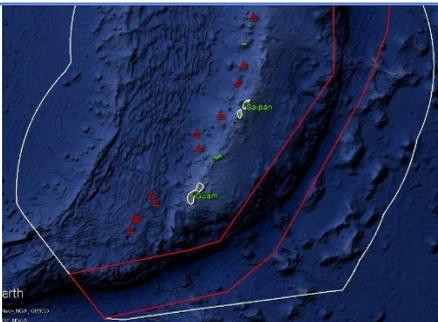


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Del Cano Guyot			
ROV Lead/ Expedition Coordinator	Jim Newman / Kelley Elliott			
Science Team Leads	Deborah Glickson & Diva Amon			
General Area Descriptor	Southern Marianas			
ROV Dive Name	Cruise Season	Leg	Dive Number	
	EX1605	1	DIVE 16	
Equipment Deployed	ROV:	Deep Discoverer		
	Camera Platform:	Seirios		
ROV Measurements	<input checked="" type="checkbox"/> D2 CTD	<input checked="" type="checkbox"/> Depth	<input checked="" type="checkbox"/> Altitude	
	<input checked="" type="checkbox"/> Scanning Sonar	<input checked="" type="checkbox"/> USBL Position	<input checked="" type="checkbox"/> Heading	
	<input checked="" type="checkbox"/> Pitch	<input checked="" type="checkbox"/> Roll	<input checked="" type="checkbox"/> HD Camera 1	
	<input checked="" type="checkbox"/> HD Camera 2	<input checked="" type="checkbox"/> ROV HD 2	<input checked="" type="checkbox"/> Seirios CTD	
	Temperature Probe	<input checked="" type="checkbox"/> D2 DO Sensor	<input checked="" type="checkbox"/> Seirios DO sensor	
Equipment Malfunctions	The ROV hydraulics failed on the way down, so we were unable to sample and some imagery was impacted (lights on swing arms could not be deployed). We also lost video feeds to shore, and had audio problems.			
ROV Dive Summary (From processed ROV data)	<p>Dive Summary: EX1605L1_DIVE16</p> <p>~~~~~</p> <p>In Water: 2016-05-06T20:34:41.571000 16°, 00.571' N ; 148°, 24.192' E</p> <p>Out Water: 2016-05-07T02:35:53.714000 16°, 00.318' N ; 148°, 24.014' E</p> <p>Off Bottom: 2016-05-07T01:30:50.253000 16°, 00.258' N ; 148°, 23.884' E</p> <p>On Bottom: 2016-05-06T21:51:22.251000 16°, 00.682' N ; 148°, 23.944' E</p> <p>Dive duration: 6:1:12</p> <p>Bottom Time: 3:39:28</p> <p>Max. depth: 1928.0 m</p>			
Special Notes				
Scientists Involved (please provide name / location / affiliation /	<p>Jeff Drazen, UH; jdrazen@hawaii.edu</p> <p>Scott France, UL Lafayette; france@louisiana.edu</p> <p>Patty Fryer, UH; pfryer@soest.hawaii.edu</p> <p>Tara Harmer Luke, Stockton University; Tara.Luke@stockton.edu</p> <p>Chris Kelley, UH; ckelley@hawaii.edu</p> <p>Asako Matsumoto, Chiba Institute of Technology; amatsu@gorgonian.jp</p>			

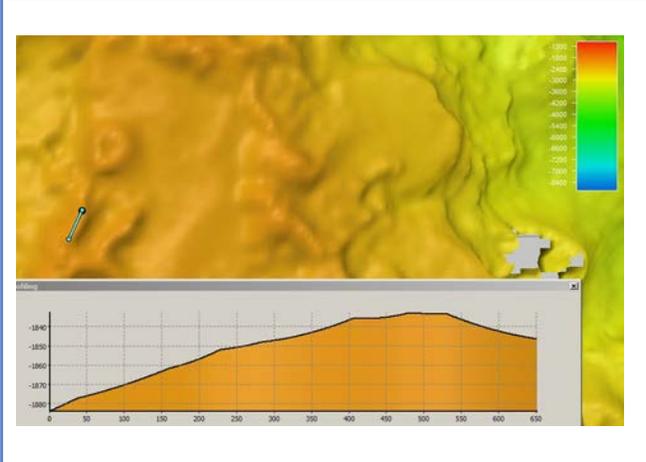
email)	Bruce Mundy, NOAA PIFSC; bruce.mundy@noaa.gov Shirley Pomponi, FAU/HBOL; spomponi@fau.edu Robert Stern, UT Dallas; rjstern@utdallas.edu
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Purpose of the Dive
This dive was on Del Cano Guyot, a Cretaceous seamount just to the east of the trench and right on the boundary of the Monument. The dive had objectives that included exploring for high density communities of deep-sea corals and sponges and doing an initial characterization of Mn-crust habitats on one of the presumed oldest seamounts on the Pacific plate. The dive was planned to begin at a depth of 1880 m and move along the ridge to the south for 635 m, to a depth of 1845 m.

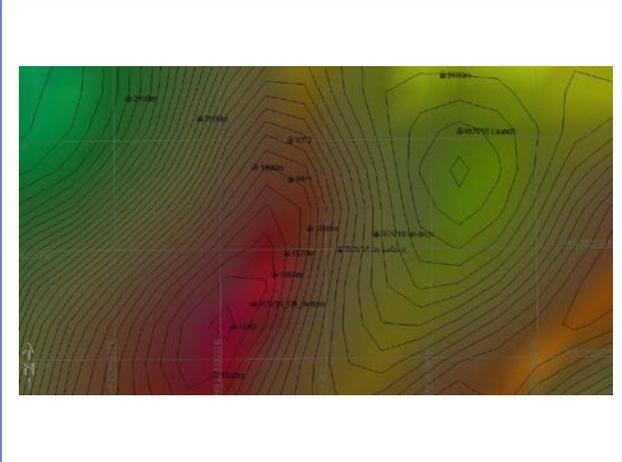
Description of the Dive:
This dive began along the side of a ridge, with a mix of sediments and Mn –covered rock clasts. As we got to the top of the ridge, it became much less sedimented and more rocky. As we continued to slowly move upslope along the ridge, we encountered larger talus pieces that looked volcanic, we still saw some patches of sediment. At the ridge axis, we began to see far more intact volcanics, most of which had a pillow morphology. The pillows were covered in Mn-crust and many of them had dark sediments (broken volcanics?). The top of the ridge was fissured and fractured. Toward the top of the ridge we also saw the pebbly/botryoidal texture indicative of heavy Mn-crust.

This dive was dominated by sponges, especially from the families Farreidae, Phoronematidae (*Poliopogon* sp.), Euplectellidae (Bolosominae), Ucinateridae (*Teretopleura*), and Cladorhizidae. Some corals from the families Isididae and Chrysogorgiidae were also observed. No samples were collected due to ROV hydraulics failure.

Map of ROV Dive Area



Fledermaus map of planned dive EX1605L1-DIVE16 track.

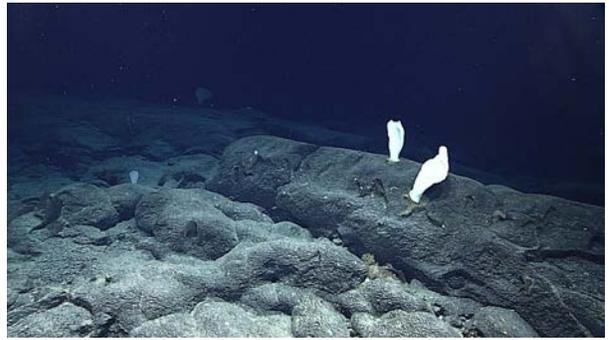


Hypack screengrab of actual dive EX1605L1-DIVE16 track.

Representative Photos of the Dive



This genus of sponges, *Paliopogon*, was one of the most abundant during Dive 16.



The Mn-crust hardpan was the dominant substrate during Dive 17 and provided an appropriate foothold for many species of sponges.

Please direct inquiries to:

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