



We are looking for students to participate in the decadal re-occupation of the U.S. GO-SHIP hydrographic long-line cruise known as A16N (20°W in the Atlantic) carried out as two separate legs. Each group of students will participate in one leg only: Leg 1 (~4.5 weeks **early March to early April 2023**) and Leg 2 (~3.5 weeks **mid-April to early May 2023**). See the website for the previous occupation of this line in 2013 here: <https://www.aoml.noaa.gov/ocd/gcc/A16N/>.

Deadline for applications (see below for details): November 20, 2022, or until filled.

PARTICULARS:

- We will be sailing on the **NOAA Ship Ronald H. Brown** (<https://www.oma.noaa.gov/learn/marine-operations/ships/ronald-h-brown>)
- Leg 1: Chief Scientist Dr. Denis Pierrot (denis.pierrot@noaa.gov)
 - 30 days at sea
 - Brazil to Portugal
- Leg 2: Chief Scientist Dr. Leticia Barbero (leticia.barbero@noaa.gov)
 - 25 days at sea
 - Portugal to Iceland
- 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 CO₂ 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 2023 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 U.S.

For each leg, we are seeking 2 students for CTD/deck operations (typically, but not always, Physical Oceanography background), 1 student to assist with CFC analysis (typically chemistry background), and 1 student to assist with LADCP (Lowered Acoustic Doppler

Current Profiler) operations (typically physical oceanography or engineering background), so a total of 4 students per leg.

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 the DOC/14C lead with sampling) and to contribute to the cruise blogs.

The CFC student will collect CFC samples and perform onboard CFC analysis as part of the CFC science team.

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 and any such changes are usually minor. However, candidates are requested to allow two weeks availability slack 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. Depending upon country of origin, these days visas can take upward of year to obtain so please be sure you are eligible and have appropriate time available to obtain a visa prior to submitting you application.

All personnel sailing will need proof of COVID-19 vaccination.

For those who are interested:

(1) To let us know that you are contemplating applying and to get more information if you have questions:

CTD students: Please contact [Denis Pierrot \(denis.peirrot@noaa.gov\)](mailto:denis.peirrot@noaa.gov) and [Leticia Barbero \(leticia.barbero@noaa.gov\)](mailto:leticia.barbero@noaa.gov), Chief Scientists for Leg 1 and Leg 2, respectively, to

CFC students: Please contact CFC PIs [Rolf Sonnerup \(rolf@uw.edu\)](mailto:rolf@uw.edu) & [Bonnie Chang \(bx@uw.edu\)](mailto:bx@uw.edu)

LADCP students: Please contact LADCP PI [Andreas Thurnherr \(ant@ldeo.columbia.edu\)](mailto:ant@ldeo.columbia.edu)

General Questions: Please contact [Alison Macdonald \(amacdonald@whoi.edu\)](mailto:amacdonald@whoi.edu)

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

(3) After that if you want to proceed - please send

- a cover letter indicating your interest and information about your background,
- your CV, including

- the academic program you are part of,
- name and contact information for your advisor (they will be contacted)
- the type of research you are carrying out if you are at that stage,
- as well as any prior cruise experience.
- While each student will only sail on one leg, you can apply for both. You may also apply for more than one position with the same application. Please indicate the position(s) and leg(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 PI(s) and chief scientist(s) so that everyone is aware of your interest(s).

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

Application Deadline: November 20, 2022, 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

