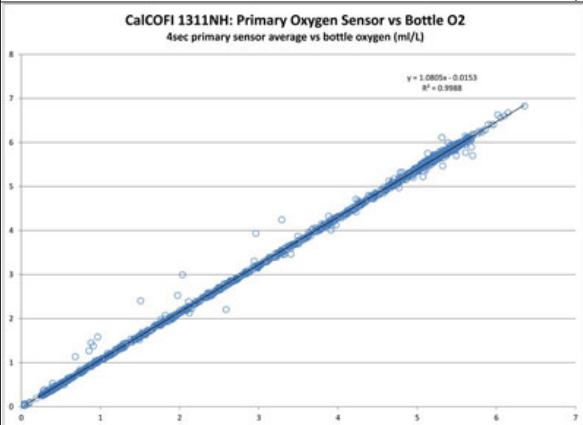
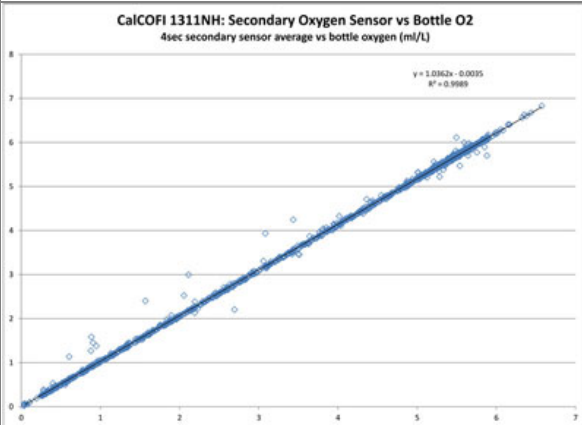


Parent Category: 2013 Cruises (/cruises/2013-cruises.html)  
Category: CalCOFI 1311NH (/cruises/2013-cruises/calcofi-1311nh.html)  
📅 Last Updated: 10 March 2017

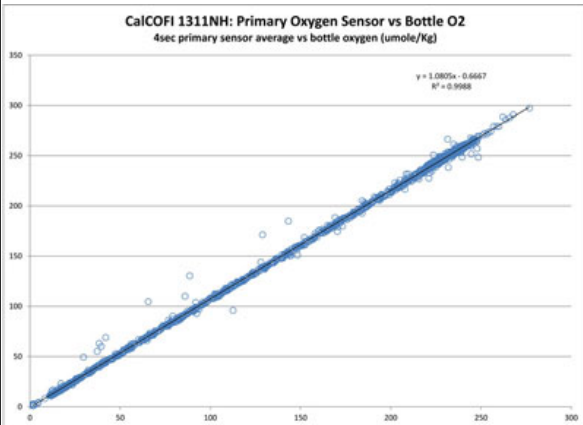
| CTD Processing Summary CalCOFI 1311NH CTD Data Final                                                              |                                     |                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Download 1311NH CTD raw cast files zipped<br>(http://cappuccino.ucsd.edu/downloads/2013/20-1311NH_CTDCast.zip)    |                                     | Download 1311NH FinalQC CTD + bottle data<br>(http://cappuccino.ucsd.edu/downloads/2013/20-1311NH_CTDFinalQC.zip) |
| General CTD Notes - data acquisition notes, logistics, processing - see below                                     |                                     |                                                                                                                   |
| 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)                                                | 0.00100                             | -0.00006                                                                                                          |
| Oxygen ml/L (dual Seabird SBE43)                                                                                  | y = 1.0805x - 0.0153<br>R² = 0.9988 | y = 1.0362x - 0.0035<br>R² = 0.9989                                                                               |
| Oxygen umoles/Kg (dual Seabird SBE43)                                                                             | y = 1.0805x - 0.6667<br>R² = 0.9988 | y = 1.0362x - 0.0153<br>R² = 0.9989                                                                               |
| Single sensors                                                                                                    | Linear                              | Polynomial                                                                                                        |
| Nitrate - ISUS 4sec ave voltage vs Bottle Nitrate (Satlantic MBARI-ISUS v2)                                       | y = 26.985x - 4.1197<br>R² = 0.9930 |                                                                                                                   |
| Fluorometer - linear & polynomial regressions                                                                     | y = 10.804x - 0.5708<br>R² = 0.8149 | y = 6.8397x²+6.837x-0.3156<br>R² = 0.8333                                                                         |



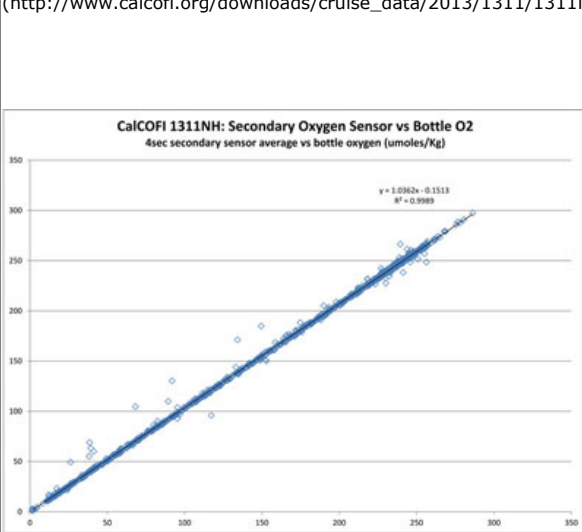
([http://www.calcofi.org/downloads/cruise\\_data/2013/1311/1311NH\\_Ox1MLvsBOx.pdf](http://www.calcofi.org/downloads/cruise_data/2013/1311/1311NH_Ox1MLvsBOx.pdf))

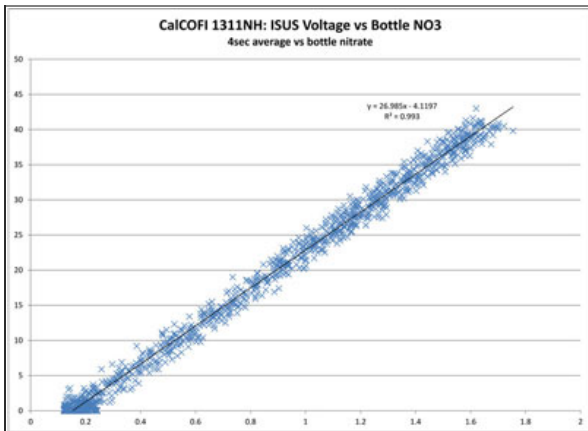


([http://www.calcofi.org/downloads/cruise\\_data/2013/1311/1311NH\\_Ox2MLvsBOx.pdf](http://www.calcofi.org/downloads/cruise_data/2013/1311/1311NH_Ox2MLvsBOx.pdf))

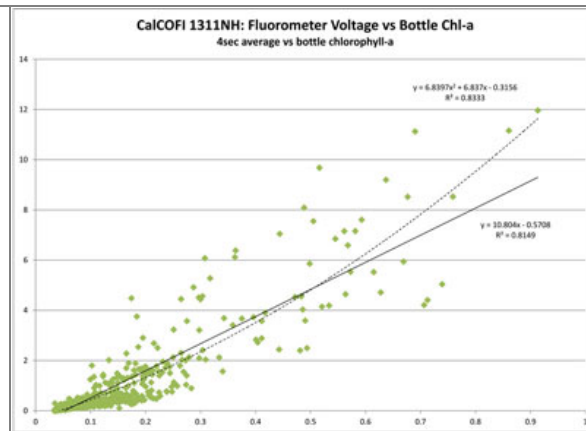


([http://www.calcofi.org/downloads/cruise\\_data/2013/1311/1311NH\\_Ox1UMvsBOx.pdf](http://www.calcofi.org/downloads/cruise_data/2013/1311/1311NH_Ox1UMvsBOx.pdf))





([http://www.calcofi.org/downloads/cruise\\_data/2013/1311/1311NH\\_ISUSVsNO3.pdf](http://www.calcofi.org/downloads/cruise_data/2013/1311/1311NH_ISUSVsNO3.pdf))



([http://www.calcofi.org/downloads/cruise\\_data/2013/1311/1311NH\\_FIVvsChla.pdf](http://www.calcofi.org/downloads/cruise_data/2013/1311/1311NH_FIVvsChla.pdf))

## General notes: This is the final CTD Processing Summary from 1311NH cruise

CalCOFI 1311NH General Cast Notes This cruise occupied 81 stations: 66 standard, 9 SCCOOS, and 6 DIC stations surrounding 80.55 (82.55, 81.55, 80.53, 79.55, 78.55, 80 57.5). The 6 additional stations (054-060) were 12-bottle 515m CTD casts. Bottles were closed at only 12 depths due to O2 flask limitations & analytical time. These stations lasted ~1 hour & transit times were ~1 hour - extremely calm weather helped facilitate the execution of these stations. Under rougher conditions, execution times would be double. The station schedule was modified to reduce the cruise track by 120nm, ~12 hours. Instead of continuing shoreward on line 83 to sta 83.42, the ship headed north from 83.51 to 82.55. Coastal stations on line 83 & 80 (51, 50.5) & Santa Barbara Basin were done after lines 80 & 77 were completed.

CalCOFI 1311NH was on SIO RV New Horizon. Termination was done by RJ using the 4-pin pigtail. Battery test showed all wires working but after the first 9 casts only the black conductor was used with shield ground since profiles became noisy. The carousel 'crown' was switch after cast 4 because of chronic mistrisps especially with position 9. Bottle 6's bottle would not seat properly so it was switched but replacement has the same problem. So the bottle was rotated slightly so the spigot was at 5 o'clock instead of 4 o'clock. This affects the lid angle when open.

CTD configuration was standard: Seabird 911+ with dual T, C, O2, & pumps; Wetlabs C-Star 25cm transmissometer; Biospherical QSP200L PAR; Datasonics/Benthos Altimeter; NEW ADDITION is a brand new WET Labs ECO-AFL/FL, replacing our Seapoint Fluorometer. Sensitivity setting was 0-50mg/m<sup>3</sup>; Seabird pH; Satlantic ISUS v2 & battery. Please refer to the xmlcon files or cruise prospectus for additional info.

### Cast Notes:

Cast 01 - 07 CTD signal is getting progressively noisier; conductive wire is suspect

Cast 08 - some noise & spikes, particularly below 300m; CTD downcast data for cast 8 looks okay, upcast is noisy below 200m

**Cast 09** - significant noise & spikes, particularly below 300m; CTD data quality is questionable below 350m on downcast, & below 250m on upcast.

CTD re-terminated before Cast 10 - using black only single signal conductor with shield as ground. Cast 10+ profiles look noise-free.

Cast 021 was station 90.80 3500m cast; PAR, ISUS & battery, pH were removed since they are not rated for that depth.

Cast 36 was station 86.7 40.0, Santa Monica Basin station to ~720m

Casts 54, 55, 56, 58, 59, 60 - only 12 bottle depths were sampled on these ancillary DIC-pH stations. In the CTD Final data zip archive, the CTD fluorometer sensor data plotted with bottle chlorophyll are **cruise-corrected**, not station-corrected since there are fewer samples above 200m.

Cast 76 was station 81.8 46.9, Santa Barbara Basin station to ~570m

A Teledyne Citadel CTD was deployed on 15 stations as a favor to Teledyne to test a defective unit; stations 35-52, skipping 46 & 49. This passive flow system was mounted vertically inside the rosette frame against the rosette ballast. Data from Teledyne is requested for comparison to our Seabird & pending.

### File notes:

Seasoft-generated asc-hdr files were not renamed to YY-YYYYLLSSSS\_###d or u.asc & .hdr. Voltages were not relabeled. This practice makes it difficult to reprocess the CTD if necessary.

### Mislabeled found and corrected:

Sta 56 was numbered 53 in the hdr

Sta 79 was labeled SCCOOS, should be ROS 83.3 40.6

Stas 66 - 69 were labeled Line 70.0 instead of 76.7

12Sep2014

The final CTD archive was updated in 2016, reprocessing added data-quality code columns and data codes on bad or missing data ("9") or questionable data ("8"). Data values should not have changed from the previously published final CTD data. But the column number on updated CTD.csvs has changed from 65 to 82. Refer to the CTD.csv data format webpage: 65-column index (<http://calcofi.org/data/data-formats/607-ctd-csv-format-65cols.html>); 82-column index (<http://calcofi.org/data/data-formats/577-ctd-csv-format-qc.html>)

