

Shipboard underway data from RVIB Nathaniel B. Palmer NBP-96-4A, NBP-96-5, NBP-97-1, NBP-97-3, NBP-97-8, NBP-98-2 cruises in the Southern Ocean, 1996-1998 (U.S. JGOFS AESOPS project)

Website: <https://www.bco-dmo.org/dataset/2956>

Version: 1 December 2003

Version Date: 2003-12-01

Project

» [U.S. JGOFS Antarctic Environment and Southern Ocean Process Study](#) (AESOPS)

Program

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

Contributors	Affiliation	Role
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Dataset Description

shipboard underway data

No one was funded to collect these data, and quality control is limited to that which was provided by ASA. The data files were submitted by the AESOPS project coordinator, but no documentation accompanied the data.

Data were collected in one file per day, with time kept in GMT. Missing data are represented by 9.99 or variant.

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Data Files

File
ship_underway.csv (Comma Separated Values (.csv), 41.21 MB) MD5:afff615a9c31754609e90e213b10283c
Primary data file for dataset ID 2956

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Parameters

Parameter	Description	Units
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Cruise_ID	cruise ID number	
Cruise_Name	common name for cruise	
yrday	calendar day of year	days
date	GMT data as yyyyymmdd	
time	GMT time as hh:mm:ss	
lat	NGL Latitude	decimal degrees
lon	decimal degrees	decimal degrees
speed_ship	Ship speed (over ground)	knots
hdop_gps	GPS HDOP	
hdg_gyro	Gyro heading	degrees
CMG	CMG (course made good)	degrees
PAR	Photosynthetically Available Radiation	microEinsteins/m ² /sec
SST	Sea surface temperature	degrees Celsius
cond	Conductivity	Seimens/meter
sal	Salinity (PSS-78)	dimensionless
depth_ocean	Water Depth (uncorrected)	meters
wind_sp	Wind speed	meters/second
wind_dir	Wind direction	degrees
temp_air	Air temperature	degrees Celsius

humidity	Relative Humidity	percent
press_bar	Barometric pressure	millibars
fluor_1	fluorescence sensor 1	volts
fluor_2	fluorescence sensor 2	volts

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Deployments

NBP-96-04A

Website	https://www.bco-dmo.org/deployment/57718
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/p1.html
Start Date	1996-10-02
End Date	1996-11-08
Description	<p>Ross Sea Process Study 1</p> <p>Methods & Sampling PI: Robert Anderson of: Lamont Doherty Earth Observatory dataset: Shipboard underway data dates: August 30, 1996 to April 3, 1998 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Cruise 1 NBP-96-5 - Moorings Deployment Cruise NBP-97-1 - Ross Sea Process Cruise 2 NBP-97-3 - Ross Sea Process Cruise 3 NBP-97-8 - Ross Sea Process Cruise 4 NBP-98-2 - Benthic Process and Moorings Recovery Cruise ship: R/V Nathaniel B. Palmer</p>

NBP-96-5

Website	https://www.bco-dmo.org/deployment/57719
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/m1.html
Start Date	1996-11-11
End Date	1996-12-01
Description	<p>Moorings Deployment</p> <p>Methods & Sampling PI: Robert Anderson of: Lamont Doherty Earth Observatory dataset: Shipboard underway data dates: August 30, 1996 to April 3, 1998 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Cruise 1 NBP-96-5 - Moorings Deployment Cruise NBP-97-1 - Ross Sea Process Cruise 2 NBP-97-3 - Ross Sea Process Cruise 3 NBP-97-8 - Ross Sea Process Cruise 4 NBP-98-2 - Benthic Process and Moorings Recovery Cruise ship: R/V Nathaniel B. Palmer</p>

NBP-97-01

Website	https://www.bco-dmo.org/deployment/57720
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.who.edu/aesops/p2.html
Start Date	1997-01-13
End Date	1997-02-11
Description	<p>Ross Sea Process Study 2</p> <p>Methods & Sampling PI: Robert Anderson of: Lamont Doherty Earth Observatory dataset: Shipboard underway data dates: August 30, 1996 to April 3, 1998 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Cruise 1 NBP-96-5 - Moorings Deployment Cruise NBP-97-1 - Ross Sea Process Cruise 2 NBP-97-3 - Ross Sea Process Cruise 3 NBP-97-8 - Ross Sea Process Cruise 4 NBP-98-2 - Benthic Process and Moorings Recovery Cruise ship: R/V Nathaniel B. Palmer</p>

NBP-97-03

Website	https://www.bco-dmo.org/deployment/57721
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.who.edu/aesops/p3.html
Start Date	1997-04-04
End Date	1997-05-11
Description	<p>Ross Sea Process Study 3</p> <p>Methods & Sampling PI: Robert Anderson of: Lamont Doherty Earth Observatory dataset: Shipboard underway data dates: August 30, 1996 to April 3, 1998 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Cruise 1 NBP-96-5 - Moorings Deployment Cruise NBP-97-1 - Ross Sea Process Cruise 2 NBP-97-3 - Ross Sea Process Cruise 3 NBP-97-8 - Ross Sea Process Cruise 4 NBP-98-2 - Benthic Process and Moorings Recovery Cruise ship: R/V Nathaniel B. Palmer</p>

NBP-97-08

Website	https://www.bco-dmo.org/deployment/57722
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.who.edu/aesops/p4.html
Start Date	1997-11-05
End Date	1997-12-13
Description	<p>Ross Sea Process Study 4 SeaWiFS transmits images to U.S. JGOFS scientists aboard the Palmer, for first time on November 23, 1997.</p> <p>Methods & Sampling PI: Robert Anderson of: Lamont Doherty Earth Observatory dataset: Shipboard underway data dates: August 30, 1996 to April 3, 1998 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Cruise 1 NBP-96-5 - Moorings Deployment Cruise NBP-97-1 - Ross Sea Process Cruise 2 NBP-97-3 - Ross Sea Process Cruise 3 NBP-97-8 - Ross Sea Process Cruise 4 NBP-98-2 - Benthic Process and Moorings Recovery Cruise ship: R/V Nathaniel B. Palmer</p>

NBP-98-2

Website	https://www.bco-dmo.org/deployment/57723
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.who.edu/aesops/nbp-bp_mr.html
Start Date	1998-02-25
End Date	1998-04-03
Description	<p>Benthic Process and Moorings Recovery</p> <p>Methods & Sampling PI: Robert Anderson of: Lamont Doherty Earth Observatory dataset: Shipboard underway data dates: August 30, 1996 to April 3, 1998 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Cruise 1 NBP-96-5 - Moorings Deployment Cruise NBP-97-1 - Ross Sea Process Cruise 2 NBP-97-3 - Ross Sea Process Cruise 3 NBP-97-8 - Ross Sea Process Cruise 4 NBP-98-2 - Benthic Process and Moorings Recovery Cruise ship: R/V Nathaniel B. Palmer</p>

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Project Information

U.S. JGOFS Antarctic Environment and Southern Ocean Process Study (AESOPS)

Website: <http://usjgofs.who.edu/research/aesops.html>

Coverage: Southern Ocean, Ross Sea

The U.S. Southern Ocean JGOFS program, called Antarctic Environment and Southern Ocean Process Study (AESOPS), began in August 1996 and continued through March 1998. The U.S. JGOFS AESOPS program focused on two regions in the Southern Ocean: an east/west section of the Ross-Sea continental shelf along 76.5°S, and a second north/south section of the Southern Ocean spanning the Antarctic Circumpolar Current (ACC) at ~170°W (identified as the Polar Front). The science program, coordinated by Antarctic Support Associates (ASA), comprised eleven cruises using the R.V.I.B Nathaniel B. Palmer and R/V Roger Revelle as observational platforms and for deployment and recovery of instrumented moorings and sediment-trap arrays. The Ross-Sea region was occupied on six occasions and the Polar Front five times. Mapping data were obtained from SeaSoar, ADCP, and bathymetric systems. Satellite coverage was provided by the NASA SeaWiFS and the NOAA/NASA Pathfinder programs.

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Program Information

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

Website: <http://usjgofs.who.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 AESOPS NSF

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