Partial pressure of CO2 in air, along ship track from R/V Thomas G. Thompson TT043, TT044, TT045, TT049, TT053, TT054 cruises in the Arabian Sea in 1995 (U.S. JGOFS Arabian Sea project)

Website: https://www.bco-dmo.org/dataset/2534
Version: final
Version Date: 1997-06-11

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

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

Contributors	Affiliation	Role
Goyet, Catherine	Universite de Perpignan	Principal Investigator
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Dataset Description

Partial pressure of CO2 in air, along ship track

Methods & Sampling

See Platform deployments for cruise specific documentation

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Parameters

Parameter	Description	Units
year	year of sampling	
yrday	day of year, reported in UTC time for reference: Jan 1 noon = 0.5 and Jan 1 midnight = 1.0	decimal partial days
lat	Latitude (- for S)	decimal degrees
lon	Longitude (- for W)	decimal degrees
pCO2_a	Partial pressure of CO2 in air	micro atmospheres
temp	Sea Surface Temperature	deg.C
sal	Sea Surface Salinity	PSU
wind_sp	Wind Speed	meters/sec
press_bar	Barometric Pressure	millibars

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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: Catherine Goyet of: Woods Hole Oceanographic Institution dataset: Partial pressure of CO2 in air, along ship track dates: January 8, 1995 to February 5, 1995 location: N: 23.640373 S: 10.001282 W: 57.305084 E: 68.75159 project/cruise: Arabian Sea/TTN-043 - Process Cruise 1 (Late NE Monsoon) ship: Thomas Thompson Methods are described in: DOE (1994) Handbook of Methods for the Analysis of the Various Parameters of the Carbon Dioxide System in Sea Water; Version 2, A.G. Dickson and C. Goyet, eds. ORNL/CDIAC-74.

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: Catherine Goyet (Woods Hole Oceanographic Institution) dataset: Partial pressure of CO2 in air, along ship track dates: March 14, 1995 to April 07, 1995 location: N: 22.482736 S: 10.005799 W: 57.513379 E: 68.461482 project/cruise: Arabian Sea/TTN-045 - Process Cruise 2 (Spring Intermonsoon) ship: Thomas Thompson Methods are described in: DOE (1994) Handbook of Methods for the Analysis of the Various Parameters of the Carbon Dioxide System in Sea Water; Version 2, A.G. Dickson and C. Goyet, eds. ORNL/CDIAC-74.

TT049

Website	https://www.bco-dmo.org/deployment/57710
Platform	R/V Thomas G. Thompson
Start Date	1995-07-17
End Date	1995-08-15
Description	**Methods & Sampling** PI: Catherine Goyet of: Woods Hole Oceanographic Institution dataset: Partial pressure of CO2 in air, along ship track dates: July 20, 1995 to August 13, 1995 location: N: 20.90401 S: 9.882163 W: 57.31121 E: 68.731867 project/cruise: Arabian Sea/TTN-049 - Process Cruise 4 (Middle SW Monsoon) ship: Thomas Thompson Methods are described in: DOE (1994) Handbook of Methods for the Analysis of the Various Parameters of the Carbon Dioxide System in Sea Water; Version 2, A.G. Dickson and C. Goyet, eds. ORNL/CDIAC-74.

TT053

Website	https://www.bco-dmo.org/deployment/57714
Platform	R/V Thomas G. Thompson
Start Date	1995-10-29
End Date	1995-11-26
Description	**Methods & Sampling** PI: Frank Millero of: University of Miami dataset: Partial pressure of CO2 in air, along ship track dates: October 31, 1995 to November 25, 1995 location: N: 23.800552 S: 10.07486 W: 56.518381 E: 67.172687 project/cruise: Arabian Sea/TTN-053 - Process Cruise 6 (bio-optics) ship: Thomas Thompson Methods are described in: DOE (1994) Handbook of Methods for the Analysis of the Various Parameters of the Carbon Dioxide System in Sea Water; Version 2, A.G. Dickson and C. Goyet, eds. ORNL/CDIAC-74.

TT054

Website	https://www.bco-dmo.org/deployment/57715
Platform	R/V Thomas G. Thompson
Start Date	1995-11-30
End Date	1995-12-28
Description	**Methods & Sampling** PI: Frank Millero of: University of Miami dataset: Partial pressure of CO2 in air, along ship track dates: December 3, 1995 to December 26, 1995 location: N: 21.380176 S: 9.973736 W: 57.345629 E: 68.769587 project/cruise: Arabian Sea/TTN-054 - Process Cruise 7 (Early NE Monsoon) ship: Thomas Thompson Methods are described in: DOE (1994) Handbook of Methods for the Analysis of the Various Parameters of the Carbon Dioxide System in Sea Water; Version 2, A.G. Dickson and C. Goyet, eds. ORNL/CDIAC-74.

TT044

Website	https://www.bco-dmo.org/deployment/57705
Platform	R/V Thomas G. Thompson
Start Date	1995-02-09
End Date	1995-02-28
Description	**Methods & Sampling** PI: Catherine Goyet of: Woods Hole Oceanographic Institution dataset: Partial pressure of CO2 in air, along ship track dates: January 8, 1995 to February 5, 1995 location: N: 23.640373 S: 10.001282 W: 57.305084 E: 68.75159 project/cruise: Arabian Sea/TTN-043 - Process Cruise 1 (Late NE Monsoon) ship: Thomas Thompson Methods are described in: DOE (1994) Handbook of Methods for the Analysis of the Various Parameters of the Carbon Dioxide System in Sea Water; Version 2, A.G. Dickson and C. Goyet, eds. ORNL/CDIAC-74.

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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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