



Newsletter

Fall 2023 | Issue 1

Section Cruises

Completed

- GP17-OCE: Southern Pacific Meridional Transect.

December 1st, 2022 - January 25, 2023

Papeete, Tahiti - Punta Arenas, Chile

Upcoming

- GP17-ANT: Amundsen Sea Sections

November 23, 2023 - January 28, 2024

Punta Arenas, Chile - Lyttelton, New Zealand

Process Studies Cruises

Completed

- GApr18 (STING) - Gulf of Mexico

Leg 1: 20 February, 2023 – 6 March, 2023

Leg 2: 29 June, 2023 – 13 July, 2023

St Petersburg - St Petersburg, United States

Data Products



- GEOTRACES Intermediate Data Product 2021 Version 2 is now available!
- Timeline for next GEOTRACES Intermediate Data Product: Submission **deadline** for **guaranteed** inclusion of data is **15th May 2024** For more information follow this [link](#).



Photo: GP17-OCE Science Team in the Strait of Magellan. Source: GP17-OCE Cruise Report

Announcements

Newsletter

Welcome to the first issue of the U.S. GEOTRACES newsletter! In our quarterly issues we plan to summarize upcoming events, science highlights and any other relevant announcement from the U.S. GEOTRACES Office. Please contact us if you'd like to include your material in our next issue and Thank You for your help!

Process Studies

The U.S. GEOTRACES Scientific Steering Committee (SSC) announced that following the upcoming GP17-ANT cruise to the Amundsen Sea, the U.S. GEOTRACES field effort will transition from full sections to process studies, starting with one in the Oregon margin and one in the Gulf of Mexico. Process studies, though more restricted in scope than sections, will support the GEOTRACES mission. The transition to process studies was anticipated in the GEOTRACES Science Plan, and will allow for the examination of processes better suited to more intensive, regional studies, as well as the examination of unexpected phenomena revealed by the global sections. Synthesis activities will continue during this shift in emphasis from sections

Meetings

Upcoming

- GEOTRACES Standards and Intercalibration Committee (S&I) Meeting

21-22 September, 2023. San José, CA, U.S.

- GEOTRACES Data Management Committee (DMC) Meeting

25-26 September, 2023. Stanford University, CA, U.S.

- GEOTRACES Scientific Steering Committee Meeting (SSC)

27-29 September, 2023. Stanford University, CA, U.S.

Outreach

Virtual cruise

During the GP17-OCE research expedition, Chrissy Wiederwohl (chrissyw@tamu.edu) and colleagues captured and converted video footage into an interactive 360° virtual reality experience. "Sailing with GEOTRACES" targets all ages, from school-age kids through adults.

Educational Material

Now you can share your lectures, class projects, cruise blogs or other outreach activities through the new [Educational Resources page](#) of the U.S. GEOTRACES website. For more information, please send us an [email](#).

Publications/Reports

- The annual U.S. GEOTRACES **Activities Report** has been submitted to SCOR. The report is available for download from our website ([link to PDF document](#)). Reports from previous years will be available on the same website soon.

towards process studies. Additional information about planning for process studies will be included in future newsletters.

Science Highlights

Publications

We highlight two [publications](#) that focus on the Bermuda region of the North Atlantic Ocean and on dissolved iron (DFe). These studies combine observational datasets from the [Bermuda Atlantic Iron Time-series \(BAIT\)](#) cruises and from the [Bermuda Atlantic Time-series Study \(BATS\)](#) along with modeling and numerical tools.

[Sedwick et al., 2023](#) is the first publication from the U.S. GEOTRACES Process Study GApr13. Deposition of airborne soil dust is the major source of dissolved iron (DFe) to surface waters in the Bermuda region. By combining measurements of the atmospheric loading and solubility of iron in soil dust over Bermuda with measurements of DFe in adjacent ocean waters over a full year they estimate the rate of supply of DFe from dust deposition in the region, with an estimated residence time of ~0.8–1.9 years for DFe with respect to aeolian input.

[Tagliabue et al., 2023](#) report a new seasonal-scale Fe observational dataset containing the parallel seasonal evolution of DFe, ligands and particulate iron (PFe) phases in the BATS region of the Sargasso Sea. The results offer a new conceptual and numerical model of the ocean Fe cycle, reconciling the roles of biological activity, ligands and authigenic phases, with important implications for the global ocean Fe and carbon cycles.

Opportunities

Funding

The U.S. GEOTRACES Project Office will sponsor 3 to 4 synthesis activities (e.g., small in-person meetings) per year with budgets of up to \$5000 to foster synthesis activities that advance GEOTRACES science goals. For more information please contact the Project Office: geotraces@ldeo.columbia.edu.

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