# Optics - detrital absorption coefficients from RVIB Nathaniel B. Palmer, R/V Roger Revelle NBP-97-8, KIWI8, KIWI9 cruises in the Southern Ocean, 1997-1998 (U.S. JGOFS AESOPS project)

**Website**: https://www.bco-dmo.org/dataset/2756
**Version**: December 03, 2002
**Version Date**: 2002-12-03

**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 |
|---|---|---|
| Mitchell, B. Gregory | University of California-San Diego (UCSD-SIO) | Principal Investigator |
| Stramski, Dariusz | University of California-San Diego (UCSD-SIO) | Co-Principal Investigator |
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## Dataset Description

Optics - detrital absorption coefficients

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## Parameters

| Parameter | Description | Units |
|---|---|---|
| cruise_id | cruise designation | |
| event | event number from event log | |
| cast_type | CTD = CTD rosette TM = trace metal rosette | |
| sta | station number from event log | |
| cast | rosette cast number from event log | |
| bot | rosette bottle number | |
| depth_n | nominal depth | meters |
| ad_xxx | detrital absorption coefficient at xxx wavelength | 1/meters |

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## 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: Greg Mitchell of: Scripps Institution of Oceanography (UCSD) dataset: Optics - detrital absorption coefficients dates: November 09, 1997 to December 11, 1997 location: N: -60.1622 S: -76.6325 W: 168.9257 E: -169.9655 project/cruise: AESOPS/NBP97-8 - Process 4 cruise ship: R/V Nathaniel B. Palmer Methodology This data is associated with the B. Greg Mitchell, Dariusz Stramski, and Rick A. Reynolds AESOPS proposal entitled: "Optical measurements and modeling to estimate concentrations and fluxes of organic matter within the Southern Ocean" The U.S. JGOFS DMO has compiled a list of event numbers for which there is no corresponding bottle file data. |

**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: Greg Mitchell of: Scripps Institution of Oceanography (UCSD) dataset: Optics - detrital absorption coefficients dates: January 12, 1998 to January 28, 1998 location: N: -56.9998 S: -67.7842 W: -170.1117 E: -169.9983 project/cruise: AESOPS/RR-KIWI-8 - APFZ Survey 2 cruise ship: R/V Roger A. Revelle Methodology This data is associated with the B. Greg Mitchell, Dariusz Stramski, and Rick A. Reynolds AESOPS proposal entitled: "Optical measurements and modeling to estimate concentrations and fluxes of organic matter within the Southern Ocean" The U.S. JGOFS DMO has compiled a list of event numbers for which there is no corresponding bottle file data. |

**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: Greg Mitchell of: Scripps Institution of Oceanography (UCSD) dataset: Optics - detrital absorption coefficients dates: February 16, 1998 to March 14, 1998 location: N: -52.966 S: -71.3072 W: -174.733 E: -165.9148 project/cruise: AESOPS/RR-KIWI-9 - APFZ Process 2 cruise ship: R/V Roger A. Revelle Methodology This data is associated with the B. Greg Mitchell, Dariusz Stramski, and Rick A. Reynolds AESOPS proposal entitled: "Optical measurements and modeling to estimate concentrations and fluxes of organic matter within the Southern Ocean" The U.S. JGOFS DMO has compiled a list of event numbers for which there is no corresponding bottle file data. |

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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.

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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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