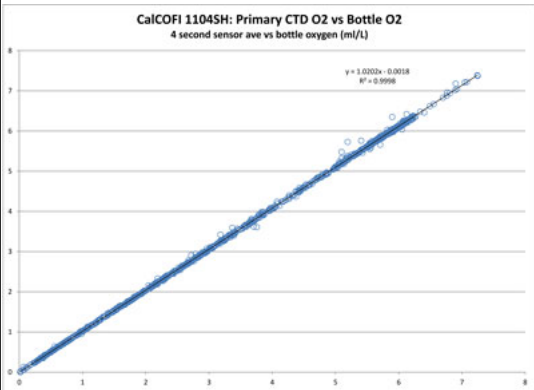
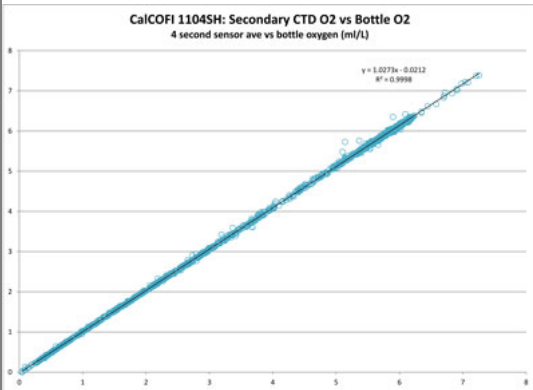


Parent Category: 2011 Cruises (/cruises/2011-cruises.html)
Category: CalCOFI 1104SH (/cruises/2011-cruises/calcofi-1104sh.html)
📅 Last Updated: 25 June 2015

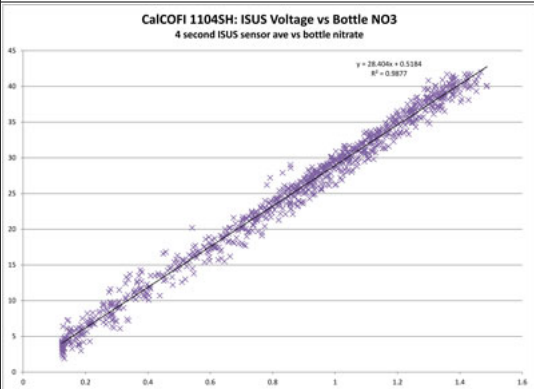
| CTD Processing Summary CalCOFI 1104SH CTD Data (reprocessed 2014) | | |
|---|---|--|
| Download 1104 CTD raw cast files zipped (http://sio-calcofi.ucsd.edu/downloads/2011/20-1104SH_CTDcast.zip) | | Download 1104 Final CTD + bottle data (2014 version) (http://sio-calcofi.ucsd.edu/downloads/2011/20-1104SH_CTDFinal.zip) |
| General CTD Notes - see below; data acquisition notes, logistics, processing | | |
| CTD sensor corrections derived by comparing 4 secs of CTD sensor data (prior to bottle closure) to bottle samples | | |
| Dual T, S, & O2 | Primary Sensor | Secondary Sensor |
| Salinity offset (bottle - CTD salinity; > 350m only; Seabird SBE4) | 0.65633 (Cast 31-35) 0.68847 (Cast 36) -0.00528 (Cast 37-114) | -0.00528 |
| Oxygen (dual Seabird SBE43) | $y = 1.0202x - 0.0018$ $R^2 = 0.9998$ | $y = 1.0273x - 0.0212$ $R^2 = 0.9998$ |
| Single sensors | | |
| Nitrate - ISUS 4sec ave voltage vs Bottle Nitrate (Satlantic MBARI-ISUS v2) | $y = 28.404x + 0.5184$ $R^2 = 0.9877$ | Please note there was an issue with the ISUS low end detection. Satlantic changed the bulb after this cruise. |
| Fluorometer - polynomial & linear regressions | $y = 11.462x^2 + 5.7094x - 0.0373$ $R^2 = 0.7163$ | $y = 10.207x - 0.2017$ $R^2 = 0.688$ |



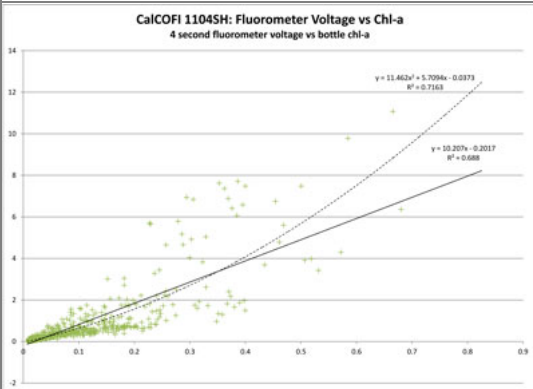
(http://www.calcofi.org/downloads/cruise_data/2011/1104/plots/1104SH_Ox1VSOxB_Final.pdf)



(http://www.calcofi.org/downloads/cruise_data/2011/1104/plots/1104SH_Ox2VSOxB_Final.pdf)



(http://www.calcofi.org/downloads/cruise_data/2011/1104/plots/1104_ISUSVvsNO3Final.pdf)



(http://www.calcofi.org/downloads/cruise_data/2011/1104/plots/1104SH_FIVVSCChla_Final.pdf)

CalCOFI 1104SH CTD Cast Notes::

MBARI-ISUS nitrate sensor had problems detecting nitrate values below 2µM/L this cruise. Post-cruise investigation by MGS & Satlantic found that lamp replacement was necessary.

Casts 1 - 67 = Cast 31 - 114; CalCOFI was the second leg of the 2011 Spring CalCOFI/DEPM cruise. NOAA Fisheries had performed 30 stations prior to our first CTD station so order-occupied was continued for data integration & book-keeping.

Cast 31 - 36 (1 - 6) had a problem with the primary conductivity sensor resolved after the first bottle salts were run on leg2, day 2. Different salinity offsets are applied to the primary CTD salinities 31-35, 36, and 37-114. After cast 36, the conductivity sensor was replaced; casts 31-36 were processed with different xmlcon files than 37-114 for this reason.

Console Ops CTD Operator Notes:

Cast 32 - winch operator started bringing the CTD back up immediately after he was told "stop". Yo-yo'd back down to ~15m (SCCOOS).

Cast 34 - switched out Deck Unit in hopes of rectifying rs232 problem. Salinity sensors disagree by ~0.6PSU.

Cast 35 - error light flashing on deck unit, primary conductivity low

Cast 35 - 39 - bottom depths off charts since bottom sounder isn't working below ~500m

Cast 36 - -0.250 pressure offset applied precast; deck pressure kind of high

Cast 37 - new conductivity sensor installed (#3568)

Cast 39 - bottle #9 mistrip

Casts 40-44 numbering changed to match NOAA Fisheries order occupied; trawls = 40, 41, 44; subsequent CTD casts numbered to match NOAA order occupied.

- cast 40 renumbered to cast 42
- cast 41 renumbered to cast 43
- cast 42 renumbered to cast 45
- cast 43 renumbered to cast 46
- cast 44 renumbered to cast 47

Cast 43 - primary & secondary oxygen sensors disagree by ~0.03-0.05

Cast 46 - primary & secondary oxygen sensors disagree by ~0.05

Cast 47 - restarted after winch failure at 50m; CTD returned to surface, cast restarted; unusual 'feature' around 280-310m downcast.

Cast 48 - event log lat-lon not changing

Cast 50 - bottle 3 replaced

Cast 51 - severe wire angle, 580m of wire out to reach 515m

Cast 52 - CTD sent back down to get 78m, yo-yo'd - 86>70>78>70>63...

Cast 56 - moderate seas - big ship rolls

Cast 58 - file initially named improperly, resulting in loss of downcast; upcast good

Cast 61 - 3 trawls before cast

Cast 66 - trawled onto station; winch could not go down faster than ~35m/min; worked fine on upcast

Cast 73 - Santa Monica Basin; shallower than normal at ~700m; 24 bottles closed

Cast 74 - shallow ~30m nutricline & thermocline

Cast 80 - three chl maxes

Cast 84 - downcast & upcast different especially in upper 50m

Cast 86 - bottle 17 open upon retrieval

Cast 87 - unusual salinity & oxygen feature at ~180m

Cast 88 - winch problem on downcast at ~480m; stopped then down to 515m; weather calm

Cast 92 - strong deep current below ~380m

Cast 94 - windy, big swell and rolls

Cast 98 - deep 40m SCCOOS station; ship refused to go shallower

Cast 99 - Santa Barbara Basin station

Cast 102 - on downcast ~450m O2 & NO3 up, T & S down - feature

Cast 109 - 200m bottle closed at 220m by mistake
