Scientific Report for IODP Expedition 325,
Great Barrier Reef Environmental Change

11th July 2010 12:00 local time

1. Location

Bremen IODP Core Repository, MARUM, Bremen, Germany
Onshore Science Party

2. Activity Summary

Core splitting, measuring and sampling of cores continues, following the schedule listed below.

3. Schedule

The schedule is as follows:

Holes M0030A – M0039A (Transect HYD_01C)		
Core splitting, description, analyses, and sampling	July 4th – 7th	COMPLETED
Writing up / discussion day	July 8th	COMPLETED
Delivery of results to Staff Scientist / Publications	July 9th	COMPLETED
Holes M0040A – M0051A (Transects HYD_02A and RIB_02A)		
Core splitting, description, analyses, and sampling	July 9th – 10th	COMPLETED
Writing up / discussion day	July 11th	IN PROGRESS
Delivery of results to Staff Scientist / Publications	July 12th	
Holes M0052A – M0058A (Transect NOG_01B)		
Core splitting, description, analyses, and sampling	July 12th – 14th	
Writing up / discussion day	July 15th	
Delivery of results to Staff Scientist / Publications	July 16th	

4. Current Status

The status as of 12:00 on July 11th was as follows:

Transect	Total Core Length (m)	Core Length Measured / Described (m)	Samples taken	Site Chapters - drafts
HYD_01C	71.81m	71.81m	1543	~80% complete
HYD_02A	47.44m	47.44m	1048	~30% complete
RIB_02A	5.58m	5.58m	175	~20% complete
NOG_01B	100.19m	0	0	Not started

5. Preliminary Scientific Assessment

Cores taken from 3 transects have been opened, described, analyzed for IODP minimum and some standard measurements, and subsampled during the 1st week. Although it was difficult offshore to ascertain for sure whether we had captured the Last Glacial Maximum (LGM) and last deglaciation materials - initial findings at the OSP confirm that Expedition 325 has achieved this objective.

We have also found 4 to 5 clear lithological units that likely correspond to sea-level and environmental changes in the past that are consistent with the preliminary age dates based on core catcher materials sampled offshore. Further, initial sedimentologic and biologic observations of the cores confirm the presence of shallow fossil reef biota needed to construct a new and robust sea level curve.