

Cruise: MGL1309

Date: 11/Aug/13

Reporter: RJS

Daily Report

Midnight Position / Info

Lat: 64° 009.157 N  
Lon: 21° 056.398 W

Speed over Ground: In Port  
Heading: In Port

Water Depth: In Port

Wind: In Port  
Seas: In Port

Current Equipment Deployed

In Port

Technical Staff Onboard:

Ch. Science Officer - Bern McKiernan  
Marine Tech - Robert (Bobby) Koprowski  
Marine Tech - Robb Hagg

Sr. Science Officer - Robert Steinhaus

Daily Summary

We spent all day alongside in Reykjavik, Iceland - MOB for MGL1309		Work List	% Complete	Work list	% Complete
		Lead-in Status update	100.00%		
		MARS Testing	100.00%		
		Prepare Equipment to be shipped	90.00%		
		Spec'ing out New Source Tow p	0.00%		
		Machine Shop Floor Painting	50.00%		
		Umbical Maintenance	100.00%		
		Repair Gun Tools	100.00%		
		Testing of All Science Equipment	100.00%		
		Cleaning and Securing Lab Space	100.00%		
		Hose Bundle Status Update	75.00%		
		Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow

We will spend all day alongside in Reykjavik, Iceland - MOB for MGL1309 - Will be conducting Gravity Tie's at University of Iceland and USGS Site (0126-01)		Major Science Equipment	Status	Major Science Equipment	Status
		SPECTRA	Off-Line	CNav3050	Operational
		Syntrak	Off-Line	EM122	Off-Line
		DigiCourse	Off-Line	Knudsen SBP	Off-Line
		DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
		Sea Path	Operational	882 Magnetometer	Off-Line
		PosMV	Operational	TSG	Off-Line
		PosNet	Operational	PCo2	Non-Operational
		SeisNET 1	Off-Line	HSN	Operational
		SeisNET 2	Off-Line	FBB	Operational
		PROC 1	Operational	MicoSV (USS WET LAB)	Operational
		PROC 2	Operational	META (Weather)	Operational
		CNav2000	Operational	ADCP	Non-Operational

MCS Production:

Prime: 0.000 Sail km

Infill: 0.000 Sail km

Reshoot: 0.000 Sail km

Total: 0.000 Sail km

Time Breakdown:

Production 0:00

Line Change 0:00

Weather Downtime 0:00

Technical Downtime 0:00

External Downtime 0:00

OBS Rosette Drop Test 0:00

OBS Deployment 0:00

OBS Recovery 0:00

CTD Cast 0:00

Gravity Core 0:00

Piston Core 0:00

Multi Core 0:00

Sonar Survey 0:00

Port Call 24:00

Transit 0:00

Total: 24:00

Technical Downtime:

Instrument Acquisition 0:00

Instrument Navigation 0:00

Hydraulics 0:00

Source 0:00

Streamer 0:00

Air Compressor 0:00

Other

Ship Repair 0:00

Total: 0:00

External Downtime:

Mitigation / PAM 0:00

Maneuvering 0:00

Fishing Gear 0:00

Weather 0:00

Total: 0:00

[illegible]

Cruise: MGL1309

Date: 12/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 64° 009.157 N  
Lon: 21° 056.398 W

Speed over Ground: In Port  
Heading: In Port

Water Depth: In Port

Wind: In Port  
Seas: In Port

Current Equipment Deployed

In Port

Technical Staff Onboard:

Ch. Science Officer - Bern McKiernan  
Marine Tech - Robert (Bobby) Koprowski  
Marine Tech - Robb Hagg

Daily Summary

We spent all day alongside in Reykjavik, Iceland -Robert Steinhaus departed the vessel at 15:00 GMT. Gravity tie at the University of Iceland along with a 2nd gravity tie at the Church in town. Complete science party has arrived. Safety brief with power point presnetation complete.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow p	0.00%		
Machine Shop Floor Painting	50.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Space	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow

We will prepare for departure. Complete safety tour for science party. Secure for sea and instruct science party on abandon ship protocol.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Off-Line
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Off-Line
PosMV	Operational	TSG	Off-Line
PosNet	Operational	PCo2	Non-Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

MCS Production:

Prime: 0.000 Sail km

Infill: 0.000 Sail km

Reshoot: 0.000 Sail km

Total: 0.000 Sail km

Time Breakdown:

Production 0:00

Line Change 0:00

Weather Downtime 0:00

Technical Downtime 0:00

External Downtime 0:00

OBS Rosette Drop Test 0:00

OBS Deployment 0:00

OBS Recovery 0:00

CTD Cast 0:00

Gravity Core 0:00

Piston Core 0:00

Multi Core 0:00

Sonar Survey 0:00

Port Call 24:00

Transit 0:00

Total: 24:00

Technical Downtime:

Instrument Acquisition 0:00

Instrument Navigation 0:00

Hydraulics 0:00

Source 0:00

Streamer 0:00

Air Compressor 0:00

Other

Ship Repair 0:00

Total: 0:00

External Downtime:

Mitigation / PAM 0:00

Maneuvering 0:00

Fishing Gear 0:00

Weather 0:00

Total: 0:00

[illegible]

Cruise: MGL1309

Date: 8/1363/2013

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 64° 038.264 N  
Lon: 27° 008.755 W

Speed over Ground: 10.10kt  
Heading: 255°

Water Depth: 1138m

Wind: 18SSW Seas: 2-3m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer - Bern McKiernan  
Marine Tech - Robert (Bobby) Koprowski  
Marine Tech - Robb Hagg

Daily Summary

We spent part of the day alongside in Reykjavik, Iceland -Vessel departed at 09:48.  
Science party vessel tour complete, science abandon ship training complete.  
Multibeam system pinging and logging. Knudsen online and logging. Maggie has been  
deployed. XBT launched. PCO2 online and operational.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow p	0.00%		
Machine Shop Floor Painting	50.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Space	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow

Continue transit to survey site monitor all systems online. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Operational
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

MCS Production:

Prime: 0.000 Sail km

Infill: 0.000 Sail km

Reshoot: 0.000 Sail km

Total: 0.000 Sail km

Time Breakdown:

Production 0:00

Line Change 0:00

Weather Downtime 0:00

Technical Downtime 0:00

External Downtime 0:00

OBS Rosette Drop Test 0:00

OBS Deployment 0:00

OBS Recovery 0:00

CTD Cast 0:00

Gravity Core 0:00

Piston Core 0:00

Multi Core 0:00

Sonar Survey

Port Call 9:48

Transit 14:12

Total: 24:00

Technical Downtime:

Instrument Acquisition 0:00

Instrument Navigation 0:00

Hydraulics 0:00

Source 0:00

Streamer 0:00

Air Compressor 0:00

Other

Ship Repair 0:00

Total: 0:00

External Downtime:

Mitigation / PAM 0:00

Maneuvering 0:00

Fishing Gear 0:00

Weather 0:00

Total: 0:00

[illegible]

[illegible]

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY   EARTH INSTITUTE
Mission Statement To understand how our planet works by observing its internal processes and surface features.
Current Project Overview
Project Name: MGL1309
Date: 15/Aug/13
Reporter: BKM
Daily Report
Midnight Position / Info
deg min Speed over Ground: 10.30kt
Lat: 58° 0' 25.137 N Heading: 98°
Lon: 31° 0' 53.148 W Water Depth: 1819.0
Wind: 12 Seas: 2-3m
Daily Summary
We spent most of the day transiting to the survey site. Launched XBT SEQ 3, T-5 full depth 2060M. At 16:10 we arrived at the start of the survey line. 20:30 Secured Knudsen 3.5 KHZ. Causing interference with Multibeam data. External sync not working.
Time Breakdown:
Production 24:00
Line Change 0:00
Weather Downtime 0:00
Technical Downtime 0:00
External Downtime 0:00
Technical Staff Onboard:
Ch. Science Officer - Bern McKiernan
Marine Tech - Robert (Bobby) Koprowski
Marine Tech - Robb Hagg
Plan for Tomorrow
Continue survey site and monitor all systems online. Launch daily XBT



[illegible]

[illegible]

[illegible]

[illegible]

Cruise: MGL1309

Date: 20/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 58° 003.737 N  
Lon: 31° 005.419 W

Speed over Ground: 09.70kt  
Heading: 275°

Water Depth: 2028.0

Wind: 35 Seas: 3-5m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary. Continued survey. HDDS crash was a single incident today. Sea state picked up through the day but we were still able to make ~10 knots on the line. BIST performed PASSED.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 443.558

Time Breakdown:

Survey 23:32  
Line Change 0:28  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

### Survey Line Information

[illegible]

**Total:** 444

Survey 23:32  
Line Change 0:28  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 21/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

deg min  
Lat: 57° 059.714 N  
Lon: 30° 059.903 W  
Wind: 25 Seas: 2-3m  
Speed over Ground: 10.50kt  
Heading: 96°  
Water Depth: 1687.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary. Continued survey. Launched XBT Seq 8. Completed more survey lines. All systems operational no errors.  
Seas calming down throught day.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 328.571

Time Breakdown:

Survey 22:25  
Line Change 1:35  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
Total: 22:25

### Survey Line Information

[illegible]

**Total:** 329

Survey	22:25
Line Change	1:35
Weather Downtime	
Technical Downtime	
Port Call	
Transit	
<b>Total:</b>	24 22:25



Cruise: MGL1309

Date: 22/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: deg min  
57° 058.127 N  
Lon: 33° 009.220 W  
Wind: 20 Seas: 2m  
Speed over Ground: 10.10kt  
Heading: 92°  
Water Depth: 1869m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science  
Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary. Continued survey. Launched XBT Seq 9 Completed more survey lines. Failed check valve for discharge of USS, caused a back up into the dry lab area. No significant flooding as it was caught in time. All systems using the USS were secured. PCO2 and TSG and MicroSV systems were non operational during repairs. Down time was 1 hour 15 minutes. Another XBT was dropped near the end of the day Seq 10. Grid engine memory warning popped up on MB. We planned on creating a new survey at the end of line during the turn. The MAC group was contacted about options for importing previous line data.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 441.870

Time Breakdown:

Survey 23:30  
Line Change 0:30  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

### Survey Line Information

[illegible]

**Total:** 442

Survey 23:30  
Line Change 0:30  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 23/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

deg min  
Lat: 57° 058.256 N  
Lon: 34° 051.469 W  
Speed over Ground: 10.20kt  
Heading: 274°  
Water Depth: 2551.0  
Wind: 19 S Seas: 1-2m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary. While in a turn, we Took the opurtunity to re-start SIS and end the survey of MGL1309A. We created MGL1309B as the next survey. We did not want cash whil eon the survey line. SIS did crash at an attemp to import a GeoTIFF. 4 mnutes was lost to re-boot of SIS. An XBT Seq 11 was launched.	Work List	% Complete	Work list	% Complete
	Lead-in Status update	100.00%		
	MARS Testing	100.00%		
	Prepare Equipment to be shipped	90.00%		
	Spec'ing out New Source Tow point	0.00%		
	Machine Shop Floor Painting	100.00%		
	Umbical Maintenance	100.00%		
	Repair Gun Tools	100.00%		
	Testing of All Science Equipment	100.00%		
	Cleaning and Securing Lab Spaces	100.00%		
	Hose Bundle Status Update	75.00%		
	Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT	Major Science Equipment	Status	Major Science Equipment	Status
	SPECTRA	Off-Line	CNav3050	Operational
	Syntrak	Off-Line	EM122	Operational
	DigiCourse	Off-Line	Knudsen SBP	Off-Line
	DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
	Sea Path	Operational	882 Magnetometer	Operational
	PosMV	Operational	TSG	Operational
	PosNet	Operational	PCo2	Operational
	SeisNET 1	Off-Line	HSN	Operational
	SeisNET 2	Off-Line	FBB	Operational
	PROC 1	Operational	MicoSV (USS WET LAB)	Operational
	PROC 2	Operational	META (Weather)	Operational
	CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 437.556

Time Breakdown:

Survey 23:16  
Line Change 0:44  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
  
Total: 24

### Survey Line Information

[illegible]

**Total:** 438

Survey 23:16  
Line Change 0:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 24/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

deg min  
Lat: 57° 047.819 N  
Lon: 33° 019.475 W  
Speed over Ground: 09.50kt  
Heading: 274°  
Water Depth: 1638.0  
Wind: 27W Seas: 2-3m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary. HDDS crashing. (x3) Survey continued throught the day. No XBT today. Launches are selected to a specific survey area. Some days with 2 XBT launches some with no launches. Weather is the same. All systems online and logging.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 417.998

Time Breakdown:

Survey 23:02  
Line Change 0:58  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
Total: 24

### Survey Line Information

[illegible]

**Total:** 418

Survey 23:02  
Line Change 0:58  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Midnight Position / Info

deg min                      Speed over Ground: 09.90kt  
Lat: 57° 035.471                      N                      Heading: 273°  
Lon: 31° 047.303                      W  
  
Wind: 25 W                      Seas: 3-Feb                      Water Depth: 1814.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science                      Bern McKiernan  
Officer                      Robert (Bobby) Koprowski  
Marine Tech                      Robb Hagg  
Marine Tech

Daily Summary:

Summary. HDDS crashed 4 times today. We also received another grid engine error. This was a good time for us to create a new survey. We are now onto MGL1309C. We launched an XBT as SEQ 12.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
Re-Pair Micro VS. cabling	100.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers                      437.334

Time Breakdown:

Survey 23:37  
Line Change 0:23  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 437

Survey 23:37  
Line Change 0:23  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**



Midnight Position / Info

deg min                      Speed over Ground: 10.00kt  
Lat: 57° 028.630                      N                      Heading: 96°  
Lon: 30° 049.112                      W  
  
Wind: 34 Seas: 3-4m                      Water Depth: 2372.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science                      Bern McKiernan  
Officer                      Robert (Bobby) Koprowski  
Marine Tech                      Robb Hagg

Daily Summary:

Summary. HDDS crashed 9 times today. SIS crashed 2 times with missing data during each reboot. Sea state was 3-4 meters with some 5 meters rolling in. Speed was reduced a few times over the course of the day. To only making 5 knots by EOD. There have been 2 systems failures. At 1957 GMT the magnetomoeter was no longer reporting magnetic data. After Several failed attempts at getting the maggie operational, it was obvious a recovery was required. Maggie was no longer on the tow cable. Only the nose cone remained. A second magnetomoeter was connected and the tow cable was still operational. We deployed the second and only maggie to continue our scienctetic survey of the ridge. At 2352 GMT the phone PBX system crashed. It has been non operational for the rest of the day and continued troubleshooting into the next.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers                      323.960

Time Breakdown:

Survey 23:41  
Line Change 0:19  
Weather Downtime 0:00  
Technical Downtime 1:00                      Maggie data from lost unit 1 hour  
Port Call 0:00  
Transit 0:00  
  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 324

Survey 23:41  
Line Change 0:19  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**

Lamont-Doherty Earth Observatory

COLUMBIA UNIVERSITY | EARTH INSTITUTE

Cruise: MGL1309

Date: 27/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

deg min

57° 029.402

N

Speed over Ground: 10.20kt

Heading: 95°

Lon:

33° 048.865

W

Water Depth: 1598.0

Wind:

19SW

Seas:

2-3mm

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science

Officer

Marine Tech

Marine Tech

Bern McKiernan

Robert (Bobby) Koprowski

Robb Hagg

Daily Summary:

Summary. Sea state is pleasant for now. We started off the new day with SIS crashing. There was a gap of data from the rehoot of SIS. We launched an XBT Seq 14 T-7 probe. A BIST was performed on the turn and passed. Only 1 HDDS crash for the 24 hours. Weather is to increase over the weekend. PBX system is still not operational. We are going to minimize the system and try to get primary communications operational. This will be Main lab, Bridge, Engine room, Hospital and Capt stateroom with Chief engineer state room.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 434.037

Time Breakdown:

Survey 23:05

Line Change 0:55

Weather Downtime 0:00

Technical Downtime 0:00

Port Call 0:00

Transit 0:00

Total: 24

Maggie data from lost unit 1 hour

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 434

Survey 23:05  
Line Change 0:55  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
  
**Total: 24**

Cruise: MGL1309

Date: 28/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: min  
57° 023.949 N  
Lon: 34° 044.502 W

Speed over Ground: 10.20kt  
Heading: 95°

Water Depth: 2428.0

Wind: 13SNNE Seas: 1-2m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary. An uneventful day for science. No HDDS crashes and weather is very cooperative. We launched an XBT Seq 15.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT Recover Maggie for a visual inspection. Troubleshoot PBX issue.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 444.541

Time Breakdown:

Survey 23:35  
Line Change 0:25  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

Maggie data from lost unit 1 hour

### Survey Line Information

[illegible]

**Total:** 445

Survey 23:35  
Line Change 0:25  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 29/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 57° 020.812 N  
Lon: 34° 058.760 W  
Wind: 10NW Seas: 1-2m  
Speed over Ground: 10.30kt  
Heading: 270°  
Water Depth: 2354.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary. A very eventful day for science. Shortly after Midnight Maggie was recovered for an inspection to tow configuration. All good and redeployed in a turn in 17 minutes start to finish. Shortly after 0200 the network crashed and caused an avalanche of issues with the Multibeam and seapath communication. The down time was 4 hours. We slowed the vessel down while troubleshooting the network failure. The good news out of this was discovering the bottle neck issues and failure points of the intergrated networks. Launched XBT seq 16. Seas begin to pick up and wind speed is increasing as well. HDDS errors become more frequent. Grid engine errors develop. Sea state is impacting data quality. Weatehr prediction for next several days not improving but degrading to possible leavig the survey site alernatives. Maggie expected to be onboard around the early moring hours of the 30th.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 340.090

Time Breakdown:

Survey 23:35  
Line Change 0:25  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

Maggie data from lost unit 1 hour

### Survey Line Information

[illegible]

Survey 23:26  
Line Change 0:34  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**



Cruise: MGL1309

Date: 30/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: Deg min N  
Lon: W  
Wind: Seas: 1-2m  
Speed over Ground:  
Heading:  
Water Depth:

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary. Sea state was above 5 meters most of the day. Winds and sea settled down by dinner time. We completed the survey line of WP120 and were on our eastern heading. This provided a smoother ride and we were able to redeploy the maggie. Maggie was onboard for 16 hours due to sea state. There were multiple HDDS errors. This simply must be a reuslt of difficult sea state to process the data. We launched an XBT Seq 17

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 240.951

Time Breakdown:

Survey 23:31  
Line Change 0:29  
Weather Downtime 16:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

Maggie onboard for 16 hours due to sea state.

### Survey Line Information

[illegible]

**Total:** 241

Survey 23:31  
Line Change 0:29  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 31/Aug/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 57° 004.691 N  
Lon: 32° 057.056 W  
Wind: 23 WSW Seas: 2-3m  
Speed over Ground: 10.40kt  
Heading: 98°  
Water Depth: 1309.0

Current Equipment Deployed

Magnetometer until 18:03

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary. Sea state was around 5 meters most of the day. Weather has impacted our speed through out the day. Maggie was retrieved shortly after dinner at 18:03 We were hove to at 20:15 Winds speeds were in excess of +45 knots seas climbing over 6-7 meters. Multiple HDDS crashes with the SIS program. Lost the "snail trail" or survey display of line. Eventually it came back without any input or controls from the technicians observing for HDDS errors. No data is lost with out vessel track it is just not re-displayed on the survey.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 235.082

Time Breakdown:

Survey 23:31  
Line Change 0:29  
Weather Downtime 6:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

Maggie onboard for 6 hours due to sea state.

### Survey Line Information

[illegible]

**Total:** 235

Survey 23:30  
Line Change 00:30  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 1/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 57° 001.510 N  
Lon: 33° 056.708 W  
Wind: 32 S Seas: 5-6m  
Speed over Ground: 02.60kt  
Heading: 234°  
Water Depth: 1414.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary: Weather forced the vessel to head south into the seas. We were near WP 132 and continued west along that line. At th end of the line we turned NORTH to cover the missing line from the weather. At the eastern direction we jumped south to the WP1332 heading east. There were multiple HDDS errors from sea state. Maggie was fully deployed at 0323. Maggie was back onboard for what appeared to be telemetry issues. Nothing was discovered, redeployed and was fine until the end of the line. Our next line indicated more Maggie errors. She was recovered and double checked our sensor orientaiton. It was in the incorrect orientation. Fixed the error and redeployed. Noise and spikes were no longer an issue. Launched an XBT seq 18. SIS had an issue with displaying the geo image. It eventually came back on its own and disappeared again on its own. A SIS reboot did not solve the issue. Next line change will be a new survey.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 227.983

Time Breakdown:

Survey 23:31  
Line Change 0:29  
Weather Downtime 6:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

Maggie onboard for 6 hours due to sea state.

### Survey Line Information

[illegible]

**Total:** 228

Survey 23:30  
Line Change 00:30  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 2/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 56° 056.113 N  
Lon: 32° 037.490 W  
Wind: 25S Seas: 2-3m  
Speed over Ground: 07.30kt  
Heading: 274°  
Water Depth: 2031.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: On the longer lines. The outer most western edges were cut from the survey. A new waypoint list has been submitted to the bridge. Maggie and Gravity performing well. New survey MGL1309D.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 375.338

Time Breakdown:

Survey 23:20  
Line Change 0:40  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

### Survey Line Information

[illegible]

**Total:** 375

Survey 23:30  
Line Change 00:30  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**



Cruise: MGL1309

Date: 3/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 56° 054.725 N  
Lon: 33° 032.057 W  
Wind: 22W Seas: 2-3m  
Speed over Ground: 10.30kt  
Heading: 94°  
Water Depth: 1853.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Still on the long survey lines. Weather has greatly improved but will pick up towards the end of the day. HDDS is a frequent appearance in the western headings and medium sea state. 2-3m.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT . Maggie recovery on turn.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 398.040

Time Breakdown:

Survey 23:34  
Line Change 0:26  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
Total: 24

### Survey Line Information

[illegible]

**Total:** 398

Survey 23:30  
Line Change 00:30  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Cruise: MGL1309

Date: 4/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 56° 054.679 N  
Lon: 35° 011.787 W

Speed over Ground: 08.50kt  
Heading: 276°

Water Depth: 1863.0

Wind: 23W Seas: 2-4m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Weather is very nice seas are 1-2 m most of the day. Winds picked up towards end of day. covered long lines with 2 turns. Maggie and Gravity recording quality data. A few HDDS errors today. Launched an XBT Seq 20

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT .

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 426.346

Time Breakdown:

Survey 23:07  
Line Change 0:53  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

### Survey Line Information

[illegible]

**Total:** 426

Survey 23:07  
Line Change 0:53  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Lamont-Doherty Earth Observatory

COLUMBIA UNIVERSITY | EARTH INSTITUTE

Cruise: MGL1309

Date: 5/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat:

Deg min

56° 039.756

N

Lon:

32° 011.038

W

Speed over Ground: 09.90kt

Heading: 273°

Water Depth: 2379.0

Wind: 14S

Seas: 1-2m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science

Officer

Marine Tech

Marine Tech

Bern McKiernan

Robert (Bobby) Koprowski

Robb Hagg

Daily Summary:

Summary: Sea state a very comfortable 1-2 meters. Beautiful data collection. Launched an XBT at start of day and end of day. Seq 22 and Seq 24 (Seq 23 was a operator error glitch) A few HDDS errors were reported. All long lines are complete. Some were cut shorter than originally layed out. 2 turns were complete.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbilical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 439.478

Time Breakdown:

Survey 23:07

Line Change 0:53

Weather Downtime 0:00

Technical Downtime 0:00

Port Call 0:00

Transit 0:00

Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 439

Survey 23:07  
Line Change 0:53  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**

Midnight Position / Info

Lat: 56° 039.464 N  
Lon: 35° 010.068 W  
Wind: 11S Seas: 1-2m  
Speed over Ground: 10.40kt  
Heading: 269°  
Water Depth: 2118.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Sea state a very comfortable 1-2 meters. Beautiful data collection. Launched an XBT SEQ 25 A few HDDS errors were reported. 4 turns were complete.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT. Recover Maggie on turn for insection.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 430.795

Time Breakdown:

Survey 23:07  
Line Change 0:53  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 431

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
  
**Total: 24**



Lamont-Doherty Earth Observatory

COLUMBIA UNIVERSITY | EARTH INSTITUTE

Cruise: MGL1309

Date: 7/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat:

Lon:

Deg min

56° 011.965

N

34° 039.281

W

Speed over Ground: 10.30kt

Heading: 96°

Water Depth: 1383.0

Wind:

25S

Seas:

1-3m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science

Officer

Marine Tech

Marine Tech

Bern McKiernan

Robert (Bobby) Koprowski

Robb Hagg

Daily Summary:

Summary: Sea state a very comfortable 1-3 meters. Winds picking up a little bit. XBT values not within expected values. Launched 2nd unit after reboot of system. Same values. Troubleshooting issue. Maggie recovered on end of line. No visible issues and redeployed prior to end of turn.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers

399.971

Time Breakdown:

Survey 22:36

Line Change 1:24

Weather Downtime 0:00

Technical Downtime 0:00

Port Call 0:00

Transit 0:00

Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 400

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**

Lamont-Doherty Earth Observatory

COLUMBIA UNIVERSITY | EARTH INSTITUTE

Cruise: MGL1309

Date: 8/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Deg min

56° 011.965

N

Lat:

34° 039.281

W

Lon:

19S

Seas:

1-3m

Speed over Ground: 10.30kt

Heading: 96°

Water Depth: 1383m

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science

Officer

Marine Tech

Marine Tech

Bern McKiernan

Robert (Bobby) Koprowski

Robb Hagg

Daily Summary:

Summary: Sea state 2-3 meters. Winds picking up a little bit. Starboard Main Engine had a coolant water leak. Required M/E offline to repair. 17 minute reduced speed while on single engine. XBT ;uaunch connector was cleaned and inspected. Values within normal expected range after a few tests in a bucket of seawater.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT. We will complete all primary survey lines by the morning.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers

414.291

Time Breakdown:

Survey 22:36

Line Change 1:24

Weather Downtime 0:00

Technical Downtime 0:00

Port Call 0:00

Transit 0:00

Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 414

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
  
**Total: 24**

Midnight Position / Info

Lat: 56° 000.472 N  
Lon: 34° 040.030 W  
Wind: 12SW Seas: 2-3m  
Speed over Ground: 10.20kt  
Heading: 269°  
Water Depth: 1278.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Sea state 2-3 meters. Winds picking up a little bit. All primary survey lines to the south are complete. As weather impacts speed we will adjust remaining original way point lines as need to arrive in port by 15 Sept. Complete infill lines as we head back to Iceland.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 207.852

Time Breakdown:

Survey 22:36  
Line Change 1:24  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 208

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
  
**Total: 24**

Midnight Position / Info

Lat: Deg min 56° 045.213 N  
Lon: 33° 034.041 W  
Wind: 27SW Seas: 2-3m  
Speed over Ground: 09.80kt  
Heading: 270°  
Water Depth: 2185.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary: Sea state 2-3 meters. Reloaded previous survey as we entered infill. Multiple HDDS errors with full survey in SIS. Grid engine memory capacity as well. But we were able to see any missing grid data for infill. Lots of weaving back and forth with infill lines. Launched XBT SEQ 37.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 394.329

Time Breakdown:

Survey 22:00  
Line Change 2:00  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 394

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**



Midnight Position / Info

Lat: 57° 001.804 N  
Lon: 33° 019.860 W  
Wind: 27SW Seas: 2-3m  
Speed over Ground: 10.50kt  
Heading: 96°  
Water Depth: 1464.0

Current Equipment Deployed

Magnetometer

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Sea state 2-3 meters. Reloaded previous survey as we entered infil. Multiple HDDS errors with full survey in SIS. Launched XBT SEQ 38. Expect weather to worsen next 24 hours.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbilical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 210.588

Time Breakdown:

Survey 22:00  
Line Change 2:00  
Weather Downtime 0:00  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
  
Total: 24

### Survey Line Information

[illegible][illegible]

**Total:** 211

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit

**Total: 24**

Midnight Position / Info

Lat: 59° 016.281 N  
Lon: 34° 002.564 W  
Wind: 38W Seas: 4-5m  
Speed over Ground: 10.10kt  
Heading: 07°  
Water Depth: 2568.0

Current Equipment Deployed

Magnetometer Onboard at 13:44

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Weather conditionns worsen. Maggie onboard by 13:44 heave to for rest of day. Winds upwards of 50 knots seas exceeding 8 meters at times. Unsuccessful launch of XBT.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	FBB	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 73.107

Time Breakdown:

Survey 13:44  
Line Change 0:00  
Weather Downtime 10:15  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 73

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**

Cruise: MGL1309

Date: 13/Sep/13

Reporter: BKM

Daily Report

Midnight Position / Info

Lat: 59° 052.543 N  
Lon: 32° 008.680 W  
Wind: 28 WSW Seas: 4-5m  
Speed over Ground: 02.00kt  
Heading: 260°  
Water Depth: 3338.0

Current Equipment Deployed

Magnetometer deployed 10:11

Technical Staff Onboard:

Ch. Science Officer: Bern McKiernan  
Marine Tech: Robert (Bobby) Koprowski  
Marine Tech: Robb Hagg

Daily Summary:

Summary: Weather conditionns worsen. Through the night. Hove to until 09:07 Maggie deployed by 10:11. Made transit to Ridge axis. We will transit the rest of the day collecting MB data. No XBT launched.

Work List	% Complete	Work list	% Complete
Lead-in Status update	100.00%		
MARS Testing	100.00%		
Prepare Equipment to be shipped	90.00%		
Spec'ing out New Source Tow point	0.00%		
Machine Shop Floor Painting	100.00%		
Umbical Maintenance	100.00%		
Repair Gun Tools	100.00%		
Testing of All Science Equipment	100.00%		
Cleaning and Securing Lab Spaces	100.00%		
Hose Bundle Status Update	75.00%		
PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. Launch daily XBT.

Major Science Equipment	Status	Major Science Equipment	Status
SPECTRA	Off-Line	CNav3050	Operational
Syntrak	Off-Line	EM122	Operational
DigiCourse	Off-Line	Knudsen SBP	Off-Line
DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
Sea Path	Operational	882 Magnetometer	Operational
PosMV	Operational	TSG	Operational
PosNet	Operational	PCo2	Operational
SeisNET 1	Off-Line	HSN	Operational
SeisNET 2	Off-Line	F8B	Operational
PROC 1	Operational	MicoSV (USS WET LAB)	Operational
PROC 2	Operational	META (Weather)	Operational
CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 232.929

Time Breakdown:

Survey 13:44  
Line Change 0:00  
Weather Downtime 10:15  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00

Total: 24

### Survey Line Information

**Total:** 233

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
**Total: 24**

Midnight Position / Info

Lat: Deg min 60° 046.726 N  
Lon: 28° 014.813 W  
Wind: 20W Seas: 1-3m  
Speed over Ground: 10.70kt  
Heading: 35°  
Water Depth: 798.0

Current Equipment Deployed

Magnetometer recovered 18:09

Technical Staff Onboard:

Ch. Science Officer Bern McKiernan  
Marine Tech Robert (Bobby) Koprowski  
Marine Tech Robb Hagg

Daily Summary:

Summary: Turned towards ridge axis. Heading towards Iceland. ETA 0800 for pilot 15 Sept. Recovered maggie at 18:09 due to shallow transit area. Secured PCO2, TSG at 20:52. Launched 2 XBT probes into hydrothermal vent field for data collection.	Work List	% Complete	Work list	% Complete
	Lead-in Status update	100.00%		
	MARS Testing	100.00%		
	Prepare Equipment to be shipped	90.00%		
	Spec'ing out New Source Tow point	0.00%		
	Machine Shop Floor Painting	100.00%		
	Umbical Maintenance	100.00%		
	Repair Gun Tools	100.00%		
	Testing of All Science Equipment	100.00%		
	Cleaning and Securing Lab Spaces	100.00%		
	Hose Bundle Status Update	75.00%		
	PBX failure troubleshooting	0.00%		

Plan for Tomorrow:

We will continue the MB survey and monitor all equipment recording. ETA Pilot 0800. Gravity tie scheduled at 10:00 DeMob from MGL 1309.	Major Science Equipment	Status	Major Science Equipment	Status
	SPECTRA	Off-Line	CNav3050	Operational
	Syntrak	Off-Line	EM122	Operational
	DigiCourse	Off-Line	Knudsen SBP	Off-Line
	DigiSHOT	Off-Line	BGM-3 Gravimeter	Operational
	Sea Path	Operational	882 Magnetometer	Operational
	PosMV	Operational	TSG	Operational
	PosNet	Operational	PCo2	Operational
	SeisNET 1	Off-Line	HSN	Operational
	SeisNET 2	Off-Line	FBB	Operational
	PROC 1	Operational	MicoSV (USS WET LAB)	Operational
	PROC 2	Operational	META (Weather)	Operational
	CNav2000	Operational	ADCP	Non-Operational

Survey Production:

Survey kilometers 411.318

Time Breakdown:

Survey 13:44  
Line Change 0:00  
Weather Downtime 10:15  
Technical Downtime 0:00  
Port Call 0:00  
Transit 0:00  
  
Total: 24

### Time Breakdown

### Survey Line Information

[illegible][illegible]

**Total:** 411

Survey 22:16  
Line Change 1:44  
Weather Downtime  
Technical Downtime  
Port Call  
Transit  
  
**Total: 24**