

About the SIO Oceanographic Data Facility

SIO Shipboard Technical Support Group

Research Technicians ('Res Techs' + 'ETs')

Calibration Laboratory

Computer Support Group

Oceanographic Data Facility (chemists and data specialists) [ODF]

Geophysical Techs

CLIVAR and Carbon Hydrographic Data Office [CCHDO]

ODF origins are CalCOFI (early 1950s) and GEOSECS (1970s).

ODF is involved in rosette operations, CTDO data acquisition and processing, salinity, oxygen, and nutrient analyses, and whole-cruise bottle data management.

ODF has a significant inventory of water sampling, analytic, and related equipment.

ODF personnel participation at sea is based on needs/requests/proposals from science teams.

ODF's proposed (NSF) cruise support for the US GEOTRACES North Pacific Transect is based on preliminary cruise/sampling specifications from the planning team.

US Geotraces North Pacific Transect - SIO Oceanographic Data Facility Support

- CTDO, salinity, oxygen, nutrients, data management at sea
- Data quality goals \approx GO-SHIP
- SeaBird CTD w. O₂, altimeter (some 'guest' sensors can be supported)
- full processing on ODF CTD, including O₂
- ODF rosette for this cruise is a 12-place rosette with 30-liter bottles
- 4-person SIO/STS/ODF party at sea
- proposal already submitted (support details can be revised)
- similar to US GEOTRACES EPZT cruise support from ODF
- Rosette samples are indexed by cruise/station/cast/bottle [never by the intended level (never by depth)!]
- Data delivery of ODF parameters at sea is quick. Delivery of GEOTRACES parameters depends on the GEOTRACES team
- Likely to have near-final ODF CTDO/S/O₂/nuts at end of cruise.
- no PO scientist at sea – assistance from shore with bottle data interpretation and QC is feasible
- LADCP, if added, would require a specialist on board

- normally a cruise this complex for ODF would also require two full-time scientists (one could be a post-doc), two graduate students, and possibly additional ODF techs. (We carry 2 scientists, 4 students, and 7 ODF techs to do these tasks on US GO-SHIP cruises, and they are busy)
- with only 4 techs for Geotraces, the daily ODF work load must be managed
- while a Geotraces scientist or student may chose to work 24/7, the workload of ODF seagoing techs must be managed within (reasonable) UofC rules

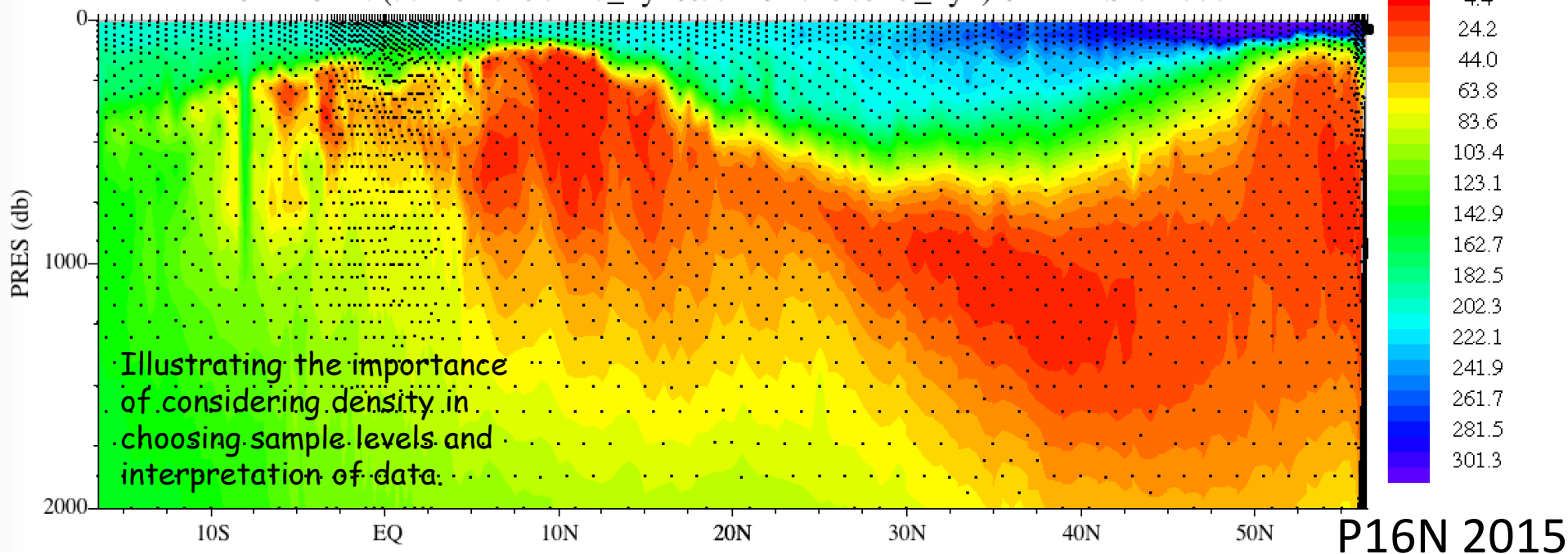
Therefore on a Geotraces cruise:

- science team runs CTD/rosette casts, and maintains ODF records during casts.
- science team keeps ODF record of every water sample taken from the rosette ('sample cop')
- science team helps (at times) with nutrient and salinity samples
- science team (might) help cocking ODF rosette

Important note:

- cruise scheduling is a serious issue for ODF due to NSF's pre-set schedule (02 MAR – 08 MAY 2018) for US GO-SHIP Antarctic S04P on Nathaniel B. Palmer

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