OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Gauntlet Minor		
ROV Lead/Expedition Coordinator	Brian Bingham/ Kelley Elliott		
Science Team Leads	Tim Shank (Shore) Andrea Quattrini (Ship)		
General Area Descriptor	Northwest Atlantic Ocean; Northeast U.S. Canyons		
ROV Dive Name	Cruise Season	Leg	Dive Number
	EX1304	1	DIVE16
Equipment Deployed	ROV:	Deepwater Discoverer	
	Camera Platform:	Seirios	
ROV Measurements	☒ CTD	☒ Depth	☒ Altitude
	☒ Scanning Sonar	☒ USBL Position	☒ Heading
	☒ Pitch	☒ Roll	☒ HD Camera 1
	☒ HD Camera 2	☒ Low Res Cam 1	☒ Low Res Cam 2
	☒ Low Res Cam 3	☒ Low Res Cam 4	☒ Low Res Cam 2
Equipment Malfunctions			
ROV Dive Summary (From processed ROV data)	In Water at:	2013-07-24T12:36:34.040000 39°, 49.180' N ; 071°, 07.273' W	
	Out Water at:	2013-07-24T19:56:16.235000 39°, 48.914' N ; 071°, 07.585' W	
	Off Bottom at:	2013-07-24T17:34:15.963000 39°, 49.018' N ; 071°, 07.444' W	
	On Bottom at:	2013-07-24T13:13:38.361000 39°, 49.024' N ; 071°, 07.413' W	
	Dive duration:	7:19:42	
	Bottom Time:	4:20:37	
	Max. depth:	1121.1 m	
Special Notes			
Scientists Involved *(please provide name / location / affiliation / email)*	**Primary** Tim Shank, Woods Hole (shore-based science team lead), WHOI, tshank@whoi.edu Andrea Quattrini, EX (onboard science team lead), Temple, Andrea.Quattrini@temple.edu Brendan Roark, EX, TAMU, broark@geos.tamu.edu Taylor Heyl, Woods Hole, MA; WHOI, theyl@whoi.edu Santiago Herrera Woods Hole, MA; WHOI, sherrera@whoi.edu Scott France, Lafayette, LA, U. Louisiana at Lafayette, france@louisiana.edu Jason Chaytor, Inner Space Center, USGS at Woods Hole, jchaytor@usgs.gov AJ Turner, Charleston, NOAA, aj.turner@noaa.gov Les Watling, Darling Marine Center, Maine; U. Hawaii, watling@hawaii.edu Mike Vecchione, Washington, DC; SI/NOAA, vecchionem@si.edu **Passive**		

Cheryl Morrison, Kearneysville, WV; USGS; cmorrison@usgs.gov
Inge Van Den Beld, Brest, France; IFREMER, inge.van.den.beld@ifremer.fr
Amanda Demopoulos, Gainesville, FL; USGS SE Ecological Science Center, ademopoulos@usgs.gov
Brian Kinlan, Silver Spring, MD; NOAA NCCOS, brian.kinlan@noaa.gov

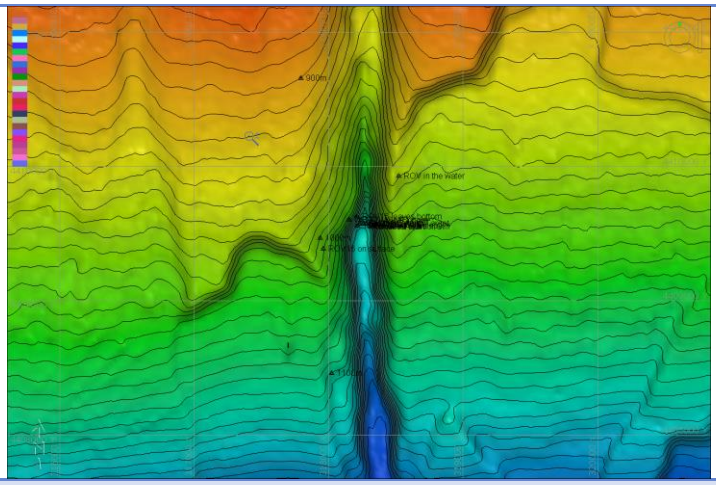
Purpose of the Dive

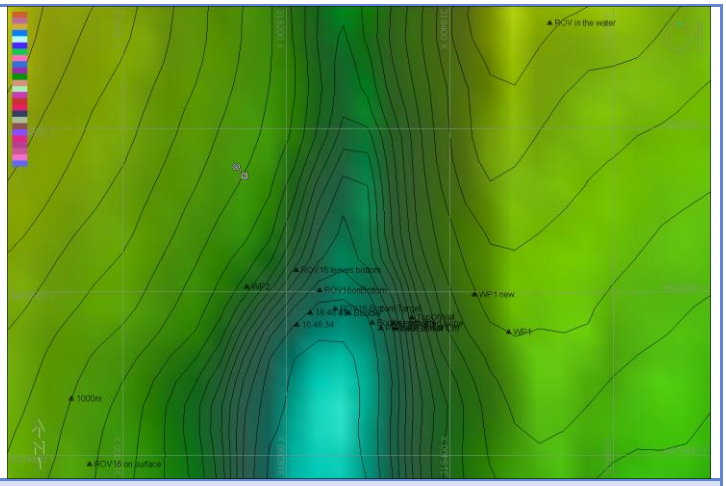
The purpose of this dive was to describe the geomorphology and benthic communities of both east and west walls in a minor canyon, site named Gauntlet Minor, to a depth of ~1100-1000 m.

Description of the Dive:

The ROV D2 reached the bottom at a 13:10 UTC at a depth of 1110 m (temperature 4.5 deg C). The bottom target was a slightly sloped area in the northern region of this minor canyon, between the east and west walls. Fishes were prevalent here, including cutthroat eels, witch flounder (*Glyptocephalus cynoglossus)* and several rattail species in the family Macrouridae. Several shrimps were also observed in the area. The bottom consisted of soft sediment of silt mixed with rock boulders, blocks, and rubble. Rubble included both rock and coral rubble. Coral rubble included dead, broken attached pieces of cup corals and a branching stony coral that appeared to be *?Solenosmilia.* Dead bivalve shells (*?Acesta* sp.) were also apparent. Several *Thouarella grasshoffi* colonies occurred on the rock blocks. At 14:18 UTC, the ROV began to move up more of a steep slope, and reached a vertical wall face ~14:20 UTC. Moving up the wall, the ROV approached an area of higher abundance of sessile fauna at a depth of ~1078 m. Species included *?Solenosmilia variabilis, Desmophyllum, Javania, Acanthogorgia, Clavularia, Anthothela* and ?*Acesta.* This wall of colonization continued to a depth of ~1030 m. No corals were observed at the top of the wall as the ROV continued up slope over a thicker sediment cover ~1020 m. The ROV then moved northward and came back down slope, picking up the abundant line of colonization at ~1030 m, with the same dominant fauna. At a time of ~17:10, the ROV continued west at a depth of ~1115m, over mostly a soft sediment bottom with scattered rubble. A debris field of coral and rock rubble was observed up to the base of the vertical wall. As the ROV moved up slope, the same faunal assemblages were evident as seen on the east wall, with abundance of fauna at ~1070 m depth. Near the end of the dive, a few additional corals were observed that were not observed on the east wall, including an unidentified black coral, *Swiftia* sp., and a few bamboo corals. The ROV left the bottom at the top of the wall at 19:15 at a depth of 1030 m. Several octopus (*G. verrucosa)* were seen throughout the dive. In general, a lot of trash and debris, including monofilament line, was observed in this area. A weak to moderate current from the south was noted.

Overall Map of ROV Dive Area	**Close-up Map of Main Dive Site**





Representative Photos of the Dive

Please direct inquiries to:	NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10th Floor) Silver Spring, MD 20910 (301) 734-1014