

Daily Coring and Scientific Report for IODP Expedition 389 Hawaiian Drowned Reefs

24th October 00:00 - 24:00 HST Hawaii Standard Time (UTC -10)



1. Location at 24:00

Position: 20°02.8834'N, 156°11.549'W

Water Depth: ~ 1178 m

2. Operations Report

The core from M99G was extracted and curated whilst the vessel transited to the next location and the seafloor corer deployed. Due to the number of cores recovered this operation was not completed until late afternoon. Coring was begun at Site KAW-04Cd (M107A) but was terminated shallower than planned depth of 20 mbsf during a large sequence of basalt. Transit was undertaken to Site MAH-02B and following a straightforward landing, coring commenced and the ground was found to be difficult. Unfortunately after 6 short runs on M108A the corer was recovered to deck to allow a quick repair. The same difficult ground was found upon re-deployment and coring commenced after a 2 m wash down. By midnight, 5.05 mbsf was achieved in M108B.



3. Science Report

Core curation was completed for M99G, M107A and M108A. MSCL logging, geochemical sampling and lithological descriptions were completed for Hole M99G and in progress for M107A and M108A.

4. Core Recovery Details

Hole	M99G	M107A	M108A
Cores recovered	30	13	N/A
Drilled length (Coring, m)	38.59	13.44	2.06
Drilled length (Open hole, m)	30.03	0.0	N/A
Recovered length (m)	18.93	12.72	N/A
Recovery (%)	49.05	94.64	N/A
Depth at midnight (mbsf)	N/A	N/A	5.05

5. Time Breakdown

00:00 – 07:55 Advance borehole M107A to 13.44 mbsf. Terminated the borehole as multiple runs suggested basalt. Recover seafloor corer and transit to KAW-04Ca.

07:55 – 11:10 Complete corer deck works. Commence deck core extraction and curation of core. Transit to MAH-02B.

11:10 – 12:20 Deploy seafloor corer, conduct 5 m above sea bed checks, land and commence coring operations.

12:20 – 15:12 Advance borehole M108A to 2.05 mbsf, unfortunately the corer was recovered to the deck for repair.

15:12 – 17:45 Remove core barrels from the corer and extract and curate the cores. Complete repairs and prepare for deployment.

17:45 – 24:00 Deploy corer and commence coring on M108B.

6. Hours – no contractual implications can be made from these figures

In port	0.0
Transiting	0.0
Operating	18.80
Downtime	5.18
Weather downtime	0.0
Mobilisation	0.0

7. Weather

Sunny, calm and excellent visibility. Wave heights of 0.2 – 1.1 m and swell 0.6 – 0.7m; wind direction variable at 0 – 4 kts, gusting 7 - 10 kts; Temperature 25 - 26°C.

8. Planned Activity for the next 24 hours

- Continue coring operations at Site M108.

9. Health and Safety and Environmental

- Toolbox talks at 11:30 and 23:30 for all on shift. EPM and Ops Manager attended Contractor Toolbox talk at 11.45 and EPM at 23:50. Information disseminated to remainder of Science Party.

10. Photo(s) of the day



Co-Chief Scientist Jody Webster with fascinating core from Hole M99G after on-deck curation.
Photo by HannahGrant@ECORD_IODP.