TO: Virtual Deep-Sea Science Team
FROM: Tracey Sutton
SUBJECT: Exploring with the Global Explorer ROV

The good weather continued for us this morning and we were able to continue with doing our science work! At about “zero seven hundred” -- that’s ship talk for 7 a.m. -- the Global Explorer Oceaneering crew assembled everyone. They gave us a thorough safety briefing about how best to deploy the Global Explorer ROV.

The ROV weighs about 7,500 pounds. In the words of our chief scientist, Dr. Sonkë Johnsen, it is the equivalent of lifting a multimillion dollar luxury vehicle off the deck of the ship by a crane. Then trying to set it in the water on a rocking ship while avoiding injury to anyone or any of the equipment or ship. It involves an enormous amount of teamwork and expertise that is truly phenomenal. Of course, bringing the ROV back aboard has the same challenges, just in reverse order!

The ROV pilot/control center is every gamer’s dream job! They get paid to use a joystick control to drive a robot that searches for things in the water. I say this lightly because the job is super cool with several 4K video screens in a control room, but it is not that easy! I know firsthand because I have driven very small ROVs with our students that compete in the MATE Project in a pool. It is extremely difficult and these Oceaneering pilots have the added stress of extremely expensive equipment at deepwater depths where many things can go wrong!

We started running transects. Those are patterns sort of like mowing the lawn, where the ROV moves back and forth horizontally in the water column. While the ROV moves, it uses high-definition video cameras. We hope to capture information about the animals in the midnight zone.

We started at 1,000 meters (3,280 feet) and ran a transect for 15 minutes at that
Fellow Science Team members, I’m wondering about you. 

*How does a job driving an ROV to explore the ocean sound to you? What kind of animal would you like to discover in the deep? Can you draw a picture of it and describe all its body parts and how it uses them to survive?* Think about how deep it lives, what it eats, and what eats it.
Exploring with the Global Explorer ROV continued

Photo 2

The *Global Explorer* being lifted by crane during a research cruise in Antarctica.
Photo 3

The ROV pilot/control center is every gamer's dream job! The Global Explorer oceanographic pilots Travis Kolbe (left) and Jason Tripp (right) are specially trained.
Photo 4
Meet the rattail fish (Chimaeraerae). This image was collected by the Global Explorer ROV.
Photo 6

Global Explorer ROV photographed this ctenophore about 1,800 m (5,905 ft).

(Bathocyroe foserti)

Photo Courtesy NOAA-OER/Global Explorer

©2019 WhaleTimes, Inc. All Rights Reserved
Photo 7

Meet a deep-sea siphonophore. This image was collected by the Global Explorer ROV.

NOAA-Ocean Expedition and Research
https://oceanexplorer.noaa.gov/explorations/19bloom/welcome.html

©2019 WhaleTimes, Inc. All Rights Reserved
A squid hangs out 1,100 m (3,610 ft) in the deep sea. This image was collected by the Global Explorer ROV.

Photo courtesy NOAA-OER Global Explorer

NOAA-Ocean Expedition and Research

https://oceanexplorer.noaa.gov/explorations/19biodum/welcome.html

WhaleTimes
whaletimes.org