Scientific sampling event logs from R/V Thomas G. Thompson cruises TT007, TT008, TT011, TT012, TT013 in the Equatorial Pacific in 1992 during the U.S. JGOFS Equatorial Pacific (EqPac) project

Website: https://www.bco-dmo.org/dataset/2624
Version: October 8, 2002
Version Date: 2002-10-08

Project
» U.S. JGOFS Equatorial Pacific (EqPac)

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

Contributors	Affiliation	Role
Bacon, Michael	Woods Hole Oceanographic Institution (WHOI)	Chief Scientist
Barber, Richard	Duke University	Chief Scientist
Leinen, Margaret	University of Rhode Island (URI-GSO)	Chief Scientist
Murray, James W.	University of Washington (UW)	Chief Scientist
Roman, Michael R.	University of Maryland Center for Environmental Science (UMCES/HPL)	Chief Scientist
Chandler, Cynthia L.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Table of Contents

Dataset Description

scientific sampling event logs from research cruises

Methods & Sampling

See Platform deployments for cruise specific documentation

[table of contents | back to top]

Parameters

Parameter	Description	Units
date	YYYYMMDD date event took place	
event	A unique number assigned to each over the side sampling activity. This number is a composite of date and time UTC(GMT) in the form MMDDHHmm (MM=month, DD=day, HH=hour, mm=minutes)that indicates the starting time of the sampling activity. Generally, one event began as the preceding event ended.	
sta	Station. A unique number designating a general geographic location at which a suite of sampling activities may occur; occupied sequentially during the cruise	
lat	starting latitude for each event (negative = south)	decimal degrees
lon	starting longitude for each event (negative = west)	decimal degrees
activity_and_comments	Identifies the sampling method, generally followed by a sampling sequence number for that method. CTD and Trace Metal (TM) casts are identified.	
person	Name of the scientist(s) involved in the particular sampling event or responsible for the resulting data.	
depth	depth of water, uncorrected	meters
year	year of sampling event	

[table of contents | back to top]

Deployments

TT007

Website	https://www.bco-dmo.org/deployment/57728
Platform	R/V Thomas G. Thompson
Start Date	1992-01-30
End Date	1992-03-13
Description	Purpose: Spring Survey Cruise; 12°N-12°S at 140°W TT007 was one of five cruises conducted in 1992 in support of the U.S. Equatorial Pacific (EqPac) Process Study. The five EqPac cruises aboard R/V Thomas G. Thompson included two repeat meridional sections (12°N - 12°S), 2 equatorial surveys, and a benthic survey (all at 140° W). The scientific objectives of this study were to observe the processes in the Equatorial Pacific controlling the fluxes of carbon and related elements between the atmosphere, euphotic zone, and deep ocean. As luck would have it, the survey window coincided with an El Nino event. A bonus for the research team. **Methods & Sampling** PI: James Murray, Chief Scientist of: University of Washington dataset: Cruise event log dates: February 02, 1992 to March 09, 1992 location: N: 13.1796 S: -12.2083 W: -142.0973 E: -134.3131 project: EQPAC/TT007 Spring Survey Cruise ship: R/V Thomas G. Thompson Important note: date and time reported in local Hawaii time (+10 time zone) 140 W is geographically in +9 time zone All over the side sampling activities were assigned an event number and are reported in this log.

TT008

Website	https://www.bco-dmo.org/deployment/57729
Platform	R/V Thomas G. Thompson
Start Date	1992-03-19
End Date	1992-04-15
Description	Purpose: Spring Time Series; Equator, 140°W TT008 was one of five cruises conducted in 1992 in support of the U.S. Equatorial Pacific (EqPac) Process Study. The five EqPac cruises aboard R/V Thomas G. Thompson included two repeat meridional sections (12°N - 12°S), 2 equatorial surveys, and a benthic survey (all at 140° W). The scientific objectives of this study were to observe the processes in the Equatorial Pacific controlling the fluxes of carbon and related elements between the atmosphere, euphotic zone, and deep ocean. As luck would have it, the survey window coincided with an El Nino event. A bonus for the research team. **Methods & Sampling** PI: Michael Roman, Chief Scientist of: Horn Point Environmental Laboratory dataset: Cruise event log dates: March 19, 1992 to April 15, 1992 location: N: 9.1277 S: -8.7858 W: -143.0025 E: -132.9752 project: EQPAC/TT008 Spring Time Series ship: R/V Thomas G. Thompson Important note: date and time reported in local Hawaii time (+10 time zone) 140 W is geographically in +9 time zone All over the side sampling activities were assigned an event number and are reported in this log.

TT011

Website	https://www.bco-dmo.org/deployment/57730
Platform	R/V Thomas G. Thompson
Start Date	1992-08-05
End Date	1992-09-18
Description	Purpose: Fall Survey; 12°N-12°S at 140°W TT011 was one of five cruises conducted in 1992 in support of the U.S. Equatorial Pacific (EqPac) Process Study. The five EqPac cruises aboard R/V Thomas G. Thompson included two repeat meridional sections (12°N - 12°S), 2 equatorial surveys, and a benthic survey (all at 140° W). The scientific objectives of this study were to observe the processes in the Equatorial Pacific controlling the fluxes of carbon and related elements between the atmosphere, euphotic zone, and deep ocean. As luck would have it, the survey window coincided with an El Nino event. A bonus for the research team. **Methods & Sampling** PI: Richard Barber, Chief Scientist of: Duke University dataset: Cruise event log dates: August 09, 1992 to September 15, 1992 location: N: 12.6667 S: -12.0067 W: -142.3183 E: -134.8217 project: EQPAC/TT011 Fall Survey ship: R/V Thomas G. Thompson Important note: date and time reported in local Hawaii time (+10 time zone) 140 W is geographically in +9 time zone All over the side sampling activities were assigned an event number and are reported in this log.

TT012

Website	https://www.bco-dmo.org/deployment/57731
Platform	R/V Thomas G. Thompson
Start Date	1992-09-24
End Date	1992-10-21
Description	Purpose: Fall Time Series; Equator, 140°W TT012 was one of five cruises conducted in 1992 in support of the U.S. Equatorial Pacific (EqPac) Process Study. The five EqPac cruises aboard R/V Thomas G. Thompson included two repeat meridional sections (12°N - 12°S), 2 equatorial surveys, and a benthic survey (all at 140° W). The scientific objectives of this study were to observe the processes in the Equatorial Pacific controlling the fluxes of carbon and related elements between the atmosphere, euphotic zone, and deep ocean. As luck would have it, the survey window coincided with an El Nino event. A bonus for the research team. **Methods & Sampling** PI: Michael Bacon, Chief Scientist of: Woods Hole Oceanographic Institution dataset: Cruise event log dates: September 24, 1992 to October 21, 1992 location: N: 0.127 S: -17.1942 W: -149.3897 E: -139.0037 project: EQPAC/TT012 Fall Time Series ship: R/V Thomas G. Thompson Important note: date and time reported in local Hawaii time (+10 time zone) 140 W is geographically in +9 time zone All over the side sampling activities were assigned an event number and are reported in this log.

TT013

Website	https://www.bco-dmo.org/deployment/57732
Platform	R/V Thomas G. Thompson
Start Date	1992-10-30
End Date	1992-12-13
Description	Purpose: Benthic Survey, 12°N-12°S at 140°W TT013 was one of five cruises conducted in 1992 in support of the U.S. Equatorial Pacific (EqPac) Process Study. The five EqPac cruises aboard R/V Thomas G. Thompson included two repeat meridional sections (12°N - 12°S), 2 equatorial surveys, and a benthic survey (all at 140° W). The scientific objectives of this study were to observe the processes in the Equatorial Pacific controlling the fluxes of carbon and related elements between the atmosphere, euphotic zone, and deep ocean. As luck would have it, the survey window coincided with an El Nino event. A bonus for the research team. **Methods & Sampling** PI: Margaret Leinen, Chief Scientist of: University of Rhode Island, Graduate School of Oceanography dataset: Cruise event log dates: November 01, 1992 to December 07, 1992 location: N: 9.0252 S: -12.0032 W: -140.1995 E: -134.9393 project: EQPAC/TT013 Benthic Cruise ship: R/V Thomas G. Thompson Important note: date and time reported in local Hawaii time (+10 time zone) 140 W is geographically in +9 time zone All over the side sampling activities were assigned an event number and are reported in this log.

[table of contents | back to top]

Project Information

U.S. JGOFS Equatorial Pacific (EqPac)

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

Coverage: Equatorial Pacific

The U.S. EqPac process study consisted of repeat meridional sections (12°N -12°S) across the equator in the

central and eastern equatorial Pacific from 95°W to 170°W during 1992. The major scientific program was focused at 140° W consisting of two meridional surveys, two equatorial surveys, and a benthic survey aboard the R/V Thomas Thompson. Long-term deployments of current meter and sediment trap arrays augmented the survey cruises. NOAA conducted boreal spring and fall sections east and west of 140°W from the R/V Baldridge and R/V Discoverer. Meteorological and sea surface observations were obtained from NOAA's in place TOGA-TAO buoy network.

The scientific objectives of this study were to determine the fluxes of carbon and related elements, and the processes controlling these fluxes between the Equatorial Pacific euphotic zone and the atmosphere and deep ocean. A broad overview of the program at the 140°W site is given by Murray et al. (Oceanography, 5: 134-142, 1992). A full description of the Equatorial Pacific Process Study, including the international context and the scientific results, appears in a series of Deep-Sea Research Part II special volumes:

Topical Studies in Oceanography, A U.S. JGOFS Process Study in the Equatorial Pacific (1995), Deep-Sea Research Part II, Volume 42, No. 2/3.

Topical Studies in Oceanography, A U.S. JGOFS Process Study in the Equatorial Pacific. Part 2 (1996), Deep-Sea Research Part II, Volume 43, No. 4/6.

Topical Studies in Oceanography, A U.S. JGOFS Process Study in the Equatorial Pacific (1997), Deep-Sea Research Part II, Volume 44, No. 9/10.

Topical Studies in Oceanography, The Equatorial Pacific JGOFS Synthesis (2002), Deep-Sea Research Part II, Volume 49, Nos. 13/14.

[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]