

# CC2007SR Underway Data Processing Notes

The data were extracted from the \*.MET files provided by the R/V Sally Ride.

## **The available variables from these files are:**

COG – course over ground (deg)

SOG – ship speed over ground (knots)

USWFlow – measure of water flow through the UW system (varying units).

PARSurf – photosynthetically available radiation measured aboard the ship ( $\mu\text{E}/\text{Sec}/\text{Meter}^2$ ).

LongWaveRad – Long Wave Radiation ( $\text{W}/\text{M}^2$ , Pyranometer)

ShortWaveRad - Short Wave Radiation ( $\text{W}/\text{M}^2$ , Pyranometer)

WindSpeed – wind speed (m/sec)

WindDir – wind direction (deg)

AirTemp – air temperature (deg C)

AtmPress – atmospheric pressure (mb)

AtmPress\_SLC – atmospheric pressure, sea level corrected (mb)

RelHum – relative humidity (% saturation)

TSG\_Temp – water temperature measured by the Sally Ride's TSG75 unit (deg C).

TSG\_Cond – water conductivity measured by the Sally Ride's TSG75 unit (mS/cm).

TSG\_Sal – water salinity calculated by the Sally Ride's TSG75 unit (PSU).

TSG\_Dens – water density as sigma-t calculated by the Sally Ride's TSG75 unit ( $\text{kg}/\text{m}^3$ ).

SoundVel – sound velocity calculated by the Sally Ride's TSG75 unit (m/sec)

TSG\_Temp\_2 – water temperature measured by the Sally Ride's TSG xxx unit (deg C).

TSG\_Sal\_2 – water salinity calculated by the Sally Ride's TSG xxx unit (PSU).

TSG\_Dens\_2 – water density as sigma-t calculated by the Sally Ride's TSG xxx unit (PSU).

SoundVel\_2 – sound velocity calculated by the Sally Ride's TSG xxx unit (m/sec)

TSG\_Temp\_5 – water temperature measured by the Sally Ride's TSG xxx unit (deg C).

TSG\_Sal\_5 – water salinity calculated by the Sally Ride's TSG xxx unit (PSU).

SSTemp - Hull Temperature measurement with SBE48 in Transducer Void (degC)

Oxygen – oxygen concentrations measured by the Sally Ride's TSG xxx unit (mL/L).

OxygenSat – oxygen saturation measured by the Sally Ride's TSG xxx unit (%).

OxygenTemp – temperature of the water oxygen measurements were made on (deg C)

ChlFluor – chlorophyll fluorescence (volt).

**Derived variables are:**

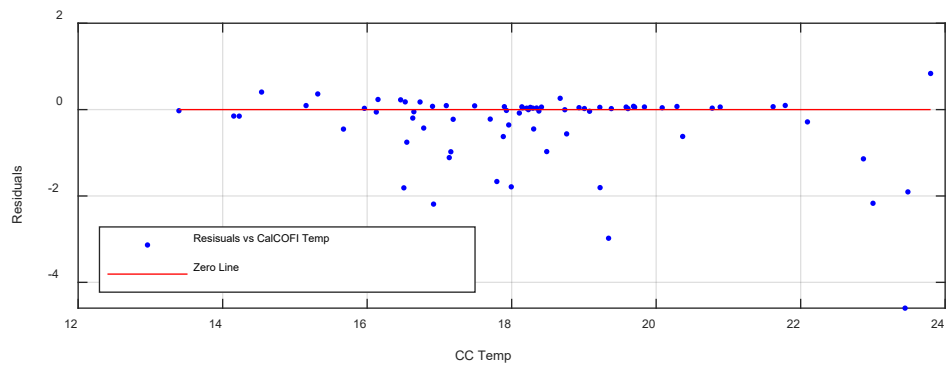
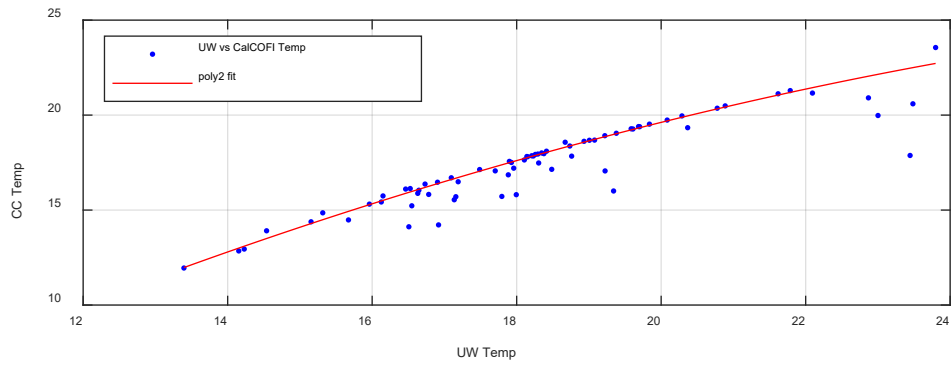
Pred\_Temp – temperature derived from calibrations of TSG\_Temp vs. CalCOFI 0 to 12 m bottle temperatures (deg C)

Pred\_Sal – salinity derived from calibrations of TSG\_Sal vs. CalCOFI 0 to 12 m bottle salinity (PSU)

Pred\_Ch1 – chlorophyll derived from calibrations of ChlFluor vs. CalCOFI 0 to 12 m bottle Chl a (ug-Chl/L).

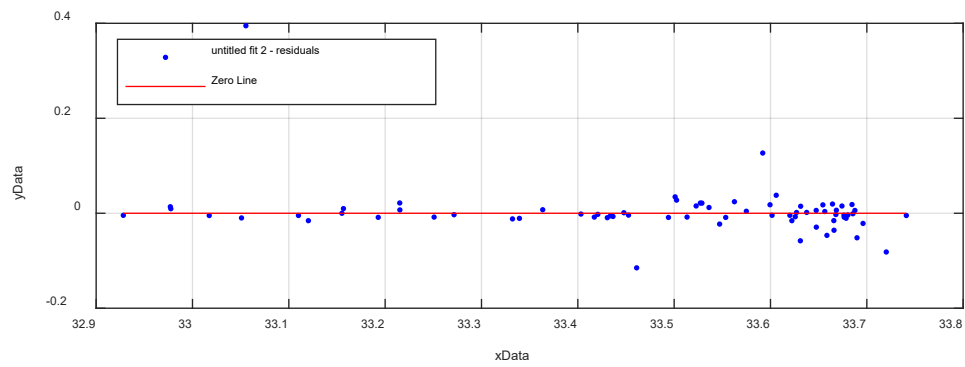
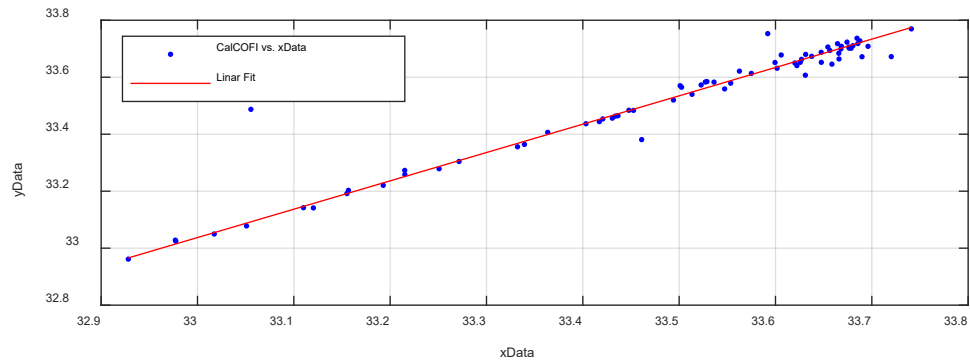
## Temperature Calibration:

Pred\_Temp – temperature derived from calibrations of TSG\_Temp vs. CalCOFI 0 to 12 m bottle temperatures (deg C)



## Salinity Calibration:

Pred\_Sal – salinity derived from calibrations of TSG\_Sal vs. CalCOFI 0 to 12 m bottle salinity (PSU)



### Chl a Calibration:

Pred\_Ch1 – chlorophyll derived from calibrations of ChlFluor vs. CalCOFI 0 to 12 m bottle Chl a ( $\mu\text{g-Chl/L}$ ).  
All values are set to NaN.

