

# Meteorology and sea surface temperature (MET) 1 minute data from twenty R/V Endeavor and R/V Oceanus cruises in the Gulf of Maine and Georges Bank area during 1999 (GB project)

**Website:** <https://www.bco-dmo.org/dataset/2320>

**Data Type:** Cruise Results

**Version:** 1

**Version Date:** 2004-04-28

## Project

» [U.S. GLOBEC Georges Bank](#) (GB)

## Program

» [U.S. GLOBal ocean ECosystems dynamics](#) (U.S. GLOBEC)

| Contributors                      | Affiliation   | Role                   |
|-----------------------------------|---|------------------------|
| <a href="#">Payne, Richard</a>    | Woods Hole Oceanographic Institution (WHOI)         | Principal Investigator |
| <a href="#">Groman, Robert C.</a> | Woods Hole Oceanographic Institution (WHOI BCO-DMO) | BCO-DMO Data Manager   |

## Abstract

Meteorology and sea surface temperature (MET) 1 minute data from twenty R/V Endeavor and R/V Oceanus cruises in the Gulf of Maine and Georges Bank area during 1999

---

## Table of Contents

- [Coverage](#)
  - [Dataset Description](#)
    - [Acquisition Description](#)
    - [Processing Description](#)
  - [Parameters](#)
  - [Instruments](#)
  - [Deployments](#)
  - [Project Information](#)
  - [Program Information](#)
  - [Funding](#)
- 

## Coverage

**Spatial Extent:** N:43.9203 E:-65.4665 S:39.8412 W:-71.4245

**Temporal Extent:** 1999-02-21 - 1999-12-14

---

## Dataset Description

# Continuous along track meteorology and sea surface data, 1 minute values, 1999

Processed by:

Richard Payne  
Woods Hole Oceanographic Institution  
Woods Hole, MA 20543  
[rpayne@whoi.edu](mailto:rpayne@whoi.edu)

Additional  
[data processing notes](#) are available.

The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp\_ss1) is more accurate.

## Processing Notes

1. Concatenate daily 1 minute files into one file for whole cruise
2. Edit file for obvious bad data, i.e., missing data, garbage characters, etc.
3. Run program which reformats data. Output parameters:  
Year day, lat, long, Speed made good, course made good, gyro 1 & 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m & 1m depth, Edo depth, Chirp sonar depth.
4. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths.
5. Iterate steps 2-4 until no more obvious bad points.
6. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator.
7. Check plots of true wind speed and direction to make sure they look ok.
8. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m & 1m.

*From: Richard E. Payne May 28, 1999*

*Updated: April 28, 2004; G.Heimerdinger*

## **Acquisition Description**

The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp\_ss1) is more accurate.

## **Processing Description**

1. Concatenate daily 1 minute files into one file for whole cruise
2. Edit file for obvious bad data, i.e., missing data, garbage characters, etc.
3. Run program which reformats data. Output parameters:  
Year day, lat, long, Speed made good, course made good, gyro 1 & 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m & 1m depth, Edo depth, Chirp sonar depth.
4. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths.
5. Iterate steps 2-4 until no more obvious bad points.
6. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator.
7. Check plots of true wind speed and direction to make sure they look ok.
8. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m & 1m.

Edo depth error correction: replace bad value with previous value.  
 EN323 - Good data. Air temp noisy. The noise has been traced to stack gases passing over the RH and AT sensors as the ship turns. This causes the AT to be momentarily anomalously high and the RH low. Edo depth not useful.  
 EN323 GLOBEC --- --- --- --- --- --- --- --- ---

[ [table of contents](#) | [back to top](#) ]

## Parameters

| Parameter | Description   | Units |
|-----------|---|-------|
| cruiseid  | cruise identifier                                   |       |
| year      | year, GMT e.g. 1997.                                |       |
| si        | scientific investigator responsible for this cruise |       |

|              |   |                      |
|--------------|---|----------------------|
| month_gmt    | month of year, GMT e.g. 6 is June   |                      |
| day_gmt      | day of month, GMT   |                      |
| time_gmt     | time of day, GMT, 24 hour clock   | hoursandminutes      |
| lat          | latitude, south is negative   | decimaldegrees       |
| lon          | longitude, west is negative   | decimaldegrees       |
| depth_w      | water depth   | meters               |
| depth_cs     | Chirp Sonar water depth   | meters               |
| wind_speed_c | wind speed corrected for ship's motion  | meters/second        |
| wind_dir_c   | wind direction, meteorologic convention, corrected for ship's motion  | degrees              |
| wind_speed_r | wind speed, relative to ship  | meters/second        |
| wind_dir_r   | wind direction, relative to ship, meteorologic convention   | degrees              |
| temp_air     | air temperature   | degreesC             |
| humidity     | relative humidity   | percent              |
| press_bar    | barometric pressure   | millibars            |
| precip_level | level in the precipitation gauge, total precipitation between two times is the difference in levels (+50 cm if the gauge self-siphoned) | centimeters          |
| ed_sw        | short wave downward irradiance  | watts/meter^2/second |
| ed_lw        | long wave downward irradiance   | watts/meter^2/second |
| temp_ss1     | sea surface temperature 1 meter below the surface   | degreesC             |
| temp_ss3     | sea surface temperature 3 meters below the surface  | degreesC             |
| temp_ss5     | sea surface temperature 5 meters below the surface  | degreesC             |
| cond_mM      | sea surface conductivity  | mmho/centimeter      |
| sal_ss3      | sea surface salinity, nominally measured at 3 meters  | PSU                  |
| speed_trim   | trimble GPS speed made good   | meters/second        |
| course       | ship's course   | degrees              |
| course_trim  | trimble GPS course made good  | degrees              |
|              |   |                      |

|              |   |            |
|--------------|---|------------|
| yrday_gmt    | Julian day, GMT e.g. 29.5 is January 29 at 1200 hours | decimalday |
| numb_records | number of records used to compute this value          |            |

[ [table of contents](#) | [back to top](#) ]

## Instruments

|   |  |
|---|--|
| <b>Dataset-specific Instrument Name</b> | Thermosalinograph  |
| <b>Generic Instrument Name</b>          | Thermosalinograph  |
| <b>Dataset-specific Description</b>     | Thermosalinograph used to obtain a continuous record of sea surface temperature and salinity.  |
| <b>Generic Instrument Description</b>   | A thermosalinograph (TSG) is used to obtain a continuous record of sea surface temperature and salinity. On many research vessels the TSG is integrated into the ship's underway seawater sampling system and reported with the underway or alongtrack data. |

[ [table of contents](#) | [back to top](#) ]

## Deployments

### EN319

|                 |   |
|-----------------|---|
| <b>Website</b>  | <a href="https://www.bco-dmo.org/deployment/57426">https://www.bco-dmo.org/deployment/57426</a> |
| <b>Platform</b> | R/V Endeavor  |

|                    |   |
|--------------------|---|
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/en319/en319rept.html">http://globec.who.edu/globec-dir/reports/en319/en319rept.html</a>   |
| <b>Start Date</b>  | 1999-02-21  |
| <b>End Date</b>    | 1999-03-04  |
| <b>Description</b> | <p>process zooplankton vital rates</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN319 - Excellent data but no useful Edo depths. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN319 GLOBEC --- --- --- --- --- --- --- --- ---</p> |

|                    |   |
|--------------------|---|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57427">https://www.bco-dmo.org/deployment/57427</a>   |
| <b>Platform</b>    | R/V Endeavor  |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/en320new/en320mda.htm">http://globec.who.edu/globec-dir/reports/en320new/en320mda.htm</a>   |
| <b>Start Date</b>  | 1999-03-10  |
| <b>End Date</b>    | 1999-03-23  |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN320 - Excellent data but no useful Edo depths. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN320 GLOBEC --- --- --- --- --- --- --- --- ---</p> |



**EN321**

|                   |   |
|-------------------|---|
| <b>Website</b>    | <a href="https://www.bco-dmo.org/deployment/57428">https://www.bco-dmo.org/deployment/57428</a> |
| <b>Platform</b>   | R/V Endeavor  |
| <b>Start Date</b> | 1999-03-28  |

|                    |   |
|--------------------|---|
| <b>End Date</b>    | 1999-04-11  |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN321 - Excellent data but no useful Edo depths. 50 records had \$HEHDT in the Edo depth field. Many records had missing gyro 2. Processed with only gyro 1. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN321 GLOBEC --- --- --- --- --- --- --- --- --- ---</p> |

|                    |   |
|--------------------|---|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57429">https://www.bco-dmo.org/deployment/57429</a>   |
| <b>Platform</b>    | R/V Endeavor  |
| <b>Start Date</b>  | 1999-04-17  |
| <b>End Date</b>    | 1999-05-02  |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN322 - Good data. Air temp noisy. Edo depth has useful data but not edited. Cruise Exp</p> <p>Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN322 GLOBEC --- --- --- ---<br/> --- --- --- --- ---</p> |

**EN323**

|                   |   |
|-------------------|---|
| <b>Website</b>    | <a href="https://www.bco-dmo.org/deployment/57430">https://www.bco-dmo.org/deployment/57430</a>   |
| <b>Platform</b>   | R/V Endeavor  |
| <b>Report</b>     | <a href="http://globec.who.edu/globec-dir/reports/en323/globecnew.html">http://globec.who.edu/globec-dir/reports/en323/globecnew.html</a> |
| <b>Start Date</b> | 1999-05-05  |
| <b>End Date</b>   | 1999-05-12  |

|                    |  |
|--------------------|--|
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN323 - Good data. Air temp noisy. The noise has been traced to stack gases passing over the RH and AT sensors as the ship turns. This causes the AT to be momentarily anomalously high and the RH low. Edo depth not useful. EN323 GLOBEC --- --- --- --- --- --- --- --- --- ---</p> |
|                    |  |

**EN324**

|                |   |
|----------------|---|
| <b>Website</b> | <a href="https://www.bco-dmo.org/deployment/57431">https://www.bco-dmo.org/deployment/57431</a> |
|----------------|---|

|                    |   |
|--------------------|---|
| <b>Platform</b>    | R/V Endeavor  |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/en323/globecnew.html">http://globec.who.edu/globec-dir/reports/en323/globecnew.html</a>   |
| <b>Start Date</b>  | 1999-05-14  |
| <b>End Date</b>    | 1999-06-07  |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN324 - Combined with EN323 by Endeavor personnel. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN324 GLOBEC --- --- --- --- --- --- --- --- ---</p> |



|                    |  |
|--------------------|--|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57432">https://www.bco-dmo.org/deployment/57432</a>  |
| <b>Platform</b>    | R/V Endeavor   |
| <b>Start Date</b>  | 1999-06-13   |
| <b>End Date</b>    | 1999-06-30   |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. EN325 - Very clean data. RH goes up to 108 %RH. No Edo depths. GPS data from Trimble NAVTRAK, no Trimble TASMOM data. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN325 GLOBEC --- --- --- --- --- --- --- --- ---</p> |



**EN330**

|                   |   |
|-------------------|---|
| <b>Website</b>    | <a href="https://www.bco-dmo.org/deployment/57433">https://www.bco-dmo.org/deployment/57433</a>                                       |
| <b>Platform</b>   | R/V Endeavor  |
| <b>Report</b>     | <a href="http://globec.who.edu/globec-dir/reports/en330/en330new.htm">http://globec.who.edu/globec-dir/reports/en330/en330new.htm</a> |
| <b>Start Date</b> | 1999-10-16  |
| <b>End Date</b>   | 1999-10-26  |

|             |   |
|-------------|---|
| Description | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN330 GLOBEC --- --- --- ---<br/> --- --- --- ---</p> |
|-------------|---|

## EN331

|          |   |
|----------|---|
| Website  | <a href="https://www.bco-dmo.org/deployment/57434">https://www.bco-dmo.org/deployment/57434</a>   |
| Platform | R/V Endeavor  |
| Report   | <a href="http://globec.whoi.edu/globec-dir/reports/en331/en331rpt.6sept2000.html">http://globec.whoi.edu/globec-dir/reports/en331/en331rpt.6sept2000.html</a> |

|                    |  |
|--------------------|--|
| <b>Start Date</b>  | 1999-12-04   |
| <b>End Date</b>    | 1999-12-13   |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL EN331 GLOBEC --- --- --- ---<br/>--- --- --- --- ---</p> |

OC336

|                |   |
|----------------|---|
| <b>Website</b> | <a href="https://www.bco-dmo.org/deployment/57459">https://www.bco-dmo.org/deployment/57459</a> |
|----------------|---|

|                    |  |
|--------------------|--|
| <b>Platform</b>    | R/V Oceanus  |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc336/oc336cruise-report.html">http://globec.whoi.edu/globec-dir/reports/oc336/oc336cruise-report.html</a>  |
| <b>Start Date</b>  | 1999-02-11   |
| <b>End Date</b>    | 1999-02-23   |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC336 GLOBEC Good Good Good Good Good Good Good Good Noisy Noisy</p> |

**OC338**

|                   |   |
|-------------------|---|
| <b>Website</b>    | <a href="https://www.bco-dmo.org/deployment/57461">https://www.bco-dmo.org/deployment/57461</a>                                 |
| <b>Platform</b>   | R/V Oceanus   |
| <b>Report</b>     | <a href="http://globec.who.edu/globec-dir/reports/oc338/OC338.pdf">http://globec.who.edu/globec-dir/reports/oc338/OC338.pdf</a> |
| <b>Start Date</b> | 1999-03-08  |
| <b>End Date</b>   | 1999-03-13  |

|                    |   |
|--------------------|---|
| <b>Description</b> | long term mooring   |
|                    | <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p>  |
|                    | <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC338 GLOBEC Good Good Good Good Good Good Good Noisy Noisy</p> |

## OC339

|                 |   |
|-----------------|---|
| <b>Website</b>  | <a href="https://www.bco-dmo.org/deployment/57462">https://www.bco-dmo.org/deployment/57462</a>                                   |
| <b>Platform</b> | R/V Oceanus   |
| <b>Report</b>   | <a href="http://globec.whoi.edu/globec-dir/reports/oc339/OC339.htm">http://globec.whoi.edu/globec-dir/reports/oc339/OC339.htm</a> |

|                    |   |
|--------------------|---|
| <b>Start Date</b>  | 1999-03-17  |
| <b>End Date</b>    | 1999-03-25  |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC339 GLOBEC Good Good Good Good Good Good Good Noisy Noisy</p> |

OC340

|                |   |
|----------------|---|
| <b>Website</b> | <a href="https://www.bco-dmo.org/deployment/57463">https://www.bco-dmo.org/deployment/57463</a> |
|----------------|---|

|                    |  |
|--------------------|--|
| <b>Platform</b>    | R/V Oceanus  |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc340/oc340rpt.html">http://globec.whoi.edu/globec-dir/reports/oc340/oc340rpt.html</a>  |
| <b>Start Date</b>  | 1999-03-28   |
| <b>End Date</b>    | 1999-04-12   |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC340 GLOBEC Good Good Good Good Good Good Good Good Noisy Noisy</p> |



**OC341**

|                   |   |
|-------------------|---|
| <b>Website</b>    | <a href="https://www.bco-dmo.org/deployment/57464">https://www.bco-dmo.org/deployment/57464</a>   |
| <b>Platform</b>   | R/V Oceanus   |
| <b>Report</b>     | <a href="http://globec.who.edu/globec-dir/reports/oc341/reptoc341.html">http://globec.who.edu/globec-dir/reports/oc341/reptoc341.html</a> |
| <b>Start Date</b> | 1999-04-16  |
| <b>End Date</b>   | 1999-04-27  |

|                    |  |
|--------------------|--|
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. OC341 - Anemometer died after 2 days. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC341 GLOBEC --- --- Good Good Good Good Good Good Noisy Noisy</p> |
|                    |  |

## OC342

|                 |   |
|-----------------|---|
| <b>Website</b>  | <a href="https://www.bco-dmo.org/deployment/57465">https://www.bco-dmo.org/deployment/57465</a> |
| <b>Platform</b> | R/V Oceanus   |

|                    |  |
|--------------------|--|
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/oc342/oc342cruisereport.html">http://globec.who.edu/globec-dir/reports/oc342/oc342cruisereport.html</a>  |
| <b>Start Date</b>  | 1999-05-20   |
| <b>End Date</b>    | 1999-06-07   |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC342 GLOBEC Good Good Good Good Noisy Good Good Noisy Noisy</p> |

|                    |   |
|--------------------|---|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57466">https://www.bco-dmo.org/deployment/57466</a>   |
| <b>Platform</b>    | R/V Oceansus  |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/oc343/oc343rpt.html">http://globec.who.edu/globec-dir/reports/oc343/oc343rpt.html</a>   |
| <b>Start Date</b>  | 1999-06-15  |
| <b>End Date</b>    | 1999-06-30  |
| <b>Description</b> | <p>process</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC343 GLOBEC Good Good Good Bad Good Good Good Good Good Good</p> |

**OC344**

|                 |   |
|-----------------|---|
| <b>Website</b>  | <a href="https://www.bco-dmo.org/deployment/57467">https://www.bco-dmo.org/deployment/57467</a>                                   |
| <b>Platform</b> | R/V Oceanus   |
| <b>Report</b>   | <a href="http://globec.whoi.edu/globec-dir/reports/oc344/OC344.pdf">http://globec.whoi.edu/globec-dir/reports/oc344/OC344.pdf</a> |

|                    |   |
|--------------------|---|
| <b>Start Date</b>  | 1999-07-06  |
| <b>End Date</b>    | 1999-07-11  |
| <b>Description</b> | <p>long term mooring</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. OC344 - Bad spot in SSSCOND &amp; SSAL on day 191 Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC344 GLOBEC Good Good Good Bad Good Good Good Good Good Good</p> |

|                    |  |
|--------------------|--|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57468">https://www.bco-dmo.org/deployment/57468</a>  |
| <b>Platform</b>    | R/V Oceanus  |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/oc345/crurptoc345.html">http://globec.who.edu/globec-dir/reports/oc345/crurptoc345.html</a>  |
| <b>Start Date</b>  | 1999-08-01   |
| <b>End Date</b>    | 1999-08-06   |
| <b>Description</b> | <p>long term mooring</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC345 GLOBEC Good Good Good Good Good Good Good Good Good Good</p> |

## OC346

|                 |   |
|-----------------|---|
| <b>Website</b>  | <a href="https://www.bco-dmo.org/deployment/57469">https://www.bco-dmo.org/deployment/57469</a>                                   |
| <b>Platform</b> | R/V Oceanus   |
| <b>Report</b>   | <a href="http://globec.whoi.edu/globec-dir/reports/oc346/OC346.pdf">http://globec.whoi.edu/globec-dir/reports/oc346/OC346.pdf</a> |



|                    |  |
|--------------------|--|
| <b>Start Date</b>  | 1999-08-11   |
| <b>End Date</b>    | 1999-08-20   |
| <b>Description</b> | <p>long term mooring</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. OC346 - Gap from 228.73-229.00 Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC346 GLOBEC Good Good Good Good Good Good Good Good Good Good Good</p> |

|                    |  |
|--------------------|--|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57470">https://www.bco-dmo.org/deployment/57470</a>  |
| <b>Platform</b>    | R/V Oceanus  |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc347/oc347.htm">http://globec.whoi.edu/globec-dir/reports/oc347/oc347.htm</a>  |
| <b>Start Date</b>  | 1999-08-25   |
| <b>End Date</b>    | 1999-08-30   |
| <b>Description</b> | <p>long term mooring</p> <p><b>Acquisition Description</b></p> <p>The sea surface temperature as measured by the hull sensor is not shown since the sea surface temperature as measured via the engine inlet (field name is temp_ss1) is more accurate.</p> <p><b>Processing Description</b></p> <p>Concatenate daily 1 minute files into one file for whole cruise Edit file for obvious bad data, i.e., missing data, garbage characters, etc. Run program which reformats data. Output parameters: Year day, lat, long, Speed made good, course made good, gyro 1 &amp; 2, Edo speed, Edo indicator, port wind speed, starboard ws, port wind azimuth, starboard waz, air temp, relative humidity, barometric pressure, sea surface temp @5m &amp; 1m depth, Edo depth, Chirp sonar depth. Put plots of all parameters on screen and look for obvious single bad points. Edit in basic concatenated file. Except I have not edited depths. Iterate steps 2-4 until no more obvious bad points. Run second program which computes true wind speed and direction from speed and course made good, gyros, larger of port or starboard ws and accompanying wind azimuth. Outputs are year day, lat lon, speed and course made good, gyro, relative ws and direction, true ws and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, 5m and 1m sea surface temps, Edo depth, Chirp sonar depth, Edo speed, Edo indicator. Check plots of true wind speed and direction to make sure they look ok. Run vector averaging program which produces 60 minute series. The program uses 60 consecutive records and does not check for missing records. I have not carried depths since hourly averages do not seem useful nor Edo speeds since they seem pretty generally useless. Output parameters are: Year day, lat, long, true wind speed and direction, air temp, relative humidity, barometric pressure, short- and long-wave radiation, sea surface temp @ 5m &amp; 1m. Edo depth error correction: replace bad value with previous value. Cruise Exp Spds Dirs AT RH BP SST SWR Prec SSC SSAL OC347 GLOBEC Good Good Good Good Good Good Good Good Good Good</p> |



[ [table of contents](#) | [back to top](#) ]

---

## Project Information

## **U.S. GLOBEC Georges Bank (GB)**

**Website:** [http://globec.whoi.edu/globec\\_program.html](http://globec.whoi.edu/globec_program.html)

**Coverage:** Georges Bank, Gulf of Maine, Northwest Atlantic Ocean

The U.S. GLOBEC Georges Bank Program is a large multi- disciplinary multi-year oceanographic effort. The proximate goal is to understand the population dynamics of key species on the Bank - Cod, Haddock, and two species of zooplankton (*Calanus finmarchicus* and *Pseudocalanus*) - in terms of their coupling to the physical environment and in terms of their predators and prey. The ultimate goal is to be able to predict changes in the distribution and abundance of these species as a result of changes in their physical and biotic environment as well as to anticipate how their populations might respond to climate change. The effort is substantial, requiring broad-scale surveys of the entire Bank, and process studies which focus both on the links between the target species and their physical environment, and the determination of fundamental aspects of these species' life history (birth rates, growth rates, death rates, etc). Equally important are the modelling efforts that are ongoing which seek to provide realistic predictions of the flow field and which utilize the life history information to produce an integrated view of the dynamics of the populations. The U.S. GLOBEC Georges Bank Executive Committee (EXCO) provides program leadership and effective communication with the funding agencies.

[ [table of contents](#) | [back to top](#) ]

---

## **Program Information**

## U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

**Website:** <http://www.usglobec.org/>

**Coverage:** Global

U.S. GLOBEC (GLOBal ocean ECosystems dynamics) is a research program organized by oceanographers and fisheries scientists to address the question of how global climate change may affect the abundance and production of animals in the sea. The U.S. GLOBEC Program currently had major research efforts underway in the Georges Bank / Northwest Atlantic Region, and the Northeast Pacific (with components in the California Current and in the Coastal Gulf of Alaska). U.S. GLOBEC was a major contributor to International GLOBEC efforts in the Southern Ocean and Western Antarctic Peninsula (WAP).

[ [table of contents](#) | [back to top](#) ]

---

### Funding

| Funding Source   | Award                           |
|--|---------------------------------|
| National Science Foundation (NSF)                      | <a href="#">unknown GB NSF</a>  |
| National Oceanic and Atmospheric Administration (NOAA) | <a href="#">unknown GB NOAA</a> |

[ [table of contents](#) | [back to top](#) ]