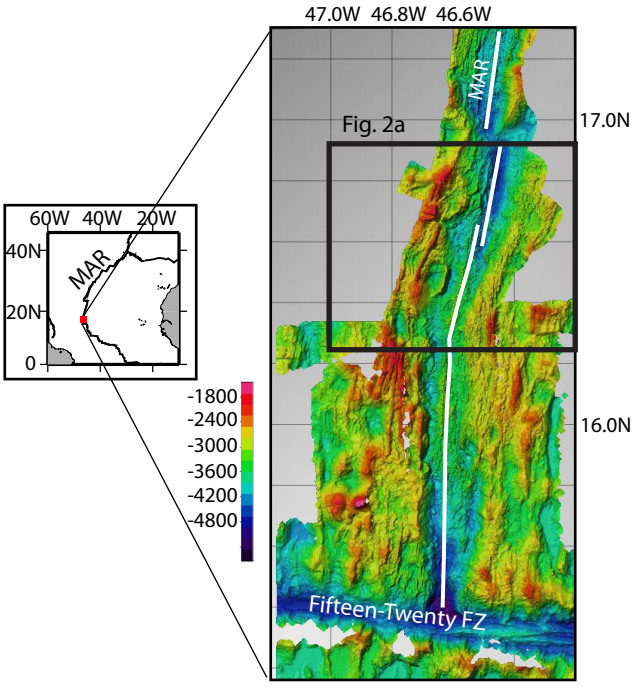

Fig. 1. Location of the proposed study area at 16.5N, ~100 km north of the Fifteen-Twenty fracture zone at the Mid-Atlantic Ridge. Black box: the region shown in Fig. 2a. White lines: spreading axis.

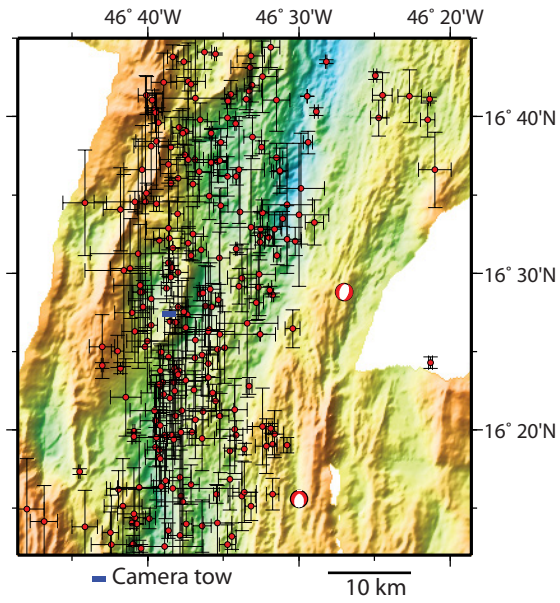

Fig. 3. Shaded bathymetry map of the 16.5N spreading segment. Beach balls: locations of telesiesmically recorded events between 1976-2010 from the Global Centroid Moment Tensor Catalog. Red dots: locations of hydroacoutic events recorded between 1999-2003 [Smith et al., 2008], with 1-sigma error bars. Blue line: camera tow conducted in 2001.

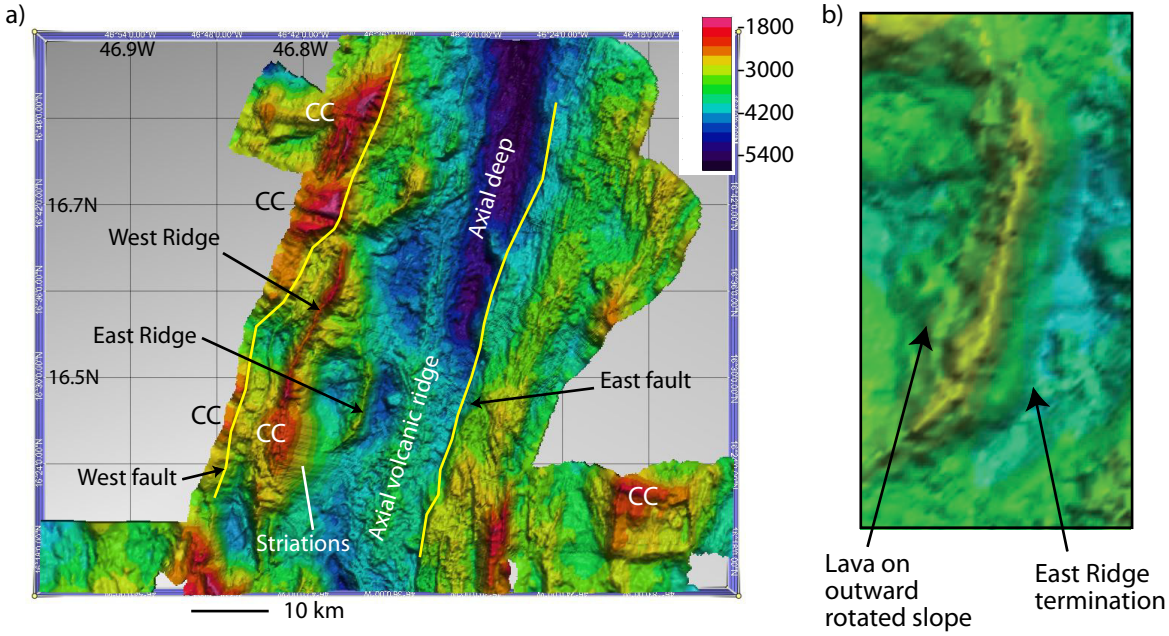

Fig. 2. a) Bathymetry within the box shown in Fig. 1. Major features of interest are labeled. East and West Ridges mark the top of rotated faults. A robust axial volcanic ridge has been constructed east of the Ridges. East and West faults are normal faults facing the axis. CC: Inferred core complexes. b) Detail of East Ridge with termination and outward rotated slope marked.