OBSIP Experiment Archive

Year:	2005
Experiment Name:	Atlantis Massif Seismicity of the Atlantis Massif, Mid Atlantic Ridge
Principal Investigator(s):	Jeff McGuire (WHOI) Deborah Smith (WHOI) John Collins (WHOI)

Experiment Summary: (Taken from 2011 AGU Fall Meeting Abstract McGuire et al.): The Atlantis Massif, located at the intersection of the Mid-Atlantic Ridge (MAR) spreading axis and the Atlantis transform fault at 30N, is an oceanic core complex. Slip along the detachment fault for the last 1.5-2 Ma has brought lower crust and mantle rocks to the seafloor and has led to one of the most striking topographic features on the MAR. Hydroacoustic data collected between 1999 and 2003 indicate seismicity at the top of the Atlantis Massif, mostly on the southeastern section; little seismic activity was hydroacoustically detected at the adjacent ridge axis. In 2005, five short-period ocean bottom seismometers (OBS) were deployed at the Atlantis Massif in a pilot experiment to determine if there was active faulting within the massif and if the seismicity rate within the massif was higher than that beneath the rift valley as suggested by the hydroacoustic data.

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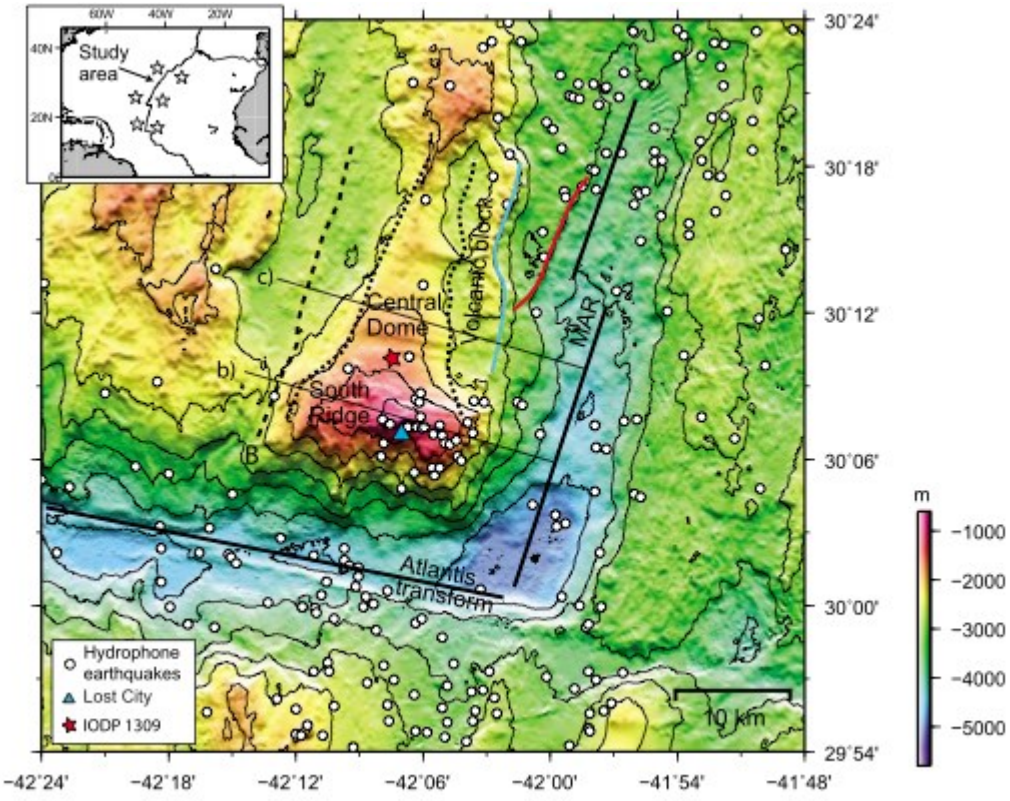

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Cruises:
5/29/2005 - 7/1/2005:
5 WHOI short period ocean bottom seismographs were deployed on board the R/V Knorr.

3/2006:
5 WHOI short period ocean bottom seismographs were recovered on board the R/V Endeavor.

Data:
Data from all instruments deployed are archived under temporary network code ZM at the IRIS DMC.

Downloads/Links:
G Cubed Publication