Issue 3, 21st February, 2013

Australia and New Zealand form the Australia-New Zealand IODP Consortium (ANZIC), and the two countries have access to all IODP activities. This bulletin provides current news, job opportunities, scholarships and events relating to both national and international scientific communities.

For more information contact:
Website: www.iodp.org.au
Website: www.drill.gns.cri.nz

Visit our updated website @ www.iodp.org.au

APPLY TO SAIL

Applications are now open for five IODP expeditions, embarking over the next twelve months. Prospective applicants are encouraged to contact Neville Exon at the ANZIC office with any queries.

Our mailing list has already received details of the South China Sea and Izu-Bonin-Mariana Expeditions (summaries below) and further details of the NanTroSEIZE expedition will be forwarded shortly.

April 1 deadline

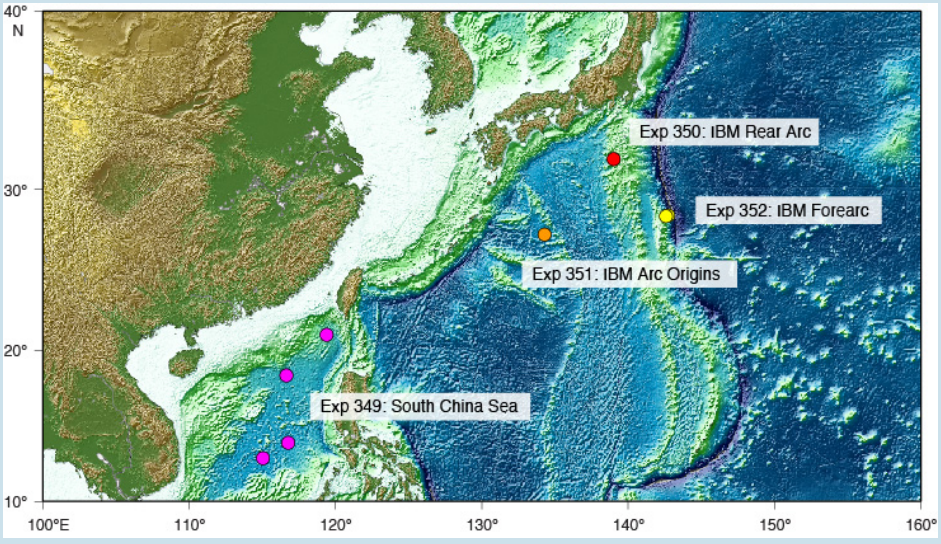
Expedition 349: South China Sea (Jan-Mar 2014)

April 15 deadline

Expedition 348: NanTro SEIZE Stage III. (multiple phases Aug 2013 to Jan 2014)
Further ANZIC application information will be forwarded to our mailing list shortly.
http://iodp.org/apply-to-sail

May 1 deadline

Expedition 350: Izu-Bonin-Mariana Rear arc (Mar-May 2014)
Expedition 351: Izu-Bonin-Mariana Arc Origins (May-Jul 2014)
Expedition 352: Izu-Bonin-Mariana Forearc (Jul –Sept 2014)



We are accepting applications for scientific participation for IODP

Expedition 349 in the South China Sea.

The Expedition will be in February-March 2014, and both Australia and New Zealand are assuming that we will still be IODP members in this new phase of IODP.

This expedition, based on IODP Proposal 735-CPP2, addresses the history and mechanisms of opening of the South China Sea (SCS), and its implications for East Asian and western Pacific tectonic and paleoenvironmental evolution. This will be achieved by coring through the sediment and into the oceanic basalts at four different subbasins, with total penetrations ranging from 0.7 to 1.9 km in 3.3 to 4.4 km water depths, to determine the breakup and basin formation history since the late Mesozoic. Geochemical sampling of basement rocks at different ages within different magnetic zones and around key tectonic events will provide critical information on how the crust and mantle evolve at various stages of basin evolution.

The aim is to drill four sites to recover about 5300 m of Cenozoic marine terrigenous sediment rich in calcareous microfossils, and 500 m of underlying 'basement'. Four deepwater sub-basins will be drilled representing different tectonic provinces. There are no commercial wells in near the sites so the predicted sequences are not well controlled except from ODP Leg 184 sites which are quite distant. Basement is expected to be oceanic crust in three sites, with ages between 22 and 30 Ma. In the fourth site basement may be Mesozoic sedimentary rock or oceanic crust, in either case with an age of around 65 Ma. The expedition schedule (http://iodp.tamu.edu/scienceops/) includes links to the individual expedition web pages that provide the original IODP proposal and expedition planning information.

While other expertise may be considered, specialists in the following fields are required: sedimentology, micropaleontology, oceanic crust petrology, organic geochemistry, inorganic geochemistry, petrophysics/logging, stratigraphic correlation, paleomagnetics and microbiology.

This is a great opportunity for scientists, including post-graduate students, to get involved in cutting edge science with a team from around the world. Can senior scientists please consider whether they know of outstanding post-graduate students who could put about six months work (in toto) into such an undertaking? For all applicants, and especially students, we will need to be assured that applicants intend to stay in Australia or New Zealand to work on this activity, and have access to departmental facilities, for a reasonable time post-cruise - ideally a couple of years.

For ANZIC scientists all travel costs are covered. In addition the Australian IODP Office can now provide **up to $A40,000 for post-cruise activities** (mainly analytical costs) for Australian university and research institution scientists and post-graduate students, if funding cannot be obtained in any other way. Applications for such funding can only be made after expeditions are completed and samples are in hand. For more information on our funding rules see www.iodp.org.au. New Zealand has a similar but more limited scheme.

Deadline for scientists to submit applications to ANZIC is 1 April 2013.

This is an excellent opportunity for scientists, doctoral students or post docs to collaborate with an international team of scientists. Australians should visit www.iodp.edu.au for a link to the application form, which should be sent to Stephen Gallagher (sjgall@unimelb.edu.au) with a copy to Neville Exon (Neville.Exon@anu.edu.au). Interested New Zealanders should contact Chris Hollis (NZODP@gns.cri.nz).

Yours sincerely
Neville Exon
ANZIC Program Scientist
02 6125 5131

IODP
INTEGRATED OCEAN DRILLING PROGRAM

We are accepting applications for scientific participation for

IODP Expeditions 350, 351 and 352 in the Izu Bonin Arc.

350: IBM Rear Arc Expedition (April – May 2014)
Based on IODP Proposal 697-Full3, this expedition aims to understand crustal genesis and mantle evolution of the IBM rear arc system by examining sediments and crust in the Philippine Sea. The primary objective is to obtain a temporal history of across-arc variation in magma composition during five main intervals of arc evolution. Three main hypotheses will be tested: (1) geochemically asymmetric crust in the rear arch is either a fundamental trait or a secondary trait that develops during backarc spreading; (2) nonsteady state events, such as rifting, play a major role in the evolution of arc crust; and (3) the origin of the Izu rear arc seamount chains is related to mantle convection patterns.

351: IBM Arc Origins Expedition (May – July 2014)
Based on IODP Proposal 695-Full2, this expedition will examine the inception and evolution of the IBM arc by obtaining a sedimentary and crustal record from a single site in the Amami Sankaku Basin. The primary objectives are (1) to examine the petrology and age of the crust to infer the geochemistry of the mantle prior to IBM arc inception and determine the mantle source of the arc foundation; (2) to obtain records of IBM arc inception and growth, late Mesozoic-early Paleogene eastern Tethys paleoceanography, and East Asian monsoon conditions during the Neogene; and (3) to determine if early uplift or subsidence was associated with subduction initiation. It is predicted that the site will drill 1300 m of sediments and 150 m of basement consisting of Layer 1 and uppermost Layer 2 oceanic crust.

352: IBM Forearc Expedition (August – September 2014)
Based on IODP Proposal 696-Full4, this expedition will explore early processes in magmatic evolution, chemostratigraphy and arc crustal accretion that are associated with subduction initiation at intra-oceanic convergence plate margins. Scientific objectives are to (1) obtain a high-fidelity record of magmatic evolution during subduction initiation by coring volcanic rocks down to underlying intrusive rocks, including obtaining radiometric and biostratigraphic ages; (2) understand the chemical gradients within the rock units and across their transitions, as well as their tectonic significance; and (3) provide empirical constraints for subduction initiation geodynamic models by examining how mantle melting processes evolve from early decompression melting of fertile asthenosphere to late flux melting of depleted mantle.

Deadline for scientists to submit applications to ANZIC is 1 May 2013.

This is an excellent opportunity for scientists, doctoral students or post docs to collaborate with an international team of scientists. Australians should visit www.iodp.edu.au for a link to the application form, which should be sent to Stephen Gallagher (sjgall@unimelb.edu.au) with a copy to Neville Exon (Neville.Exon@anu.edu.au). Interested New Zealanders should contact Chris Hollis (NZODP@gns.cri.nz).

Yours sincerely
Neville Exon
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AT SEA

After a brief stop in Balboa, the JOIDES Resolution is off on a transit leg heading for Victoria, BC. Current ETA in Victoria is March 4th, after which the ship will be in dock for maintenance including a new paint job, re cabling and general equipment maintenance.

The next IODP leg, Expedition 341 will embark on 29th May for the Southern Alaskan Margin. ANZIC is supporting three members of the expedition including, for the first time, an Education Officer. If your organisation has an outreach arm that might be interested in engaging with this expedition, please send contact details to Catherine Beasley iodp.administrator@anu.edu.au

WORKSHOP ANNOUNCEMENT AND CALL FOR PARTICIPANTS

NSF Workshop: *Drilling active tectonics and magmatism (Volcanics, Geoprisms, and Fault Zones Post---SAFOD)*

This coming May (2013), we are convening an NSF-sponsored workshop to explore how to guide the US Continental Scientific Drilling Program to investigate active tectonic processes as expressed by faults, volcanoes, and volcanic provinces. The workshop will be held in Park City, Utah.

We invite you to review the attached Workshop Announcement and consider if you would like to contribute to this process. If you would, please fill in the attached Workshop Application form by 10 April 2013, and return it to Kristina Glaittli (kristina.glaittli@usu.edu), or send by post to:

Department of Geology
Utah State University
Logan, Utah
83422-4505

Regards
Virginia Toy, on behalf of the workshop steering committee.

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