We are looking for students to participate in the decadal re-occupation of the U.S. GO-SHIP hydrographic long-line cruise known as A13.5 (~0°E in the Atlantic Ocean). This cruise will last ~7.5 weeks from mid-January through early-March of 2024. The previous occupation of this section was in 2010.

Deadline for applications (see below for details): Sept. 8th, 2023, or until filled.

PARTICULARS:

- We will be sailing on the LDEO research vessel the Marcus G. Langseth
- Chief Scientist Dr. Zach Erickson zachary.k.erickson@noaa.gov (he/him)
- 51 days at sea
- Praia, Cape Verde to Cape Town, South Africa
- U.S. GO-SHIP Contacts
    - PI: Lynne Talley ltalley@ucsd.edu (she/her)
    - Project Manager: Alison Macdonald amacdonald@whoi.edu (she/her)

The U.S. GO-SHIP program collects data for global CO_2 and climate variability programs. The website is http://usgoship.ucsd.edu. Scripps Institution of Oceanography (UCSD) operates the NSF-funded portion of the US national program, which includes various student positions on this upcoming 2024 NOAA cruise. The website of the international GO-SHIP (Global Ocean Ship-based Hydrographic Investigations Program) program is http://go-ship.org. GO-SHIP is part of the Global Ocean Observing System (GOOS) https://www.goosocean.org/.

U.S. GO-SHIP pays all travel costs. It also pays student salary/tuition costs during the time of the cruise plus the few travel days before and after the cruise, if and only if the student is enrolled at a U.S. institution. Salary can only be provided to those who already have the ability to work in the United States. As a project, not an institution, U.S. GO-SHIP cannot assist anyone in obtaining a work visa.

We are seeking a total of 4 students: 2 students for CTD/deck operations (typically, but not always, with Physical Oceanography backgrounds), 1 student to assist with tracer (e.g., CFCs and SF6) analyses (typically chemistry background), and 1 student to assist with LADCP (Lowered Acoustic Doppler Current Profiler) operations (typically physical oceanography or engineering background).

DUTIES: The repeat hydrography cruises operate 24/7 with 12-hour shifts.

CTD student duties include operating the CTD and rosette bottle system both on deck and in the lab, drawing and documenting water samples, and working on data quality control and analysis alongside the chief and co-chief scientists. You may also be asked to

assist other science groups (for example assisting various science teams with their sampling, deploying floats and drifters) and to contribute to the cruise blogs.

The CFC student will collect CFC samples and perform onboard CFC analyses as part of the CFC science team. On-board training will be provided.

The LADCP student is responsible for data acquisition, and with shore-based assistance from the LADCP PI, preliminary quality control of the LADCP data. Pre-cruise training will be provided.

Requirements:

Be aware that dates and ports can change during final ship scheduling. While such changes are usually minor, candidates are requested to allow two weeks availability before and after the cruise period.

A valid passport and appropriate visa are required for participation in the cruises. U.S. citizenship is not required. Passports must be valid for at 6 months after arrival in Cape Town (that is 6 months beyond the end of the cruise) and there must be at least 2 blank pages in passport. **Details from a valid passport must be supplied upon acceptance of an offer to participate.**

COVID-19 requirements have yet to be set.

For those who are interested:

(1) Let us know that you are contemplating applying.
(2) Request more information if you have questions.

CTD students: Please contact chief scientist Zach Erickson zachary.k.erickson@noaa.gov and U.S. GO-SHIP Project Manager Alison Macdonald amacdonald@whoi.edu

CFC students: Please contact chief scientist Zach Erickson zachary.k.erickson@noaa.gov

LADCP students: Please contact LADCP PI Andreas Thurnherr (ant@ldeo.columbia.edu) and chief scientist Zach Erickson zachary.k.erickson@noaa.gov

General Questions: Please contact Alison Macdonald (amacdonald@whoi.edu) and cc chief scientist Zach Erickson zachary.k.erickson@noaa.gov

(3) Talk to your advisor to be sure that this will work with your program. Note that these are full time 12-hour workdays. *Neither students nor advisors should expect non-US GO-SHIP efforts to be undertaken during the cruise*.

(4) If you wish to proceed - please send

- a cover letter indicating your interest and information about your background including the type of research you are carrying out if you are at that stage. We do *not* need to see your transcript.
- your CV, including:

    - the academic program you are part of,
    - name and contact information for your advisor (they will be contacted)
    - any prior cruise experience (not required).
- You may apply for more than one position with the same application. Please indicate the position(s) of interest.
- It is also possible that other assistant-type positions will be available for one or more of the various lab teams. Please indicate if you are willing to have your application materials shared should these positions become available. Note compensation for such positions will likely be different from that described above.
- Please send your materials in one email to all the relevant PI(s) and chief scientist so that everyone is aware of your interest(s).

Graduate students in good standing at US institutions will be given preference. Undergraduates, postdocs, technicians and other non-students may also apply (though only student salary is covered).

Application Deadline: Sept. 8th, 2023, or until filled.

This is an excellent opportunity to gain experience in oceanic fieldwork, participate in the collection of full water column hydrographic data of the highest quality available globally, learn new skills, interact and learn from world-class scientists and technicians, and become a valuable member of a team.

Alison Macdonald (amacdonald@whoi.edu)

U.S. GO-SHIP Executive Council co-chair and Project Manager

Zach Erickson (zachary.k.erickson@noaa.gov)

A13.5 Chief Scientist