**This is the start of metadata for the Ron Brown**

***Revised by D Wolfe 5/10/2016***

Data are archived in the PSD3 cruise directory: FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw

I have not found any documentation in what I was given describing the instruments or file format.

Some information can be found on the Ron Brown website, but I'm sure it isn't up to date:

http://www.moc.noaa.gov/rb/science/calibration.html

The FSU SAMOS website does have details that are probably more up to date for the data they receive:

http://samos.coaps.fsu.edu/html/meta\_instrument.php?ship\_id=55&date=

PDF copy of description: FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/SAMOS\_metadata\_20160910.pdf

**SCS (Science Computer System)**

***Raw Met, NAV, Depth, Heading, and Ocean files are every 1 sec***

 Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/Met

**STBD-True-Wind-MSG\_20160310-000000.Raw**

03/16/2016,00:00:00.622,$DERIV,16.76,345.52,26.7,341,11,18,17.3,

03/16/2016,00:00:01.622,$DERIV,19.28,341.81,28.9,338,11,18,16.8,

**Port-True-Wind-MSG\_20160217-000000.Raw**

03/16/2016,00:00:01.147,$DERIV,16.21,15.15,27.2,359,11,18,17.3,

03/16/2016,00:00:02.149,$DERIV,17.7,7.95,28.6,355,11,18,16.8,

**STBD-Wind-WIMWV\_20160226-000000.Raw**

03/16/2016,00:00:01.411,$WIMWV,338,R,028.9,N,A\*36

03/16/2016,00:00:02.403,$WIMWV,336,R,029.9,N,A\*39

**Barometer-MSG\_20160222-000000.Raw**

03/16/2016,00:00:00.760,1014.15

03/16/2016,00:00:01.761,1014.21

**Port-Wind-WIMWV\_20160304-000000.Raw**

03/16/2016,00:00:01.304,$WIMWV,355,R,028.6,N,A\*32

03/16/2016,00:00:02.299,$WIMWV,354,R,028.0,N,A\*35

**Baro-CorrectedSeaLevel-MSG\_20160221-000000.Raw**

03/16/2016,00:00:00.622,$DERIV,1016.15,1014.15,

03/16/2016,00:00:01.622,$DERIV,1016.15,1014.15,

**IMET-Rain-Gauge-MSG\_20160221-000000.Raw**

03/16/2016,00:00:00.882, 37.95

03/16/2016,00:00:01.890, 37.95

**IMET-Shortwave-Radiation-MSG\_20160217-000000.Raw**

03/16/2016,00:00:00.872, 252.8

03/16/2016,00:00:01.883, 269.1

**IMET-TEMP-HUM-MSG\_20160229-000000.Raw**

03/16/2016,00:00:00.945, 72.379 17.559

03/16/2016,00:00:01.983, 72.379 17.559

**IMET-LWR-MSG\_20160306-000000.Raw ( I don't remember seeing a long-wave** radiometer on the ship.

03/16/2016,00:00:01.302, 291.64 291.68 -203.5 355.7

03/16/2016,00:00:02.322, 291.64 291.68 -203.5 355.7

**IMET-True-Wind-MSG\_20160216-183032.Raw** (I believe these data were the forward mast prop-vane that was turned off during ENRR)

02/17/2016,00:00:00.817,$DERIV,12.5,320.08,12.23,260.7,0.3,114.1,60,

02/17/2016,00:00:01.817,$DERIV,12.5,320.08,12.23,260.7,0.3,114.1,60,

02/17/2016,00:00:02.817,$DERIV,12.64,331.38,12.42,272.2,0.3,109.9,60.1,

 Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/NAV

**Trimble-1-GPVTG\_20160316-000000.Raw**

03/16/2016,00:00:01.017,$GPVTG,11.44,T,,M,11.76,N,21.79,K,D\*04

03/16/2016,00:00:02.014,$GPVTG,9.27,T,,M,11.11,N,20.58,K,D\*3B

**Trimble2-GPVTG\_20160216-183032.Raw**

03/16/2016,00:00:01.014,$GPVTG,11.23,T,,M,11.84,N,21.93,K,D\*0C

03/16/2016,00:00:02.015,$GPVTG,8.92,T,,M,11.12,N,20.60,K,D\*3C

**Secondary-GPS-GPVTG\_20160223-220732.Raw**

03/16/2016,00:00:01.199,$GPVTG,16.5,T,5.8,M,11.0,N,20.4,K,A\*1A

03/16/2016,00:00:02.364,$GPVTG,17.9,T,7.2,M,11.0,N,20.4,K,A\*1F

**Primary-GPS-GPVTG\_20160226-000000.Raw**

03/16/2016,00:00:00.596,$GPVTG,18.0,T,7.6,M,11.0,N,20.4,K,A\*1D

03/16/2016,00:00:01.698,$GPVTG,18.0,T,7.6,M,11.0,N,20.4,K,A\*1D

**Secondary-GPS-GPGGA\_20160224-000000.Raw**

03/16/2016,00:00:00.522,$GPGGA,235959.00,2503.9881,N,12002.5772,W,1,11,1.4,21,M,,M,,\*43

03/16/2016,00:00:01.695,$GPGGA,000000.00,2503.9909,N,12002.5758,W,1,11,1.4,21,M,,M,,\*4B

**Primary-GPS-MSecs-MSG\_20160229-000000.Raw**

03/16/2016,00:00:01.284,$DERIV,5.66,11,

03/16/2016,00:00:02.285,$DERIV,5.66,11,

**Trimble1-GPGGA\_20160316-000000.Raw**

03/16/2016,00:00:01.017,$GPGGA,000001.00,2503.99805187,N,12002.58059696,W,2,10,0.9,13.676,M,-44.450,M,5.0,0138\*42

03/16/2016,00:00:02.014,$GPGGA,000002.00,2504.00117452,N,12002.57999068,W,2,10,0.9,12.372,M,-44.450,M,6.0,0138\*4F

**Trimble2-GPGGA\_20160227-000000.Raw**

03/16/2016,00:00:01.014,$GPGGA,000001.00,2503.99812441,N,12002.58042238,W,2,10,0.9,13.716,M,-44.450,M,5.0,0135\*4B

03/16/2016,00:00:02.015,$GPGGA,000002.00,2504.00125880,N,12002.57981367,W,2,10,0.9,12.335,M,-44.450,M,6.0,0135\*46

**POSMV-INGGA\_20160226-215327.Raw**

03/16/2016,00:00:01.104,$INZDA,000001.0001,16,03,2016,,\*77

03/16/2016,00:00:02.088,$INZDA,000002.0001,16,03,2016,,\*74

**POSMV-PASHR\_20160226-215327.Raw**

03/16/2016,00:00:00.596,$PASHR,000000.517,17.42,T,1.19,-0.91,-0.12,0.020,0.020,0.016,2,1\*25

03/16/2016,00:00:01.616,$PASHR,000001.517,17.02,T,-0.51,-1.46,-1.51,0.020,0.020,0.016,2,1\*0D

**Primary-GPS-GGA\_20160225-000000.Raw**

03/16/2016,00:00:01.231,$GPGGA,000001.00,2503.9932,N,12002.5745,W,1,11,1.5,21,M,,M,,\*4F

03/16/2016,00:00:02.087,$GPGGA,000002.00,2503.9964,N,12002.5736,W,1,11,1.4,21,M,,M,,\*4A

**POSMV-INZDA\_20160220-000000.Raw**

03/16/2016,00:00:01.104,$INZDA,000001.0001,16,03,2016,,\*77

03/16/2016,00:00:02.088,$INZDA,000002.0001,16,03,2016,,\*74

Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/Heading

**GYRO-HEHDT\_20160217-000000.Raw**

02/17/2016,00:00:01.455,$HEHDT,060.0,T\*29

02/17/2016,00:00:02.460,$HEHDT,060.1,T\*28

 Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/Ocean

**SBE45-TSG-MSG\_20160314-000000.Raw**

03/16/2016,00:00:00.954,t1= 19.3747, c1= 4.59958, s= 33.9329, sv=1518.671, t2= 19.4243

03/16/2016,00:00:02.035,t1= 19.3742, c1= 4.59956, s= 33.9332, sv=1518.684, t2= 19.4288

**SVP-Port-MSG\_20160227-000000.Raw**

03/16/2016,00:00:00.601, 1517.77

03/16/2016,00:00:00.705, 1517.77

**Fluorometer-MSG\_20160216-183032.Raw**

03/16/2016,00:00:04.755,0 8998 :: 3/15/16 23:59:42 = 3.964

03/16/2016,00:00:09.803,0 8999 :: 3/15/16 23:59:47 = 3.970

**SBE-21-TSG-MSG\_20160228-000000.Raw**

03/16/2016,00:00:09.982, 19.232 32.260 4.38 1516.25

03/16/2016,00:00:20.031, 19.230 32.526 4.42 1516.54

**IMET-SST-MSG\_20160221-000000.Raw**

03/16/2016,00:00:01.294, 19.371

03/16/2016,00:00:02.295, 19.371

 Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/CTD

**CTD-MSG\_20160221-000000.Raw**

02/21/2016,23:03:38.992, -0.5661 -0.5693 28.64694 0.00000 1505.947 1

02/21/2016,23:03:39.956, -0.5662 -0.5694 28.64673 0.01309 1505.961 25

 Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/Depth

**Multibeam-Depth-MSG\_20160217-001758.Raw**

02/17/2016,02:30:20.094,$KIDPT,506.38,4.45,12000.0\*4e

02/17/2016,02:30:30.227,$KIDPT,475.17,5.75,12000.0\*44

 Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/EventData/PCO2

These data files were created specifically at someone's request through and SCS Event like we used to have in the WHOI files. They didn't setup a special event log for us, which is what should have happened. In the past the WHOI event has always been there.

**PCO2-OBS\_004.elg (005 and 006)**

Date,Time,Primary GPS TIME,Primary GPS LAT,Primary GPS LON,Primary GPS COG,Primary GPS SOG,IMET-Air Temp,SBE21 TSG Water Temperature,SBE21 TSG Salinity,SBE38 WaterTemp,SBE45 TSG Internal Water Temp,SBE45 TSG Salinity,Fluoro,Baro-CorrectedSeaLevel-VALUE,STBD True Wind -DIRECTION,STBD-True-Wind-SPEED,STBD Rel Wind Direction,STBD Rel Wind Speed,

02/17/2016,00:25:53,002553.00,2117.4623N,15756.7861W,318.8,4.3, 23.44,24.874,34.866,24.8817,24.9628,34.8860, 1.540,1016.75,36.71,22.22,062,023.5,

02/17/2016,00:26:53,002653.00,2117.5198N,15756.8405W,319.2,4.7, 23.47,24.876,34.869,24.8861,24.9641,34.8873, 1.535,1016.78,52.07,17.55,070,018.4,

Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Processed//SAMOS/netcdf

These are the 1 min averaged data of various SCS parameters sent to SAMOS. What sensor went into the message can be determined from the SCS info. These data have some QC and therefore are in the Processed directory

**WTEC\_20160313v10002.nc**

The netcdf format is described in: FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Processed//SAMOS/netcdf/WTEC\_ENRR-netcdf-format.txt

Directory of FTP:/FTP1.ESRL.NOAA.GOV/PSD3/CRUISES/ENRR\_2016/RHB/SCS/Raw/SCS/Weather\_Logs

The bridge hourly weather observations are available in pdf files of NOAA Form 57-11-13D

**01 Feb 2016.pdf**

These contain position, sky condition, present wx, visibility, Wind, SSLP, Sea Wave ht, Swell dir and ht, SST, DryBulb, WetBulb, and comments (precip)

Temperatures are taken from a weather shelter located just forward of the bridge and winds are from the sonics located just above the bridge