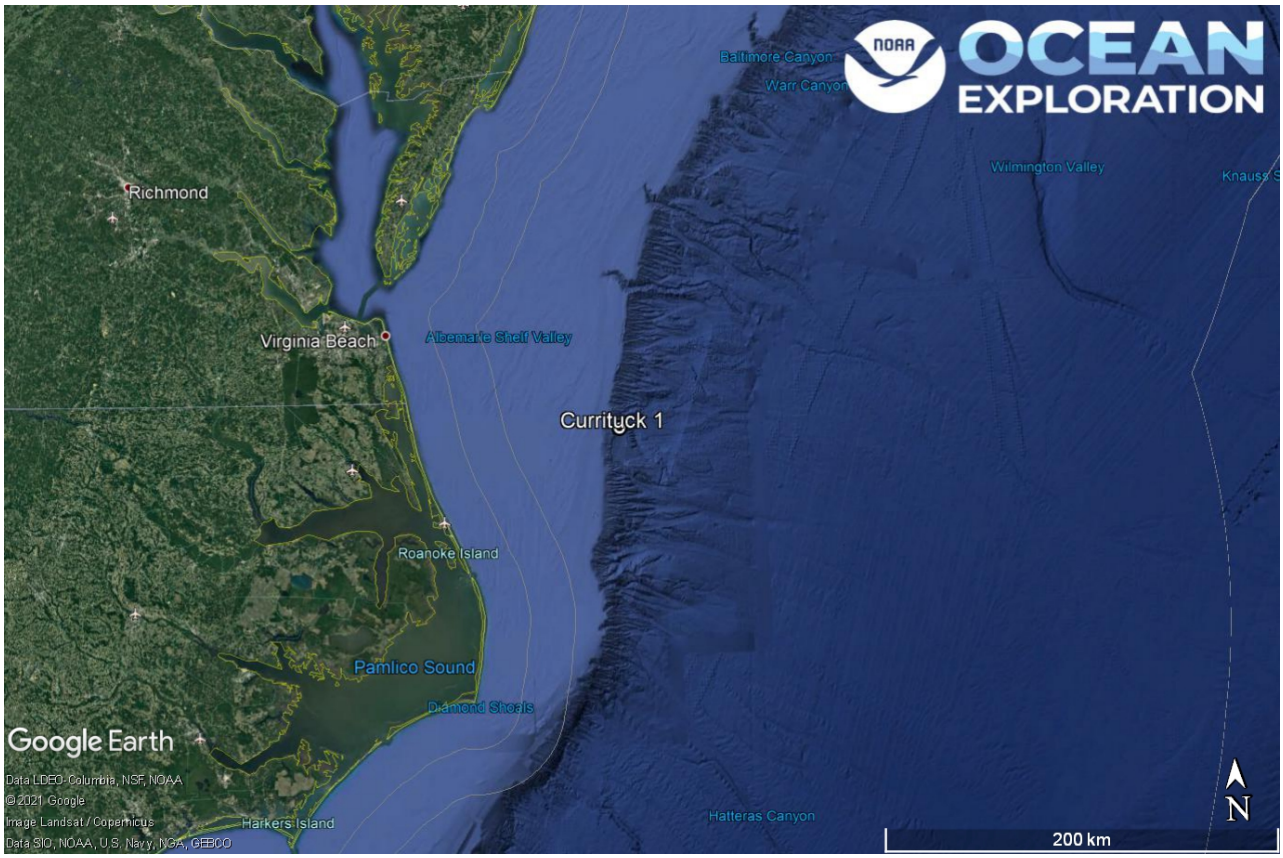
ROV Dive Summary, EX-21-03, Dive 01
June 15,2021

General Location Map



Dive 01 named Currituck 1 on the shelf off of the North Carolina coast.

Dive Information

Site Name	Currituck 1 (Engineering)
General Area Descriptor	US Mid-Atlantic, Currituck Landslide
Science Team Leads	Karl McLetchie
Expedition Coordinator	Kasey Cantwell/Matt Dornback
ROV Dive Supervisor	Karl McLetchie
Mapping Lead	Shannon Hoy
Dive Purpose	The first engineering dive of the ROV Shakedown. Primary objectives include testing new motors, motor controllers, lights, cameras, and hydraulic systems on the ROVs.

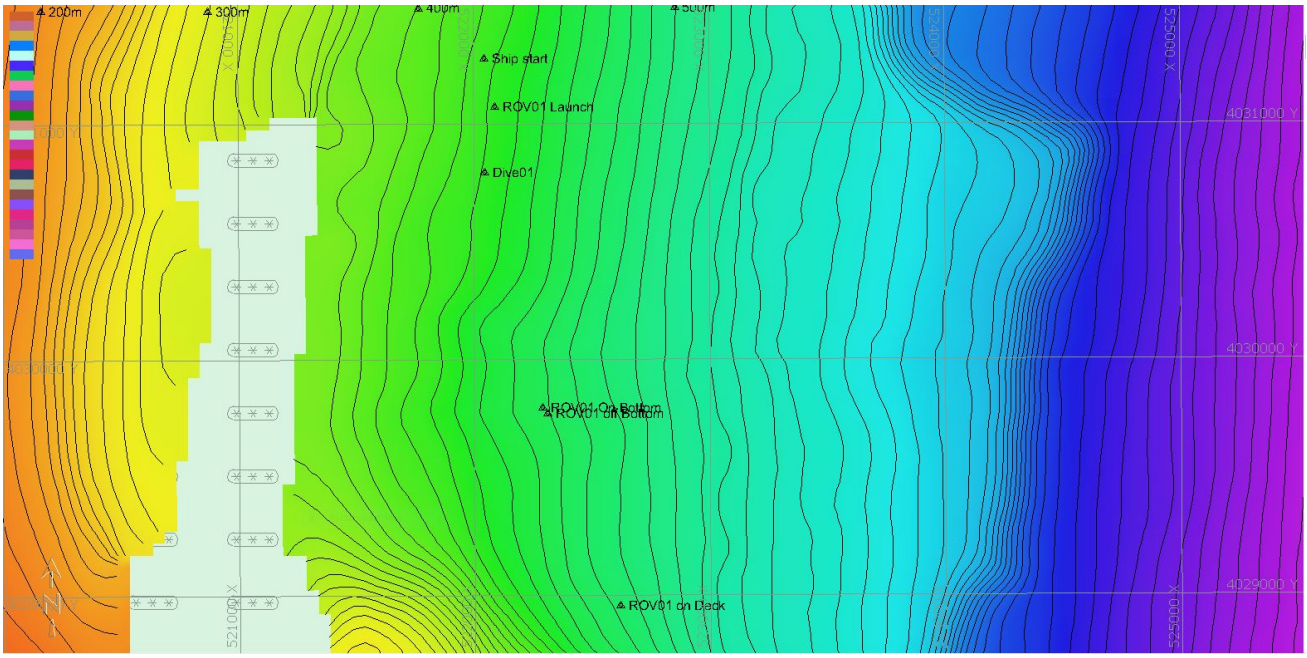
Was the dive restricted for Underwater Cultural Heritage?	No
ROV Dive Summary Data	Dive Summary: EX2103_DIVE01 ^^ Dive Type: Normal In Water: 2021-06-15T14:28:06.018530 36.42318896679038 ; -74.75313700799491 On Bottom: 2021-06-15T15:34:45.385618 36.413076641378815 ; -74.75137260689709 Off Bottom: 2021-06-15T18:52:06.889336 36.412851063291114 ; -74.75110113923999 Out Water: 2021-06-15T19:33:13.807068 36.40951123073365 ; -74.75003209315052 Dive Duration: 5:5:7 Bottom Time: 3:17:21 Max Vehicle Depth: 670.4 m Min Seafloor Depth: 665.2 m Distance Travelled: 15.9 m
Dive Description	This was an engineering dive on the Currituck landslide feature. Due to a lateral thruster issue on *Deep Discoverer*, the ROV made a soft landing on the seafloor and did not move anywhere else until ascent. The seafloor was a muddy silty texture. Crabs, worms, shrimp, and various fish were seen.

Notable Observations	Many decapod crabs, some feeding.
Community and habitat observations	Corals and Sponges - Absent Chemosynthetic Community - Absent High biodiversity Community - Absent Active Seep or Vent - Absent Extinct Seep or Vent - Absent Hydrates - Absent
CMECS Feature Type(s)	Flat, Submarine Slide Deposit
SeaTube Link (science annotation system)	https://data.oceannetworks.ca/SeaTubeV3?resourceTypeId=600&resourceId=2143

Equipment Deployed

ROV	*Deep Discoverer*
Camera Platform	*Seirios*
ROV Measurements	The following ROV measurements, data streams and equipment are used on each ROV deployment: CTD, depth, scanning sonar, USBL position, altitude, heading, attitude, high-resolution cameras, low resolution cameras, manipulator arms, suction sampler, sample drawers and thrusters. The section below notes if any of these sensors were malfunctioning or not operational
Equipment Malfunctions	Turbidity Sensor, CTD (ROV)

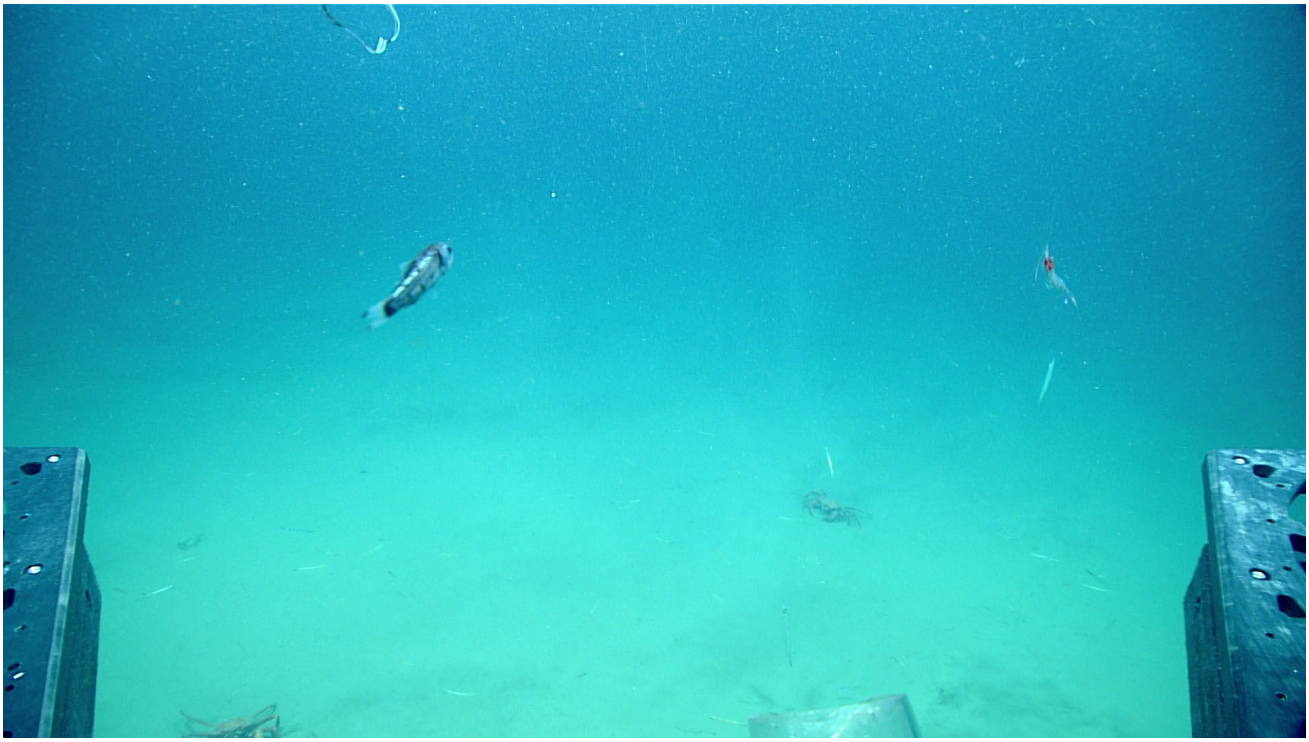
Close-up Map of Main Dive Site



Hypack map of the Dive 01 waypoints. Depth is displayed by contour lines at 10 meter increments and by colors. Warm colors are shallower and cool colors are deeper.

Representative Photos of the Dive

Various crabs and worms seen at the Dive 01 landing site.



A fish and shrimp seen during ascent of the ROV.

Samples Collected -

No samples were collected

Niskin Sampling Summary

No Niskin bottles were used

Scientists Involved (provide name, email, affiliation)

Name	Email	Affiliation
Jason Chaytor	jchaytor@usgs.gov	USGS

Please direct inquiries to:

NOAA Office of Ocean Exploration & Research
1315 East-West Highway, SSMC3 RM 10210
Silver Spring, MD 20910
oceanexplorer@noaa.gov