July 18, 2025

Greetings,

We are looking for scientists with experience in physical and/or biogeochemical hydrography and in oceanographic expedition organization who would be interested in participating as **Chief Scientist** on GO-SHIP's (https://usgoship.ucsd.edu and http://www.go-ship.org) 2026 reoccupation of the Pacific Ocean **P04E** hydrographic section aboard the R/V Roger Revelle. This line, which was last carried out in 1989, will occupy stations beginning just off the coast of Costa Rica out to the Marshall Islands, including, if possible, one or more stations overlapping with the easternmost P04W observations carried out by our colleagues at JAMSTEC in the spring of 2025. We are presently expecting the initial load for this cruise to take place in Puerto Rico in **mid-February 2026.** The cruise itself will run from **March to April 2026**, with offload in Guam in **early May 2026**. Preferred candidates will have previous experience with organizing and executing oceanographic field studies, interest or experience in Pacific Ocean science, and/or will have been a Chief or Co-Chief Scientist or a Principal Investigator on a previous US GO-SHIP cruise.

Deadline for applications (see below for details): August 15, 2025 (or until filled)

PARTICULARS:

- Ship: R/V Roger Revelle
- Days at sea: 52
- Stations: ~151
- Ports:
    - Load – Puerto Rico (mid-Feb)
    - Personnel board – either Puntarenas, Costa Rica or somewhere closer to the Panama Canal, e.g. Panama City, Balboa (early March)
    - Personnel disembark – Majuro, Marshall Islands (late April)
    - Offload – US Navy Port in Guam (early May)

DUTIES:

All U.S. GO-SHIP Chief Scientists are expected to be experienced with sea-going fieldwork.

Pre-cruise: The Chief Scientist:

- Will take over cruise planning and paperwork from Alison Macdonald (U.S. GO-SHIP Executive Council/ Project Manager) at a mutually agreed upon time before the cruise and will become the P04E point of contact with the UCSD/SIO UNOLS scheduling team who will be assisting with the clearance requests for all the countries between the port of embarkation and Marshall Islands.
- Will work with the GO-SHIP Project Manager to organize at least one and possibly more pre-cruise meetings to which participating PIs and vessel operators will be invited. The NSF grant will support Chief Scientist travel to a pre-cruise meeting if video conference is not used.

- Will act as a mentor to the Co-Chief Scientist throughout the pre-cruise process.
- Will lead the selection of student CTD watchstander positions that will be advertised through the U.S. GO-SHIP project manager and Executive Council.
- Will, along with email communication, maintain an online document and/or a website detailing updates and organize as necessary pre-cruise video conferences to keep the science team apprised of planning developments.
- Will be required to take (or show that they have recently taken) through their own institution or through UCSD, training that speaks to supervision and/or management, as well as conflict resolution. They will work with the GO-SHIP Project Manager to coordinate a UCSD led Bystander Training particularly for early career and first-time participants, but open to all involved in the cruise and/or its preparation.
- Will abide by the US GO-SHIP Code of Conduct and support all other sailing participants in doing the same.
- Is ultimately responsible for official pre-cruise activities, including submission and finalization of clearance and permit requests, submission to CCHDO of a full list of parameters to be measured and the PIs responsible, organization of the CTD watch, the sampling, lab spaces, berths, and documentation to keep all those involved informed of current plans. The GO-SHIP Project can assist in many of these tasks.
- Is likewise ultimately responsible for official post-cruise activities, ensuring that all final reports are submitted, and all measurements collected are submitted according to US GO-SHIP data policies.
- Will be invited to participate in US GO-SHIP Executive Council activities for a 3-year term.

At sea: The Chief Scientist will be the principal point of contact with the Captain and other officers and will participate in the scheduled daily meetings of the ship's leadership team. In addition to all duties and decision-making responsibilities that normally fall upon a Chief Scientist (see below), the Chief Scientist will be the scientist-in-charge of one 12-hour watch. At sea duties include mentoring students assigned to that watch as well as mentoring and assisting the Co-Chief Scientist with the students on the other watch. Together with the Co-Chief and other sampling teams, the Chief Scientist:

- Will prepare, maintain, distribute, and execute a running station and sampling plan that meets cruise and program objectives and efficiently utilizes time and seawater resources.
- Will decide sampling depths for each parameter in accordance with GO-SHIP Level 1-3 guidelines.
- Will see that assistance with water sampling (i.e., “sample cop” and/or drawing samples) is provided on every cast as needed; ensure that the CTD watch runs the CTD console on station and completes the routine forms for each station.
- Will assist with at-sea data review and documentation.
- Will support as editor a student-written cruise blog.
- Will write weekly reports to the U.S. GO-SHIP community (can be submitted through the GO-SHIP project manager) that includes information on both successes and challenges. These reports are posted on the GO-SHIP website by the project manager.
- Will write the cruise narrative chapter of the cruise report.
- Will work with all on-board teams to prepare the draft cruise report before the end of cruise; leave the ship with a copy of all data collected and confirm with the ship’s tech that all measured underway data are saved and sent to the appropriate archive.

Post-cruise: The Chief Scientist will review and edit the cruise report drafted at sea, and respond as needed to continued inquiries regarding data, quality codes, and documentation. Please note that grant support for post-cruise data analyses is not supported by the NSF grant to SIO unless a specific exception has been made with the program directors.

Mentoring/training: The Chief Scientist will include the Co-Chief Scientist in the planning, cruise, and post-cruise periods, and provide mentorship particularly when the Co-Chief is an early career or inexperienced at-sea scientist. The Chief and Co-Chief Scientists are responsible for the mentorship of the CTD-watch personnel and all students during the cruise. Alongside the U.S. GO-SHIP student coordinator and project manager, the Chief Scientist will be responsible for holding one or more virtual pre-cruise meetings to prepare students and any other inexperienced personnel for their upcoming at-sea experience. It is one of a GO-SHIP Chief Scientist's responsibilities to train the next generation of GO-SHIP chief scientists and co-chief scientists through mentorship of all early career participants.

SUPPORT: Salary support for US GO-SHIP academic Chief Scientists will be negotiated. It is usually supplied via subawards from UCSD/SIO to the participant's institution (see[2] below). It typically covers time at-sea, in port, on travel, several weeks of preparation, and two-three weeks of post-cruise reporting. Travel will be paid by UCSD/SIO.

WHO CAN APPLY: Although preference may be given to those with ongoing or past research in the Pacific Ocean - all those affiliated with a US institution that can support subawards are welcome to apply. In the case of multiple qualified applicants for the position, final selection will be made by the U.S. GO-SHIP Executive Council in consultation with the Principal Investigators.

HOW TO APPLY: Email inquiries and/or letters of application to:

Alison Macdonald (amacdonald@whoi.edu)

Please provide your CV, a brief summary of your research/field interests and experience and include the name and email address of a reference. **DEADLINE: August 15, 2025.** (Applications may be accepted after this date but may not receive full consideration.)

The cruise is long and will likely encounter challenging weather with rough sea conditions at some point. We therefore recommend that those who apply be reasonably confident that they can handle such conditions and can re-organize cruise data collection around them. They should also bear in mind that with multiple teams and institutions involved GO-SHIP cruises can be complex and time consuming to organize. Chief Scientists often find themselves with little time for non-cruise related activities in the weeks leading up to sailing. Lastly, cruise schedules are subject to last minute changes. Chief Scientist candidates should allow for ample available time (minimum 1 month) at either end of the scheduled cruise dates to allow for possible changes.

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[1] **Further details on cruise activities:** Blogs from some previous occupations cruises can be found here: https://usgoship.ucsd.edu/blogs/ and weekly reports can found under the News postings on the website here: https://usgoship.ucsd.edu/news/ usually under a congratulations message, for example from our most recent cruise I09N: https://usgoship.ucsd.edu/2025/03/21/i09n/.

Station stops are planned every 30 nm (~55 kilometers) and closer over steep topography and near coasts. At stations where a CTD/rosette is lowered to measure the temperature, salinity, oxygen, currents, optical properties, and other dynamics from just below the sea surface to approximately 10

meters above the ocean bottom. During each of these stations, water samples up to 36 depths are collected for measurement of various water properties, including several oceanic carbon-related parameters (dissolved organic and inorganic carbon, alkalinity, pH), along with dissolved chlorofluorocarbons and sulfur hexafluoride (SF_6), dissolved oxygen, salinity, and nutrients. While the ship is both underway and on station it continuously pumps surface seawater through sensors for temperature, salinity, partial pressure of CO_2; operates standard meteorological sensors; operates a shipboard Acoustic Doppler Current Profiler and collects along-track bathymetric data. As this cruise will travel through an oxygen minimum zone it is likely that, additional ancillary programs ("Level 2 and 3") will be requested. Although hosted aboard at a lower priority than the core ("Level 1") measurements, once approved by the Executive Council, the Chief Scientist will be expected to accommodate any such programs fairly in science and ship-time planning. These additional efforts will include separate or combined casts for Bio GO-SHIP as well as floats and drifters deployed along the (some float deployments may require additional rosette sampling). Note, the 52 days at sea includes 2 days of ship time specifically for Bio GO-SHIP casts.

[2] **Financial support** for the Chief Scientist is provided through an NSF grant to UCSD/SIO, coordinated by Lynne Talley (ltalley@ucsd.edu). Except in the case of a directly supported project post-doc, there is no support from this NSF grant for post-cruise scientific analyses, only for time spent on final documentation, which is minimal for this program (almost all work is done at sea). Publication costs in refereed journals can be supported upon request. This cruise-specific salary plus benefits support for the Chief Scientist should never exceed (3.0*D/30) months (where D = number of days at sea), and in general will be less than this amount, in many cases much less (typically 2.0), depending largely on pre- and post-cruise project-related activities for each person. A contract agreeing to the guidelines set out by the US GO-SHIP Executive Council must be signed before travel preparations can be made.

STILL WANT MORE INFORMATION?

This cruise is a US contribution to international GO-SHIP http://www.go-ship.org/, which is part of the Global Ocean Observing System (GOOS) (https://www.goosocean.org/). GO-SHIP is tracked along with other GOOS observing systems through JCOMMOPS (http://www.jcommops.org/board).

You can read more about the US GO-SHIP program at: https://usgoship.ucsd.edu/
You can find data and cruise reports from the earlier GO-SHIP cruises at CCHDO and for the previous World Ocean Circulation Experiment (WOCE) occupation of P04 performed in 3 legs at https://cchdo.ucsd.edu/search?q=P04, with hydrographic sections published in the WOCE Pacific atlas, https://sam.ucsd.edu/whp_atlas/pacific_index.html.

Further questions can be directed to Alison Macdonald (amacdonald@whoi.edu).