MAPPER & NAVIGATOR (multiple positions)

Status: Independent Contractor, Seasonal
FLSA Classification: Non-exempt
Compensation Type: Contracted Day Rate
Benefits Eligible: No
Reports to: Manager of Mapping Operations
Location: Onboard E/V *Nautilus*, worldwide

BACKGROUND

The Ocean Exploration Trust (OET) is a 501(c)(3) nonprofit organization—founded in 2007 by Dr. Robert Ballard—with the aim of exploring the ocean and seeking new discoveries while pushing the boundaries of technological innovation, education, and outreach. OET owns and operates E/V *Nautilus*, a 224-foot exploration vessel equipped with acoustic mapping systems, remotely operated vehicles (ROVs), and other state-of-the-art exploration technologies. Expeditions aboard E/V *Nautilus* are conducted in partnership with the organization's primary sponsors, NOAA Ocean Exploration, and the National Geographic Society, as well as in close collaboration with the ocean exploration community. Through telepresence, E/V *Nautilus* expeditions are streamed live to provide scientists and the public with real-time access to exploratory research and the excitement of discovery. Data and samples from expeditions are made publicly available in order to provide a foundational resource to stimulate further research, exploration, and management activities.

POSITION OVERVIEW

Ocean Exploration Trust seeks an experienced seafloor mapping and remotely operated vehicle (ROV) navigation specialist to support scientific ocean exploration and research aboard E/V *Nautilus*. Expected assignments range from approximately one to three months throughout a six to ten month annual field season. Mapping and navigation support varies based on the expedition leg: some are a mix of mapping and ROV navigation, while others are solely seafloor mapping. There is also opportunity to support other autonomous deep-sea robotic technologies, such as autonomous underwater vehicles (AUVs) and autonomous surface vehicles (ASVs).

The navigator and mapping specialist's main task is to ensure the ship is in the correct position for scientific operations including ROV dives and seafloor mapping. A navigator acts as a communications liaison between the science team, the operations teams (ROV/ASV/AUV) and the officers on the vessel's bridge. They observe the ROVs, ship and science objectives in their entirety, and use this situational awareness to provide the science team and expedition leader with operational updates including current status, time-to-completion for ship moves, location of waypoints, and future objectives as well as any limitations due to weather, ship maneuverability, and technical systems. In addition, they may mentor undergraduate or graduate students in navigation and mapping roles. They must perform the following duties in close collaboration with the rest of the science and operations team and bridge team:

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PRIMARY RESPONSIBILITIES

- Operating all mapping and navigation equipment and software including the EM302, Knudsen 3.5 kHz and 15 kHz, EC150, UCTD, XBT, AML SSV, Hypack, integrated ROV navigation, TrackLink/Sonardyne, ArcGIS, Qimera, and Fledermaus and other related applications.
- Stand two 4-hour ROV navigation watch per day which includes: maintaining situational awareness of ship position, dive sites, dive waypoints, vehicle location; checking weather and operational conditions and communicating limitations; communicating with scientists, the bridge, ROV pilots for operational purposes and to an online audience for outreach purposes; acting as a role model
- Troubleshooting navigation, position, mapping, and auxiliary sensor systems
- Stand a mapping watch to monitor acoustic data acquisition and troubleshoot any issues, help determine when to conduct sound velocity profile measurements and assist with launch/recovery of instruments, process acoustic data

MUST BE ABLE TO

- Obtain a US Passport or appropriate visa.
- Deploy at sea for up to 30-60 contiguous days.
- Be physically and mentally capable of meeting the demands of living and operating aboard a working exploration vessel, and must be able to live in close quarters with other expedition team members (including a shared stateroom).
- Maintain a pleasant and professional demeanor under challenging conditions while interacting with fellow expedition team members and while interacting with the public online.
- Contribute to an inclusive work environment in which all individuals are treated with respect and dignity.
- Support OET's mission of training the next generation of STEM professionals by helping to support junior personnel participating in the expedition by engaging with them and helping to provide a positive learning experience at sea.
- To the level that is relevant to this position, contribute to OET's mission to inspire and engage youth and the public by participating in outreach and/or port tours during the expedition.

SKILLS REQUIRED

- Prior at-sea experience
- Understanding of acoustic seafloor mapping systems, data acquisition, and processing
- Understanding of Ultrashort Baseline Systems for tracking robotic assets
- Strong team player with a proactive, service-oriented attitude
- Ability to work collaboratively with an international, multidisciplinary, diverse team of engineers, scientists, educators, and students
- Possess strong creative, analytical, and problem-solving skills
- Excellent multi-tasking and time management skills
- Excellent management and interpersonal skills
- Excellent verbal and written communications
- Excellent analytical and organizational skills

PREFERRED QUALIFICATIONS & EXPERIENCE

- Experience operating and/or navigating robotic underwater or surface vehicles
- Experience operating acoustic seafloor mapping systems, data acquisition, and processing
- Resistance to motion sickness

PHYSICAL DEMANDS

This is largely a sedentary role; however, at-sea activity to launch and recover equipment over-the-side and carry up to 50 lbs is required.

POSITION TYPE/EXPECTED HOURS OF WORK

This is a contract position with an estimated at-sea duration of 4 weeks to 12 weeks at a time. A typical day includes two 4-hour navigation or mapping watches for remotely operated vehicle expeditions and one 8-hour mapping shift per day for mapping-only expeditions, plus up to 6 additional hours of work per day.

COMPENSATION

Day rate will be competitive with standard research vessel rates and commensurate with experience. OET will cover all costs associated with travel, room, and board.

ELIGIBILITY & WORK AUTHORIZATION

In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification document form upon hire. Please see our Waters/Ports Entry Requirements for Expedition Travelers for more details.

EQUAL EMPLOYMENT OPPORTUNITY

Ocean Exploration Trust is an Equal Employment Opportunity/Affirmative Action employer. It is our policy to prohibit discrimination and harassment of any type. We provide equal employment opportunities to all persons without regard to race, color, religion, sex, national origin, age, genetic information, disability, veteran status, political beliefs, sexual orientation, and marital and family status. Ocean Exploration Trust is committed to creating an inclusive work environment and organizational culture. Learn more about our organizational diversity and inclusion efforts and current priorities.

TO APPLY

Deadline: Open until filled on a rolling basis
Application: To apply, please submit your CV to the form linked below.

Upload your application at: https://nautl.us/2023ICA
Please contact us at careers@oet.org if you have any questions or issues with your application submission.