# 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 |
|---|---|---|
| Codispoti, Louis A. | University of Maryland Center for Environmental Science (UMCES/HPL) | Principal Investigator |
| Chandler, Cynthia L. | Woods Hole Oceanographic Institution (WHOI BCO-DMO) | BCO-DMO Data Manager |



## Table of Contents



## 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.

[ table of contents | back to top ]

## 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 |

[ table of contents | back to top ]

## Deployments

**NBP-97-08**

| | |
|---|---|
| **Website** | https://www.bco-dmo.org/deployment/57722 |
| **Platform** | RVIB Nathaniel B. Palmer |
| **Report** | http://usjgofs.whoi.edu/aesops/p4.html |
| **Start Date** | 1997-11-05 |
| **End Date** | 1997-12-13 |
| **Description** | Ross Sea Process Study 4 SeaWiFS transmits images to U.S. JGOFS scientists aboard the Palmer, for first time on November 23, 1997.<br><br>**Methods & Sampling**<br>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 |

**KIWI6**

| | |
|---|---|
| **Website** | https://www.bco-dmo.org/deployment/57724 |
| **Platform** | R/V Roger Revelle |
| **Report** | http://usjgofs.whoi.edu/aesops/RRs1.html |
| **Start Date** | 1997-10-20 |
| **End Date** | 1997-11-24 |
| **Description** | Polar Front Survey I<br><br>**Methods & Sampling**<br>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 |

**KIWI7**

| | |
|---|---|
| **Website** | https://www.bco-dmo.org/deployment/57725 |
| **Platform** | R/V Roger Revelle |
| **Report** | http://usjgofs.whoi.edu/aesops/RRp1.html |
| **Start Date** | 1997-12-02 |
| **End Date** | 1998-01-03 |
| **Description** | Polar Front Process I<br><br>**Methods & Sampling**<br>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 |

**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** | Polar Front Survey II<br><br>**Methods & Sampling**<br>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 |

**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** | Polar Front Process II<br><br>**Methods & Sampling**<br>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 |

[ table of contents | back to top ]

## 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.

[ table of contents | back to top ]

## 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).

[ table of contents | back to top ]