

# Ocean Lithosphere Formation and Evolution From Multi-Scale Seismic Imaging at Atlantis Bank and Surrounding Areas, SWIR

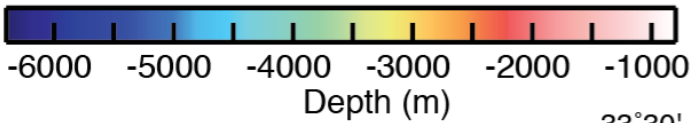
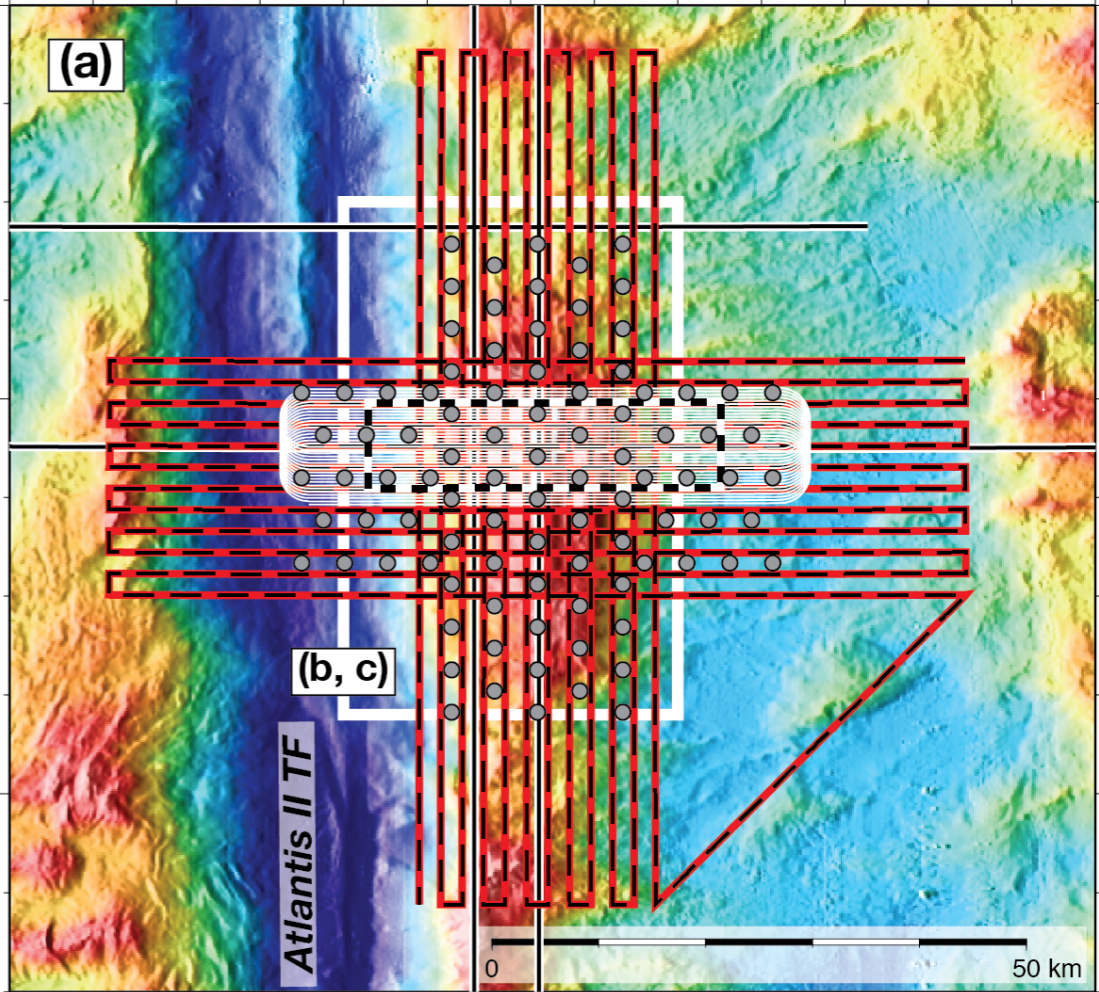
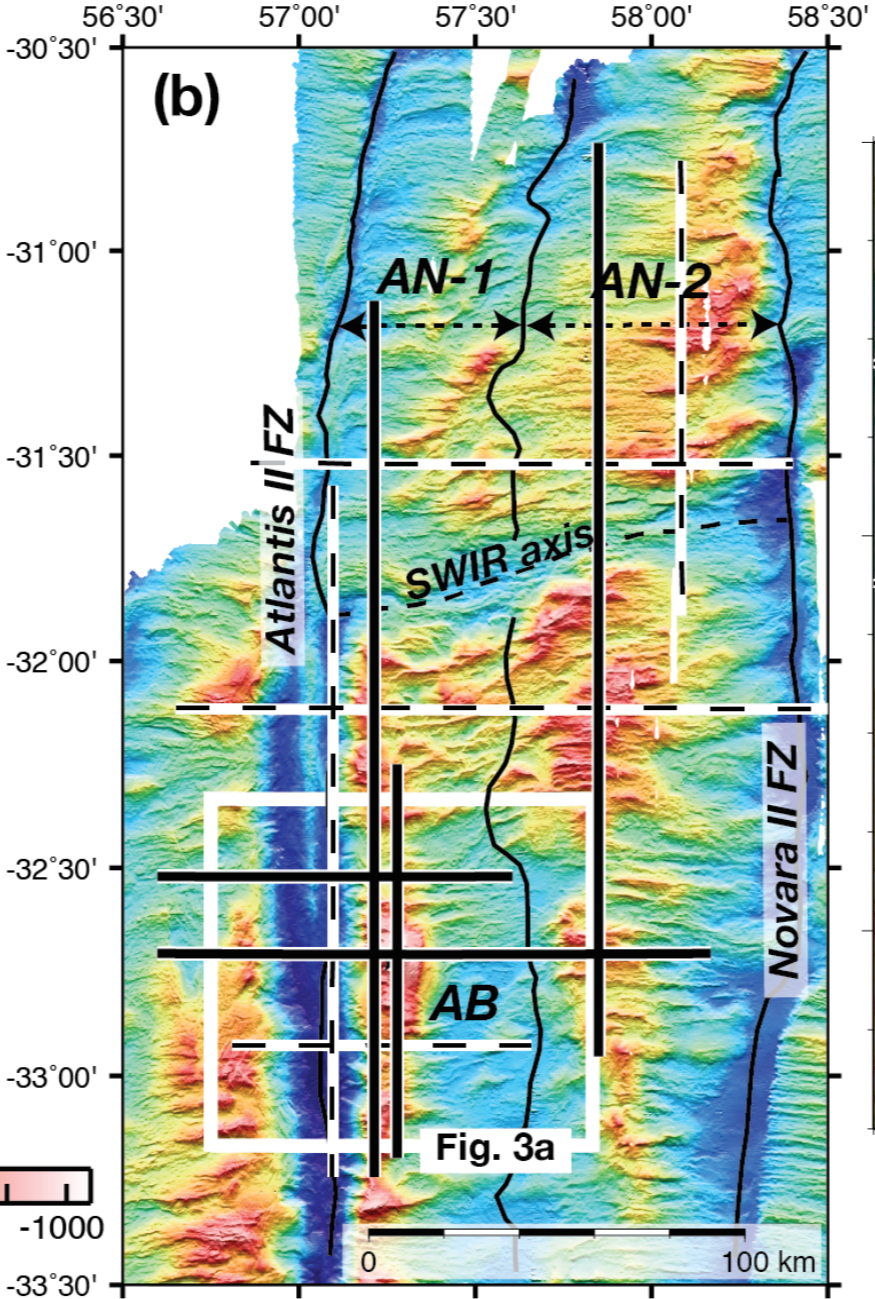
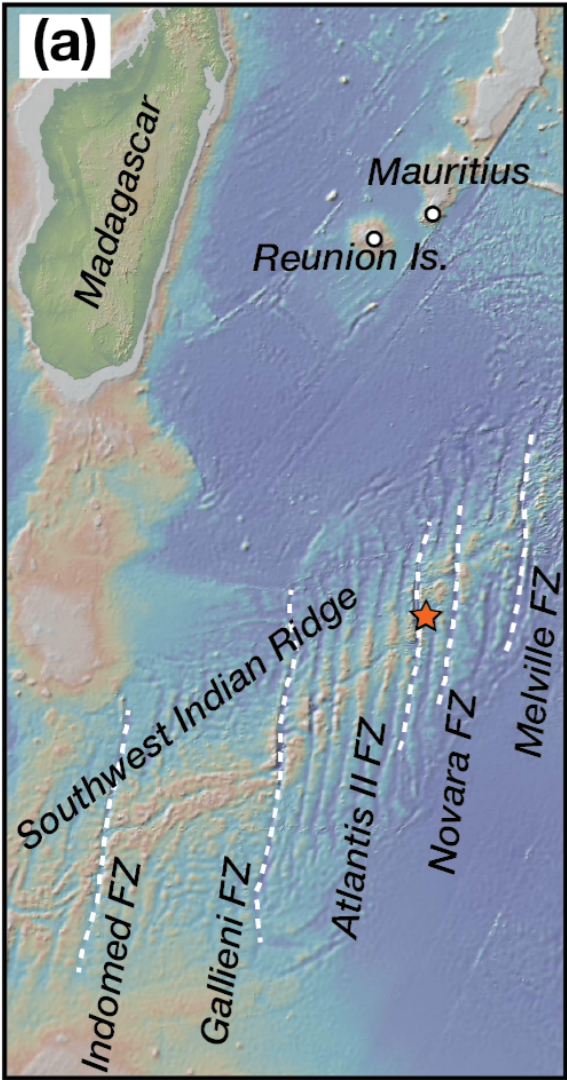
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- (1) Long-offset (15-km-long streamer) 2D MCS reflection profiles
- (2) 3D crustal-upper mantle-scale OBS tomography
- (3) 3D MCS reflection, 4x6-km-long streamers

Two-ship project:

- RV Langseth (streamers & airgun ops.)
- RV Revelle, SA Agulhas (OBS ops.)



## Science Objectives:

1. Nature of the Oceanic Moho Formed at Slow/Ultraslow Spreading Rates
2. Interplay Between Magmatism, Detachment Faulting, and OCC Formation and Evolution
3. Lithosphere Architecture and Evolution During Asymmetric Spreading

## ODP, IODP:

- **735B** (1508 m)
- **1105** (158 m)
- *SloMo* Phase I-Leg 1 (12/2015) **U1473A** (809 m)
- *SloMo* Phase I-Leg 2: ~3 km (awaiting scheduling)
- *SloMo* Phase II: ~5.5 km

