

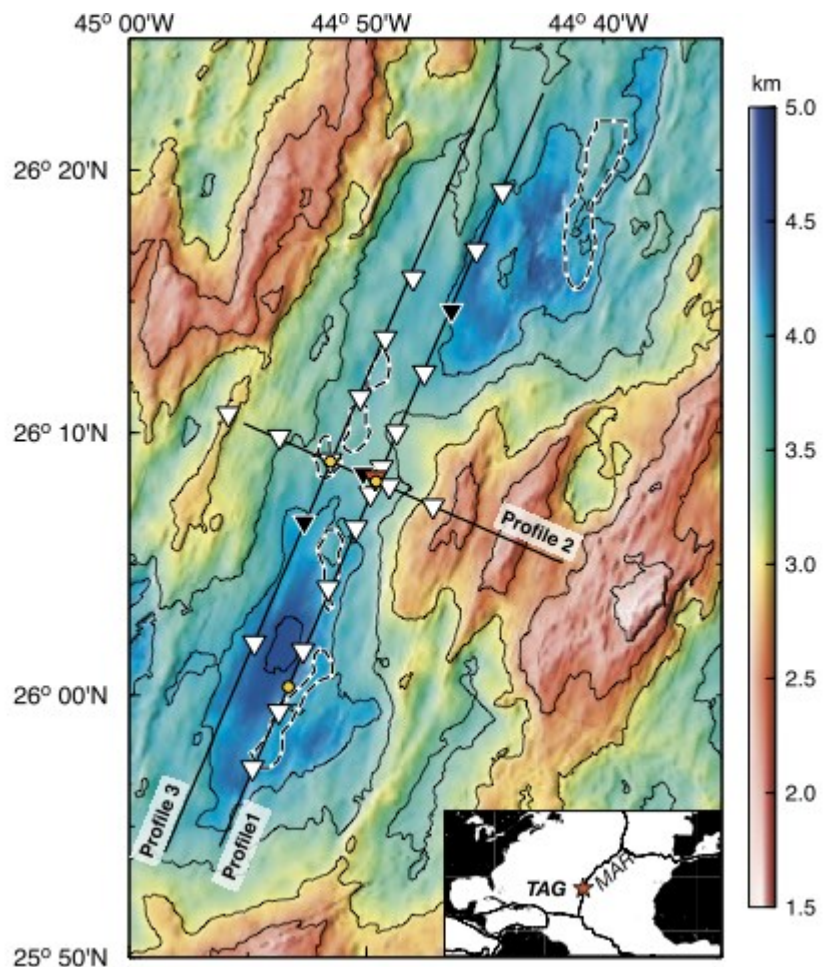
OBSIP Experiment Archive

Year:	2003
Experiment Name:	Seismicity, Structure, and Fluid Flow of the TAG Hydrothermal System (STAG)
Principal Investigator(s):	Robert Sohn (WHOI) Susan Humphris (WHOI) Juan Pablo Canales (WHOI)

Experiment Summary: (Taken from NSF Abstract Award #[0137329](#)): This project will monitor microearthquake activity, vent exit temperatures, and tidal pressures at the TAG hydrothermal site on the Mid-Atlantic Ridge 26 degrees north. An active-source seismic survey will be focused on the TAG segment bathymetric high. The experiment will address the nature of the heat source driving hydrothermal circulation, the relationship between the faulting on the eastern flank and fluid flow at the mound, the possible existence of a low-velocity zone beneath the rise axis, and the hydraulic connectivity of the shallow TAG mound.

This project will aim to characterize the physical properties of the landslide material via the innovative use of ambient noise recorded on the OBS and to locate microseisms from active faulting that may trigger slides.

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Cruises:

6/21/2003 - 7/8/2003:

16 LDEO broadband and 13 WHOI short period ocean bottom seismographs were deployed on board the R/V Atlantis.

10/24/2003 - 11/9/2003:

Seismic refraction survey is shot on board the R/V Maurice Ewing.

3/16/2004 - 4/10/2004:

16 LDEO broadband and 13 WHOI short period ocean bottom seismographs were recovered on board the R/V Knorr.

Data:

Data from all instruments deployed are archived under temporary network code [XI](#) at the IRIS DMC.

Downloads/Links:

[Experiment Website](#)

[JGR Publication](#)

[G Cubed Publication](#)