Particulate matter concentration from filtered Niskin Bottles from R/V Thomas G. Thompson TT043, TT045, TT050 cruises in the Arabian Sea in 1995 (U.S. JGOFS Arabian Sea project)

Website: https://www.bco-dmo.org/dataset/2531
Version: November 14, 2001
Version Date: 2001-11-14

Project
» U.S. JGOFS Arabian Sea (Arabian Sea)

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

Contributors	Affiliation	Role
Gardner, Wilford D.	Texas A&M University (TAMU)	Principal Investigator
Richardson, Mary Jo	Texas A&M University (TAMU)	Co-Principal Investigator
Chandler, Cynthia L.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Dataset Description

Particulate matter concentration from filtered Niskin Bottles

Methods & Sampling

See Platform deployments for cruise specific documentation

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Data Files

File	
pmc_TT043.csv	(Comma Separated Values (.csv), 3.78 KB) MD5:a889712a22f065bec9d9709c1b9b7e40
Version November 14, 2001 (previous version April 19, 1996) PI: Wilford Gardner, Mary Jo Richardson, and Ian Walsh dataset: Particulate Matter (PM) concentration, Niskin Bottle Filtration cruise: Arabian Sea TTN-043, Process cruise 1 (Winter Monsoon) ship: R/V Thomas Thompson	
pmc_TT045.csv	(Comma Separated Values (.csv), 9.75 KB) MD5:7871a166cb7aad83bbe61c8236917c27
Version November 14, 2001 (previous version April 19, 1996) PI: Wilford Gardner, Mary Jo Richardson, and Ian Walsh dataset: Particulate Matter (PM) concentration, Niskin Bottle Filtration cruise: Arabian Sea TTN-045, Process cruise 2 (Inter-Monsoon) ship: R/V Thomas Thompson	
pmc_TT050.csv	(Comma Separated Values (.csv), 8.18 KB) MD5:ace270085bddb058cb00ef14ddfb4abc
Version November 14, 2001 (previous version June 21, 1996) PI: Wilford Gardner, Mary Jo Richardson, and Ian Walsh dataset: Particulate Matter (PM) concentration, Niskin Bottle Filtration cruise: Arabian Sea TTN-050, Process cruise 5 ship: R/V Thomas Thompson	

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Parameters

Parameter	Description	Units
event	event number from event log	
sta	station number	
sta_std	Arabian Sea standard station identifier	
cast	CTD cast number	
bot	rosette Niskin bottle number	
press	sample depth reported as pressure	decibars
PMC_vol_filt	volume filtered for PMC measurement	liters
PMC	particulate matter concentration	micrograms/liter

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Instruments

Dataset-specific Instrument Name	Niskin Bottle
Generic Instrument Name	Niskin bottle
Dataset-specific Description	CTD/Niskin Rosette bottles.
Generic Instrument Description	A Niskin bottle (a next generation water sampler based on the Nansen bottle) is a cylindrical, non-metallic water collection device with stoppers at both ends. The bottles can be attached individually on a hydrowire or deployed in 12, 24, or 36 bottle Rosette systems mounted on a frame and combined with a CTD. Niskin bottles are used to collect discrete water samples for a range of measurements including pigments, nutrients, plankton, etc.

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Deployments

TT043

Website	https://www.bco-dmo.org/deployment/57704
Platform	R/V Thomas G. Thompson
Report	http://osprey.bcodmo.org/datasetDeployment.cfm?ddid=2580&did=353&flag=view
Start Date	1995-01-08
End Date	1995-02-05
Description	Purpose: Process Cruise #1 (Late NE Monsoon) **Methods & Sampling** PI: Wilford Gardner, Mary Jo Richardson and Ian Walsh of: Texas A&M University dataset: Particulate matter concentration from filtered Niskin Bottles dates: January 09, 1995 to January 31, 1995 location: N: 22.4826 S: 10.0013 W: 57.2999 E: 68.75 project/cruise: Arabian Sea/TTN-043 - Process Cruise 1 (Late NE Monsoon) ship: Thomas Thompson Methodology from: Gardner, Chung, Richardson and Walsh, 1995, The Oceanic Mixed-Layer Pump, DSR II, v.42, 757-775.

TT045

Website	https://www.bco-dmo.org/deployment/57706
Platform	R/V Thomas G. Thompson
Start Date	1995-03-14
End Date	1995-04-10
Description	**Methods & Sampling** PI: Wilford Gardner, Mary Jo Richardson and Ian Walsh of: Texas A&M University dataset: Particulate matter concentration from filtered Niskin Bottles dates: March 15, 1995 to April 07, 1995 location: N: 22.4853 S: 9.9993 W: 57.3007 E: 68.7532 project/cruise: Arabian Sea Process 2 TTN-045 - Inter Monsoon ship: Thomas Thompson Methodology from: Gardner, Chung, Richardson and Walsh, 1995, The Oceanic Mixed-Layer Pump, DSR II, v.42, 757-775.

TT050

Website	https://www.bco-dmo.org/deployment/57711
Platform	R/V Thomas G. Thompson
Start Date	1995-08-18
End Date	1995-09-15
Description	**Methods & Sampling** PI: Wilford Gardner, Mary Jo Richardson and Ian Walsh of: Texas A&M University dataset: Particulate matter concentration from filtered Niskin Bottles dates: August 18, 1995 to September 12, 1995 location: N: 22.4688 S: 9.919 W: 57.304 E: 68.7494 project/cruise: Arabian Sea Process 5, TTN-050 (Late SW Monsoon) ship: Thomas Thompson Methodology from: Gardner, Chung, Richardson and Walsh, 1995, The Oceanic Mixed-Layer Pump, DSR II, v.42, 757-775.

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Project Information

U.S. JGOFS Arabian Sea (Arabian Sea)

Website: http://usjgofs.whoi.edu/research/arabian.html

Coverage: Arabian Sea

The U.S. Arabian Sea Expedition which began in September 1994 and ended in January 1996, had three major components: a U.S. JGOFS Process Study, supported by the National Science Foundation (NSF); Forced Upper Ocean Dynamics, an Office of Naval Research (ONR) initiative; and shipboard and aircraft measurements supported by the National Aeronautics and Space Administration (NASA). The Expedition consisted of 17 cruises aboard the R/V Thomas Thompson, year-long moored deployments of five instrumented surface buoys and five sediment-trap arrays, aircraft overflights and satellite observations. Of the seventeen ship cruises, six were allocated to repeat process survey cruises, four to SeaSoar mapping cruises, six to mooring and benthic work, and a single calibration cruise which was essentially conducted in transit to the Arabian Sea.

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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 Arabian Sea NSF

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