

Surface meteorological data from Dismal Island off the Antarctic Peninsula from the Autonomous Weather station from 2001-2003 (SOGLOBEC project)

Website: <https://www.bco-dmo.org/dataset/2346>

Data Type: Other Field Results

Version: 1

Version Date: 2003-04-30

Project

» [U.S. GLOBEC Southern Ocean](#) (SOGLOBEC)

Program

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

| Contributors | Affiliation | Role |
|-------------------------------------|--|---------------------------|
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| Limeburner, Richard | Woods Hole Oceanographic Institution (WHOI) | Co-Principal Investigator |
| Allison, Dicky | Woods Hole Oceanographic Institution (WHOI BCO-DMO) | BCO-DMO Data Manager |

Abstract

Surface meteorological data from Dismal Island off the Antarctic Peninsula from the Autonomous Weather station from 2001-2003 (SOGLOBEC project)

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Coverage

Temporal Extent: 2001-05-23 - 2003-04-30

Dataset Description

SO GLOBEC Moored Array, Drifter, and Float Component

PIs: Bob Beardsley, Dick Limeburner, Breck Owen

Surface meteorological data collected at Dismal Island

Acquisition Description

Surface meteorological data collected at Dismal Island.

Location 68.09S - 68.82W, elev. 10m (source <http://amrc.ssec.wisc.edu/aws/>)

Source File: SOG_aws_rawNEW2.mat (from Mike Caruso)

Records: 16969

Period: Start: 05/23/2001 00 GMT

Stop: 04/30/2003 00 GMT

Sample Rate: 1 hr

Processing Description

Processing by Beardsley group:

Edit barometric pressure, air temp., relative humidity, and wind speed by:

(a) removing values outside bounds,

(b) convert wind speed and direction (met convention) into east and north wind components u,v (ocean convention),

(c) removing wild points, (csub1) average resulting edited data in 1 hr time bins to create uniform hourly time series,

(d) truncate each variable into common time base,

(e) compute wind stress, sensible heat flux and latent heat flux using COARE26, with SST set to 0 and sensor height 12 m).

Save times tuv0 when raw wind speed = 0 (prop stuck due to icing, etc). [edit_aws_rawD.m, awsintA.m, coare26v.m]

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Parameters

| Parameter | Description | Units |
|----------------|--|------------|
| year | year | |
| month_gmt | month of year, GMT | |
| day_gmt | day of month, GMT | |
| hour_gmt | time, GMT 24 hour clock, whole hours | |
| press_bar | barometric pressure (mb) | millibars |
| julian_day | Julian day (decimal day) as a reference, Julian day 2440000 begins at 0000 hours, May 23, 1968. | dec.day |
| wind_speed | wind speed | m/sec |
| wind_dir_e | wind direction with reference to East (deg wrt E) reported in the meteorological convention (winds from) as: positive 0-180 degrees, counter clockwise from East negative 0-180 degrees, clockwise from East | deg wrt E |
| wind_vel_u | east component of wind velocity, reported in the oceanographic convention (winds to) | m/sec |
| wind_vel_v | north component of wind velocity, reported in the oceanographic convention (winds to) | m/sec |
| temp_air | air temperature | degrees C. |
| humidity | relative humidity | percent |
| wind_tau_n | wind stress | Newtons/m2 |
| wind_taux_n | east component of wind stress | Newtons/m2 |
| wind_tauy_n | north component of wind stress | Newtons/m2 |
| heat_flux_sens | sensible heat flux | watts/m2 |
| heat_flux_lat | latent heat flux | watts/m2 |

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Instruments

| | |
|---|---|
| Dataset-specific Instrument Name | Automatic Weather Station |
| Generic Instrument Name | Automated Weather Station |
| Dataset-specific Description | Automated Weather Station |
| Generic Instrument Description | Land-based AWS systems are designed to record meteorological information. |

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Deployments

Dismal_Island

| | |
|--------------------|---|
| Website | https://www.bco-dmo.org/deployment/57633 |
| Platform | Autonomous Weather station |
| Start Date | 2001-05-23 |
| End Date | 2003-04-30 |
| Description | <p>Acquisition Description Surface meteorological data collected at Dismal Island. Location 68.09S - 68.82W, elev. 10m (source http://amrc.ssec.wisc.edu/aws/)</p> <p>Processing Description Processing by Beardsley group: Edit barometric pressure, air temp., relative humidity, and wind speed by: (a) removing values outside bounds, (b) convert wind speed and direction (met convention) into east and north wind components u,v (ocean convention), (c) removing wild points, (csub1) average resulting edited data in 1 hr time bins to create uniform hourly time series, (d) truncate each variable into common time base, (e) compute wind stress, sensible heat flux and latent heat flux using COARE26, with SST set to 0 and sensor height 12 m). Save times tuv0 when raw wind speed = 0 (prop stuck due to icing, etc). [edit_aws_rawD.m, awsintA.m, coare26v.m]</p> |

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Project Information

U.S. GLOBEC Southern Ocean (SOGLOBEC)

Website: http://www.ccpo.odu.edu/Research/globec_menu.html

Coverage: Southern Ocean

The fundamental objectives of United States Global Ocean Ecosystems Dynamics (U.S. GLOBEC) Program are dependent upon the cooperation of scientists from several disciplines. Physicists, biologists, and chemists must make use of data collected during U.S. GLOBEC field programs to further our understanding of the interplay of physics, biology, and chemistry. Our objectives require quantitative analysis of interdisciplinary data sets and, therefore, data must be exchanged between researchers. To extract the full scientific value, data must be made available to the scientific community on a timely basis.

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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).

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Funding

| Funding Source | Award |
|--|-----------------------------|
| NSF Antarctic Sciences (NSF ANT) | ANT-0537827 |
| NSF Antarctic Sciences (NSF ANT) | ANT-0338147 |
| NSF Antarctic Sciences (NSF ANT) | ANT-0230028 |

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