## International Challenger RU29 Mission Update

Update 7: 9 October 2019

## R & R (Recovery and Recharge) for RU29

RU29 completed the first leg of its 2019 International Challenger Mission and was recovered 15 km south of Red Hook, St. Thomas, in USVI waters on 1 October 2019. During that time, RU29 was out for 25 days, traveled 522 km, and collected 484 profiles of Temperature, Salinity, Pressure, and Current Velocity in the waters of the U.S. Virgin Islands, the British Virgin Islands, and Anguilla. Photo 1 shows RU29 following recovery. On board are UVI student Elisha Brumant, vessel captain Matt Driscoll, and videographer Dan Mele from UVI.

Dan Mele has filmed the comings and goings of RU29 this summer, and will be making a short documentary on the 2019 mission for OCOVI and as part of his UVI Marine Science M.S. program. Photo 2 shows Dan collecting footage of RU29 during the deployment.

Ocean gliders like RU29 are efficient data collection platforms, but they do require an energy source. In this case that is a set of rechargeable batteries, much like an electric car. While the glider is in port, it will be cleaned, the batteries will be recharged, all data will be downloaded and backed up, and all systems checked. In Photo 3, the recovery team (L-R, Elisha Brumant, scientists Scott Glenn and Roy Watlington, and UVI student Matt Mullins) are completing a post-recovery compass calibration on the vehicle. Leg 2 is expected to begin with a redeployment later this week.







The International Challenger RU29 Mission is a collaboration among Rutgers University (New Brunswick, NJ) Center for Ocean Observing Leadership, Ocean and Coastal Observing - Virgin Islands (OCOVI, an affiliate of the US Integrated Ocean Observing System (IOOS) Caribbean Coastal and Ocean Observing System (CARICOOS)), and the University of the Virgin Islands. This mission will collect upper ocean data to improve hurricane forecasting models; study conditions in the Anegada Passage, an important region for NE Caribbean climate change; and build international cooperation for ocean observing and glider activities. The mission will work in the waters of the US Virgin Islands, British Virgin Islands, and Anguilla, under international Marine Science Research permit. Funding for the project comes from the U.S. National Oceanic and Atmosheric Adminstration through the IOOS, Rutgers University, and the G. Unger Vetlesen Foundation.