

Hydrographic data from ship's underway pumping system from RVIB Nathaniel B. Palmer, R/V Roger Revelle NBP-97-8, KIWI6, KIWI7, KIWI8, KIWI9 cruises in the Southern Ocean, 1997-1998 (U.S. JGOFS AESOPS project)

Website: <https://www.bco-dmo.org/dataset/2755>

Version: March 15, 2001

Version Date: 2001-03-15

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

Hydrographic data from ship's underway pumping system

Methods & Sampling

PI: Louis Codispoti
of: Old Dominion University
dataset: Hydrographic data from ship's underway pumping system

A sampling methodology document is available with the data reported from each cruise.

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Data Files

File	
underway_bottle_KIWI6.csv Version March 15, 2001 Louis Codispoti Hydrographic data from ship's underway pumping system (temp, salinity and nutrients) AESOPS RR_KIW06, Survey 1	(Comma Separated Values (.csv), 18.22 KB) MD5:eddc5366d914aa97a090d563924f19
underway_bottle_KIWI7.csv Version March 15, 2001 Louis Codispoti Hydrographic data from ship's underway pumping system (temp, salinity and nutrients) AESOPS RR_KIW07, Process 1	(Comma Separated Values (.csv), 7.56 KB) MD5:7a31ab66bb307c9f24550e979984b0d5
underway_bottle_KIWI8.csv Version March 15, 2001 Louis Codispoti Hydrographic data from ship's underway pumping system (temp, salinity and nutrients) AESOPS RR_KIW08, Survey 2	(Comma Separated Values (.csv), 36.83 KB) MD5:eb9177c01d8aec1c2bab10e398da5299
underway_bottle_KIWI9.csv Version March 15, 2001 Louis Codispoti Hydrographic data from ship's underway pumping system (temp, salinity and nutrients) AESOPS RR_KIW09, Process 2	(Comma Separated Values (.csv), 12.52 KB) MD5:d8a7154c32217528f5b8e30b4144a382
underway_bottle_NBP-97-08.csv Version March 15, 2001 Louis Codispoti Hydrographic data from ship's underway pumping system (temp, salinity and nutrients) AESOPS NBP97-8, Process Cruise 4	(Comma Separated Values (.csv), 8.71 KB) MD5:26d412a1c1cd9d800f6f6a4e3df1e6c5

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Parameters

Parameter	Description	Units
YYYY	year	
MM	month	
DD	day	
HH	hour	UTC (GMT)
yrday	day of year, including time of the day	decimal days
lat	latitude, negative=south	decimal degrees
lon	longitude, negative=west	decimal degrees
temp_tsg	thermosalinograph temperature	degrees Celsius
sal_tsg	thermosalinograph salinity (PSU)	dimensionless
sal_bot	bottle salinity (Autosal; PSU)	dimensionless
O2	oxygen concentration (Winkler)	milliliters/liter
NO3	nitrate concentration	micromoles/liter
PO4	phosphate (reactive phosphorus) concentration	micromoles/liter
SiO4	dissolved Si (silicate, reactive silicate)	micromoles/liter
NO2	nitrite concentration	micromoles/liter
NH4	ammonium (ammonia) concentration	micromoles N/liter
qflag	Z denotes that times were assumed to be UTC but were not specifically recorded as such in the original records	
temp_bow	bow sensor temperature	degrees Celsius

Deployments

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: Louis Codispoti of: Old Dominion University dataset: Hydrographic data from ship's underway pumping system dates: November 07, 1997 to November 26, 1997 location: N: -49.8413 S: -76.6473 W: 169.9975 E: -171.8195 project/cruise: AESOPS NBP97-8, Process Cruise 4 ship: R/V Nathaniel B. Palmer Sampling Methodology</p>

KIWI6

Website	https://www.bco-dmo.org/deployment/57724
Platform	R/V Roger Revelle
Report	http://usjgofs.who.edu/aesops/RRs1.html
Start Date	1997-10-20
End Date	1997-11-24
Description	<p>Polar Front Survey I. Additional information about this cruise can be found at https://usjgofs.who.edu/aesops/aboutrr6.html</p> <p>Methods & Sampling PI: Louis Codispoti of: Old Dominion University dataset: Hydrographic data from ship's underway pumping system dates: October 20, 1997 to November 23, 1997 location: N: -44.0873 S: -62.3817 W: 173.7218 E: -167.6013 project/cruise: AESOPS RR_KIWI06, Polar Front Survey 1 ship: R/V Roger Revelle Sampling Methodology</p>

KIWI7

Website	https://www.bco-dmo.org/deployment/57725
Platform	R/V Roger Revelle
Report	http://usjgofs.who.edu/aesops/RRp1.html
Start Date	1997-12-02
End Date	1998-01-03
Description	<p>Polar Front Process I. Additional information about this cruise can be found at https://usjgofs.who.edu/aesops/aboutrr7.html</p> <p>Methods & Sampling PI: Louis Codispoti of: Old Dominion University dataset: Hydrographic data from ship's underway pumping system dates: December 03, 1997 to December 31, 1997 location: N: -49.5878 S: -64.6661 W: 178.9225 E: -168.8325 project/cruise: AESOPS RR_KIWI07, Polar Front Process 1 ship: R/V Roger Revelle Sampling Methodology</p>

KIWI8

Website	https://www.bco-dmo.org/deployment/57726
Platform	R/V Roger Revelle
Report	http://usjgofs.whoi.edu/aesops/RRs2.html
Start Date	1998-01-08
End Date	1998-02-08
Description	<p>Polar Front Survey II. Additional information about this cruise can be found at https://usjgofs.whoi.edu/aesops/aboutrr8.html</p> <p>Methods & Sampling PI: Louis Codispoti of: Old Dominion University dataset: Hydrographic data from ship's underway pumping system dates: January 08, 1998 to February 05, 1998 location: N: -43.5942 S: -67.7229 W: 173.1969 E: -169.3975 project/cruise: AESOPS RR_KIWI08, Polar Front Survey 2 ship: R/V Roger Revelle Sampling Methodology</p>

KIWI9

Website	https://www.bco-dmo.org/deployment/57727
Platform	R/V Roger Revelle
Report	http://usjgofs.whoi.edu/aesops/RRp2.html
Start Date	1998-02-13
End Date	1998-03-19
Description	<p>Polar Front Process II. Additional information about this cruise can be found at https://usjgofs.whoi.edu/aesops/aboutrr9.html</p> <p>Methods & Sampling PI: Louis Codispoti of: Old Dominion University dataset: Hydrographic data from ship's underway pumping system dates: February 13, 1998 to March 13, 1998 location: N: -46.0566 S: -71.3158 W: 176.1534 E: -165.9817 project/cruise: AESOPS RR_KIWI09, Polar Front Process 2 ship: R/V Roger Revelle Sampling Methodology</p>

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Project Information

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

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

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).