

## JGOFS Data Format

The JGOFS data format was designed by the Joint Global Ocean Flux Study to store underway hydrographic, weather and ship state information. The RVIB Nathaniel B. Palmer and the RV Laurence M. Gould typically stores JGOFS data in daily files named jgDDD.dat.gz, where DDD is the year-day the data was acquired. The .gz” extension indicates that the individual files are compressed before archiving. Each daily file consists of 22 columnar fields in text format as described in the table below. The JGOFS data set is created from calibrated data decimated at one-minute intervals. Several fields are derived measurements from more than a single raw input. For example, Course Made Good (CMG) and Speed Over Ground (SOG) are calculated from gyro and GPS inputs. Daily plots during the cruise are produced from the JGOFS data set. Note: Null, unused, or unknown fields are indicated as “NAN” as 9999 in the JGOFS data.

For more information on the JGOFS project you can see their web site <http://www.uib.no/jgofs/jgofs.html>. For More information on the scientific operation of the US Antarctic research vessels you can contact <http://www.usap.gov/vesselScienceAndOperations/>.

Field Data Units	
01	GMT date dd/mm/yy
02	GMT time hh:mm:ss
03	NGL latitude (negative is South) tt.tttt
04	NGL longitude (negative is West) ggg.gggg
05	Speed over ground Knots
06	GPS HDOP -
07	Gyro Heading Degrees (azimuth)
08	Course made good Degrees (azimuth)
09	Mast PAR $\mu$ Einsteins/meter <sup>2</sup> sec
10	Sea surface temperature °C
11	Sea surface conductivity siemens/meter
12	Sea surface salinity PSU
13	Sea depth (uncorrected, calc. sw sound vel.1500 m/s)meters
14	True wind speed (max speed windbird) meters/sec
15	True wind direction (max speed windbird) degrees (azimuth)
16	Ambient air temperature °C
17	Relative humidity %
18	Barometric pressure mBars
19	Sea surface fluorometry volts (0-5 FSO)
20	Not used -
21	PSP W/m <sup>2</sup>
22	PIR W/m <sup>2</sup>