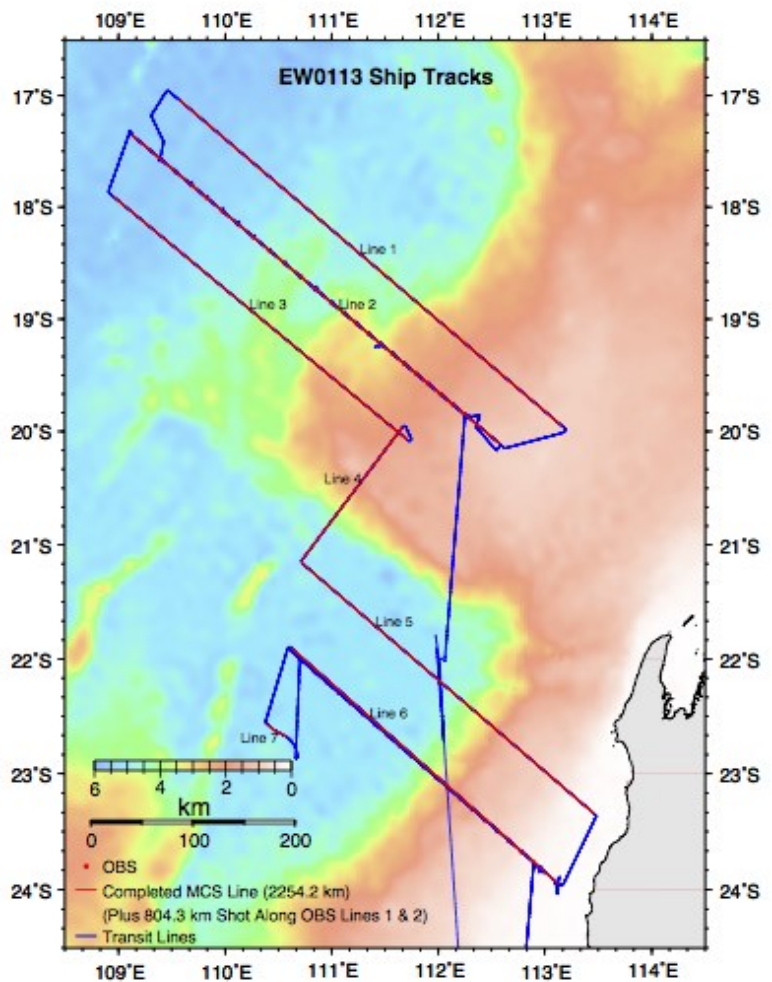


OBSIP Experiment Archive

Year:	2001
Experiment Name:	Contrasting Styles of Continental Breakup: The Exmouth and Cuvier Margins, NW Australia
Principal Investigator(s):	Neal Driscoll (SIO) Brian Taylor (UH) Garry Karner (LDEO) Uri ten-Brink (USGS/WHOI)

Experiment Summary: (NSF Award #[9911877](#), taken from project description): The Exmouth and Cuvier margin system represents one of the best locales to study the differences between wide versus narrow rifts and to define the interplay between strain partitioning, volcanism, segmentation, and the continent-ocean transition. This geophysical investigation of the Exmouth and Cuvier margins was designed to test alternate models for continental margin development, and when these results are integrated with those from other margin studies, will lead to a better overall understanding and appreciation of: the strain partitioning across margins between the brittle upper crust and the ductile lower crust and lithospheric mantle (e.g., the upper plate paradox); the interplay between extensional style (rift architecture), magmatism and detachments; the continent-ocean transition, and the origin of magnetic anomalies observed off the Exmouth and Cuvier margin; the formation of seaward-dipping reflectors along the continent-ocean boundaries and the importance of faults in their formation.



Stations that are deployed as part of the experiment (red dots) and the MCS lines.

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Cruises:

10/29/2001 - 12/2/2001:

23 SIO L-CHEAPO ocean-bottom seismometers are deployed along Line 1 on board the R/V Maurice Ewing, with 21 recovered. 20 instruments were deployed and all were recovered along Line 2.

Data:

Data from all instruments deployed are archived under assembled data set ID [#04-003](#) at the IRIS DMC.

Downloads/Links:

[Cruise Report](#)