

XBT data from R/V Atlantis II cruise All-119-5 in the North Atlantic in 1989 (U.S. JGOFS NABE project)

Website: <https://www.bco-dmo.org/dataset/2605>

Version: June 27, 1995

Version Date: 1995-06-27

Project

» [U.S. JGOFS North Atlantic Bloom Experiment](#) (NABE)

Program

» [U.S. Joint Global Ocean Flux Study](#) (U.S. JGOFS)

Contributors	Affiliation	Role
McGillicuddy, Dennis J.	Woods Hole Oceanographic Institution (WHOI)	Principal Investigator
Chandler, Cynthia L.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Dataset Description

XBT Data

Methods & Sampling

PI: Dennis McGillicuddy
of: Woods Hole Oceanographic Institution
dataset: XBT data
dates: May 16, 1989 to May 22, 1989
location: N: 46.68 S: 42 W: -22.4 E: -17.75
project/cruise: North Atlantic Bloom Experiment/Atlantis II 119, leg 5
ship: Atlantis II

Processing comments Dennis McGillicuddy, Harvard University

It is our experience that the actual drop rate of T-7 XBTs is about 6 percent faster than accounted for by the Sippican drop rate equation. We therefore applied a uniform stretch to each profile of 1.065. Intercomparison of an XBT profile (station 10) with the nearest CTD station showed similar structure but substantial offset (1.2 degrees)." A 1.2 degree adjustment (added) has been applied to each XBT.

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Data Files

File
xbt.csv (Comma Separated Values (.csv), 1.02 MB) MD5:27ec113450c3ffaad9ec6e9d30f14d92
Primary data file for dataset ID 2605

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Parameters

Parameter	Description	Units
xbt_num	originator assigned castprofile number	
date	date reported as YYYYMMDD	
time	time reported as HHMM	
lat	latitude, negative values denote South	decimal degrees
lon	longitude, negative values denote West	decimal degrees
depth	water depth	meters
temp	water temperature, Centigrade	degrees Celsius

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Instruments

Dataset-specific Instrument Name	Expendable Bathythermograph
Generic Instrument Name	Expendable Bathythermograph
Generic Instrument Description	An XBT is an expendable free-fall temperature probe that provides a profile of measured temperature against depth calculated from a fall-rate model. For example, two popular XBT models are the T-5 and T-7 probes from Sippican. More information is available from Lockheed Martin Sippican at URL: http://www.sippican.com/ .

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Deployments

All-119-5

Website	https://www.bco-dmo.org/deployment/57738
Platform	R/V Atlantis II
Start Date	1989-05-15
End Date	1989-06-06
Description	late bloom cruise; 31 locations; 61N 22W to 41N 17W

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Project Information

U.S. JGOFS North Atlantic Bloom Experiment (NABE)

Website: <http://usjgofs.whoi.edu/research/nabe.html>

Coverage: North Atlantic

One of the first major activities of JGOFS was a multinational pilot project, North Atlantic Bloom Experiment (NABE), carried out along longitude 20° West in 1989 through 1991. The United States participated in 1989 only, with the April deployment of two sediment trap arrays at 48° and 34° North. Three process-oriented cruises were conducted, April through July 1989, from R/V *Atlantis II* and R/V *Endeavor* focusing on sites at 46° and 59° North. Coordination of the NABE process-study cruises was supported by NSF-OCE award # 8814229. Ancillary sea surface mapping and AXBT profiling data were collected from NASA's P3 aircraft for a series of one day flights, April through June 1989.

A detailed description of NABE and the initial synthesis of the complete program data collection efforts appear in: Topical Studies in Oceanography, JGOFS: The North Atlantic Bloom Experiment (1993), Deep-Sea Research II, Volume 40 No. 1/2.

The U.S. JGOFS Data management office compiled a preliminary NABE data report of U.S. activities: Slagle, R. and G. Heimerdinger, 1991. U.S. Joint Global Ocean Flux Study, North Atlantic Bloom Experiment, Process Study Data Report P-1, April-July 1989. NODC/U.S. JGOFS Data Management Office, Woods Hole Oceanographic Institution, 315 pp. (out of print).

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Program Information

U.S. Joint Global Ocean Flux Study (U.S. JGOFS)

Website: <http://usjgofs.whoi.edu/>

Coverage: Global

The United States Joint Global Ocean Flux Study was a national component of international JGOFS and an integral part of global climate change research.

The U.S. launched the Joint Global Ocean Flux Study (JGOFS) in the late 1980s to study the ocean carbon cycle. An ambitious goal was set to understand the controls on the concentrations and fluxes of carbon and associated nutrients in the ocean. A new field of ocean biogeochemistry emerged with an emphasis on quality measurements of carbon system parameters and interdisciplinary field studies of the biological, chemical and physical process which control the ocean carbon cycle. As we studied ocean biogeochemistry, we learned that our simple views of carbon uptake and transport were severely limited, and a new "wave" of ocean science was

born. U.S. JGOFS has been supported primarily by the U.S. National Science Foundation in collaboration with the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, the Department of Energy and the Office of Naval Research. U.S. JGOFS, ended in 2005 with the conclusion of the Synthesis and Modeling Project (SMP).

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Funding

Funding Source	Award
National Science Foundation (NSF)	unknown NABE NSF

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