

# CTD log from R/V Columbus Iselin IronEx I cruise in the Equatorial Pacific Ocean in 1993 (IronEx I project)

**Website:** <https://www.bco-dmo.org/dataset/3157>

**Version:** 10June2009

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## Project

» [Iron Experiment I](#) (IronExI)

## Program

» [Iron Synthesis](#) (FeSynth)

Contributors	Affiliation	Role
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## Dataset Description

IronExI - CTD Log

Includes Nutrients, Chl-a, CTD, SF6, O2, Thru hull underway nutrients

## Data Processing Description

### BCO-DMO Processing Notes

Generated from original file: FeX 1 CTD,Nuts,SF6.xls

Original file was downloaded on 16June2008 from [http://www.mbari.org/sofex/IronEx\\_I.htm](http://www.mbari.org/sofex/IronEx_I.htm)

### Changes made to original file:

- Extensive editing to remove blank lines, organize data (stations, etc) into rows/columns
- date, time, event, lat, lon, depth manually inserted from Station list using event
- "nd" inserted as no data value in blank cells
- Parameter names edited to conform to BCO-DMO convention

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## Data Files

**File****CTD\_Log.csv**(Comma Separated Values (.csv), 83.22 KB)

MD5:7bb0fcff0c291bfc7cb04bc7c3c330ad

Primary data file for dataset ID 3157

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Parameter	Description	Units
date	Date UTC	YYYYMMDD
time	Time UTC	HHMM
lat	latitude, negative denotes South	decimal degrees
lon	longitude, negative denotes West	decimal degrees
event	Unique event number (Generated by BCO-DMO)	YYDAYHHMM
yday	Day of year	integer
depth	Depth in meters	meters
O2	Oxygen	uM
Chl_a	Chl-a	mg/m3
NH4	NH4	uM
PO4	PO4	uM
SiO4	SiO4	uM
NO3	NO3	uM
Station	Cruise station id	text
SF6	SF6	mol dm-3
Potemp	Potemp	(tbd)
Salinity	Sal	(tbd)
Sigma_t	Sigmat	(tbd)
Patch	Patch location (In/Out)	text
orig_event_number	Original event number	ddd_hhmm
orig_comment_data	Original comment re: data	text
orig_comment_station	Original comment re: station	
Pressure	Pressure in decibars	decibars

[\[ table of contents \]](#) | [\[ back to top \]](#)**Instruments**

<b>Dataset-specific Instrument Name</b>	Conductivity, Temperature, Depth
<b>Generic Instrument Name</b>	CTD - profiler
<b>Generic Instrument Description</b>	The Conductivity, Temperature, Depth (CTD) unit is an integrated instrument package designed to measure the conductivity, temperature, and pressure (depth) of the water column. The instrument is lowered via cable through the water column. It permits scientists to observe the physical properties in real-time via a conducting cable, which is typically connected to a CTD to a deck unit and computer on a ship. The CTD is often configured with additional optional sensors including fluorometers, transmissometers and/or radiometers. It is often combined with a Rosette of water sampling bottles (e.g. Niskin, GO-FLO) for collecting discrete water samples during the cast. This term applies to profiling CTDs. For fixed CTDs, see <a href="https://www.bco-dmo.org/instrument/869934">https://www.bco-dmo.org/instrument/869934</a> .

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## Deployments

### CI\_IronExI

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57829">https://www.bco-dmo.org/deployment/57829</a>
<b>Platform</b>	R/V Columbus Iselin
<b>Start Date</b>	1993-10-11
<b>End Date</b>	1993-11-07

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## Project Information

### Iron Experiment I (IronExI)

**Coverage:** Equatorial Pacific Ocean

One of two (see IronExII May/June 1995) small scale iron fertilization experiments conducted in the Equatorial Pacific Ocean.

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## Program Information

### Iron Synthesis (FeSynth)

**Coverage:** Global

The two main objectives of the Iron Synthesis program (SCOR Working Group proposal, 2005), are:

1. Data compilation: assembling a common open-access database of the *in situ* iron experiments, beginning

with the first period (1993-2002; Ironex-1, Ironex-2, SOIREE, EisenEx, SEEDS-1; SOFeX, SERIES) where primary articles have already been published, to be followed by the 2004 experiments where primary articles are now in progress (EIFEX, SEEDS-2; SAGE, FeeP); similarly for the natural fertilizations S.O.JGOFS (1992), CROZEX (2004/2005) and KEOPS (2005).

2. Modeling and data synthesis of specific aspects of two or more such experiments for various topics such as physical mixing, phytoplankton productivity, overall ecosystem functioning, iron chemistry, CO<sub>2</sub> budgeting, nutrient uptake ratios, DMS(P) processes, and combinations of these variables and processes.

SCOR Working Group proposal, 2005. "The Legacy of *in situ* Iron Enrichments: Data Compilation and Modeling".

[http://www.scor-int.org/Working\\_Groups/wg131.htm](http://www.scor-int.org/Working_Groups/wg131.htm)

See also: SCOR Proceedings Vol. 42 Concepcion, Chile October 2006, pgs: 13-16 2.3.3 Working Group on The Legacy of *in situ* Iron Enrichments: Data Compilation and Modeling.

The first objective of the Iron Synthesis program involves a data recovery effort aimed at assembling a common, open-access database of data and metadata from a series of *in-situ* ocean iron fertilization experiments conducted between 1993 and 2005. Initially, funding for this effort is being provided by the Scientific Committee on Oceanic Research (SCOR) and the U.S. National Science Foundation (NSF).

Through the combined efforts of the principal investigators of the individual projects and the staff of Biological and Chemical Oceanography Data Management Office (BCO-DMO), data currently available primarily through individuals, disparate reports and data agencies, and in multiple formats, are being collected and prepared for addition to the BCO-DMO database from which they will be freely available to the community.

As data are contributed to the BCO-DMO office, they are organized into four overlapping categories:

1. Level 1, basic metadata  
(e.g., description of project/study, general location, PI(s), participants);
2. Level 2, detailed metadata and basic shipboard data and routine ship's operations  
(e.g., CTDs, underway measurements, sampling event logs);
3. Level 3, detailed metadata and data from specialized observations  
(e.g., discrete observations, experimental results, rate measurements) and
4. Level 4, remaining datasets  
(e.g., highest level of detailed data available from each study).

Collaboration with BCO-DMO staff began in March of 2008 and initial efforts have been directed toward basic project descriptions, levels 1 and 2 metadata and basic data, with detailed and more detailed data files being incorporated as they become available and are processed.

## Related file

[Program Documentation](#)

The Iron Synthesis Program is funded jointly by the Scientific Committee on Oceanic Research (SCOR) and the U.S. National Science Foundation (NSF).



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## Funding

<b>Funding Source</b>	<b>Award</b>
<a href="#">NSF Division of Ocean Sciences (NSF OCE)</a>	<a href="#">OCE-9217518</a>
Office of Naval Research (ONR)	<a href="#">N00014-94-10125</a>

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