

RICO DATA MANAGEMENT

Steve Williams and Scot Loehrer

UCAR/Joint Office for Science Support (JOSS)

Boulder, Colorado

RICO Workshop

Boulder, CO

25 - 27 February 2004

RICO

Rain In Cumulus over the Ocean
Experiment



RICO Data Management - Netscape

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http://www.joss.ucar.edu/rico/dm/ Search

Mail AIM Home Radio My Netscape Search Bookmarks

RICO Data Management

RICO

Rain In Cumulus over the Ocean
Experiment

RICO Data Management



Data Policy (DRAFT)

Data Submission

- [Dataset Documentation Guidelines](#)
- [Data Submission Instructions](#)

Distributed RICO Long-Term Data Archive

- **Data Access**
- Data Information Links
 - [WHOI Buoy Data from 51W 15N](#)
 - [NDBC Caribbean Buoy Observations](#)
 - [NOAA Marine Observations](#)
 - [US ARGO](#)
 - [NOAA Drifting Buoy Center](#)
 - [Pilot Research Moored Array in the Tropical Atlantic \(PIRATA\) Home Page](#)
 - [High Density XBT Lines](#)
 - [Satellite Data Information Links](#)

Documents

- [RICO Science Overview](#)
- [Maps of Meteorological Networks in the RICO Region](#)
- [RICO Data Questionnaire - Responses](#)

Collaborating Projects

- [VAMOS Ocean-Cloud-Atmosphere-Lany Study \(VOCALS\)](#)

Other Links

- [RICO Home Page](#)
- [Puerto Rico NWSFO](#)
- [Meteo France Antilles-Guyane](#) (best viewed in IE)
- [Antigua & Barbuda Meteorological Services](#) (best viewed in IE)
- [Explorer of the Seas](#) (University of Miami)

RICO DRAFT DATA POLICY (20 February 2004)

- All investigators participating in RICO must agree to promptly submit their data to the RICO Data Archive Center (RDAC) to facilitate intercomparison of results, quality control checks and inter-calibrations, as well as an integrated interpretation of the combined data set.
- All data shall be promptly provided to other RICO investigators upon request. A list of RICO investigators will be maintained by the RICO Project Office and will include the Principle Investigators (PIs) directly participating in the field experiment as well as collaborating scientists who have provided guidance in the planning and analysis of RICO data.
- During the initial data analysis period (one year following the end of the field phase; 25 January 2005), if data are provided to a third party (journal articles, presentations, research proposals, other investigators) the investigator who collected the data must be notified first. This initial analysis period is designed to provide an opportunity to quality control the combined data set as well as to provide the investigators ample time to publish their results.
- All data will be considered public domain not more than one year following the end of the RICO field phase. Data can be opened to the public domain earlier depending on the discretion of the data provider. There will be exceptions where extensive data processing is required.
- Any use of the data will include acknowledgment (i.e., citation). Co-authorship during the one year analysis phase will be at the discretion of the investigator(s) who collected the data.

RICO DATA MANAGEMENT PLAN OUTLINE

1.0 Introduction/Background

- 1.1 Scientific Objectives
- 1.2 Data Management Philosophy

2.0 Data Management Policy

- 2.1 Data Protocol
- 2.2 Data Processing/Quality Control
- 2.3 Data Availability
- 2.4 Data Attribution
- 2.5 Community Access to Data

3.0 Data Management Functional Strategy/Description

- 3.1 Data Archive and Analysis Centers
- 3.2 Investigator Requirements
 - 3.2.1 Data Format Conventions
 - 3.2.2 Data Submission Requirements
- 3.3 Data Collection Schedule
 - 3.3.1 On-line Field Catalog
- 3.4 Data Processing following the Field Phase
- 3.5 Data Integration
- 3.6 Data Archival and Long-term Access

4.0 RICO Data Sets

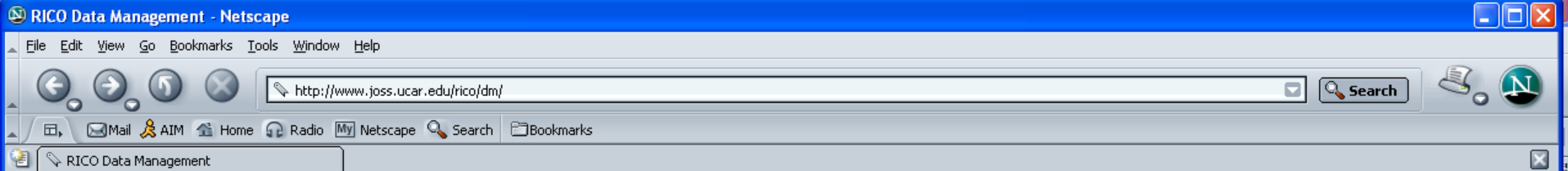
- 4.1 Data Collection/Processing
- 4.2 Status Update Procedures
- 4.3 In-field Data Display and Analysis Requirements
- 4.4 Coordination with other Programs

APPENDICES

- A. Research Data Sets
- B. Operational Data Sets
- C. List of Acronymns

The logo for RICO, consisting of the letters 'RICO' in a bold, red, sans-serif font. The 'R' and 'O' are significantly larger than the 'I' and 'C', and they are connected to each other.

Rain In Cumulus over the Ocean
Experiment



RICO

Rain In Cumulus over the Ocean
Experiment

RICO Data Management



Data Policy (DRAFT)

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- [Data Submission Instructions](#)

Distributed RICO Long-Term Data Archive

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- Data Information Links
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IHOP_2002 DATA SETS



DATA CATEGORIES

- [Aircraft Data](#)
- [GPS Data](#)
- [Land Data](#)
- [Lidar Data](#)
- [Mesonet Data](#)
- [Model Output](#)
- [Photography](#)
- [Profiler/SODAR Data](#)
- [Radar Data](#)
- [Radiation Data](#)
- [Satellite Data](#)
- [Soundings Data](#)

[Back to JOSS IHOP Data Management](#)

Email comments & questions to the webmaster@ucar.edu

Data Set Name (Responsible group/PIs shown in parentheses)	Date Posted	Documentation
Aircraft		
Aircraft DC-8 Meteorology Navigation and State Parameter Data [NASA]	2003-03-17	
Aircraft DC-8 Photography Cloud Video (forward/nadir) [NASA]	2003-03-17	
Aircraft Falcon Navigation and State Parameter Data [DLR]	2003-06-12	
Aircraft Falcon Navigation Parameter Imagery [JOSS]	2002-11-08	
Aircraft Falcon Temp/Humidity Parameter Imagery [JOSS]	2002-11-08	
Aircraft Falcon Wind Parameter Imagery [JOSS]	2002-11-08	
Aircraft KingAir Navigation and State Parameter Imagery [JOSS]	2002-11-21	
Aircraft KingAir Navigation, State, and Microphysics Data [UWY]	2002-08-13	
Aircraft KingAir Photography Cloud Video (forward/nadir) [UWY]	2003-03-17	
Aircraft P-3 Navigation and State Parameter Data (1-sec rate) [NCAR/RAF]	2002-08-15	
Aircraft P-3 Navigation and State Parameter Imagery [JOSS]	2002-11-21	
Aircraft Proteus Navigation and State Parameter Data [Howell]		
GPS		
GPS Homestead Scanning Raman Lidar Imagery [NASA]	2002-08-13	
GPS Integrated Precipitable Water (30-min) Data [CNRS/UNAVCO/FSL]	2003-03-23	
GPS Integrated Precipitable Water (30-min) Data [CNRS]	2003-05-23	
GPS Integrated Precipitable Water (30-min) Data [NOAA/FSL]	2002-12-09	

RESEARCH ABOARD EXPLORER OF THE SEAS

GULF OF MEXICO

NORTH ATLANTIC OCEAN



WESTERN CRUISE TRACK
EASTERN CRUISE TRACK
COMMON SEGMENT WITH CRUISES



DESCRIPTION

BACKGROUND/HISTORY • SCHEDULE

VIRTUAL TOURS • POLICIES • LATEST NEWS

OVERVIEW OF THE ONBOARD FACILITIES • PARTICIPATION INFORMATION

THIS MONTH'S AGENDA • CURRENT OBSERVATIONS FROM THE EXPLORER

Click here to download a PDF overview of the EXPLORER OF THE SEAS research program

**CLICK HERE TO LEARN MORE ABOUT THE UNIVERSITY OF MIAMI'S
ROSENSTIEL SCHOOL OF MARINE AND ATMOSPHERIC SCIENCE**

Data Server- <http://oceanlab.rsmas.miami.edu>

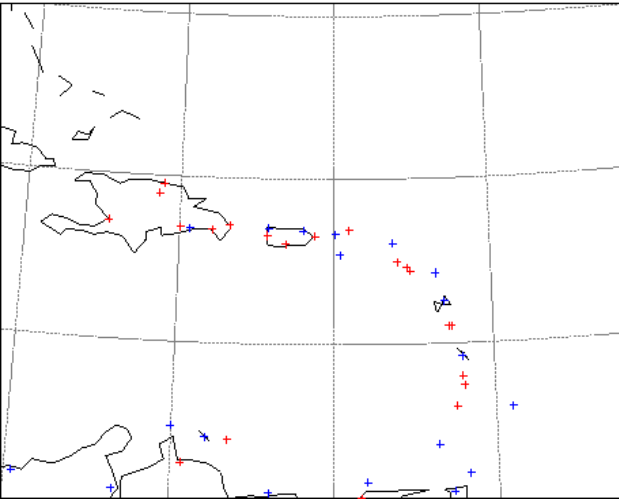
EXPLORER OF THE SEAS CURRENT DATA												
SHIP DATA				ATMOSPHERIC DATA								
DATE/TIME	POSITION	SHIP SPEED/HDG	TEMP	WIND SPEED/DIR	RH	RAIN RATE	PRESSURE					
Feb 26 14:09	21.6°N 70.0°W	21 kts WNW	25.5°C / 77.8°F	24 kts SSE	82%	Not Raining	1013.6mb					
CLOUD FRACTION			CLOUD HEIGHT			PARTICLE			SOLAR PARAMETERS			
OPAQUE	THIN	TOTAL	HGT1	HGT2	HGT3	CONC	SCATTERING	SIZE	B&W	PIR	PSP	TUV
SKY IMAGER OFF			N/A	N/A	N/A	N/A	N/A	< 10µm	589w/m ²	380w/m ²	586w/m ²	30.6w/m ²
AIR TEMP		M-AERI	SKIN TEMP	TEMP	SALINITY	O ₂	SEAWATER		FLUOR	L TRANS	pCO ₂	
25.2°C / 77.3°F			25.3°C / 77.6°F	25.6°C / 78.1°F	36.56‰	N/A	DOM	0.37 µg/L	0.33 µg/L	88.3%	CalCycle	



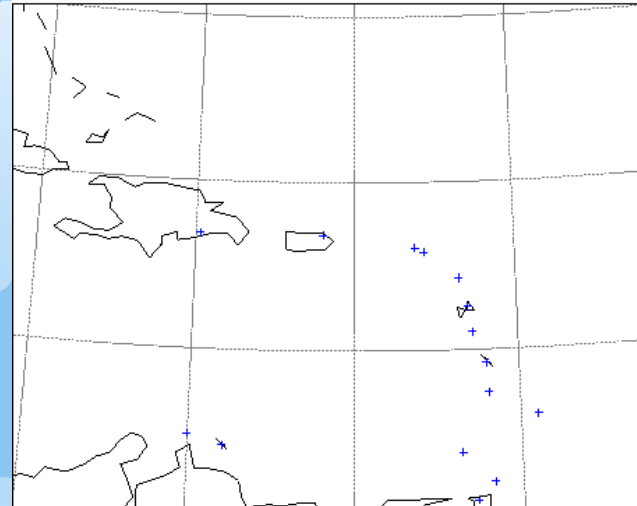
MAPS OF METEOROLOGICAL NETWORKS IN THE RICO REGION

GTS METAR Stations 6-10 February 2004

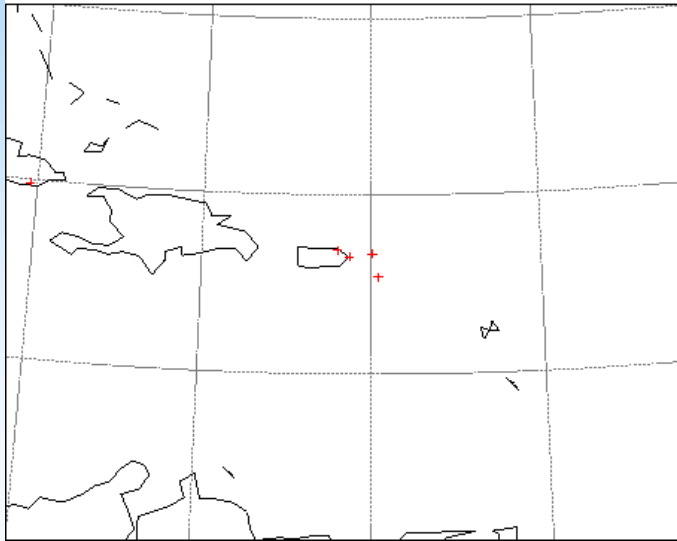
Hourly Day and Night (19)
Primarily Daylight Observations (25)



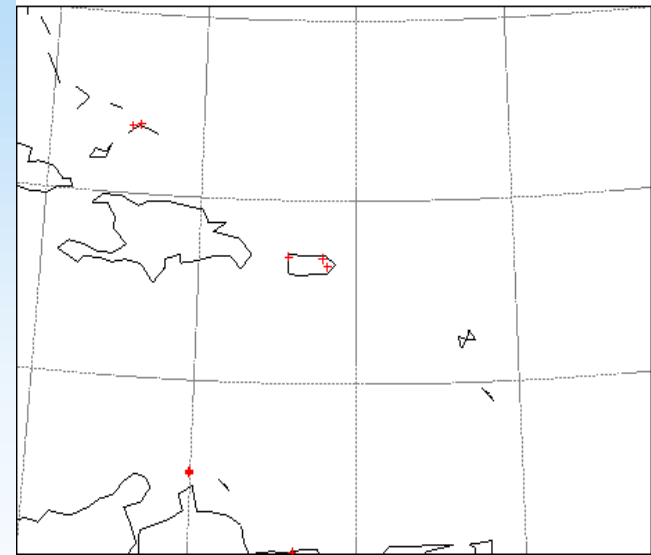
GTS SYNOP Stations 5-12 February 2004



ASOS Stations



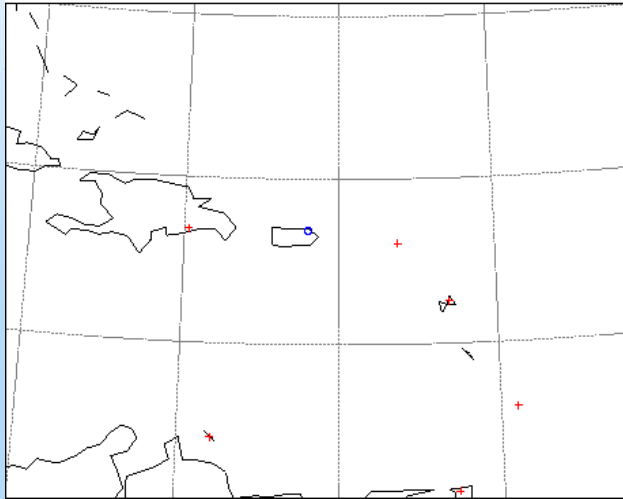
CWOP Stations January 2004



MAPS OF METEOROLOGICAL NETWORKS IN THE RICO REGION (Cont.)

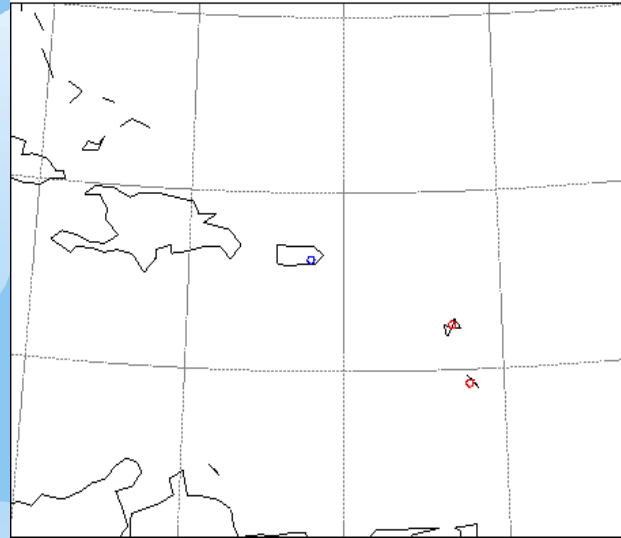
GTS Rawinsonde Stations 5-12 February 2004

High Resolution Stations



US NWS Radar

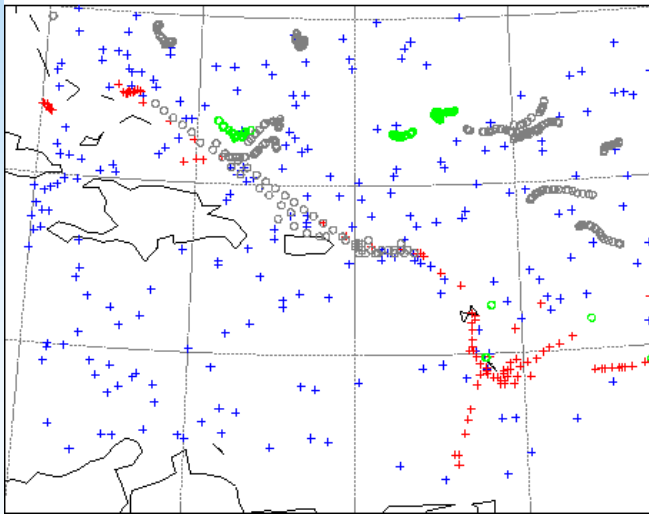
MeteoFrance Radar



GTS Ship and Buoy Observations 6-12 February 2004

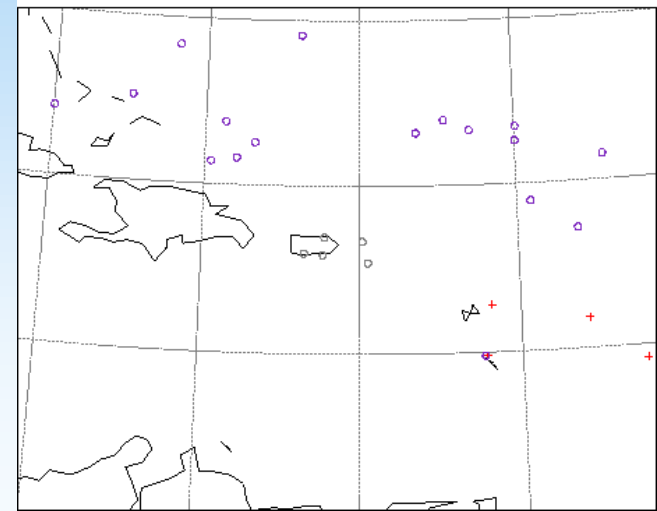
< 10 obs
30-50 obs

10-30 obs
> 50 obs



Buoy Observations as of 12 February 2004

Drifting Buoys (17) NWLON (5) MeteoFrance (4)



RICO Data Questionnaire

The following Questionnaire is intended to collect information from RICO PIs regarding their individual needs for specific types of data both in the field and during post-analysis.

Please fill out the form as completely as possible. For the purposes of this questionnaire **Real Time** means that the data are needed in the RICO Operations Center. After clicking on the submit button, your response will appear above the form on this page. Please check it over for any errors or omissions and change as desired. In order for changes to be registered, you must click on the confirm button after you are satisfied with your responses.

Please specify your contact information

Name (Required):	<input type="text"/>
Affiliation:	<input type="text"/>
Mailing Address:	<input type="text"/>
Telephone (Please include country code and area/city code):	<input type="text"/>
Fax (Please include country code and area/city code):	<input type="text"/>
E-mail (Required):	<input type="text"/>

Please specify your geostationary satellite needs below

GOES Data	Real Time Need	Archive Need
GOES Imager Data	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
GOES Sounder Data:	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
GOES Derived Products	Real Time Need	Archive Need
Convective Available Potential Energy (CAPE) Product:	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
Lifted Index Product:	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
Precipitable Water Product:	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
Cloud Top Pressure Product:	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes

RICO Data Questionnaire Satellite Response Summary (10)

GOES Data Set	Real Time Need	Archive Need	Other Information
GOES Imager	40%	70%	
GOES Sounder	10%	30%	
CAPE	10%	30%	
Lifted Index	10%	30%	
Precipitable Water	30%	50%	
Cloud Top Pressure	30%	50%	
Surface Skin Temperature	30%	40%	
Cloud Drift Winds	20%	30%	

Other GOES Sectors or Products needed: No discussion of Rapid Scan Operations in Data Management Questionnaire

POES Data Set	Real Time Need	Archive Need	
AVHRR LAC/HRPT Imager	30%	50%	
AVHRR GAC Imager	10%	20%	
TOVS/ATOVS	20%	20%	
Surface Skin Temperature	20%	40%	
Precipitable Water	20%	50%	
Cloud LWP/IWP	20%	50%	

Other POES products needed: ICE-Sat, Seawinds on Quikscat, TMI

RICO Data Questionnaire Satellite Response Summary (10)

Other POES Datasets	Real-time	Archive	Other Information
DMSP OLS Imager Data	N/A	10%	
TRMM Data	N/A	30%	
SeaWifs Imager Data	10%	40%	
MODIS Data	N/A	70%	
MISR Data	N/A	40%	

RICO Data Questionnaire Radar Response Summary (10)

Radar Data Sets	Real-time	Archive	Other Information
WSR-88D	10%	50%	

Other Radar data/products needed: W-Band cloud radar; S-Pol

RICO Data Questionnaire Upper Air Response Summary (10)

Upper Air Data Sets	Real-time	Archive	Other Information
Mandatory/significant levels	50%	60%	
High Vertical Resolution	N/A	80%	
Interpolated (e.g. 5mb)	N/A	40%	
ACARS/WVSS	20%	40%	
GPS	10%	20%	

Other Upper Air data/products needed: 500mb charts made available and archived

RICO Data Questionnaire Surface Response Summary (10)

Surface Data Sets	Real-time	Archive	Other Information
ASOS (1 and 5-min)	N/A	40%	
ASOS (60-min)	30%	60%	
Hourly METAR Observations	10%	20%	
Synoptic Observations	30%	50%	
Buoy Observations	20%	40%	
Ship Observations	20%	40%	

Other Surface data/products needed: Surface maps made available and archived

RICO Data Questionnaire Model Response Summary (10)

Model Output	Real-time	Archive	Products Specified
NOAA/NCEP ETA	30%	40%	

Meteorological variables on pressure levels: None specified

Model Output	Real-time	Archive	Products Specified
NOAA/NCEP GFS	20%	20%	

Meteorological variables on pressure levels: None specified

Model Output	Real-time	Archive	Products Specified
Navy NOGAPS	10%	10%	

Meteorological variables on pressure levels: None specified

Model Output	Real-time	Archive	Products Specified
ECMWF	30%	50%	

Meteorological variables on pressure levels: None specified

 **BAMEX Field Catalog** 
Catalog Home Reports Operational Products Model/Forecast Products Research Products Missions Tools & Links



Project Location: MidAmerica Airport, Illinois
Project Dates: 20 May to 6 July 2003

This catalog is in POST FIELD SEASON MODE



University Corporation for Atmospheric Research
PO Box 3000 Boulder CO 80307 USA

Field Data Catalog

Field Documentation



Operations Summary

Instrument / Fac. Status

Forecast Briefing

Mission Summary

Scientist Summary

 NAME Field Catalog 						
Catalog Home	Reports	Operational Products	Model/Forecast Products	Research Products	Missions	Tools & Misc.
Date(UTC)	ops summary	p-3 flight log	p-3 mission summary	p-3 status	soundings status	weather FORECAST
2003/02/09	15:19					
2003/02/08			10:49	23:00		
2003/02/07	16:08 19:40	22:26	11:56	19:30	20:57	18:13
2003/02/06		11:55	11:55	22:11	18:12	19:32
2003/02/05	18:56				13:58	20:23
2003/02/04	20:23	10:54	10:54	20:23	22:28	22:17
2003/02/03	18:50				17:19	20:29
2003/02/02	18:36				21:18	19:10
2003/02/01	19:45 21:40	11:57	11:57	22:01	21:23	20:49
Date(UTC)	ops summary	p-3 flight log	p-3 mission summary	p-3 status	soundings status	weather FORECAST
2003/01/31	19:06				14:49	20:08
2003/01/30	14:53				19:07	21:19
2003/01/29	16:58			18:51	17:20	19:16
2003/01/28	18:41	11:57	11:57	22:34	16:29	21:59
2003/01/27	14:38				16:30	18:58
2003/01/26	12:07 14:33			18:42	17:56	19:31
2003/01/25	12:58				13:17	21:42
2003/01/24		10:53	10:53	20:28	12:18	21:26
2003/01/23	17:30			14:20	20:30	19:32
2003/01/22	19:11		19:04		14:06	16:38
2003/01/21	09:45 16:40	10:49	10:39	20:57	13:19	01:27
2003/01/20					10:08	18:58
2003/01/19				23:56	17:29	15:55
2003/01/18	14:51	15:29	15:07	23:23	17:24	22:00
2003/01/17	14:51	10:01	09:49	23:54	15:08	18:00
2003/01/16	15:18			20:08	15:42	20:48
2003/01/15	18:18	13:03	13:04	23:46	15:53	20:14
2003/01/14	16:35				16:15	21:28

NAME Facilities Status Summary Form

For use by authorized users only please.

Date of report(UTC): year: 2003 month: 10 day: 21 hour: 16 min: 39

Author of report: Jose Meitin Password:

Preserve the format of the text being entered below?: no

ENTER THE OVERVIEW TEXT HERE:

FACILITY/PROJECT STATUS

1.	no report	NOAA P-3: Remaining flight hrs:		Comment:	
a.	no report	Lower Fuselage Radar:			
b.	no report	Doppler Radar:			
c.	no report	Navigation, State Parameters:			
d.	no report	Data System:			



BAMEX Facilities Status Summary Report

Date of report(UTC): 2003/06/08 15:42

Author of report: Scot Loehrer

Submitted at(UTC): 2003/06/08 15:47

Revised at(UTC): 2003/06/09 22:43

OVERVIEW:

All three aircraft participating in operations over Ohio region today.

FACILITY/PROJECT STATUS

■ = up; ■ = provisional; ■ = down ; ■ = no report

1.	NRL P-3 (Remaining flight hrs: 104.6)	Comment:	
a.	ELDORA Radar	Comment:	Temporary fix applied, interference filter needed
b.	Radar Mosaic Display	Comment:	
c.	Navigation, State Parameters	Comment:	
d.	Data System	Comment:	
e.	Sat. Communications	Comment:	
2.	NOAA P-3 (Remaining flight hrs: 105.1)	Comment:	
a.	Lower Fuselage Radar	Comment:	
b.	Doppler Radar	Comment:	
c.	Navigation, State Parameters	Comment:	
d.	Data System	Comment:	

NAME Monsoon Discussion Summary

Date(UTC): 2003/08/23 18:09

Forecaster: Pytlak

Submitted at(UTC): 2003/08/23 18:26

Review Previous Day Discussion:

The big rainfall was definitely in southern Tier-I yesterday, especially in zones 6, 7 and southern 4 ([Image 1](#)). Multiple MCSs fired along the entire Sierra Madre spine in between two inverted troughs and in a rich moisture axis which has been in place since midweek. Badiraguato, Sin. (zone 7), reported an incredible 101.0mm of rain yesterday; with Pajaritos, Nay. (just south of zone 7) reporting 71.5mm and Banamichi, Son. (zone 4) receiving 64.0mm. Farther north, the convection was more sporadic and did not directly hit any observing sites. The heaviest report came from Prescott, AZ (zone 2) with 8.4mm. However, Doppler rainfall estimates from the region ([image 2](#)) showed a small area of 50mm+ rains just south of Tucson (northern zone 4), an area of 25-50mm rainfall northwest of Prescott along the Coconino/Yavapai county border (zone 2), and an area of 10-20mm rains over portions of southwest Arizona (zone 1). One severe thunderstorm produced a wind gust to 80mph (129kph) on the south side of Tucson Friday afternoon.

Day 1 Overview

The next 72-96 hours will be very interesting to say the least across the region ? definitely an extended IOP period if this were the real thing. Tropical Storm Ignacio will affect southern Baja within the next 48 hours, but moisture from this system could eventually impact a large portion of Tier-I. The upper high over the Rockies will become more east-west oriented over the Great Basin as it expands into the southeast U.S. See [image 3](#) for this morning's satellite analysis.

Field Data Catalog

Operational Products Display

Satellite

Surface

Model Analysis

Upper-Air Soundings

Buoy Data

Marine Products

Available Operational Products for 2003/01/31 UTC

◀ Previous Date(UTC) Choose Date(UTC) Next Date(UTC) ▶

Satellite Products

Product Times(UTC)	31 Jan 2003																							Movies
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
goes-8																								
Bolivia_ch1_vis									0939	1009	1109	1209	1309	1409	1509	1609	1709	1809	1909	2009	2109	2209	2310	all hourly
GSFC_argentin_ch1_vis	0109 0139	0209 0239 0245	0339 0409 0440	0509 0539 0545	0639 0739 0840 0845			0939 0939	1009 1039 1145	1109 1139 1145	1209 1239 1340	1309 1339 1445	1410 1439 1445	1539 1609 1639	1639 1739 1745	1709 1739 1745	1839 1909 1940	1909 2039 2045	2039 2139 2145	2139 2240 2345	2239 2339 2345	2310 2339 2345		
GSFC_argentin_ch4_ir	0109 0139	0209 0239 0245	0339 0409 0440	0509 0539 0545	0639 0739 0840 0845			0939 0939	1009 1039 1145	1109 1139 1145	1209 1239 1340	1309 1339 1445	1410 1439 1445	1539 1609 1639	1639 1739 1745	1709 1739 1745	1839 1909 1940	1909 2039 2045	2039 2139 2145	2139 2240 2345	2239 2339 2345	2310 2339 2345		
Paraguay_ch1_vis								0916 0946	1016 1045	1115 1139	1245	1316 1346	1416 1439	1515 1545	1616 1645	1715 1739	1846	1916 1945	2039	2115 2145	2216			all hourly
South_America_ch1_vis								0839		1139			1439			1739			2039			2339	all	
South_America_ch4_thermal-IR		0239		0539			0839			1139			1439			1739			2039			2339	all	
South_Pacific_ch1_vis		0239								1139			1439			1739			2039			2339	all	
South_Pacific_ch4_thermal-IR		0239		0539			0839			1139			1439			1739			2039			2339	all	

Surface Products

Product Times(UTC)	31 Jan 2003				Movies
	00	06	12	18	
NCEP_Satellite_Analyses	(NOAA HydroMet Prediction Center)				
South_America	0000	0600	1200	1800	all
NCEP_Surface_Analyses	(NOAA HydroMet Prediction Center)				
Argentina	0000	0600	1200	1800	all



NAME Field Catalog

[Catalog Home](#)[Reports](#)[Operational Products](#)[Model/Forecast Products](#)[Research Products](#)[Missions](#)[Tools & Links](#)

Browse by Date:

 UTC MST

Last 12 hours ▾

or
choose
a day
➔

June 2003							July 2003							August 2003							September 2003						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7			1	2	3	4	5	3	4	5	6	7	8	9		1	2	3	4	5	6
8	9	10	11	12	13	14	6	7	8	9	10	11	12	10	11	12	13	14	15	16	7	8	9	10	11	12	13
15	16	17	18	19	20	21	13	14	15	16	17	18	19	17	18	19	20	21	22	23	14	15	16	17	18	19	20
22	23	24	25	26	27	28	20	21	22	23	24	25	26	24	25	26	27	28	29	30	21	22	23	24	25	26	27
29	30						27	28	29	30	31			31							28	29	30				

Browse by Operational Products:

Satellite Products

goes-10

2km_ch1_vis ▾

Latest ▾

Start Date ▾

End Date ▾

goes-12

4km_ch1_vis ▾

Latest ▾

Start Date ▾

End Date ▾

Surface Products

UCAR Office of Programs
University Corporation for Atmospheric Research





NAME Field Catalog

[Catalog Home](#)[Reports](#)[Operational Products](#)[Model/Forecast Products](#)[Research Products](#)[Missions](#)[Tools & Links](#)

(The following listing is auto generated. Click reload/refresh often to see new products.)

Available Operational Products for 2003/08/13 UTC

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Satellite Products

Product Times(UTC)	13 Aug 2003																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22		23
goes-10																									
2km_ch1_vis	0024 0039 0054	0109 0124 0154											1239 1254	1309 1324 1354	1409 1424 1454	1509 1524 1554	1609 1624 1654	1709 1724 1754	1809 1824 1854	1909 1924 1954	2009 2024 2054	2109 2124	2209 2224 2254	2309 2324 2354	
goes-12																									
4km_ch1_vis	0008 0039	0109 0139	0209								1139	1209 1239	1309 1339	1409 1439	1509 1539	1609 1639	1709 1739	1809 1839	1909 1939	2009 2039	2109 2139	2209 2239	2309 2339		
4km_ch3_water_vapor	0008 0039	0109 0139	0209 0239	0309 0339	0409 0439	0509 0539	0609 0639	0709 0739	0809 0839	0909 0939	1009 1039	1109 1139	1209 1239	1309 1339	1409 1439	1509 1539	1609 1639	1709 1739	1809 1839	1909 1939	2009 2039	2109 2139	2209 2239	2309 2339	
4km_ch4_thermal-IR	0008 0039	0109 0139	0209 0239	0309 0339	0409 0439	0509 0539	0609 0639	0709 0739	0809 0839	0909 0939	1009 1039	1109 1139	1209 1239	1309 1339	1409 1439	1509 1539	1609 1639	1709 1739	1809 1839	1909 1939	2009 2039	2109 2139	2209 2239	2309 2339	

Surface Products

Product Times(UTC)	13 Aug 2003																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22		23
CBRFC (Colorado Basin River Forecast Center)																									
Precip	0->																								
GTS_Station_Plot																									
NAME_Region	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	





NAME Field Catalog



Catalog Home	Reports	Operational Products	Model/Forecast Products	Research Products	Missions	Tools & Links
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Available Model Products for 2003/08/15 UTC

◀ [Previous Date\(UTC\)](#) | Choose Date(UTC) ▾ | [Next Date\(UTC\)](#) ▶

MM5 Forecast Products

Forecast Times(UTC)	15 Aug 2003			16 Aug 2003				17 Aug 2003				18 Aug 2003			
	00	12	18	00	06	12	18	00	06	12	18	00	06	12	
Mexico_MM5 - Analysis and Forecast from 2003/08/15 00:00 UTC (Servicio Meteorológico Nacional)															
geopo-250	00hr	12hr		24hr				48hr					72hr		
geopo-700	00hr	12hr		24hr				48hr					72hr		
geopo-850	00hr	12hr		24hr				48hr					72hr		
Mexico_MM5 - Analysis and Forecast from 2003/08/15 12:00 UTC (Servicio Meteorológico Nacional)															
geopo-250		00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr	48hr	54hr	60hr	66hr	72hr	
geopo-700		00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr	48hr	54hr	60hr	66hr	72hr	
geopo-850		00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr	48hr	54hr	60hr	66hr	72hr	

ETA Forecast Products

Forecast Times(UTC)	15 Aug 2003				16 Aug 2003				17 Aug 2003		
	00	06	12	18	00	06	12	18	00		
Eta - Analysis and Forecast from 2003/08/15 00:00 UTC (NCEP ETA Convective Forecasting)											
200mb_winds	00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr		48hr	
500mb_vort	00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr		48hr	
700mb_omega	00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr		48hr	
850mb_hgt-T	00hr	06hr	12hr	18hr	24hr	30hr	36hr	42hr		48hr	



Field Data Catalog

Intensive Observing Periods

Special Analysis Products

Science, Operations and Mission Summaries

Flight Tracks, Ship Position

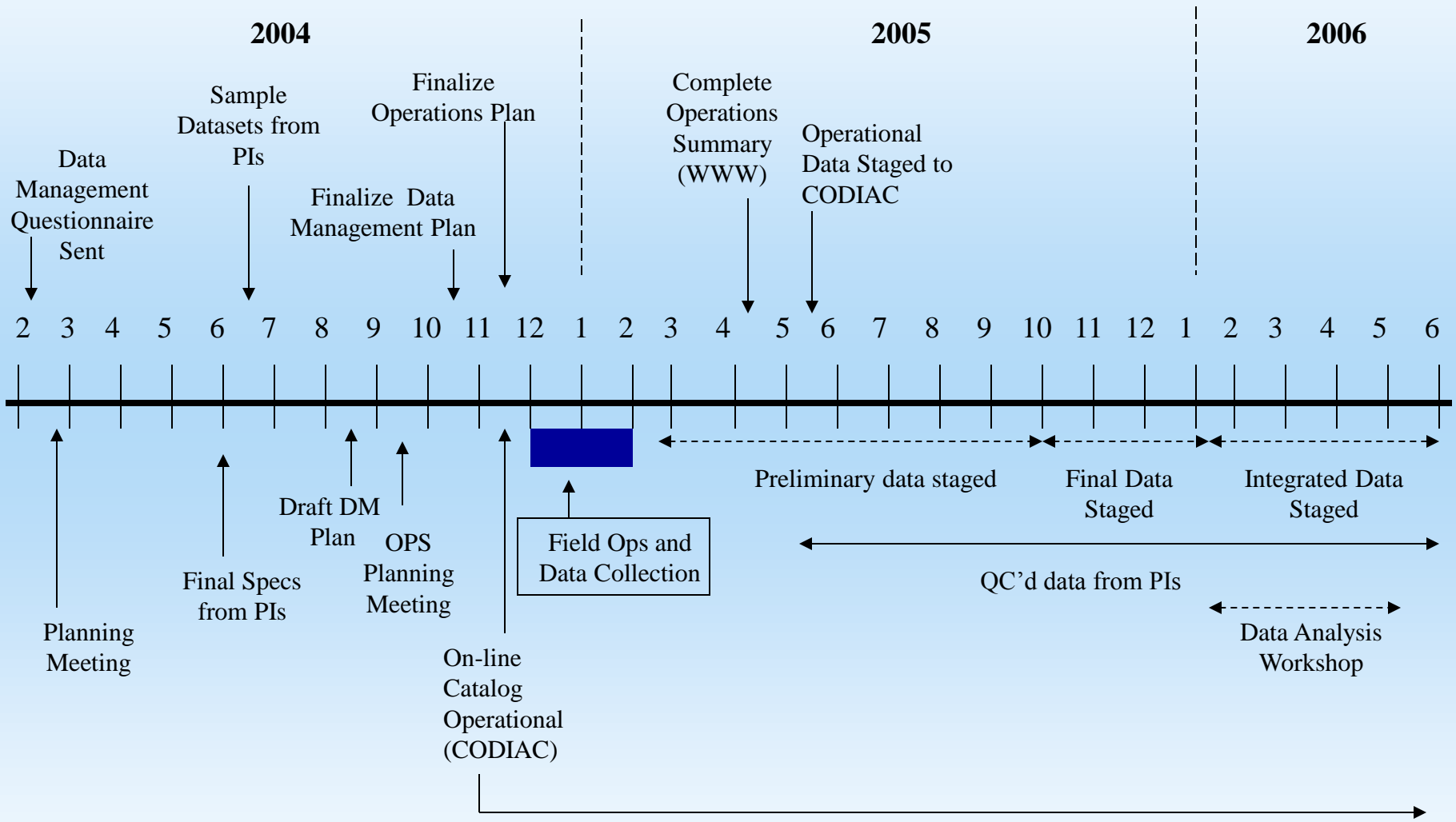
Preliminary Products

Quick-Look Data Analyses

Date 2003	Mission	Begin (UTC)	End (UTC)	HRS	Location/Mission Map	Catalog Products	Facilities	Notes
11 Jan	LLJ	1410	2010	6.0	Bolivia/Paraguay	Operational Research Model	P-3, PIBALs (3hr)	Low-Level Jet and test flight for Bolivian ATC procedures IOP for pibals in N Arg & Prgy (12Z/11Jan-12Z/12Jan)
15 Jan	LLJ	1302	2030	7.5	Bolivia	Operational Research Model	P-3, PIBALs (3hr)	Low-Level Jet IOP (all sites) (12Z/15Jan-12Z/18Jan)
17 Jan	LLJ near Barrier	1000	1600	6.3	Bolivia	Operational Research Model	P-3, PIBALs (3 hr)	Low-Level Jet Structure near Barrier IOP (all sites) (12Z/15Jan-12Z/18Jan)
18 Jan	Cold Front	1420	2100	6.7	Bolivia / Paraguay	Operational Research Model	P-3	Cold Frontal Passage
21 Jan	LLJ	1050	1830	8.6	Bolivia	Operational Research Model	P-3, PIBALs (3 hr)	Low-Level Jet survey pattern
22 Jan	MCS	1900	0325	8.7	Bolivia / Argentina	Operational Research Model	P-3, PIBALs (3 hr)	Mesoscale Convective System
24 Jan	Cold Front	1100	1830	7.8	Bolivia	Operational Research Model	P-3	Cold Frontal Passage Southerly Jet
28 Jan	Stratus	1200	2100	9.1	Bolivia / Chile/Pacific Ocean	Operational Research Model	P-3	Altiplano diurnal cycle Pacific Ocean Stratus deck

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RICO Data Management Timeline



RICO

Rain In Cumulus over the Ocean
Experiment



RICO DATA MANAGEMENT ISSUES

- Finalize Data Policy
- Submit Data Questionnaire Responses
- Access to ECMWF High Resolution Supplemental Fields?
- Data Format Standards?
- Need for Data “Composites” (e.g. Upper Air)?
- Other Data Integration Needs?