

# Dissolved and total dissolvable manganese concentration from R/V Thomas G. Thompson TT045 cruise in the Arabian Sea in 1995 (U.S. JGOFS Arabian Sea project)

**Website:** <https://www.bco-dmo.org/dataset/2550>

**Version:** March 13, 2002

**Version Date:** 2002-03-13

## Project

» [U.S. JGOFS Arabian Sea](#) (Arabian Sea)

## Program

» [U.S. Joint Global Ocean Flux Study](#) (U.S. JGOFS)

Contributors	Affiliation	Role
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## Dataset Description

Dissolved and total dissolvable manganese concentrations from CTD casts

## Methods & Sampling

**PI:** Brent Lewis and George Luther  
**of:** University of Delaware  
**dataset:** Dissolved manganese concentrations from CTD casts  
**dates:** March 15, 1995 to April 08, 1995  
**location:** N: 22.4858 S: 9.9993 W: 58.0005 E: 68.7302  
**project/cruise:** Arabian Sea/TTN-045, Process cruise #2 (Spring Intermonsoon)  
**ship:** R/V Thomas Thompson

### Lewis Note regarding 9/98 re-submission of data:

Data for dissolved and total dissolvable Mn have been corrected to account for a prior error in calibration. Current values have been verified by comparison to the NASS-4 SRM and by DDDC/APDC extraction with GFAAS analysis.

## Data Processing Description

Notes:

1. Dissolved manganese (Mn) concentrations are in nmoles/liter.
2. Filtered (Mn\_filt) samples were passed through a 0.45 micron membrane filter.
3. Samples were acidified with Q-HCl to pH

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## Data Files

File
<b>manganese.csv</b> (Comma Separated Values (.csv), 5.89 KB) MD5:d5b17af063b7ee3511d5e026484c14c7
Primary data file for dataset ID 2550

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## Parameters

Parameter	Description	Units
event	event number from event log	
sta_std	Arabian Sea standard station identifier	
sta	station number from event log	
cast	CTD rosette cast number from event log	
bot	CTD rosette bottle number	
depth_n	sample depth reported as pressure	decibars
Mn_diss_lt0d45	dissolved Mn conc.	nanomoles/liter
Mn_unfilt	total dissolvable Mn conc. of unfiltered sample (dissolved plus particulate)	nanomoles/liter

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## Instruments

<b>Dataset-specific Instrument Name</b>	Niskin Bottle
<b>Generic Instrument Name</b>	Niskin bottle
<b>Dataset-specific Description</b>	CTD/Niskin Rosette bottles.
<b>Generic Instrument Description</b>	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

### TT045

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57706">https://www.bco-dmo.org/deployment/57706</a>
<b>Platform</b>	R/V Thomas G. Thompson
<b>Start Date</b>	1995-03-14
<b>End Date</b>	1995-04-10

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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)	<a href="#">unknown Arabian Sea NSF</a>

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