



Greetings,

We are looking for students and early personnel to participate in the re-occupation of the [U.S. GO-SHIP](#) hydrographic long-line cruise known as I08 (~95°E, 66°-28°S in the southeast Indian sector of the Southern Ocean). This expedition will last ~6 weeks from mid-February to early April 2024. It will be the 4th semi-decadal occupation of this line with previous cruises occurring in 1994, 2007, and 2016.

Deadline for applications (see below for details): **October 29, 2023, or until filled.**

PARTICULARS:

- We will be sailing on the University of Washington R/V Thomas Thompson
- Chief Scientist Dr. Sebastien Bigorre sbigorre@whoi.edu (he/him)
- 41 days at sea
- The cruise will start and end in Fremantle, Australia
- 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 2024 NSF/UNOLS 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 pays salary to those who already have the ability to work in the U.S. If you are a graduate student, it pays your current salary, otherwise you will be temporarily hired by UCSD at a rate similar to a graduate student. Tuition costs will also be covered during the time at sea plus the few travel days before and after the cruise, but if and only if the participant is a student enrolled at a U.S. institution. Salary can only be provided to those who already have the ability to work in the U.S.

We are seeking a total of 6 Talley-funded participants:

- 4 for CTD/deck operations (typically, but not always, Physical Oceanography background),
- 1 to assist with tracer (e.g., CFCs and SF₆) sampling and analyses (typically, but not always, Chemistry or Biogeochemical Oceanography background),
- and 1 to assist with LADCP (Lowered Acoustic Doppler Current Profiler) operations (typically, but not always, technical, engineering, ocean engineering or physical oceanography background).

In Addition:

Our pH/Talk and Biology science are also seeking student participants – note compensation for these teams is not necessarily the same as that as explained below.

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

- **CTD participants** duties include operating the CTD and rosette bottle system both on deck and in the lab, drawing and documenting water samples (typically salts as well as sampling requested by PIs who do not sail), and working on data quality control and analysis alongside the chief and co-chief scientists. We will ask you to contribute to and possibly lead a component of the cruise blogs. You may also be asked to assist other science groups (for example assisting various science teams with their sampling, deploying floats and drifters). The CTD-watch is pivotal to the entire cruise as it is their dedication to their responsibilities that provides the basis for most of the measurements obtained.
- **CFC participant** will collect CFC samples and perform onboard CFC analysis as part of the CFC science team. On-board training will be provided.
- **LADCP participant** 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.
- **pH/TALK participant** works with the pH/Total Alkalinity team taking water samples and measuring samples in the onboard labs. On-board training will be provided.
- **Bio participant** works with Bio GO-SHIP team taking water samples and measuring samples in the onboard labs. On-board training will be provided.

Requirements:

- A valid passport is required for participation in the cruises.
- U.S. citizenship is not required, however if being paid salary and the participant does not hold a U.S. passport - an appropriate visa is required.
- Proof of a passport valid through at least the end of September 2024 and with at least 2 consecutive blank pages must be available for review at the time of acceptance of an offer.
- Please **do not** send passport details with your application.

While not required, the R/V Thompson supports UNOLS guidance which encourages up to date vaccination of all those who set sail on Academic Research Fleet vessels.



R/V Thomas G. Thompson (Image from <https://oceanexplorer.noaa.gov/technology/vesels/thompson/thompson.html>, courtesy of University of Washington School of Oceanography)

For those who are interested:

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.

The cruise is long and will be crossing the ACC. Therefore, it will likely encounter challenging weather with rough sea conditions at some point. So, while we do not expect our science party members to be immune from sea sickness, we recommend that those who apply be reasonably confident that they can handle rough conditions and bring medications if they need them.

(1) Let us know that you are contemplating applying and get more information if you have questions. Please contact:

- **CTD candidates:** Chief scientist Sebastien Bigorre (sbigorre@whoi.edu), cc Alison Macdonald (amacdonald@whoi.edu)
- **CFC candidates:** Tracer PI Jim Happell (jhappell@miami.edu), cc Sebastien Bigorre (sbigorre@whoi.edu)
- **LADCP candidates:** LADCP PI Andreas Thurnherr (ant@ldeo.columbia.edu), cc Sebastien Bigorre (sbigorre@whoi.edu)
- **pH/TALK candidates:** pH/TALK PI Andrew Dickson (adickson@ucsd.edu)
- **Bio candidates:** Bio GO-SHIP PI Adam Martiny (amartiny@uci.edu)

General Questions: Alison Macdonald (amacdonald@whoi.edu) & Sebastien Bigorre (sbigorre@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 participants nor advisors should expect non-US GO-SHIP efforts to be undertaken during the cruise.*

(3) If you wish to proceed - please send

- Your CV (we do not need your academic transcripts)
- A cover letter indicating your interest and background information, including:
 - If you are student, your academic program. If not, your current position.
 - Name & contact information for your advisor or supervisor (we will contact them)
 - The type of research you are carrying out if you are at that stage,
 - Prior cruise experience if you have it.
- You may apply for more than one position with the same application. Please indicate the position(s) of interest and be sure to simultaneously send to all appropriate contacts as listed above in (1).
- 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 will likely be different from that described above.

- Please send your materials in one email to all the relevant PI(s), chief scientist and the project manager (Alison Macdonald, amacdonald@whoi.edu), 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 is covered).

Application Deadline: October 29, 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, 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

Sebastien Bigorre (sbigorre@whoi.edu)

U.S. GO-SHIP 2024 I08S chief scientist

