

ECORD Council

ESO Update – June 2016



L/B Myrtle
IODP Expedition 364

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Summary

Agenda Item 2.3– Scoping/tender process, operations, technical developments (ESO Update)

Recent expeditions

1. Expedition 357: Atlantis Massif Serpentinization and Life
2. Expedition 364: Chicxulub Impact Crater

Expedition in planning

3. Expedition 373: Antarctic Cenozoic Paleoenvironment (Proposal 813)

Agenda Item 4 – Review of MSP proposals

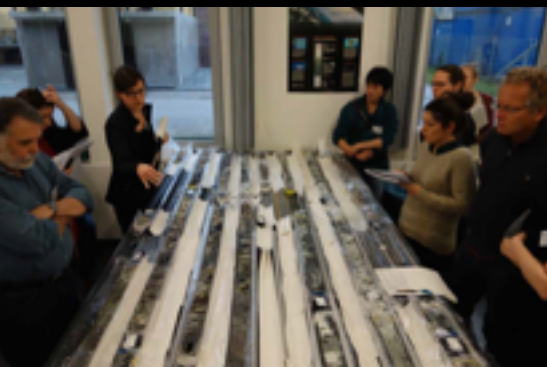
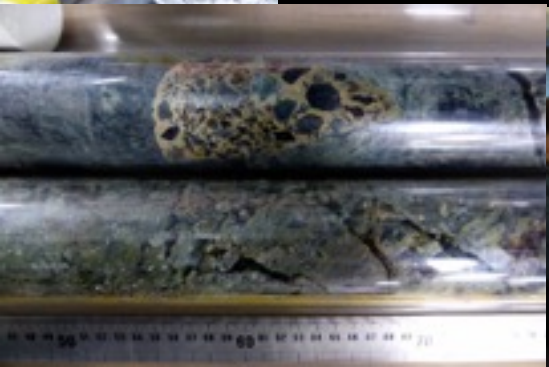
- 4.1 581-Full2 – Late Pleistocene Coralgall Banks
- 4.2 637-Full2+Add6 – New England Shelf Hydrogeology
- 4.3 716-Full2 – Hawaiian Drowned Reefs
- 4.4 708-Full+Add – Central Arctic Paleoceanography (revised)
- 4.5 730-Full2 – Sabine Bank Sea Level
- 4.6 879-Full – Corinth Active Rift Development
- 4.7 Other proposal(s) that could potentially be forwarded by SEP

Agenda Item 6.1 – Amphibious Drilling Proposals



IODP Expedition 357: Atlantis Massif Serpentinization & Life

- **Offshore phase:** 26 Oct– 11 Dec
- **Cored interval:** 0 – 16.5 mbsf at 9 sites
- **Cored length:** 57 m
- **Core recovery:** 53%
- **Deployment of borehole packer and plug systems**
- **OSP:** 20 Jan – 5 Feb
- High quality cores recovered
- Moderate recovery
- Successful use of new sensor assembly
- Successful use of new tracer pump
- Successful use of new water samplers
- Technically challenging expedition
- Seafloor drill technical advancements were made
- New core and data collected from lithologies not seen before
- New scientific discoveries are anticipated
- Seafloor drill performance is under review
- RD2 is being used for part of the Blue Mining Project, to core and characterise massive sulphide deposits on the Mid Atlantic Ridge (Jul-Aug 2016)



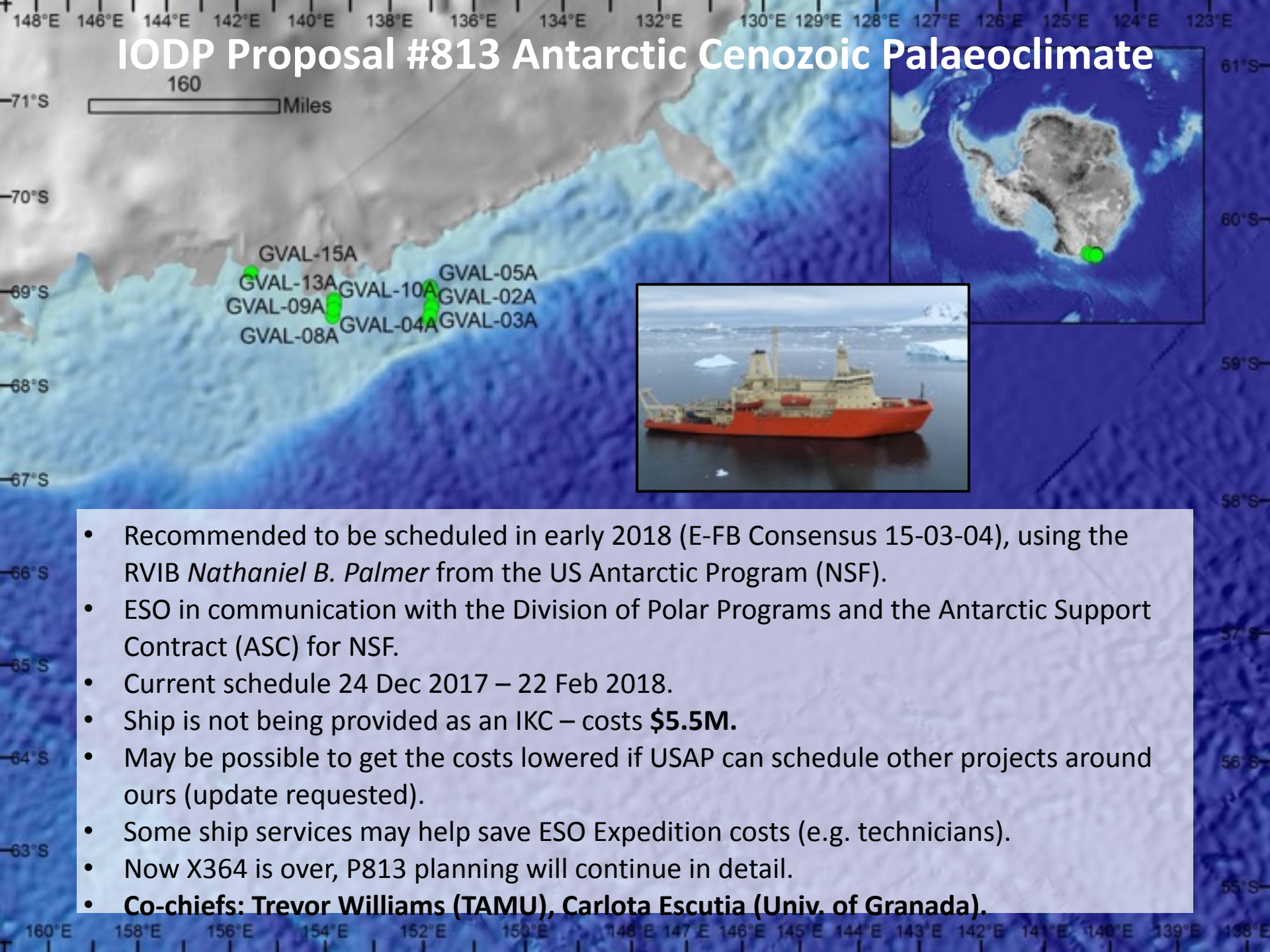


IODP/ICDP Expedition 364: Chicxulub Impact Crater

- **Offshore phase:** 5 April – 31 May
- **Open hole interval:** 0 – 505.7 mbsf
- **Cored interval:** 505.7 - 1334.7 mbsf
- **Cored length:** 838.2 m
- **Core recovery:** 100%
- **Downhole logging and VSP completed**
- **CT Scanning (Weatherford):** June
- **OSP:** 21 Sep – mid Oct
- Peak ring target reached
- Successful collaboration with ICDP
- Successful cooperation with Mexico
- No H&S/environmental incidents
- Huge media interest worldwide
- Documentary team given access
- Moratorium articles in preparation

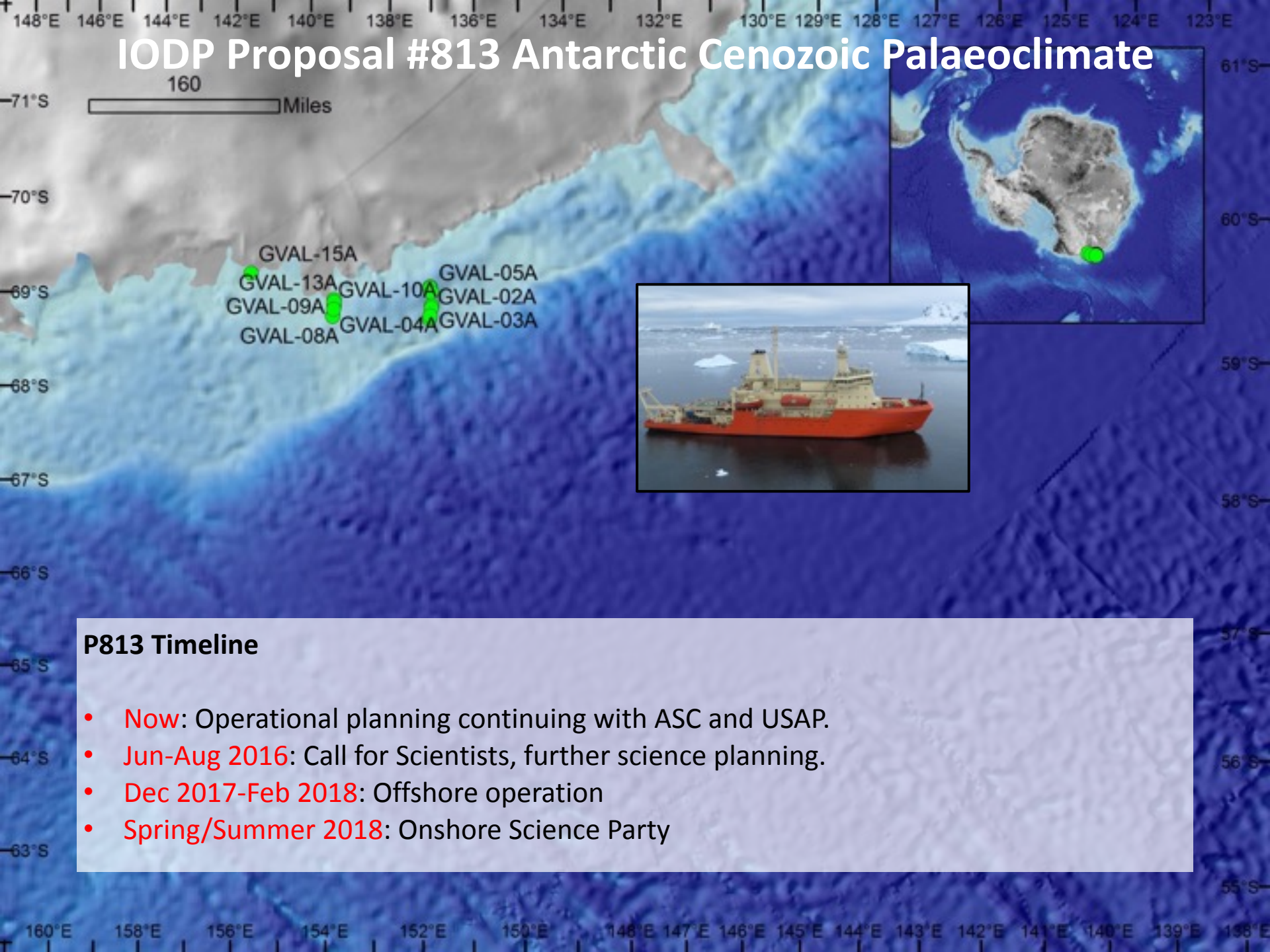


IODP Proposal #813 Antarctic Cenozoic Palaeoclimate



- Recommended to be scheduled in early 2018 (E-FB Consensus 15-03-04), using the RVIB *Nathaniel B. Palmer* from the US Antarctic Program (NSF).
- ESO in communication with the Division of Polar Programs and the Antarctic Support Contract (ASC) for NSF.
- Current schedule 24 Dec 2017 – 22 Feb 2018.
- Ship is not being provided as an IKC – costs **\$5.5M**.
- May be possible to get the costs lowered if USAP can schedule other projects around ours (update requested).
- Some ship services may help save ESO Expedition costs (e.g. technicians).
- Now X364 is over, P813 planning will continue in detail.
- **Co-chiefs: Trevor Williams (TAMU), Carlota Escutia (Univ. of Granada).**

IODP Proposal #813 Antarctic Cenozoic Palaeoclimate



P813 Timeline

- **Now:** Operational planning continuing with ASC and USAP.
- **Jun-Aug 2016:** Call for Scientists, further science planning.
- **Dec 2017-Feb 2018:** Offshore operation
- **Spring/Summer 2018:** Onshore Science Party