

SW PACIFIC IODP WORKSHOP: OUTLINE OF MAIN PROPOSALS

Further to the brief report on this important Workshop in our Bulletin of 18 October, here is a summary of the main IODP proposals that are to be worked on by teams of international scientists as a result of the workshop. A number of new and revised full proposals will be submitted by the next proposal deadline of April 2013, but exactly which of these will be ready remains to be seen. These proposals will have a chance of being drilled in 2015 or 2016 should they be ranked highly enough. Should any of the readers wish to be involved in the writing activity, could they please contact the lead proponent listed.

1. Climate and Ocean Change (Jim Kennett and Rob McKay)

SW Pacific Paleogene Transect Tropics to Antarctica

- Current reconstruction of meridional SST gradient
- CCD history of the South Pacific
- Models of proto Ross Gyre and surface water circulation
- Mode of deep-water circulation and relationship to global climate
- Intensity and pattern of Southern Hemisphere winds

Targets

- South Pacific Paleogene Latitude Transect (567: SPLAT) – Debbie Thomas
 - An APL is to be added to drill into oceanic basement at a couple of sites – Richard Arculus?
- Coulman High (ANDRILL) – Richard Levy
- Wilkes Land (IODP – MSP) – Carlota Escutia
- Lord Howe Rise – Jerry Dickens for Climate; Rupert Sutherland overall)
- Campbell Plateau – Chris Hollis
- Campbell Drift – Sandra Kirtland-Turner

Neogene and Quaternary climate and ocean change

- Western Pacific Warm Pool (799) – Yair Rosenthal
- Ross Sea (751) – West Antarctic Ice Sheet history
- Sabine & Bougainville Banks history (730) – Fred Taylor

2. Deep Biosphere (Steve D'Hondt and Ken Takai)

- Gulf of Papua (full program) – Jerry Dickens
- DSDP Site 262 (APL), Timor Trough
- Brothers Caldera (APL?)
- Hikurangi Subduction Margin (APL?)
- Tonga Trench (APL?)

3. Earth Connections (Mike Gurnis and Richard Arculus Jim Mori and Laura Wallace)

- Formation of LIPS and their impact on the global environment: Greater ‘Ontong Java Plateau’ – Clive Neal
- Initiation of Subduction and origin of deep water sedimentary basins: Lord Howe Rise and environs – Rupert Sutherland
- Structure and dynamics of mantle flow: Australian-Antarctic Discordance – Jo Whittaker?

4. Earth in Motion (Jim Mori and Laura Wallace)

Proposals in the System:

- Hikurangi slow slip - 781-MDP - Riserless Drilling – Laura Wallace
- Hikurangi slow slip - 781A-Full - Observatory Phase – Damien Saffer
- Hikurangi deep riser drilling phase (being developed) – Laura Wallace

Ideas for New Proposals:

- Brothers Volcano (Cornel de Ronde)
- Manus Basin hydrothermal systems (Chris Yeats)
- Tuaheni Slides (Ingo Pecher)
- Porangahau Fluid Flow & Slow Slip (Ingo Pecher)
- Near Trench Axis drilling-comparative study of Japan, Hikurangi, Costa Rica, Sumatra (Shuichi Kodaira)

5. Marine Resources (Alex Malahoff and Clinton Foster)

The proposals considered under this theme (which is not in the science plan) are being viewed in the context of (i) adding relevance to already strong science proposals, (ii) prospects for development as complementary project proposals with industry or government co-funding or (iii) opportunities for non-IODP projects in the region, fully funded by industry or government, that will help to keep the drilling platforms viable.

- Gas Hydrates – Hikurangi margin, New Zealand - Ingo Pecher (NZ)
- Deep petroleum-oriented studies – Lord Howe Rise - Riko Hashimoto (GA), Shin’ichi Kuramoto (JAMSTEC/*Chikyu*), David Divins (Ocean Leadership/*JOIDES Resolution*), Rosemary Quinn (GNS)
- The Brothers Volcano (Cornel de Ronde) and Manus Basin hydrothermal systems (Chris Yeats) studies also have relevance in this theme although they are covered in the *Earth in Motion* science theme (above).

With regards from Neville Exon and Catherine Beasley at the ANZIC Office