

Cast log from the R/V Melville IronEx II cruise in the Equatorial Pacific Ocean in 1995 (IronEx II project)

Website: <https://www.bco-dmo.org/dataset/3136>

Version: 02 March 2011

Version Date: 2011-03-02

Project

» [Iron Experiment II](#) (IronExII)

Program

» [Iron Synthesis](#) (FeSynth)

Contributors	Affiliation	Role
Coale, Kenneth H.	Moss Landing Marine Laboratories (MLML)	Principal Investigator
Johnson, Ken	Moss Landing Marine Laboratories (MLML)	Co-Principal Investigator
Mackie, Doug	University of Otago	Contact
Gegg, Stephen R.	Woods Hole Oceanographic Institution (WHOI)	BCO-DMO Data Manager

Table of Contents

- [Dataset Description](#)
 - [Methods & Sampling](#)
 - [Data Processing Description](#)
- [Data Files](#)
- [Parameters](#)
- [Deployments](#)
- [Project Information](#)
- [Program Information](#)
- [Funding](#)

Dataset Description

IronExII Cast Log

Methods & Sampling

Comments from original spreadsheet:

event: Any "over the side" activity

cast:

* not on lab log

no# on lab log but no # with it

NOSL not on ship's log

NP no SF6 peak detected

no cast #s 235, 386, 387, 388 on lab log

Patch = Refers to sampling in ("I") or out ("O") of the established Iron enriched patch, based on SF6 measurements

Primary Fe "patch" infused on JD 149,150, reinfused on JD 152 and JD 156,157: nominal concentration of 2 nM Fe

Control "patch" (SF6 only) infused on JD 159,160 2nd Fe "patch" infused on JD 160; nominal concentration of 0.4 nM Fe

"I old" refers to sampling in the primary patch after JD 160

".4I" refers to sampling in the 0.4 patch after JD160

Data Processing Description

BCO-DMO Processing Notes

Generated from original spreadsheet: FeX2_CastLOG.xls

Original file was downloaded on 21March2008 from http://www.mbari.org/sofex/IronEx_II.htm

Changes made to original file:

- Parameter headers edited to conform to BCO-DMO convention
- Event generated from YearDayTime
- Date reformatted to YYYYMMDD
- Time reformatted to HHMM
- Lat/Lon converted to decimal degrees
- In/Out changed to Patch (In/Out of Patch)
- nd added for no data values and blank fields

- Cast number added to "end" event entry replacing "nd"

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

Data Files

File
Cast_Log.csv (Comma Separated Values (.csv), 75.20 KB) MD5:f3f0a89c9c7cc630b3e09d8699d78b9b
Primary data file for dataset ID 3136

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

Parameters

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)	YYDDAYHHMM
Who	initials of person who submitted event	text
activity_and_comments	free field text description of event	text
yrday	Day of year	integer
Patch	Patch In/Out Flag Refers to sampling in ("I") or out ("O") of the established Iron enriched patch, based on SF6 measurements	text
cast	Cast id	integer
SF6	SF6 concentration in surface waters	(tbd)

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

Deployments

IronExII_MV

Website	https://www.bco-dmo.org/deployment/57830
Platform	R/V Melville
Start Date	1995-05-13
End Date	1995-06-21
Description	Cruise Summary: 5/14/95 Depart Papeete, Tahiti 5/14/95 to 5/23/95 Transit & Test stations 5/23/95 to 5/29/95 Survey for Fe release 5/29/95 to 5/30/95 Fe release #1 5/30/95 to 6/1/95 In & out sampling 6/1/95 to 6/1/95 Fe release #2 6/1/95 to 6/5/95 In & out sampling 6/5/95 to 6/5/95 Fe release #3 6/6/95 to 6/8/95 In & out sampling 6/8/95 to 6/9/95 Control patch (SF6 only), 2nd Fe patch release (0.4 nM Fe) 6/9/95 to 6/15/95 In & out sampling of all 3 patches 6/15/95 to 6/21/95 Transit to Acapulco, Mexico

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

Project Information

Iron Experiment II (IronExII)

Coverage: Equatorial Pacific Ocean

One of two (see IronEx I Oct/Nov 1993) small scale iron fertilization experiments conducted in the Equatorial Pacific Ocean.

Summary:

5/14/95 Depart Papeete, Tahiti

5/14/95 to 5/23/95 Transit & Test stations

5/23/95 to 5/29/95 Survey for Fe release

5/29/95 to 5/30/95 Fe release #1

5/30/95 to 6/1/95 In & out sampling

6/1/95 to 6/1/95 Fe release #2

6/1/95 to 6/5/95 In & out sampling

6/5/95 to 6/5/95 Fe release #3

6/6/95 to 6/8/95 In & out sampling

6/8/95 to 6/9/95 Control patch (SF6 only), 2nd Fe patch release (0.4 nM Fe)

6/9/95 to 6/15/95 In & out sampling of all 3 patches

6/15/95 to 6/21/95 Transit to Acapulco, Mexico

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

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, CO₂ 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

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).



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

Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-9217518
Office of Naval Research (ONR)	N00014-94-10125

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