

Physical oceanographic data from mooring ST2 on Georges Bank from February to August, 1995 as part of the U.S. GLOBEC program (GB project)

Website: <https://www.bco-dmo.org/dataset/2411>

Data Type: Cruise Results

Version: 1

Version Date: 2005-06-21

Project

» [U.S. GLOBEC Georges Bank](#) (GB)

Program

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

Contributors	Affiliation	Role
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Abstract

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Coverage

Spatial Extent: Lat:40.956 Lon:-67.626

Temporal Extent: 1995-02 - 1995-08

Dataset Description

Acoustic Doppler Current Profiler Observations

Current Vectors, April - June 1995

Ship: R/V Seward Johnson

Cruises/Dates: SJ9506/April 26 - May 2, 1995

SJ9508/June 6 - 16, 1995

Instruments: RDI, broadband 150 and 600 kHz ADCP units

RDI, narrowband 150 kHz ADCP unit

obs. modes: on-station and along track

See file comments for specifics on instruments used, observational modes

and data averaging intervals.

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Data Files

File
mooring.csv (Comma Separated Values (.csv), 2.85 MB) MD5:7644efca642df8e0d45ba7588a0b2d7d Primary data file for dataset ID 2411

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Parameters

Parameter	Description	Units
mooring	mooring identification	
year	year	
lat	latitude, negative = South	dec. degrees
lon	longitude, negative = West	dec. degrees
depth_w	water depth	meters
yrday0_gmt	year day, where Jan 1 is day 0	dec. day
depth	depth of instrument/sample	meters
sal	salinity	PSU
sigma_t	density	kilograms/meter ³
u	East component of currents, negative = West	cm/sec
v	North component of currents, negative = South	cm/sec
curr_speed_abs	current speed	cm/sec
curr_dir_abs	current direction (towards), from true North	degrees
light_trans_v	light transmission	volts

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Instruments

Dataset-specific Instrument Name	Sea-Bird Seacat CTD
Generic Instrument Name	CTD Sea-Bird SEACAT
Dataset-specific Description	four SeaCats, The VMCMs , VACM, and the SeaCats were set to record every 7.5 minutes, the TPODs every 30 minutes, and the Minilog every 60 minutes.
Generic Instrument Description	The CTD SEACAT recorder is an instrument package manufactured by Sea-Bird Electronics. The first Sea-Bird SEACAT Recorder was the original SBE 16 SEACAT developed in 1987. There are several model numbers including the SBE 16plus (SEACAT C-T Recorder (P optional)) and the SBE 19 (SBE 19plus SEACAT Profiler measures conductivity, temperature, and pressure (depth)). More information from Sea-Bird Electronics.

Dataset-specific Instrument Name	Vector Averaging Current Meter
Generic Instrument Name	Vector Averaging Current Meter
Dataset-specific Description	a near-bottom Vector Averaging Current Meter (VACM with added conductivity and light transmission sensors), The VMCMs , VACM, and the SeaCats were set to record every 7.5 minutes, the TPODs every 30 minutes, and the Minilog every 60 minutes.
Generic Instrument Description	Vector Averaging Current Meter

Dataset-specific Instrument Name	Standard Vector Measuring Current Meter
Generic Instrument Name	Vector Measuring Current Meter
Dataset-specific Description	The VMCMs , VACM, and the SeaCats were set to record every 7.5 minutes, the TPODs every 30 minutes, and the Minilog every 60 minutes
Generic Instrument Description	The Vector Measuring Current Meter (VMCM) is an instrument for obtaining ocean current data. It is often deployed on moorings for long periods of time (years). The VMCM employs biaxial propellers and has undergone extensive tests and calibrations (Weller and Davis 1980). It is a well-characterized mechanical current meter and has been used for benchmarking other current meters (e.g., Dickey et al. 1998a). The two sets of orthogonal cosine response propeller sensors directly measure components of horizontal velocity, and direction is determined with a flux-gate compass (estimated resolution of 1.4 and accuracy of 5) to allow rotation of components into geographical coordinates. References: Dickey, TD, AJ Plueddemann, and RA Weller, 1998a: Current and water property measurements in the coastal ocean. The Sea, KH Brink and AR Robinson, Eds., Vol. 10, John Wiley and Sons, 367-398. Emery, WJ and Thomson, RE. 2004. Data Analysis Methods in Physical Oceanography. 638pp. Weller, R. A., and R. E. Davis, 1980: A vector measuring current meter. Deep-Sea Res., 27A, 565-582. Gilboy, TP, TD Dickey, DE Sigurdson, X. Yu, and D. Manov. 2000. An Intercomparison of Current Measurements Using a Vector Measuring Current Meter, an Acoustic Doppler Current Profiler, and a Recently Developed Acoustic Current Meter

Deployments

ST2

Website	https://www.bco-dmo.org/deployment/57364
Platform	GLOBEC Mooring ST2
Start Date	1995-02-02
End Date	1995-08-03
Description	Stratification Study mooring Georges Bank Stratification Study ST2 mooring array

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Project Information

U.S. GLOBEC Georges Bank (GB)

Website: http://globec.who.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.

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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
National Science Foundation (NSF)	unknown GB NSF
National Oceanic and Atmospheric Administration (NOAA)	unknown GB NOAA

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