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Statement of Interest U.S. GEOTRACES: Alaska – Tahiti section planning workshop

The surface ocean and boundary layer aerosols are inherently linked. Our interest is in determining the contribution of atmospheric deposition to the observed gradients in surface TEIs. This work is relevant to overarching objectives of the Alaska-Tahiti section (e.g., “Compare and contrast the distributions of trace elements and their isotopes (TEIs) within the high productivity regimes of the Subarctic Gyre and the equatorial upwelling system with those characteristic of the oligotrophic regime in the North Pacific gyre”), and compliments aerosol work proposed in collaboration with Buck and Landing.

Scientific Objectives:

1. Determine the distribution of key TEIs in surface waters. We propose to employ higher frequency sampling than station spacing to tie closely with aerosol sampling, as well as with real-time observed gradients in surface water characteristics.

2. We propose to **collect and distribute the ‘community surface sample’** to complete the GEOTRACES carousel profile either before arriving at, or as the ship leaves all GEOTRACES stations. Discussion with the management team led to this objective.

Berthing and Collaboration Opportunities:

We request 1 berth for a person to deploy/recover the GEO-Fish and sample. This person will work closely in conjunction with the aerosol person onboard to possibly share some of the workload and inform sample collection and bracketing.

PIs have submitted an SOI for aerosol work in collaboration with Buck and Landing.

Rember will potentially collaborate with Boyle and Fitzsimmons on Pb and Pb isotope work

Anticipate collaboration with PIs interested in TEI input to surface waters