Honolulu, Hawaii. Science Department will continue to work on Items from the Science Worklist. Anthony Johnson will take over duties at Chief Science Officer.

Best Regards
Robert Steinhaus