



Does Ascension Island have an outer continental shelf?

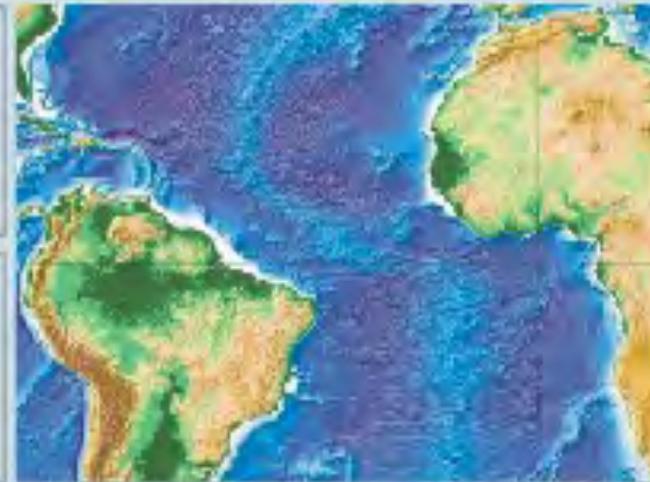
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UK Hydrographic Office

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NOC, Southampton

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and Chris Carleton of the UKHO)



**ABLOS
27th October
2010**

Disclaimer

While this paper is based on published statements from the UK and the CLCS any views expressed are those of the authors and are not necessarily those of the UK Government.

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Foreign &
Commonwealth Office



United Kingdom
Hydrographic Office

The CLCS Sub-Commission

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Yuri Borisovitch Kazmin, (Russia)	
Philip A. Symonds (Australia), and Kensaku Tamaki (Japan)	

Ridge Provisions Reminder

Art 76.3

- “[The continental margin] does not include the deep ocean floor with its **oceanic ridges**”

Art 76.6

- “. . . on **submarine ridges**, the outer limit of the continental shelf shall not exceed 350M”

Art 76.6

- “This paragraph does not apply to **submarine elevations** that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs.”

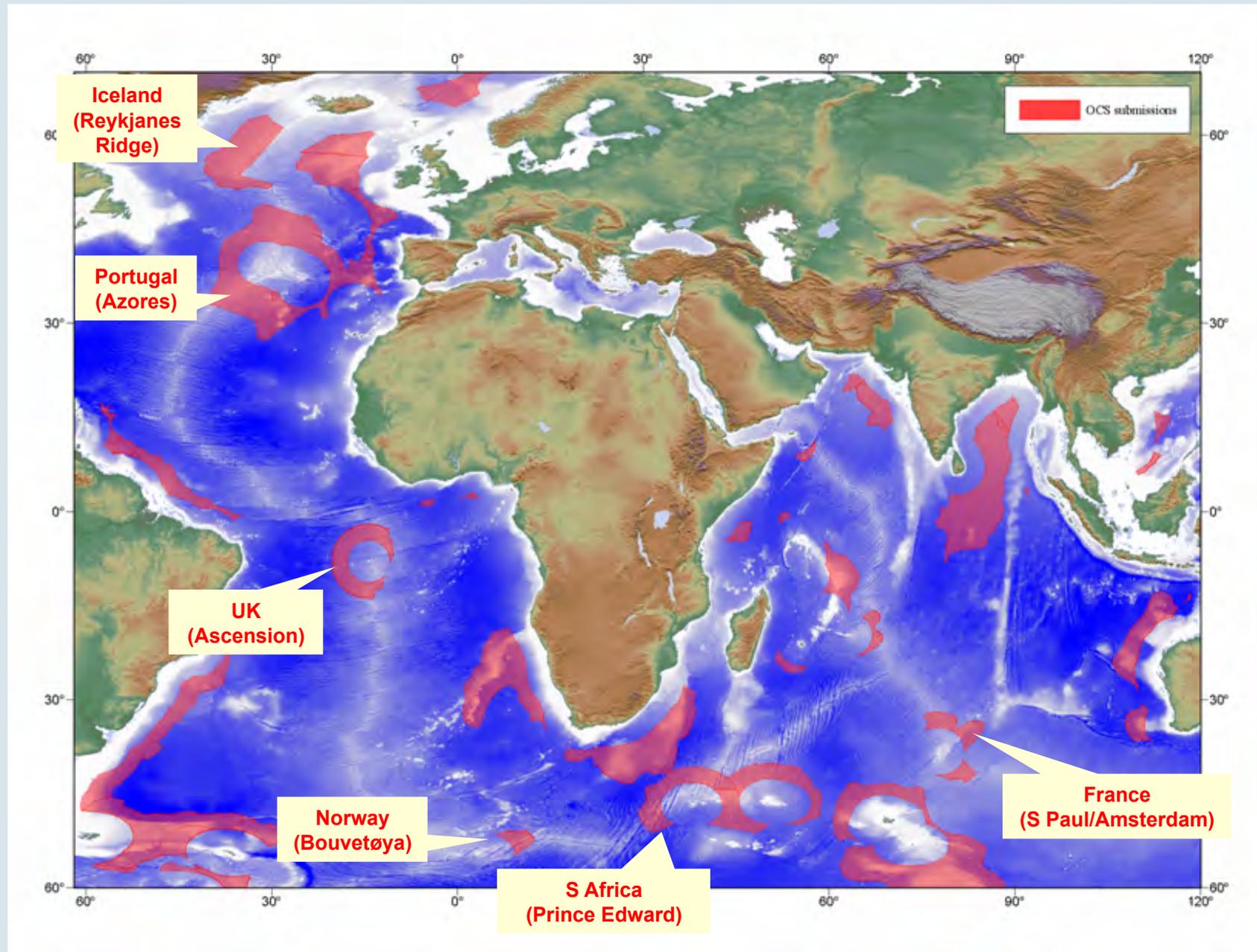
Art 76.1

- “The continental shelf . . [extends] . . . throughout the natural prolongation of its land territory to the outer edge of the continental margin”

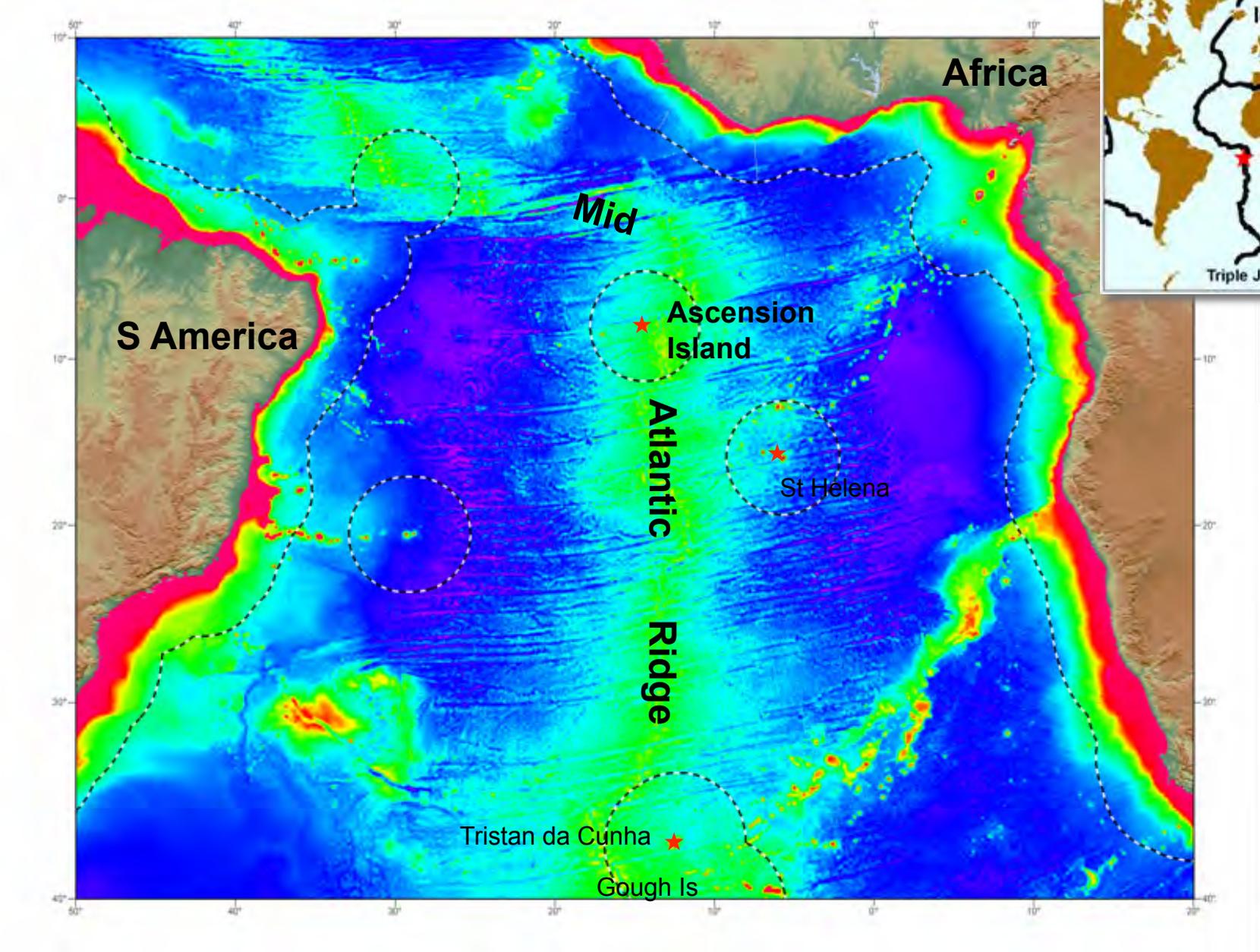
Other guidance/materials considered

- CLCS/11, para 7.2.8 “Some ridges (including active spreading ridges) may have islands on them. In such cases it would be difficult to consider that those parts of the ridge belong to the deep ocean floor”.
- Definition of the continental shelf, DOALOS 1993. Deep ocean floor: “The surface lying at the bottom of the deep ocean with its oceanic ridges, beyond the continental margin”.
- A/CONF.62/L.51 (para 6) and /SR.128 (para 58) referring to 350M constraint on submarine ridges.
- Virginia Commentary, Vol 2, 2002
- Symmonds et al 2000, Symmonds & Brekke/Brekke & Symmonds 2003

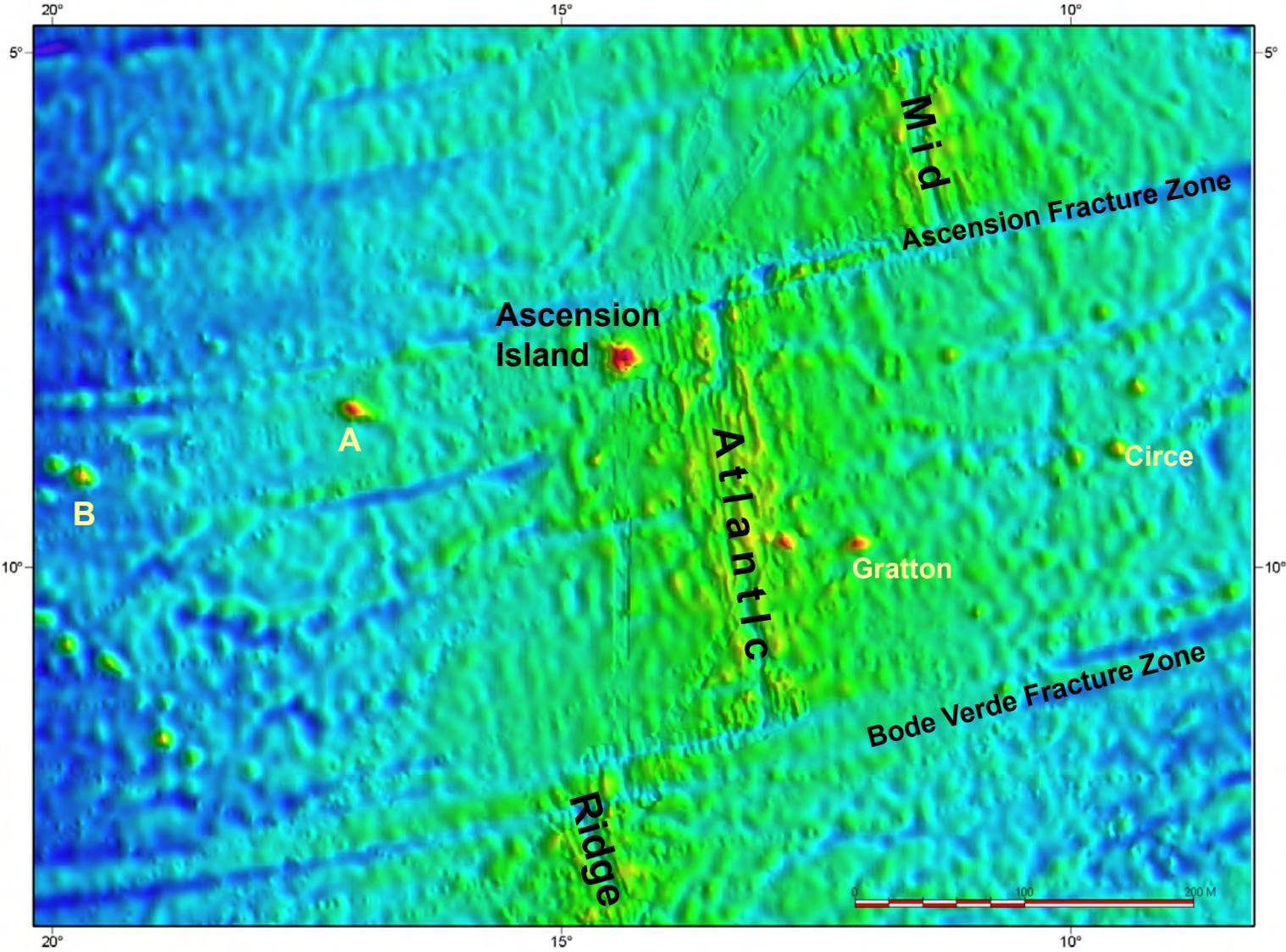
Ridge Submissions to the CLCS



South Atlantic Ocean



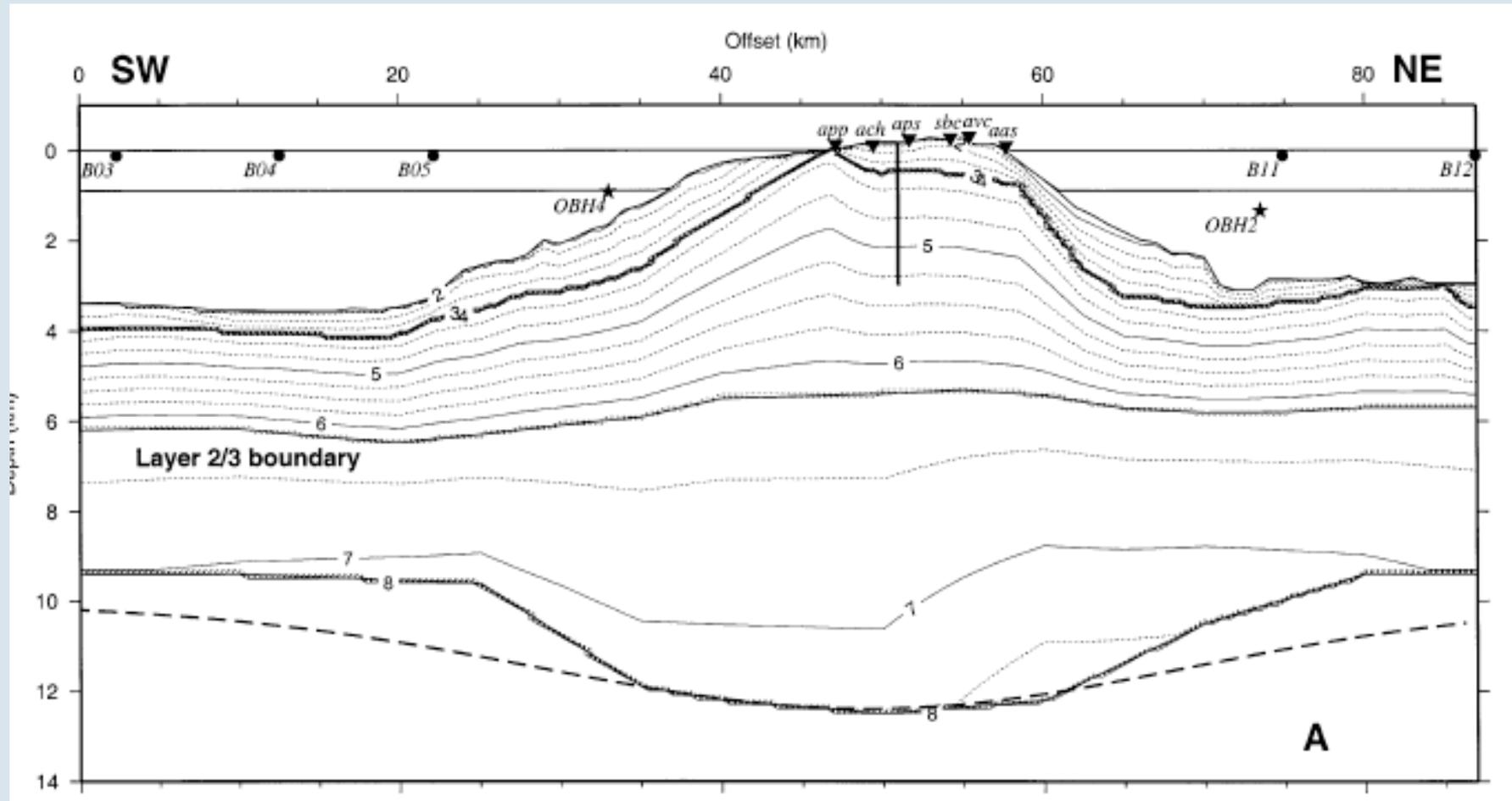
Ascension and the MAR



Origin of Ascension Island

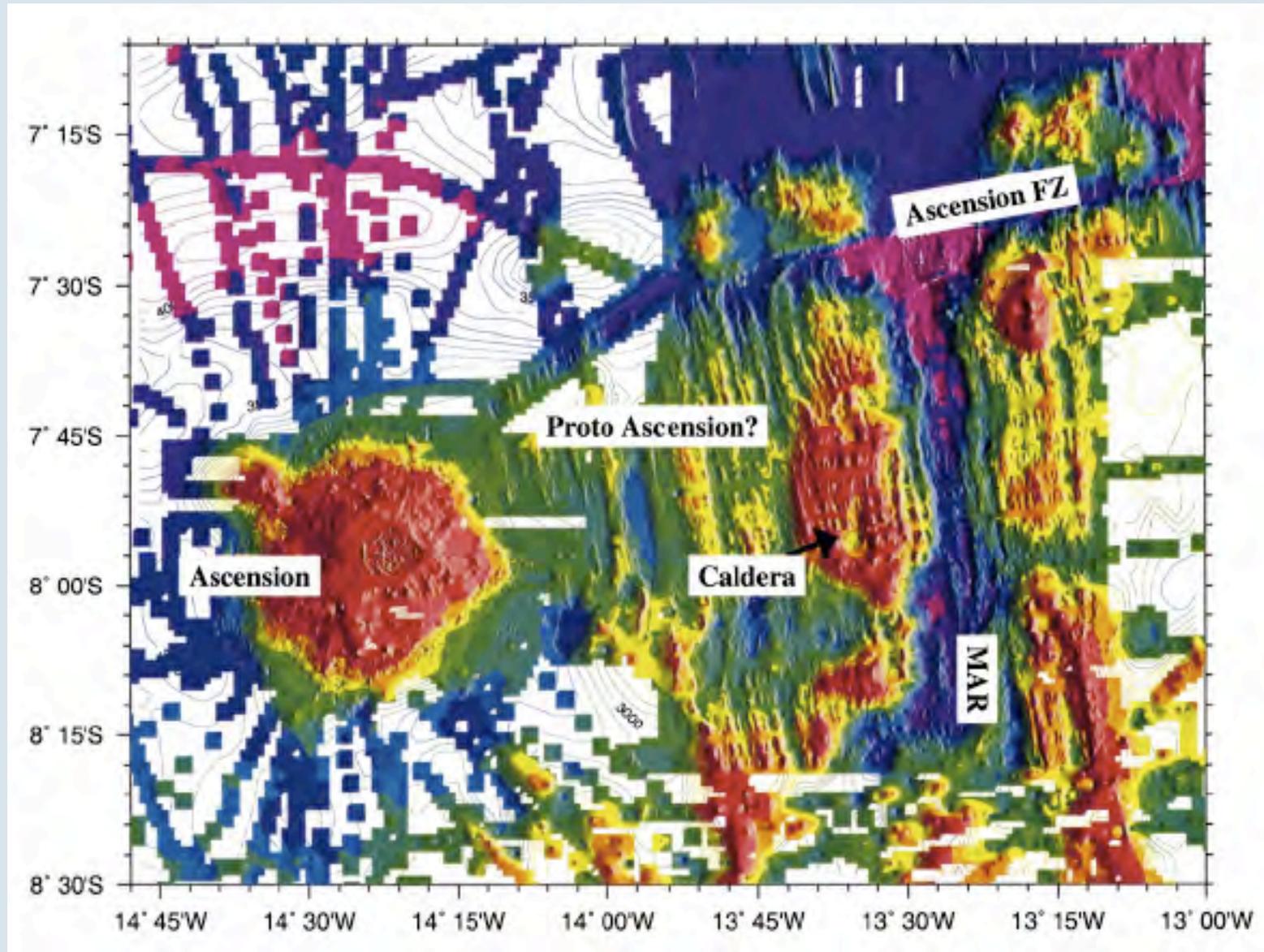


Crustal Structure & Age



From: Klingelhofer et al, 2001

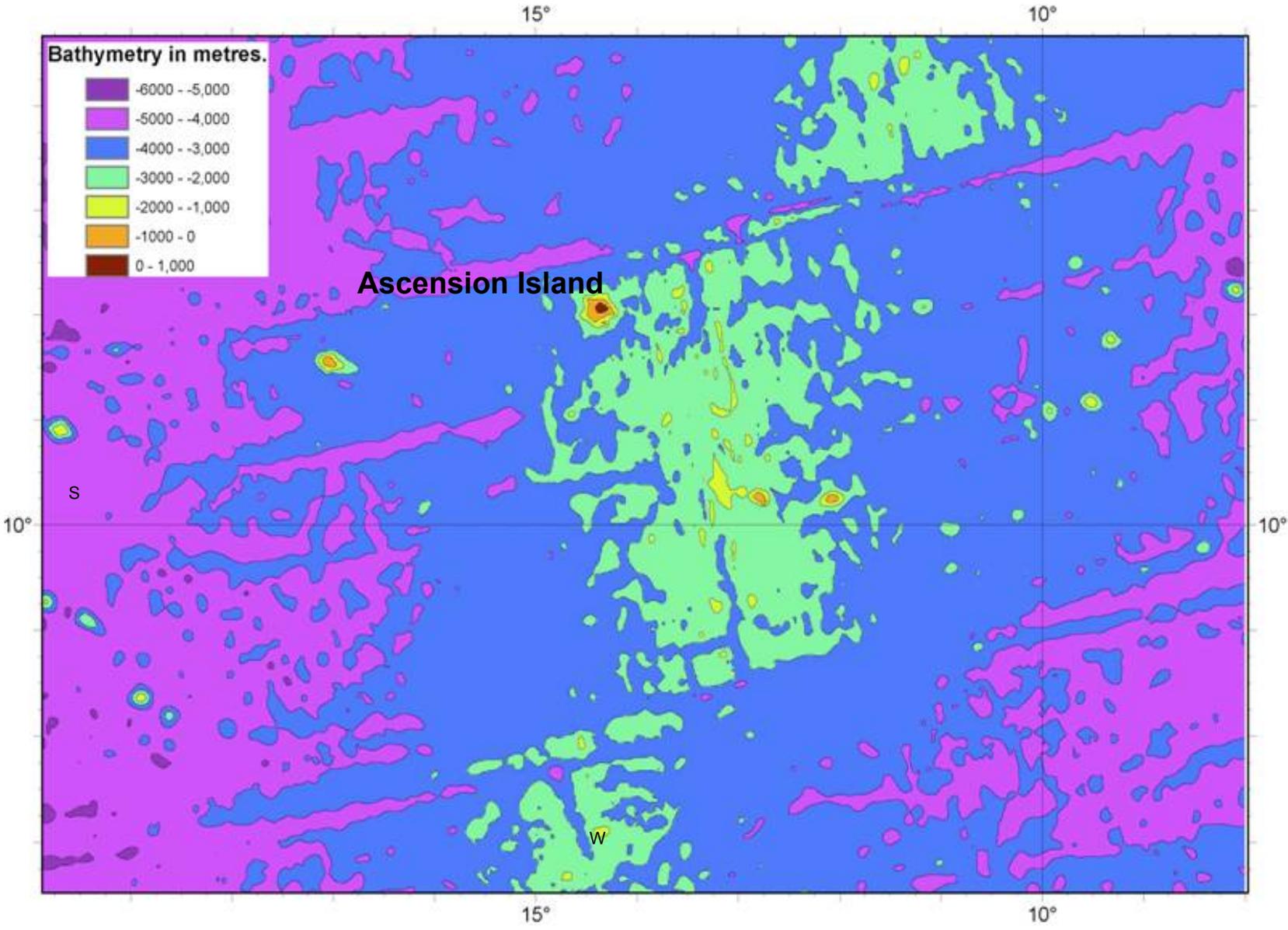
Persistent Ascension style features



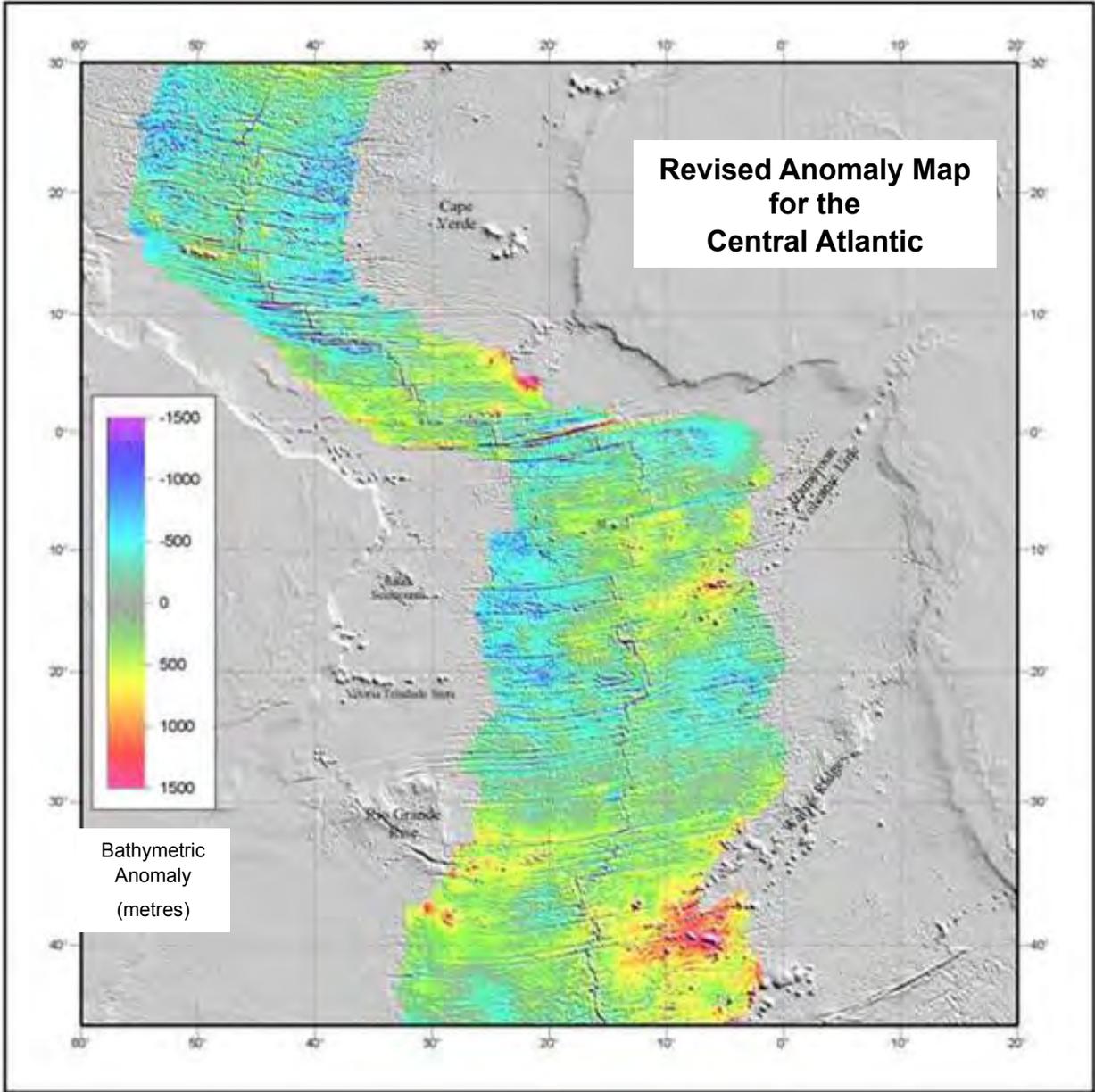
From: Klingelhofer et al, 2001

The UK's Submission

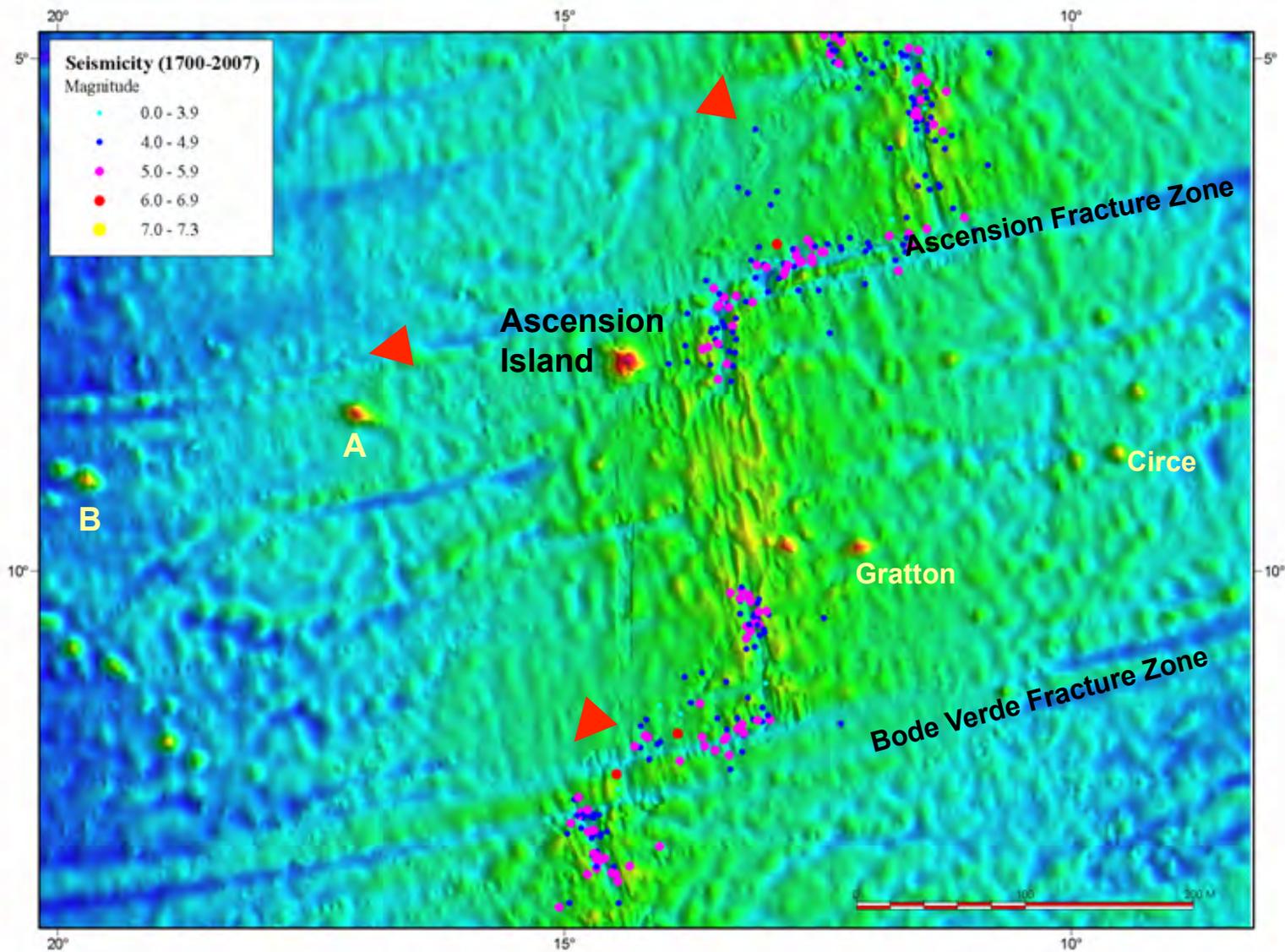
The UK's Submission



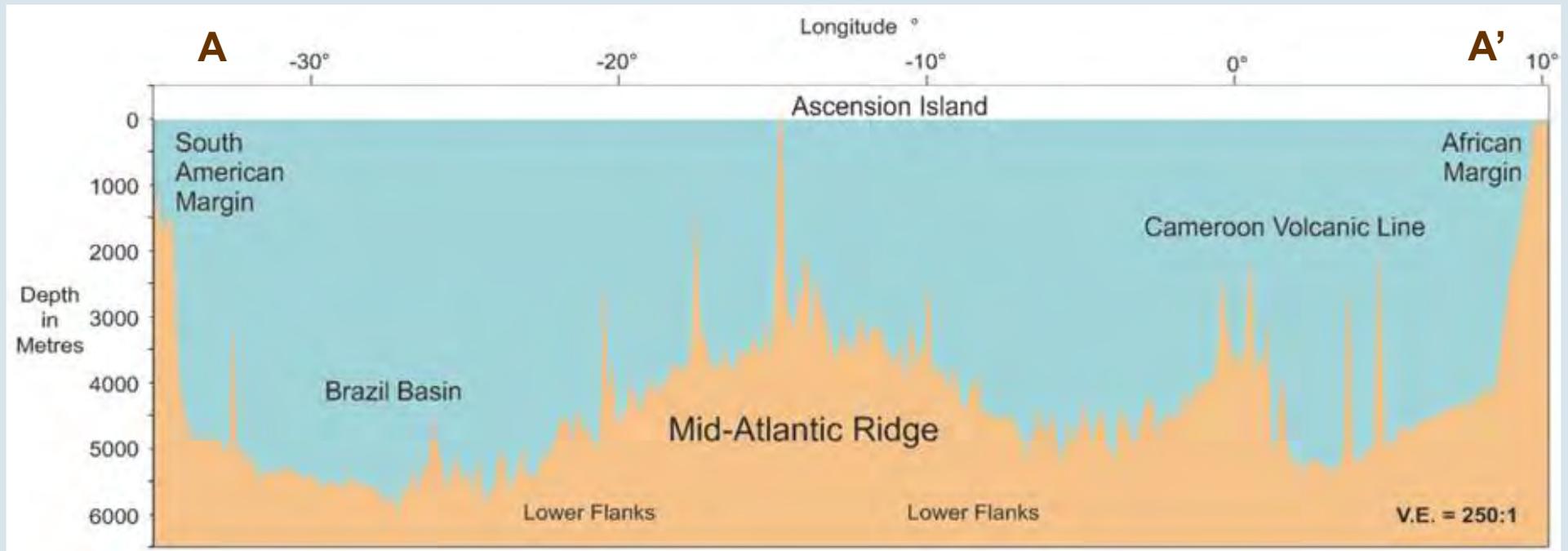
Bathymetric anomaly



Natural Prolongation



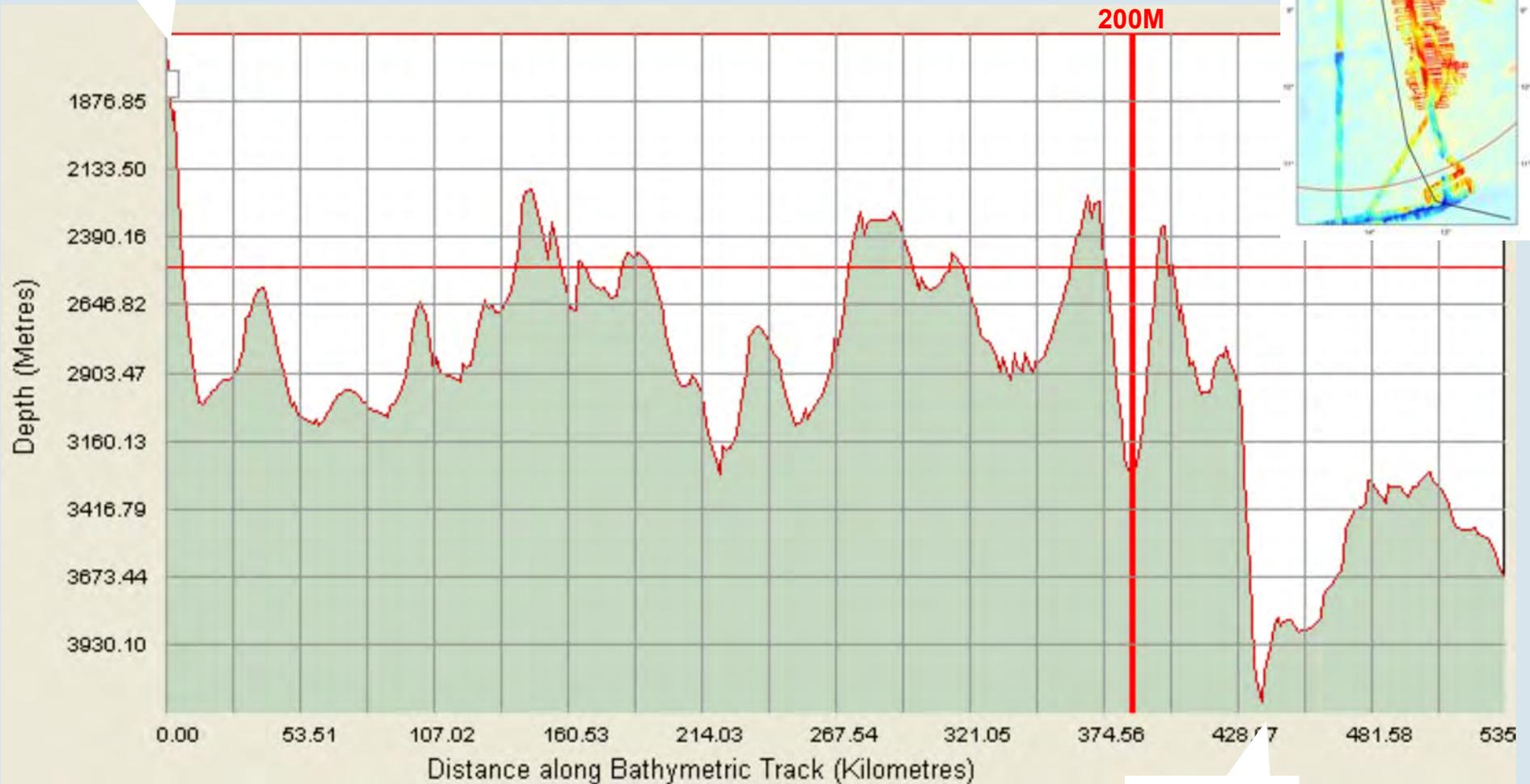
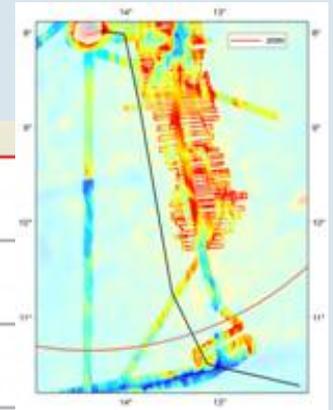
Bathymetric Profile across the South Atlantic Ocean



Bathymetry: Smith, W.H.F. and Sandwell, D.T., Measured and Estimated Seafloor Topography, version 10.1, 2008.

Ascension: base of slope/test of appurtenance

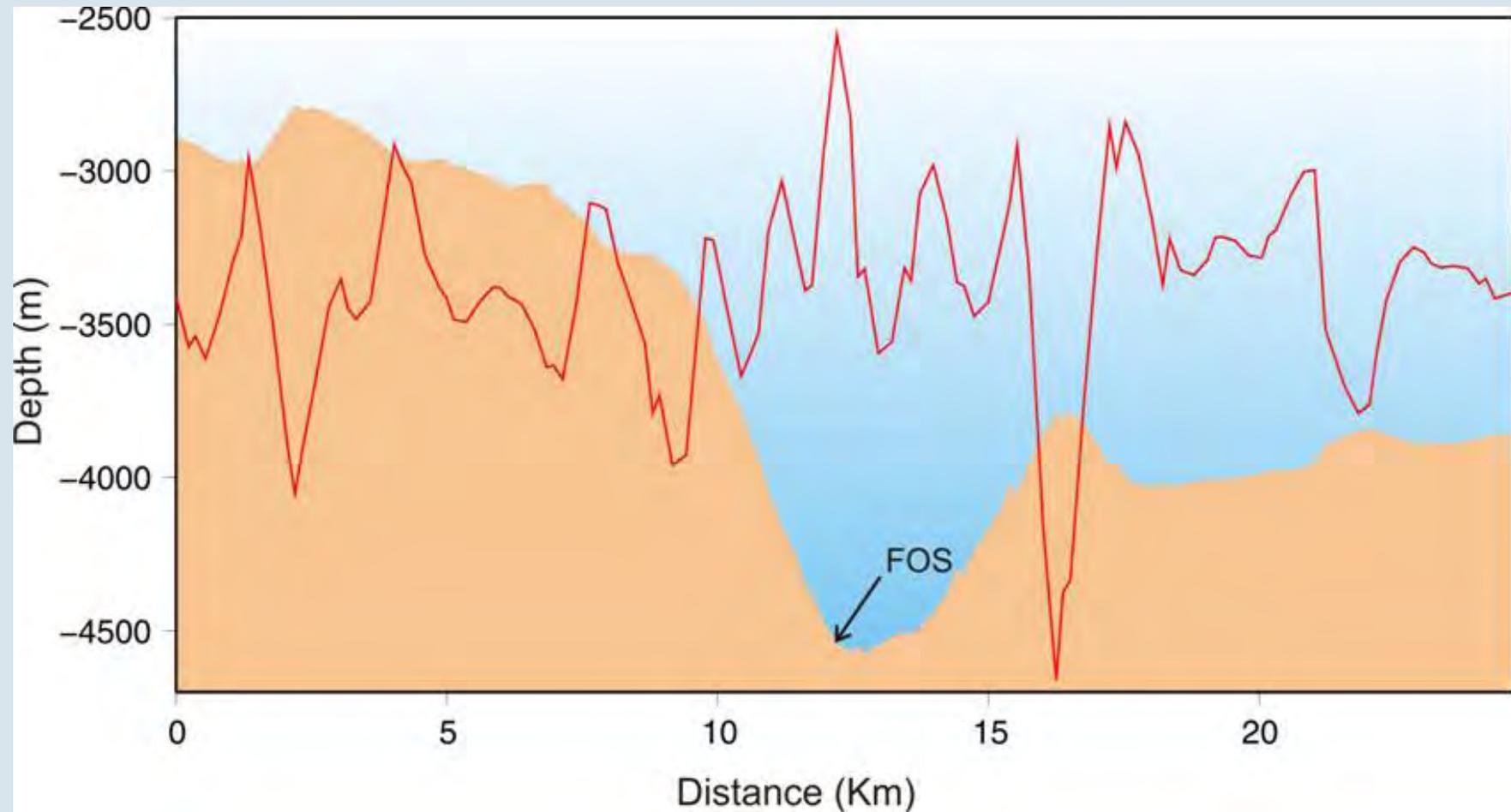
Ascension Island



Base of slope zone

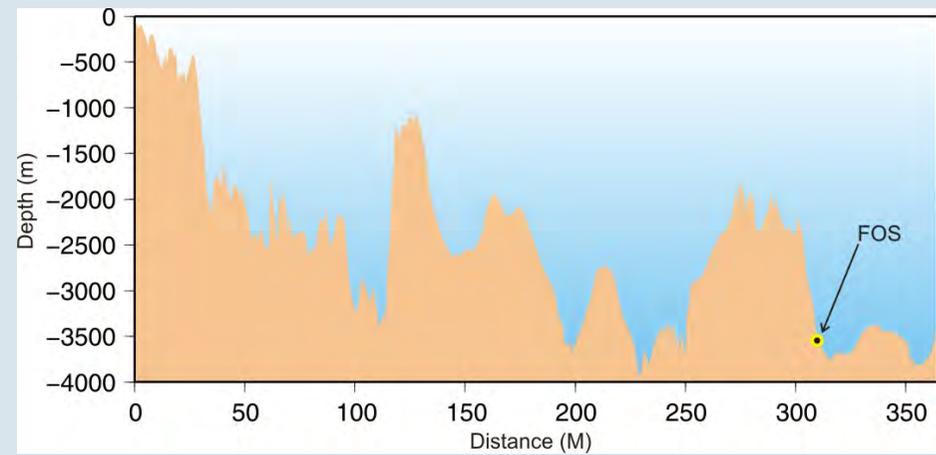
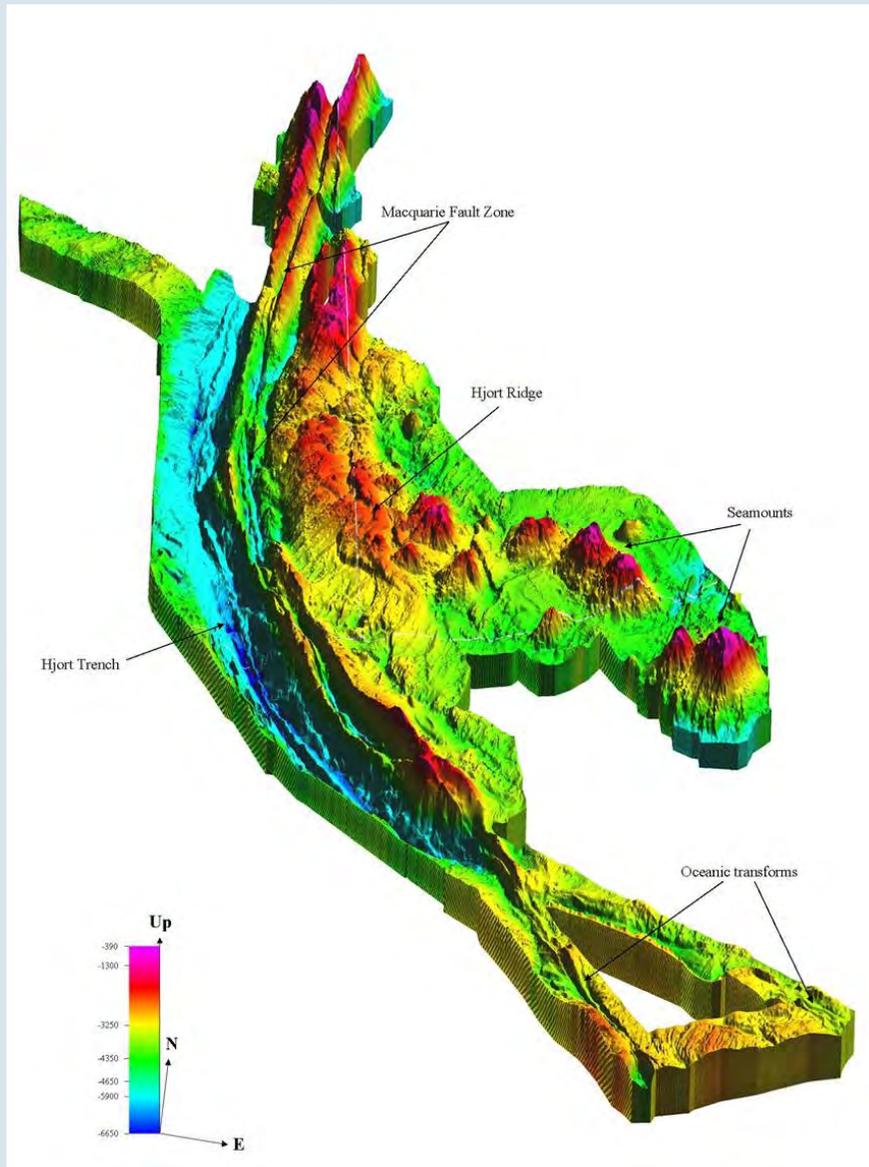
Derived from a merged grid of predicted and multibeam bathymetry.

Ascension: FOS pick (7E)



Derived from multibeam bathymetry alone.

Australia FOS profile

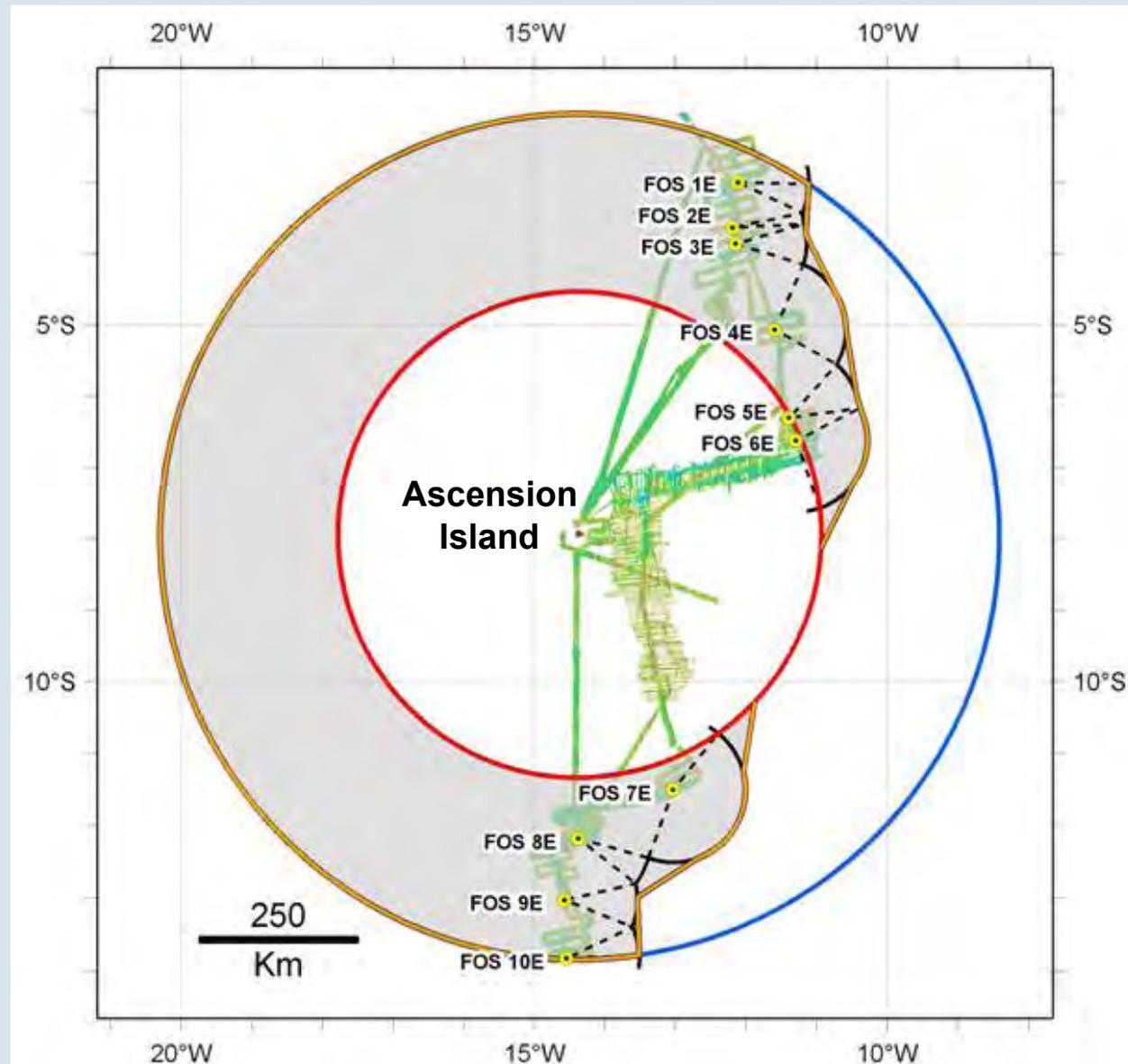


Extract from Aus recommendations

2. Submarine prolongation of landmass and entitlement to the continental shelf beyond 200 M

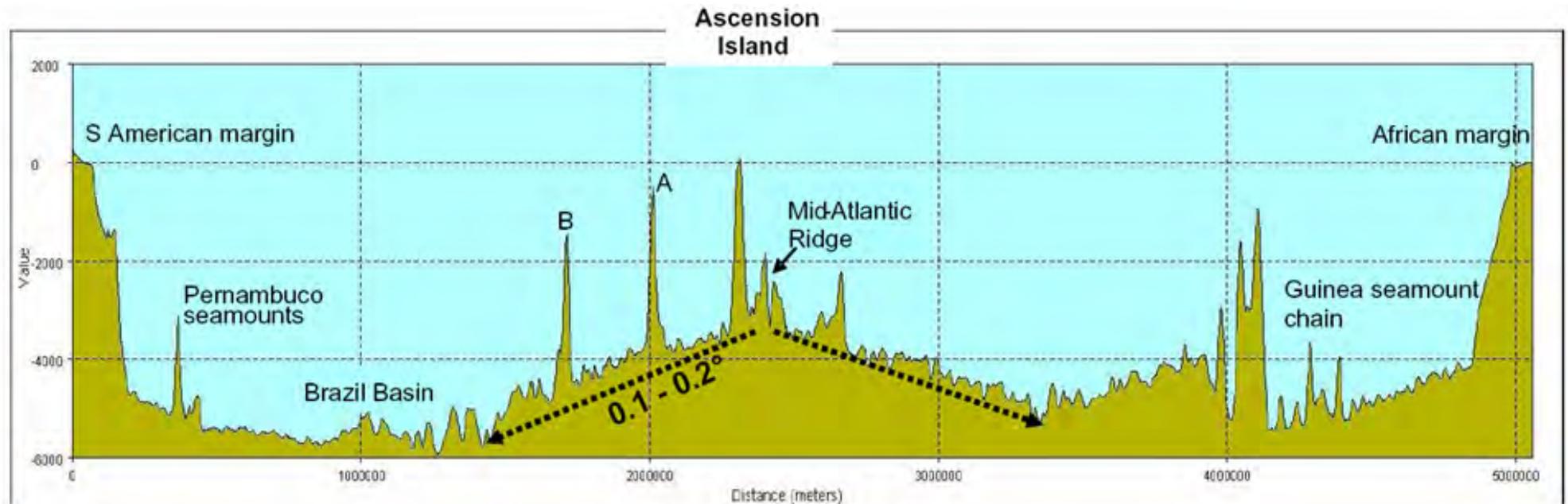
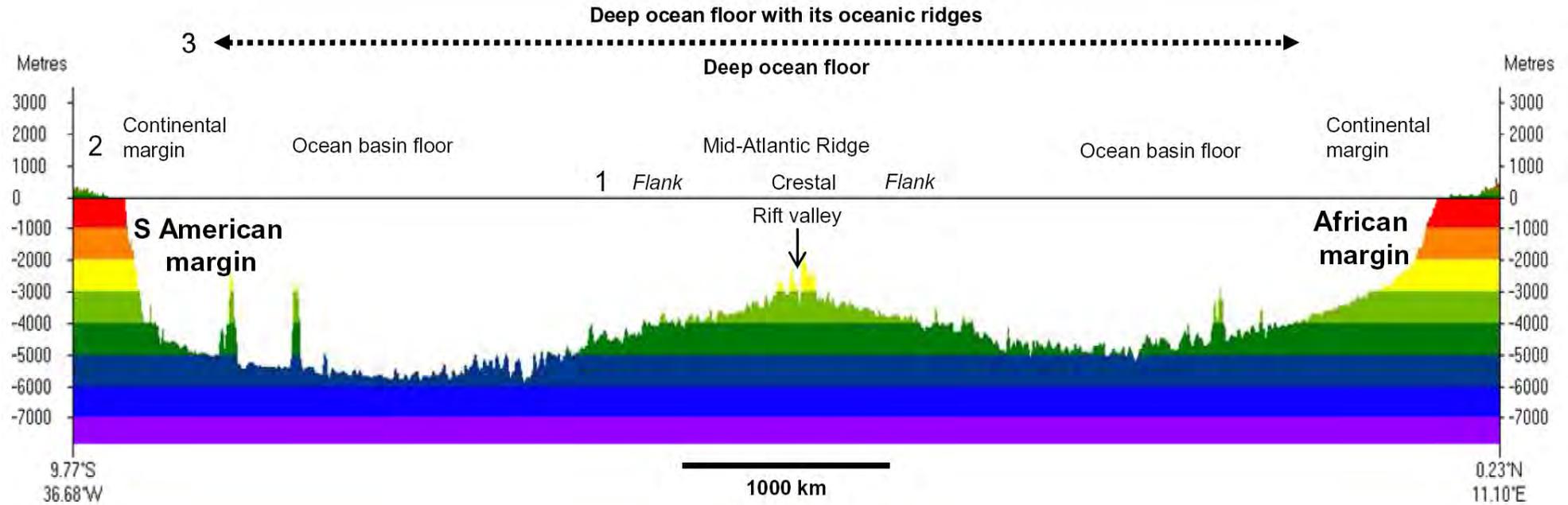
71 The Macquarie Ridge Complex is an elongated morphological feature forming a submarine prolongation of the continent. The ridge segments to the south are interconnected across two saddle areas, which rise 2000 m and 700 m above the adjacent deep ocean floor, respectively. The outer edge of the continental margin as generated from the foot of the continental slope of the Macquarie Ridge Complex by applying the provisions of article 76, paragraph 4, extends beyond the 200 M limits of Australia. On this basis, the Commission recognises the legal entitlement of Australia to establish continental shelf beyond its 200 M limits (Figure E.2).

Outer Continental Shelf?

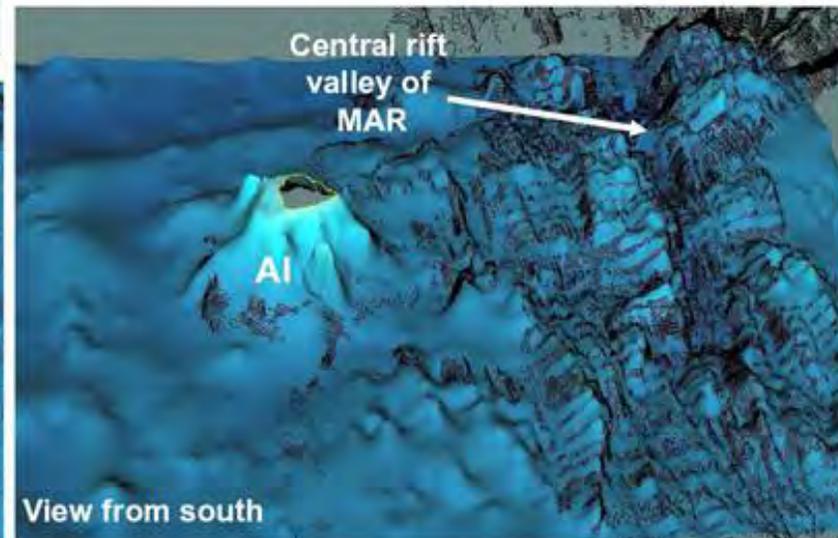
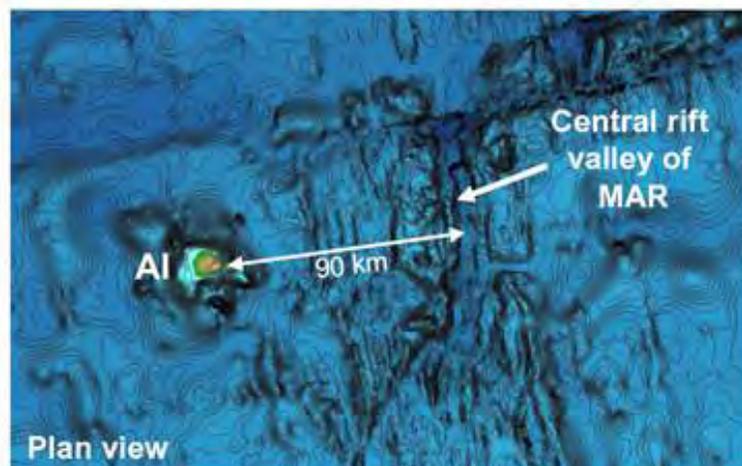
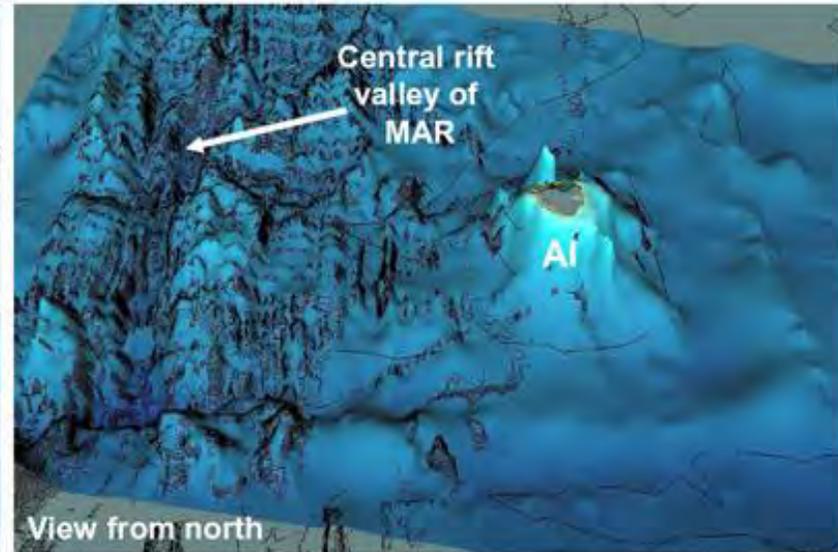
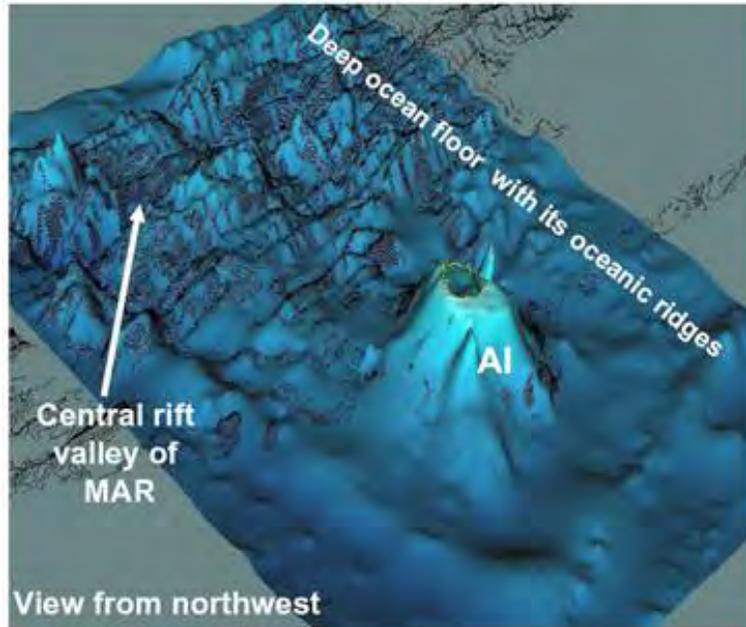


The Commission's View

The MAR as deep ocean floor

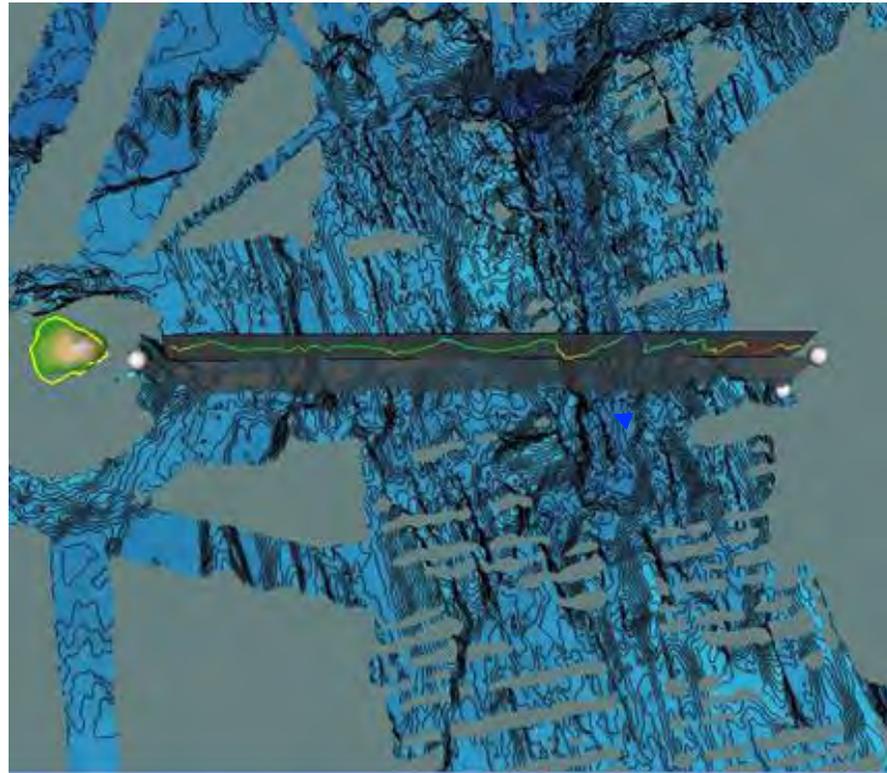


Perspective views of Ascension

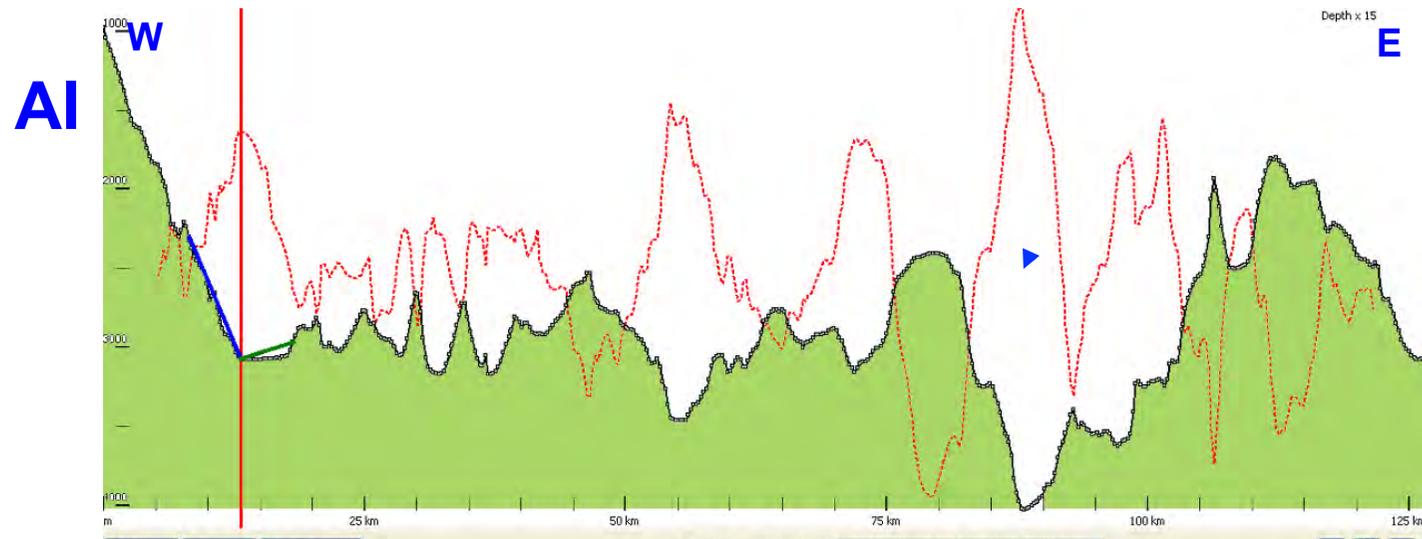




SC fig 19,
SC GBR-ASC_PRES_002_08_12_2009

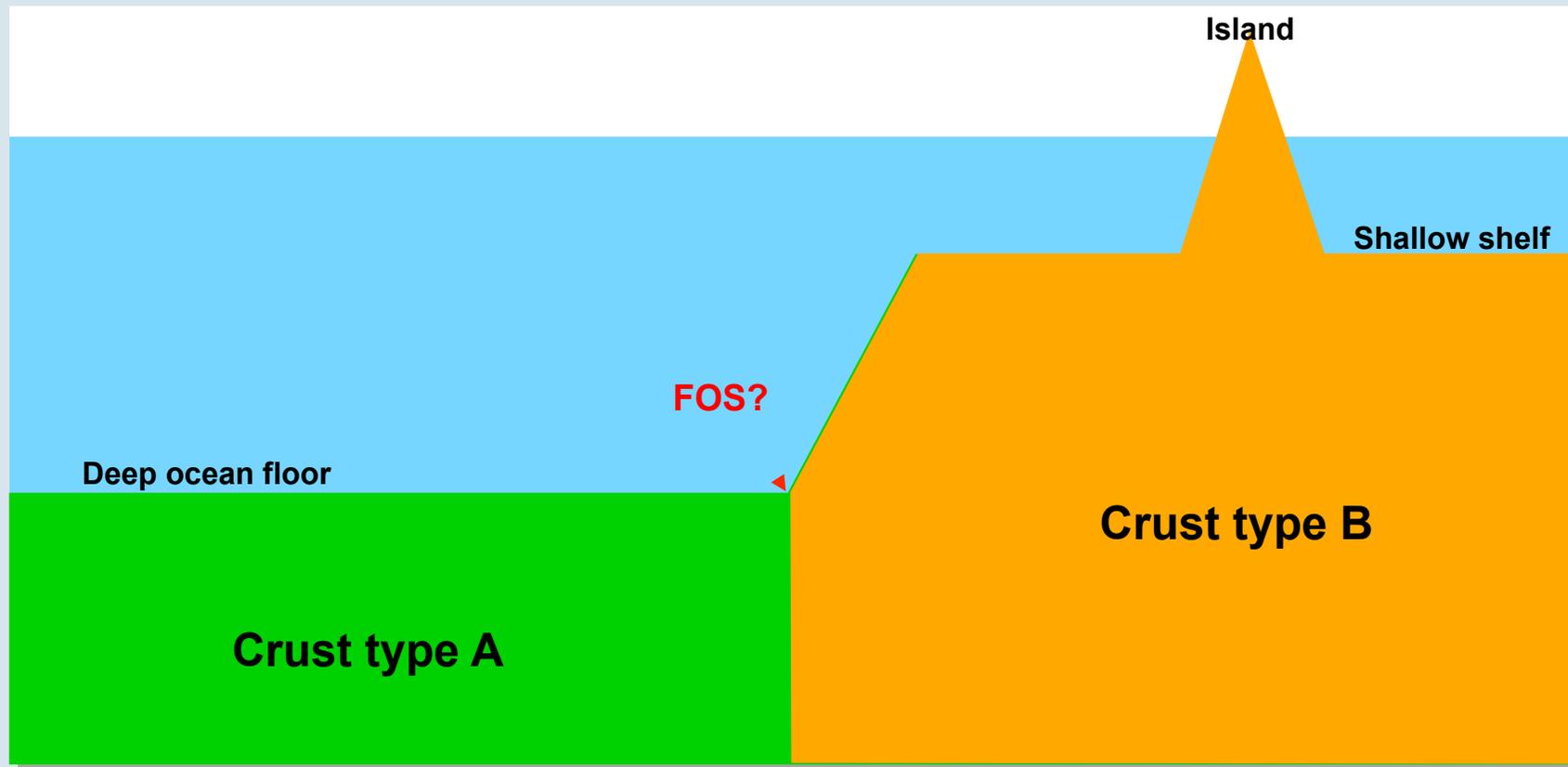


**Central rift
valley of
MAR**

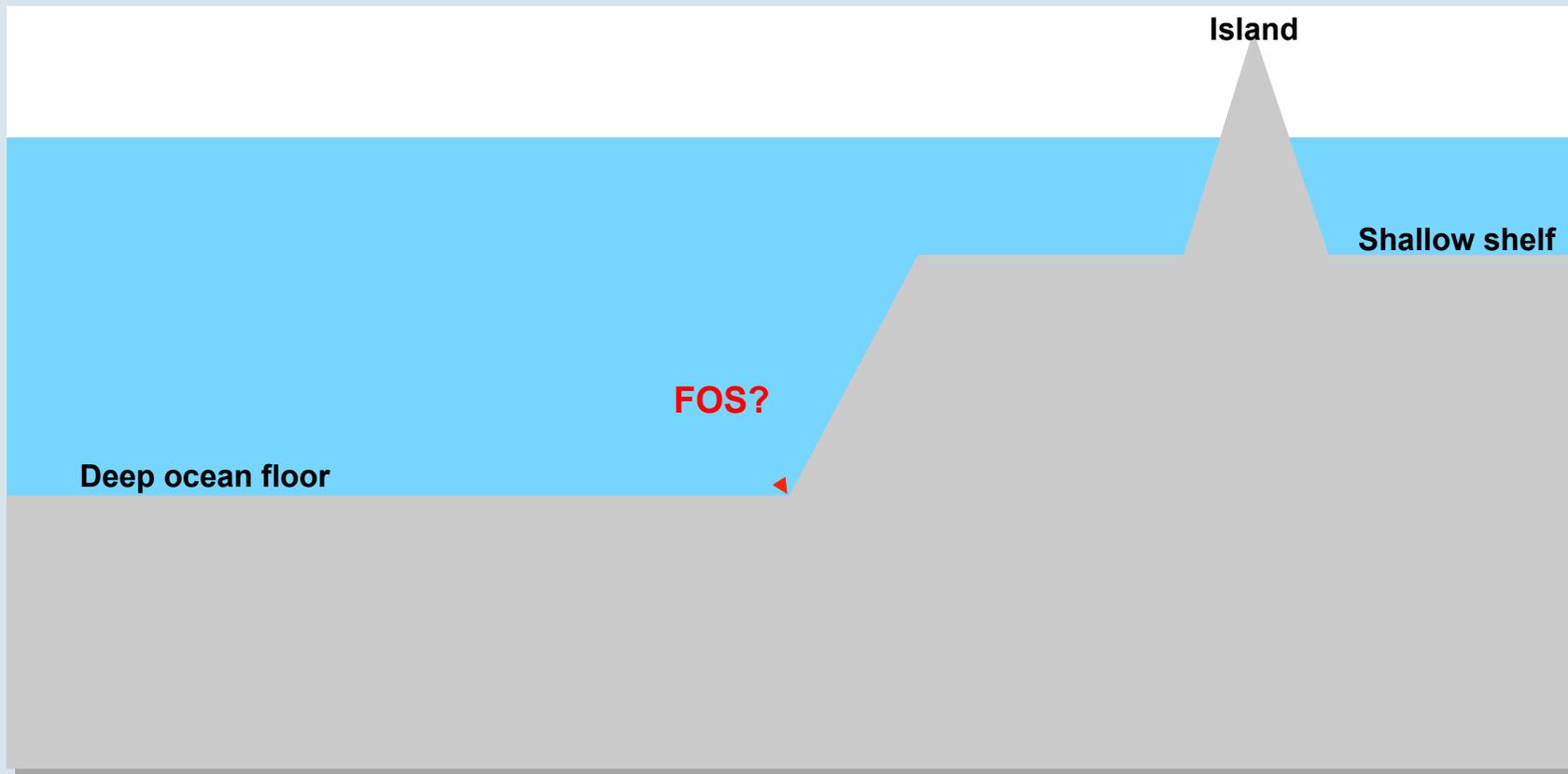


Discussion

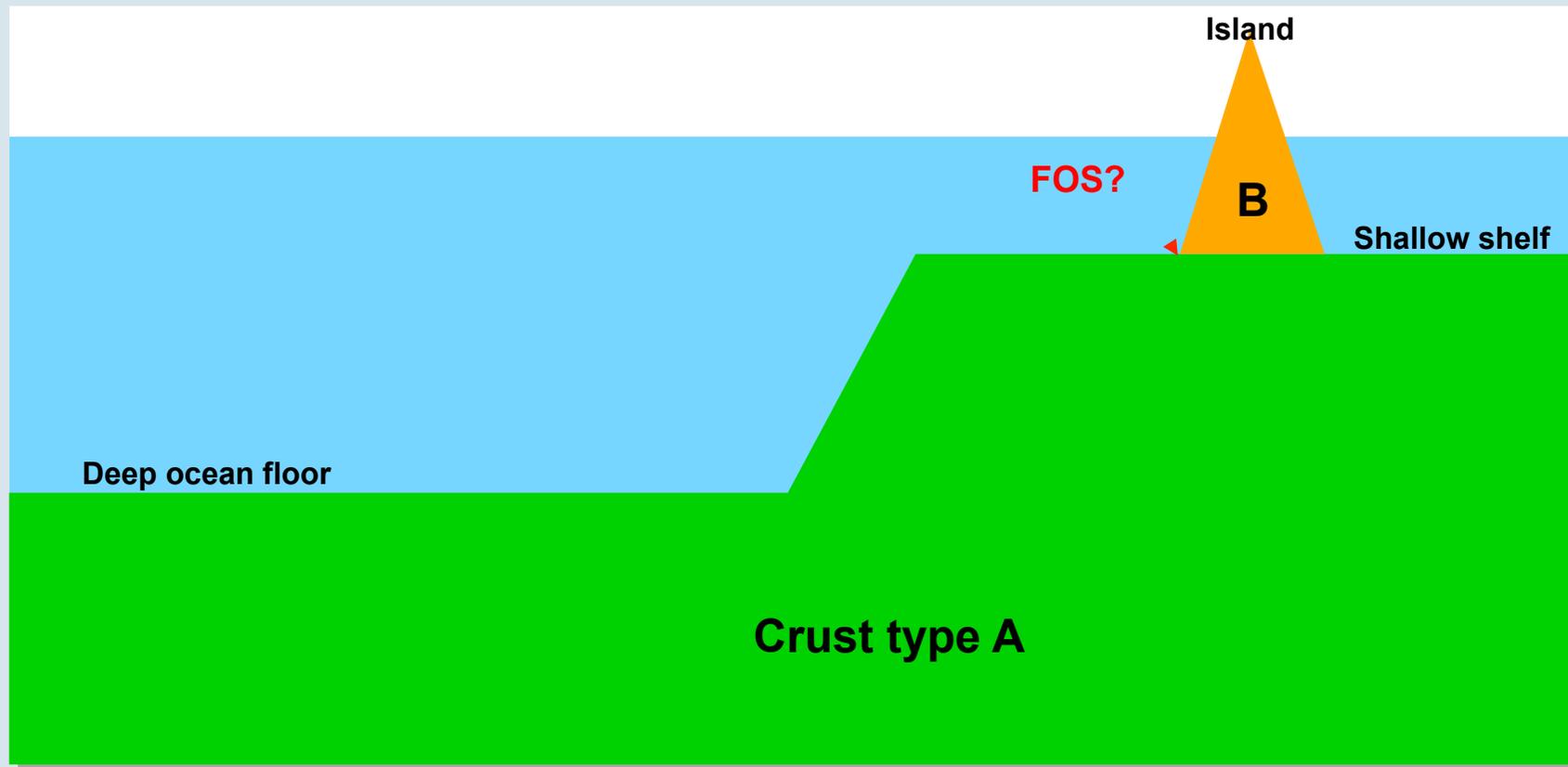
Island model 1: natural prolongation (geology + morphology)



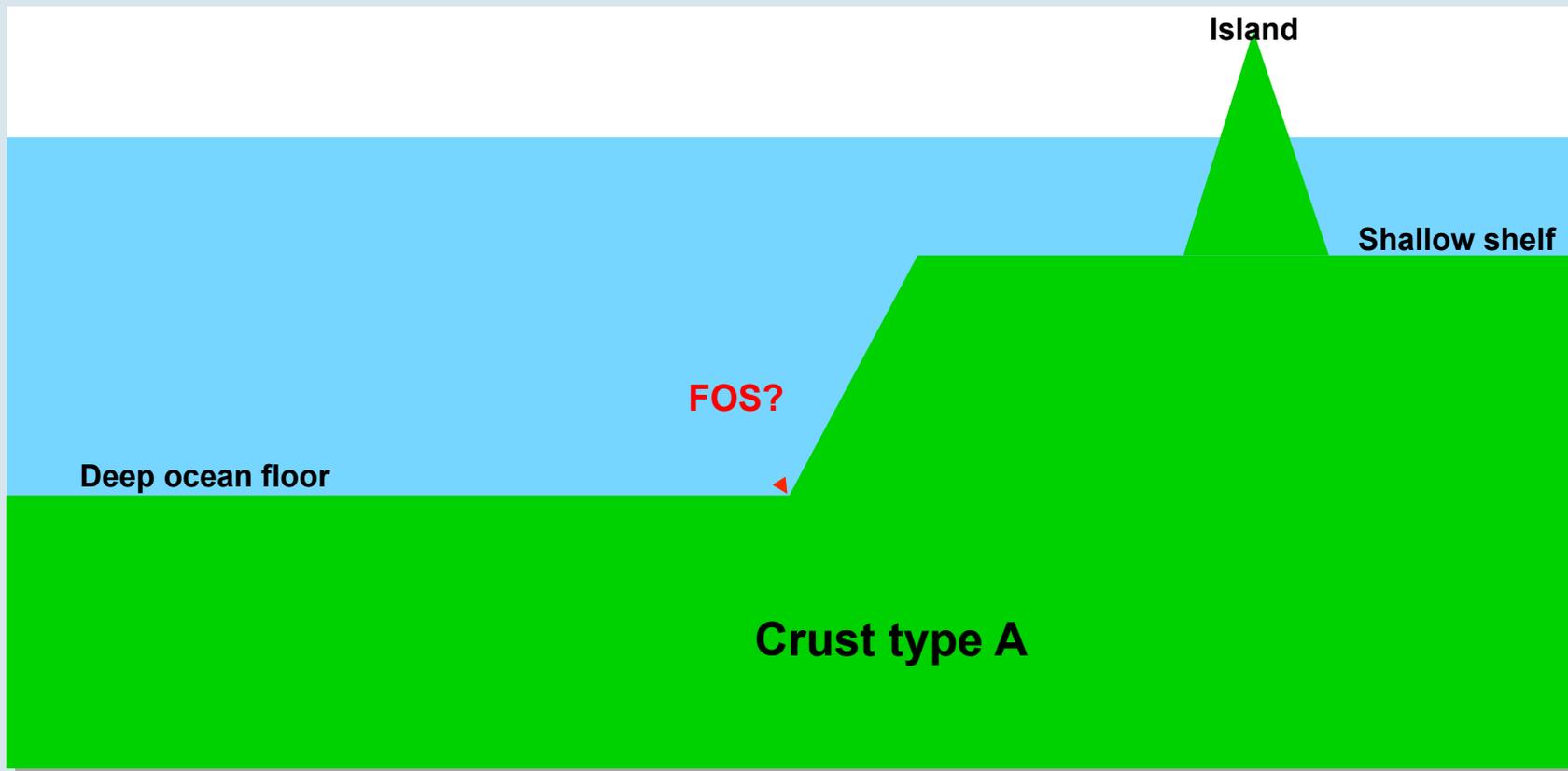
Island model 1a: natural prolongation (geology + morphology)



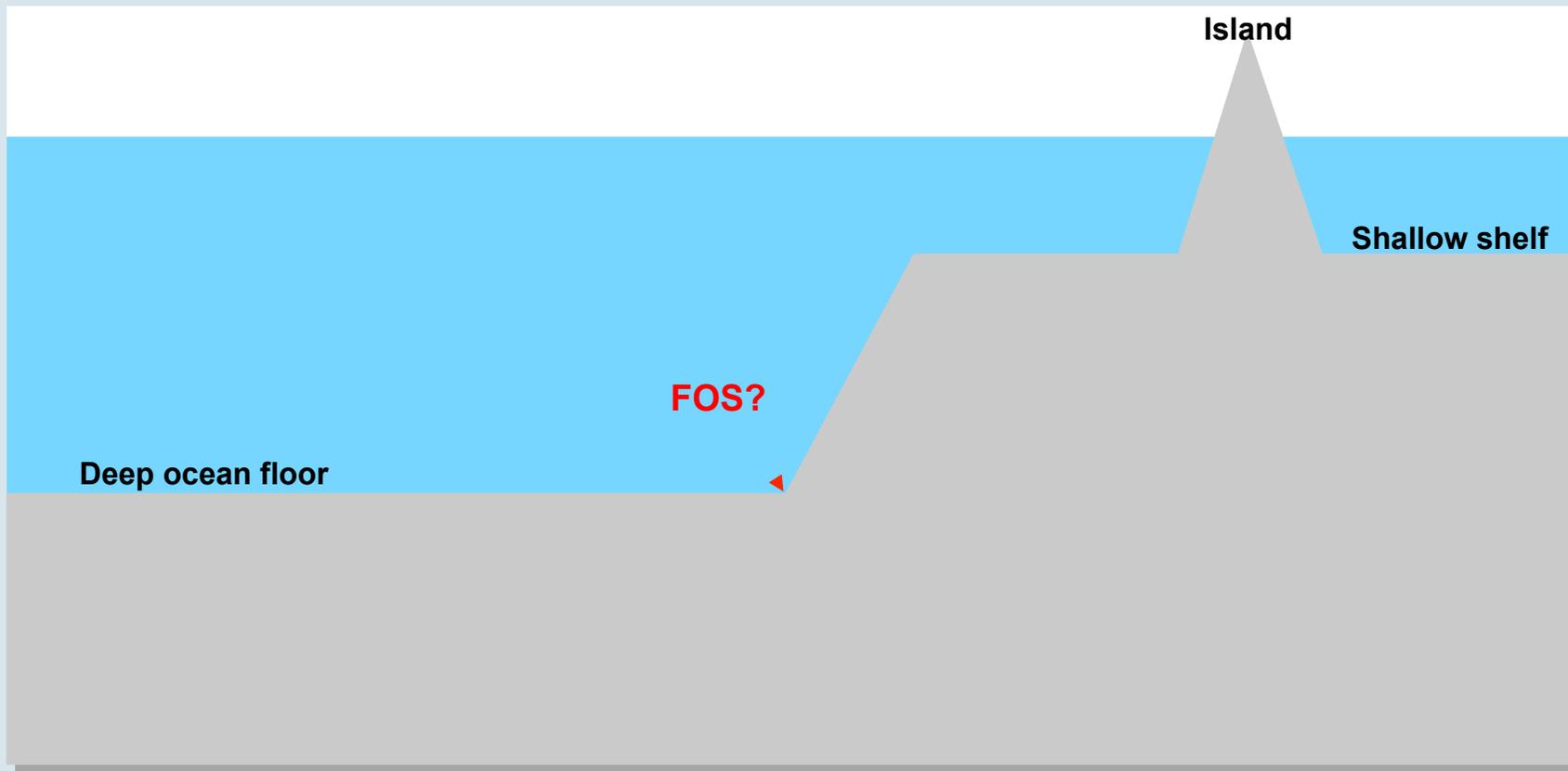
Island model 2: surrounded by DOF



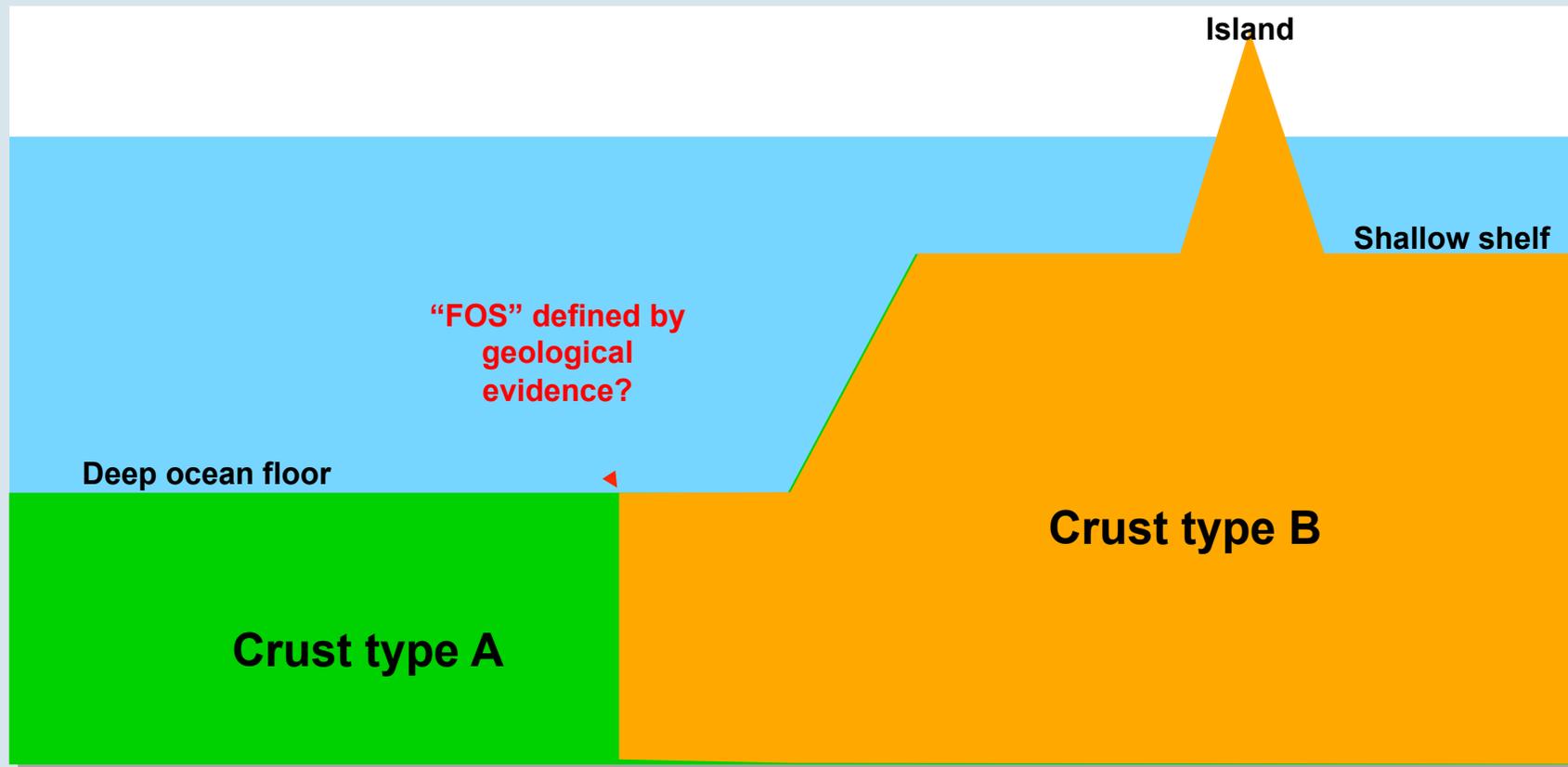
Island model 3: natural prolongation



Island model 3a: natural prolongation



Island model 4: evidence to the contrary



The Ascension Island Submission

