

COPS: Planning, Field Operations, Logistics, and Data Management

**Richard A. Dirks
Joint Office for Science Support (JOSS) / UCAR**

1st COPS Workshop

Hohenheim University, Stuttgart

13-14 September 2004



COPS: PLANNING, FIELD OPERATIONS, LOGISTICS, & DATA MANAGEMENT

Planning

Meetings, documents, site selection/arrangements/preparation

Air traffic control coordination

*Project Time Line

Information Management

*Project field catalog

Collection--status, weather, accomplishments

Dissemination--plans, reports, flight tracks, preliminary data

Record--summary, browse tool

Operations Management

Mission selection, plan definition

Mission execution, facility direction

Field operations coordination and control center

Mission evaluation, debriefing/reporting

Data Management

Data policy--sharing, access,

Real-time data requirements

Data processing/quality assurance

Data archive/distribution (centers?)

*WMO Resolution 40 (Cg-XII)

Logistics (U.S. Participants+)

Workspace--operations, analysis, forecast, laboratory, meetings

Support services--LAN, wireless, administrative

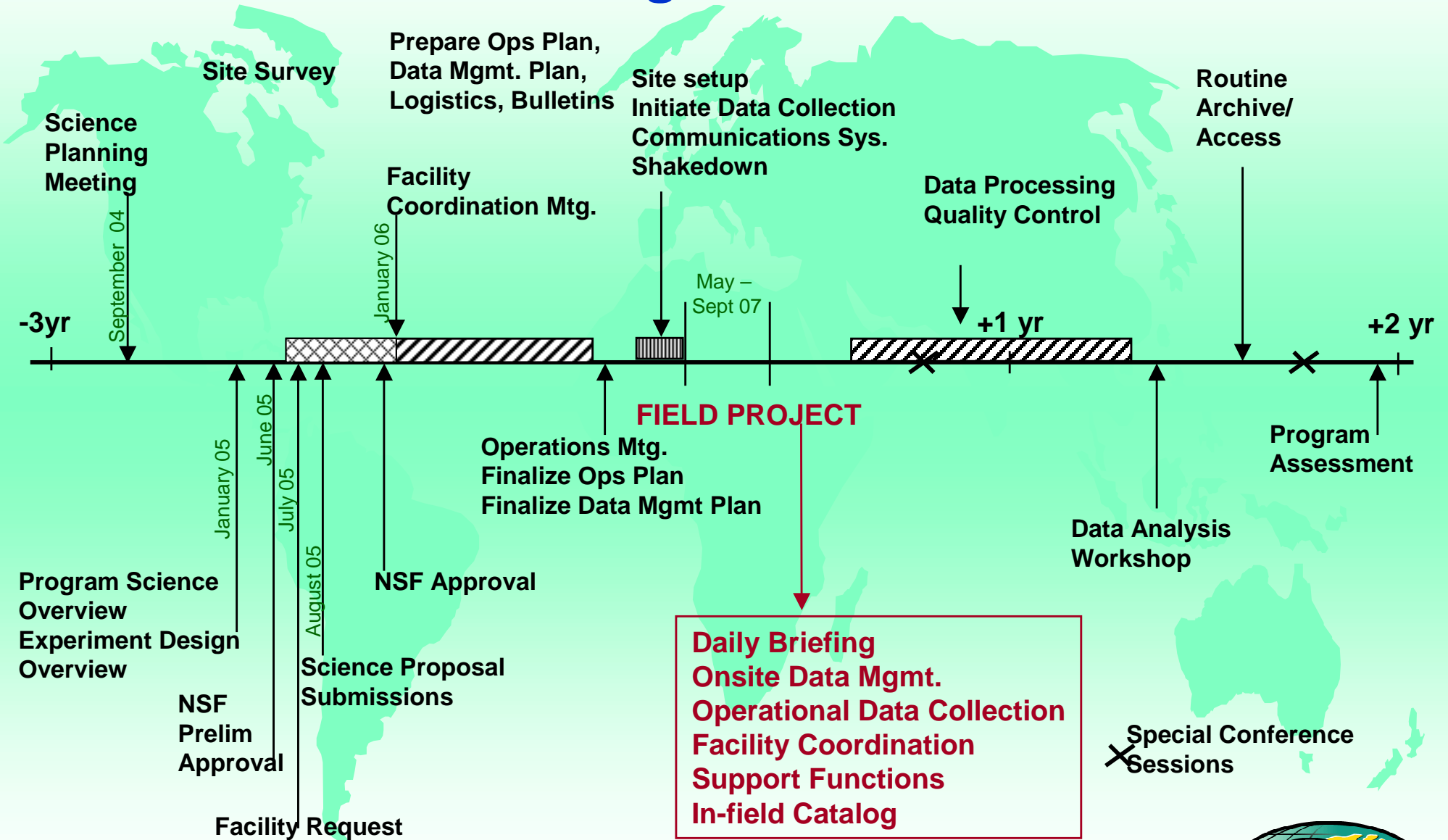
Communications--internet, cell phones, faximile, radio, satcom

Licensing, clearances, permits, security

Personal services--lodging, food, transportation, medical, financial, etc.



Field Program Timeline



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JOSS FIELD CATALOGS (web based)

Daily Mission Reports

Operations Summary

Status Reports

Data Analysis Products

Authoring Tools

<http://www.joss.ucar.edu/fc/>



The screenshot shows the IHOP 2002 Field Catalog website. At the top left is the JOSS logo. The main title is "IHOP 2002 Field Catalog". Below the title is a navigation menu with the following items: "Catalog Home", "Reports", "Operational Products", "Model/Forecast Products", "Research Products", "Missions", and "Tools & Misc.". The central part of the page features a map of the United States with three circular markers: a red one with a white 'O' and two blue ones with white 'H's, indicating observation and high-level data points. Below the map is the text "International H₂O Project" and "IHOP_2002". Further down, it states "Project Dates: 13 May - 25 June 2002" and "This catalog is in POST FIELD SEASON MODE". A note says "Please see the [Data Archive](#) Master list for available datasets." At the bottom, there is a footer with the UCAR logo and the text "University Corporation for Atmospheric Research PO Box 3000 Boulder CO 80307 USA".

FIELD CATALOG SAMPLE PRODUCTS



BCE-BSIA FIELD CATALOG
 UCAR - JOINT OFFICE FOR SCIENCE SUPPORT - COLORADO - USA

REPORTS PRODUCTS JOP LINKS

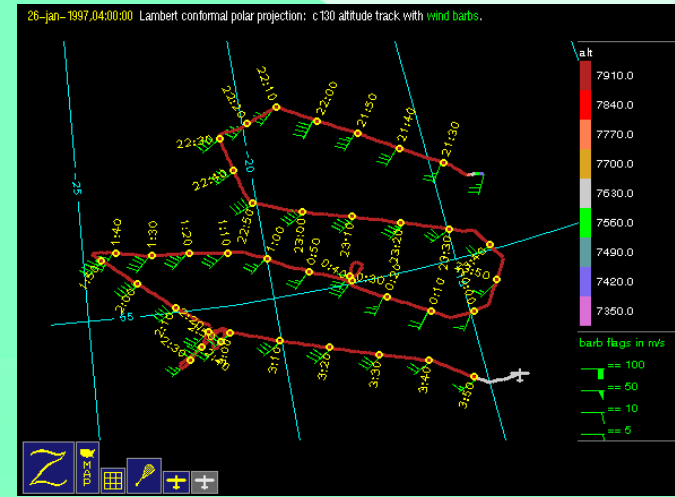
POP MET 26 000000 UTC - 31 04 000000 UTC

The following listing is auto-generated using Database at fsc.ucar.edu

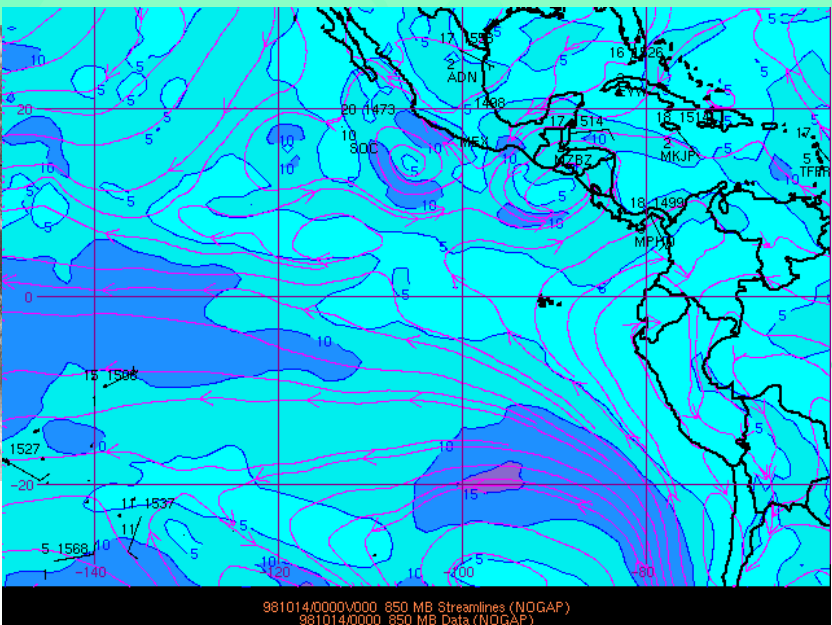
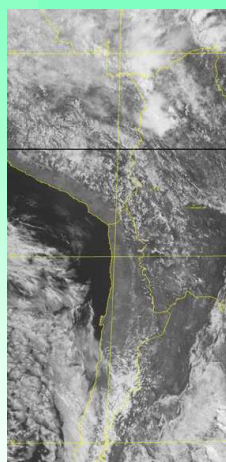
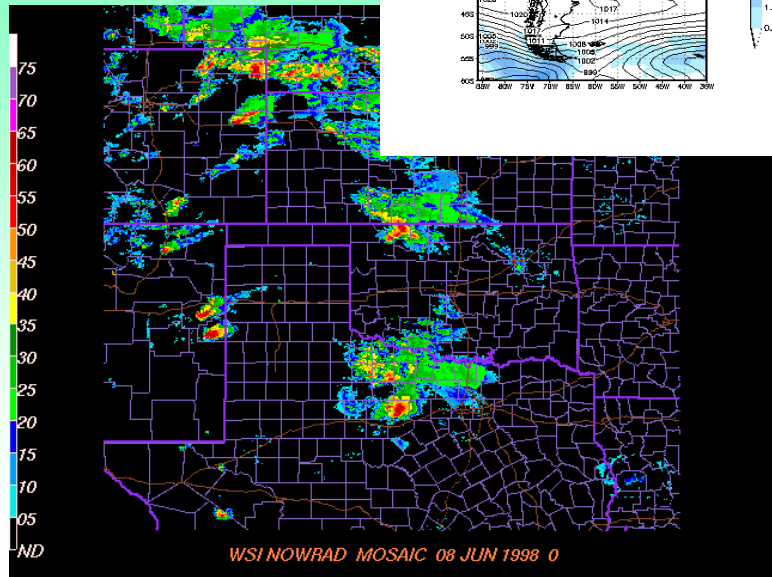
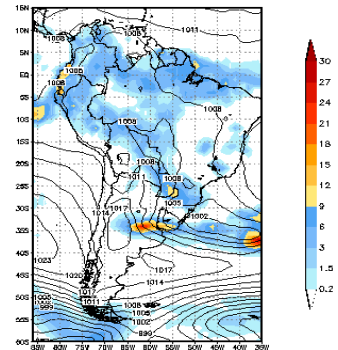
Science, Operations and Mission Summaries for IOP-3

DATE of obs	01 Sep 97	02 Sep 97	03 Sep 97	04 Sep 97	05 Sep 97
CITY_Avg1	000	000	000	000	000
DOM_Avg1	000	000	000	000	000
ELECTR_MXRT_Avg1	000	000	000	000	000
Humidity_Avg1	000	000	000	000	000
LOGCAT	000	000	000	000	000
MAX_Avg	000	000	000	000	000
REC_operations_summary	000	000	000	000	000

acts for IOP-3

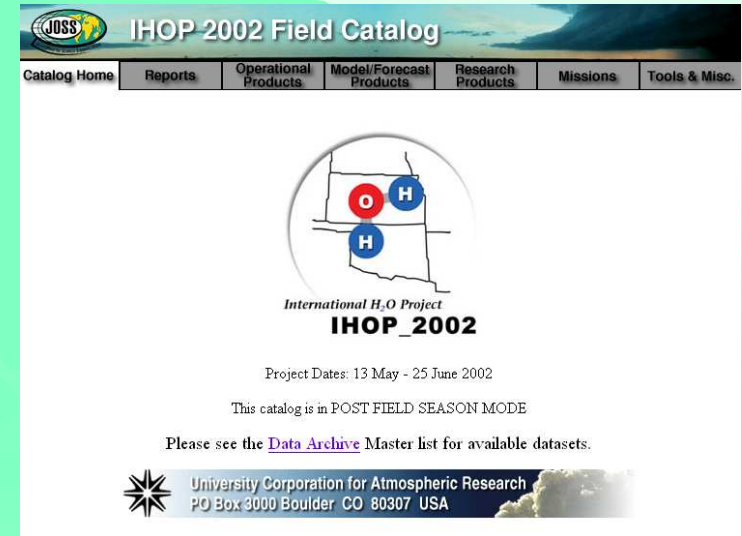


2001 03 23 00 (UTC)
24 hr forecast



IHOP_2002 Field Catalog Statistics

- **Status Reports and Operations Summaries**
(700+ documents)
- **Mission Related Reports and Products**
(31,000+ products/documents)
 - NOAA P-3, NRL P-3, Learjet, GBOS
- **Near Real-Time Operational Image Products**
 - Satellite, Surface, Upper Air, Forecast and Model
 - Over 120,000 files/images using 11.6 gigabytes
- **Report Authoring and Submission Tools**
- **Product Ingest Tools:** upload forms, email and ftp submissions, automated web downloading
- **Composite flight track/satellite imagery**
- **Links to other project related real-time data sources**



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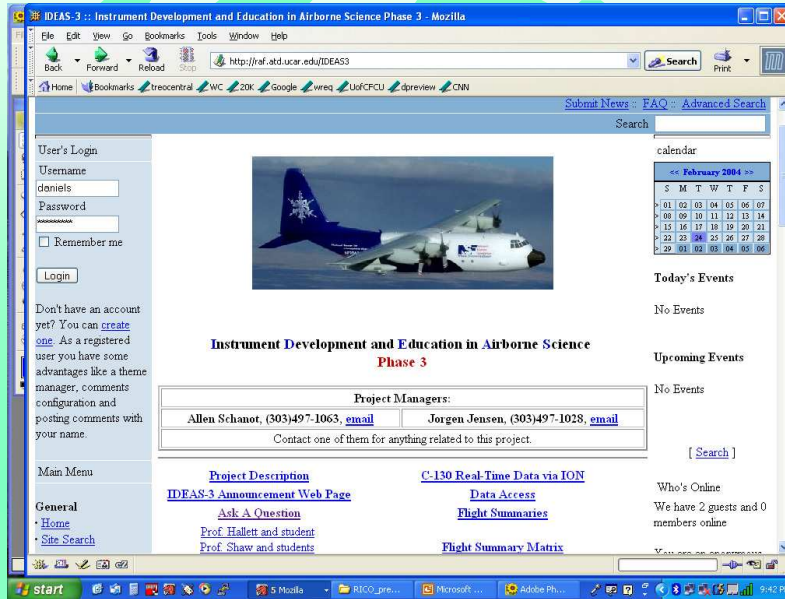
Licensing, clearances, permits, security

Personal services--lodging, food, transportation, medical, financial, etc.

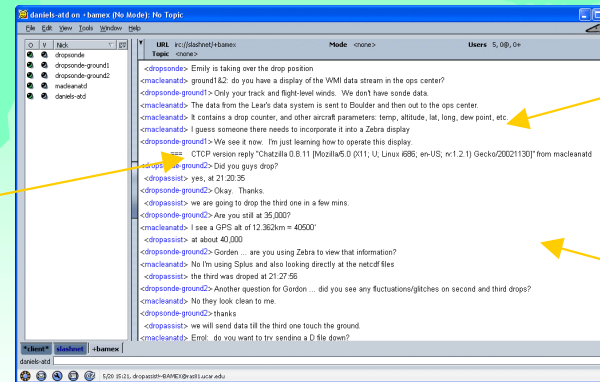
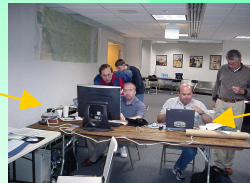
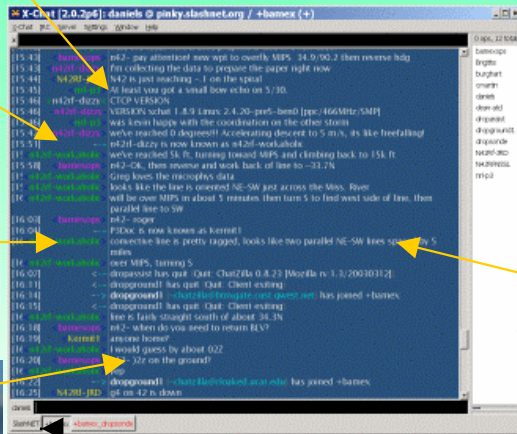


RICO RDCC: Collaboration Tools

RICO
Internet
Discussion
Board



Chatrooms



JOSS DATA SERVICES

- **Data Questionnaire**
- **Data Management Plan**
- **Real-time Data Ingest**
- **Field Operations Catalog**
- **Data Processing/Data Quality Assurance**
- **Interactive Data Archive and Distribution (CODIAC)**
- **Special Media Products and Services**

JOSS DATA MANAGEMENT TOOLS

JOSS Field Catalog

In-field tool to ingest and display operational and preliminary research data and project documentation for making real-time decisions and evaluating project progress

Features:

- Daily Mission Reports
- Operations Summary
- Facility Status Reports
- Data Analysis Products
- Authoring Tools
- Web-based access

JOSS Data System (CODIAC)

Primary means for all project scientists and researchers to browse and retrieve data from any JOSS-supported projects

Features:

- Long-term field project data archival and distribution
- Interactive data browsing, subsetting, and format translation
- Web-based access
- Value-added datasets
- Data documentation

The World Meteorological Organization (WMO) Resolutions 40 and 25 (adopted by the XII Congress on 26 October 1995)

"As a fundamental principle of the World Meteorological Organization (WMO), and in consonance with the expanding requirements for its scientific and technical expertise, the WMO commits itself to broadening and enhancing the free and unrestricted international exchange of meteorological and related data and products".

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