

Early Career Opportunity: Investigating Eruption Cycles at 9° 50'N East Pacific Rise

December 2 – 18, 2018

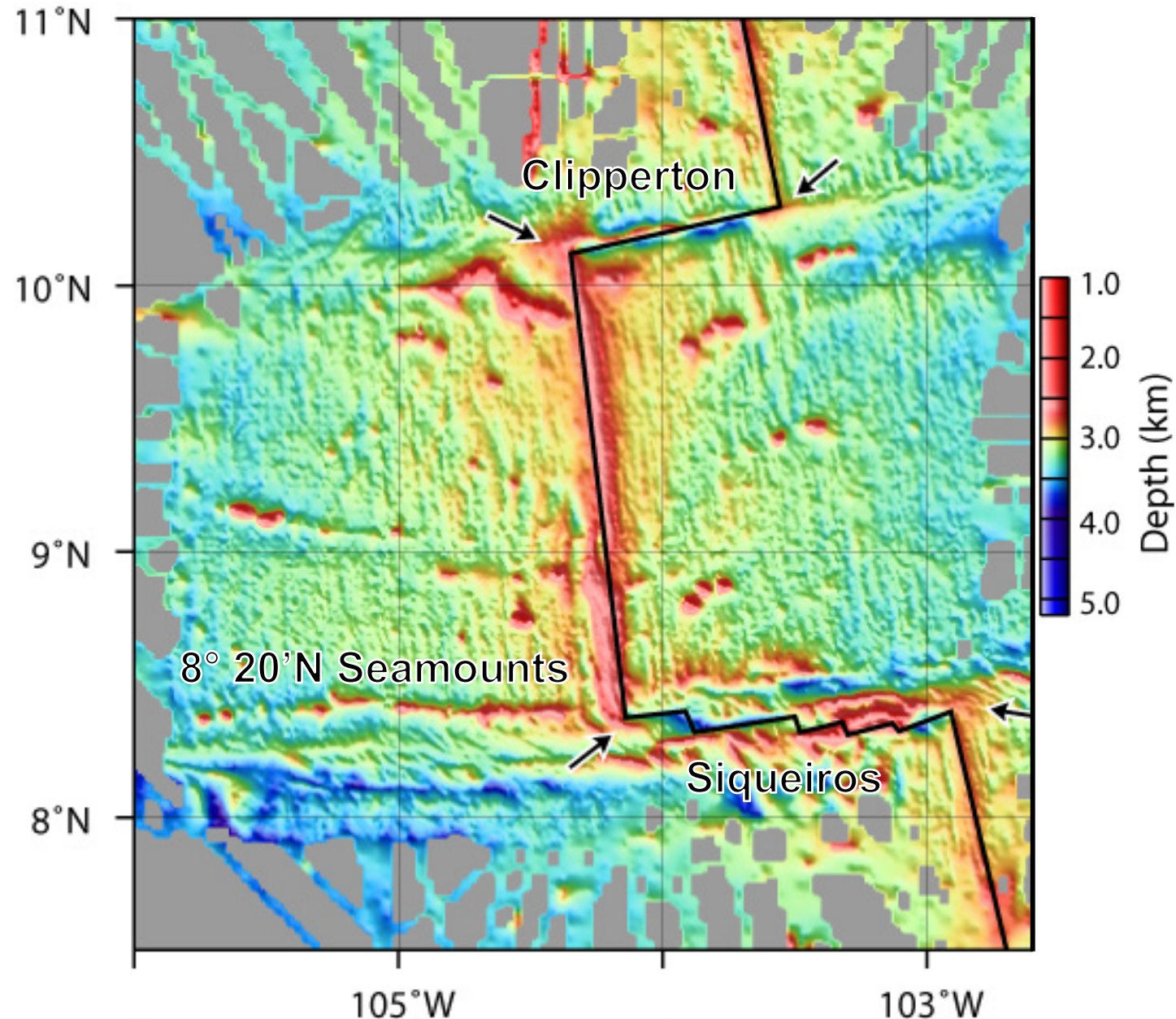
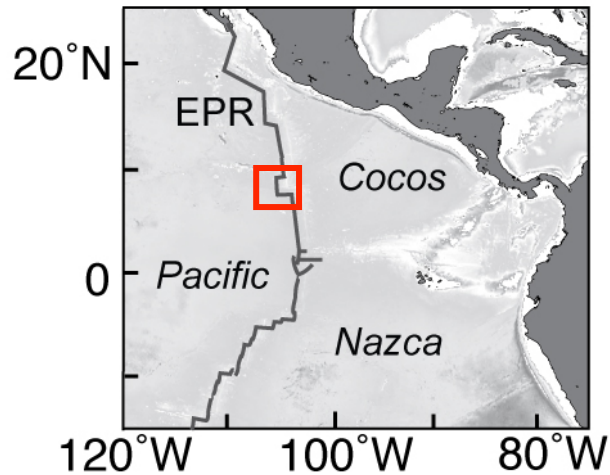
Co- PI's:

Trish Gregg, University of Illinois

Dan Fornari, Woods Hole Oceanographic Inst.

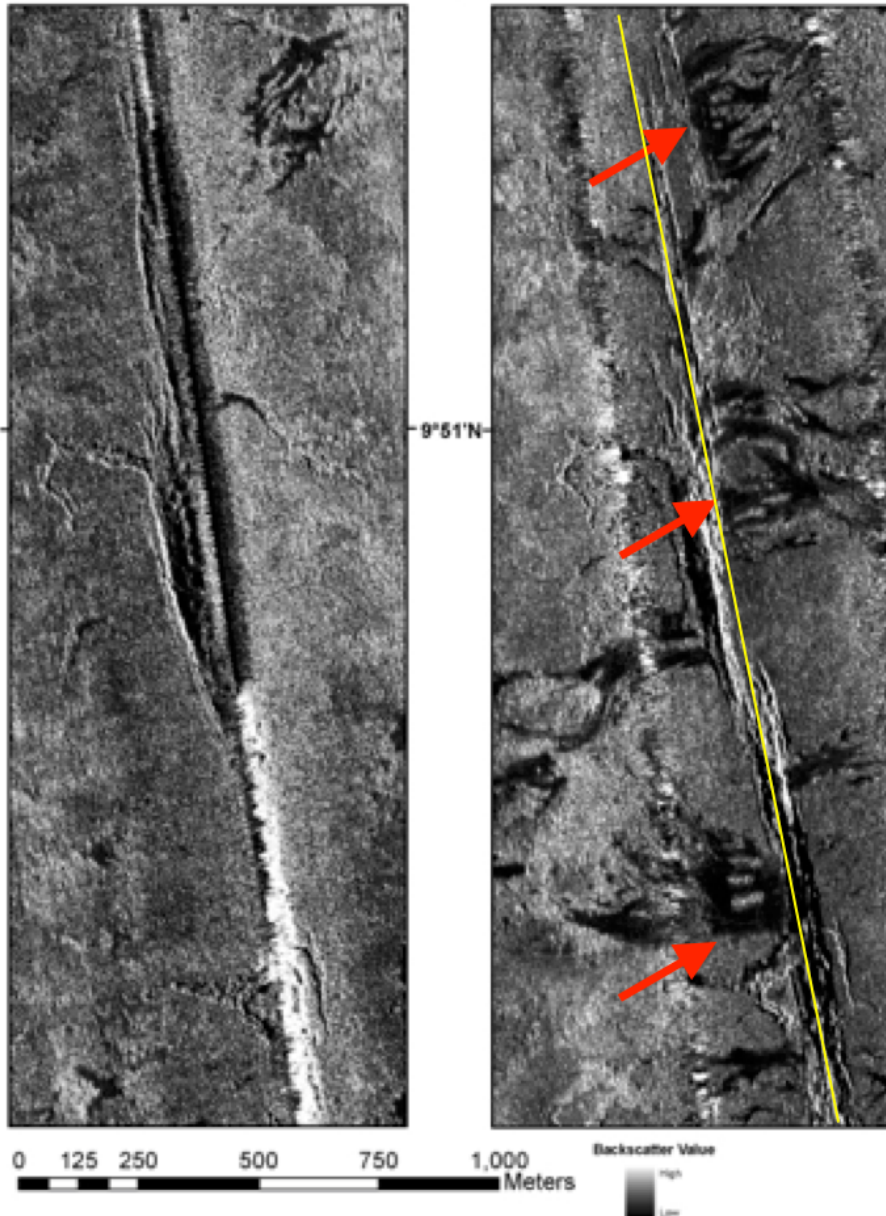
Mike Perfit, University of Florida

Dorsey Wanless, Boise State University



BEFORE: 2001 AT7-4 [Schouten/Tivey/Fornari]

AFTER: 2007 AT15-17 [White/Soule]



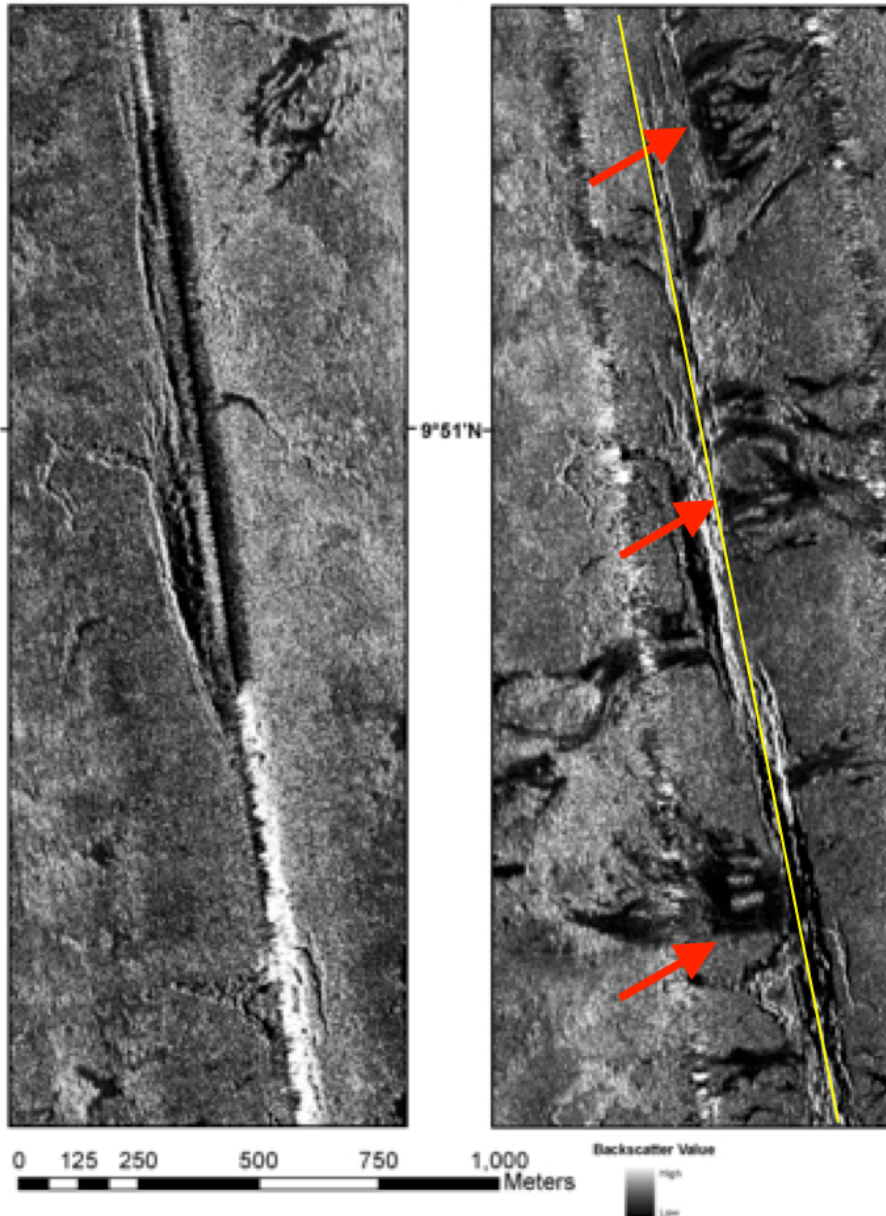
RIDGE and Ridge 2000 focused studies provided new time-series experiments and recorded data that enabled the investigation of 4-D aspects of MOR evolution.

Important findings included:

- Eruption cycles on a fast-spreading ridge
 - Recordings of the 1991-1992 and 2005-2006 eruptions
- Biological response to eruptions (e.g., M-Vent)
- Water-rock reaction zone dynamics
- Lava channel formation and magma transport

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There is evidence for recent lava flows in the Axial Summit Trough based on 2017 Alvin dive observations by G. Luther's group (U. Delaware) in the Ty/lo vent area!

NSF Supported Reconnaissance:

4 days on site at 9° 50'N

3 AUV Sentry Dives

3 HOV Alvin Dives

Berthing space and travel support for ~6-8 Early Career Scientists

Depart Manzanillo, Mexico, December 2

Arrive in San Diego, CA, December 18

Application solicitation in Early 2018

