T-PARC/TCS-08 DATA MANAGEMENT OVERVIEW

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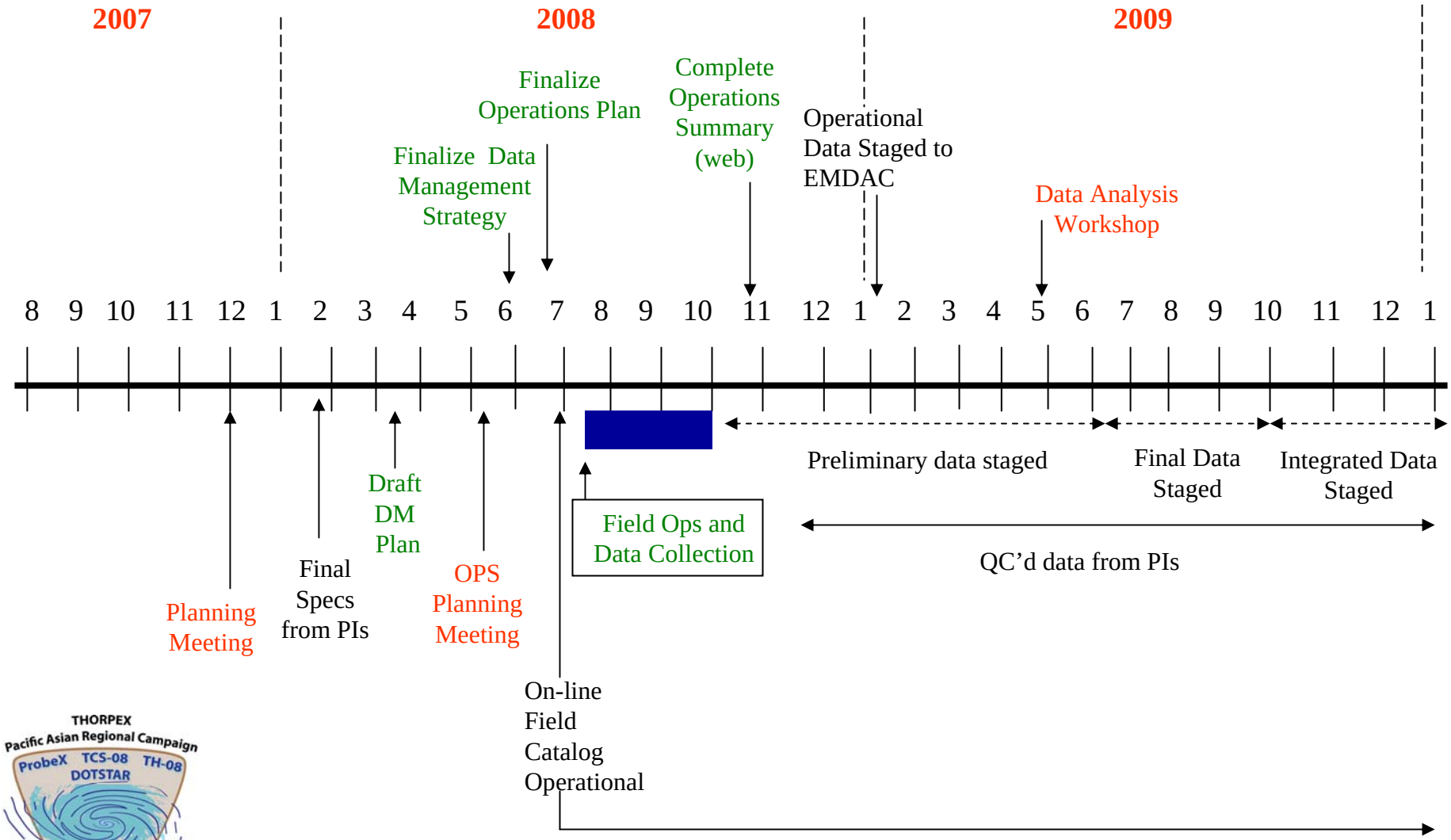
Boulder, Colorado

T-PARC/TCS-08 Data Management Workshop

Naval Postgraduate School, Monterey, CA

2-3 May 2009

T-PARC/TCS-08 Data Management Timeline



THORPEX
Pacific Asian Regional Campaign
ProbeX TCS-08 TH-08
DOTSTAR
T-PARC

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T-PARC Project Description

The **THORPEX (THe Observing Research and Predictability EXperiment) Pacific Asian Regional Campaign (T-PARC)** is a multi-national field campaign that addresses the shorter-range dynamics and forecast skill associated with high-impact weather events of one region (Eastern Asian and the western North Pacific) and their downstream impacts on the medium-range dynamics and forecast skill of another region (in particular, the eastern North Pacific and North America).

Although many significant weather events occur over eastern Asia and the western North Pacific, the focus of T-PARC is on various aspects of typhoon activity, which includes formation, intensification, structure change, motion, and extratropical transition. Because of the significant impact of typhoon activity on the region of eastern Asia and the western North Pacific, T-PARC is comprised of several affiliated programs. These programs and their national sponsor include:

- Tropical Cyclone Structure-2008 (TCS-08) [United States];
- Typhoon Hunter-2008 (TH-08) [Japan];
- Predictability and Observation Experiment (PROBEX) [South Korea];
- Tibetan Plateau Experiment [China];
- The South China Sea Experiment [China];
- Dropsonde Observations for Typhoon Surveillance near the Taiwan Region (DOTSTAR) [Taiwan].

Data Access

Master List of All T-PARC Data Sets
T-PARC 2008 Field Catalog
T-PARC 2007 Dry Run Field Catalog
Data Policy (DRAFT)
Dataset Documentation Guidelines
Data Submission Instructions

Publications

Publications

Documents

Pre-Field

Operations Plan
Science Plan (PDF)
Experiment Design Overview (PDF)
T-PARC Brief (PPT)
TCS-08 Brief (PPT)

Post-Field

Post T-PARC/TCS08 Summary (PPT)
Post T-PARC/TCS08 Summary JMA (PPT)
Aircraft Summary (PPT)
Flight Summaries (XLS)
EOL T-PARC Debrief (PDF)

- Project Description
- Data Access
- Publications
- Documents
- Meetings
- Mailing Lists
- People
- Participant Web Pages
- Photography
- Related Links
- T-PARC Sponsors

http://www.eol.ucar.edu/projects/t-parc

EOL Deployment Development Data Services
NCAR Earth Observing Laboratory

NCAR Earth Observing Laboratory

EOL DATA MANAGEMENT TOOLS

EOL Field Catalog

In-field tool to ingest and display operational and preliminary research imagery and project documentation for making real-time decisions, evaluating project progress, and browsing case studies

Features:

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

EOL Data System (EMDAC)

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

Features:

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

TPARC/TCS-08 Field Catalog

2008 Field Season

Quick Links:

Facilities Status

Operations Plan of the Day

TPARC Weather Discussion

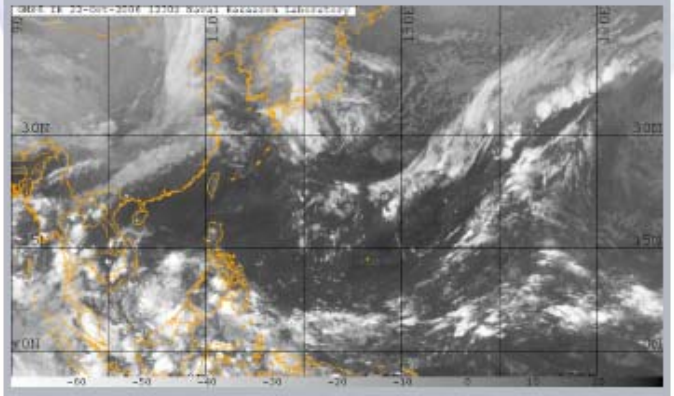
Real-Time P3 Flight Track (kml)
Real-Time C-130 Flight Track (kml)
Real-Time MTSAT Vis/IR Imagery (kml)
Real-Time Driftsonde Track (kml)
(Download kmls first then open in GoogleEarth)

NPS Weather Briefing Website

Elluminate Meetings

TPARC / TCS-08 Operations have ended 10/5/2008 Products from 8/1 to 8/20 have been disabled.

Northwest Pacific Latest Infrared Image



Additional Satellite Imagery:

Latest 4 hours Visible
Latest 4 hours Water Vapor

X-Chat instant access

Information Links:

JTWC Website

Honolulu Weather

Guam Weather

Okinawa Weather

Monterey Operations Center
(831) 656-3569

Guam Aircraft Coordination Center
(671) 653-0235

Comments

TPARC/TCS-08 Field Catalog

2008 Field Season

http://catalog.eol.ucar.edu/tparc/

- Reports/Summaries (Status, Mission, and Operations)
  1028 documents and 2486 image files (0.62 GB)
- Research Platform Products (Aircraft, Surface, Lidar, Upper Air)
  5,210 image files (0.89 GB)
- Operational Products (Satellite, Surface, Radar, Upper Air)
  114,632 image files (27 GB)
- Model Output Imagery (Analysis and Forecast Fields)
  1,014,180 image files (60 GB)

- TOTALS: 1,137,536 Files (88.51 GB)

T-PARC DATA POLICY SUMMARY

The basis for the T-PARC data policy is the World Meteorological Organization (WMO) Resolution 40 on the policy and practice for the exchange of meteorological and related data and products including guidelines on relationships in commercial meteorological activities.

"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."

In general, users will have free and open access to all the T-PARC data, subject to procedures to be put into place at the various T-PARC Data Archive Centers (TDACs).

All investigators participating in T-PARC agree to promptly submit their quality-controlled data to the appropriate TDAC to facilitate intercomparison of results, quality control checks and inter-calibrations, as well as an integrated interpretation of the combined data set.

- Standard meteorological data such as synoptic observations, dropwindsonde observations, special rawindsonde observations, and satellite imagery shall be submitted to the appropriate TDAC within six months following the end of the field campaign on 5 October 2008.

- Special meteorological data such as Doppler wind lidar data, Differential Absorption Lidar (DIAL) data, and radar data shall be submitted to the appropriate TDAC by 31 December 2009.

T-PARC DATA POLICY SUMMARY (Continued)

- All data shall be promptly provided to other T-PARC investigators upon request. A list of T-PARC investigators will be maintained by the T-PARC 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 T-PARC data.

- During the initial data analysis period (one year following the end of the field phase; 5 October 2008), 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 T-PARC 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.

DATASET DOCUMENTATION GUIDELINES

TITLE: This should match the data set name

AUTHOR(S):

- Name(s) of PI and all co-PIs
- Complete mailing address, telephone/facsimile Nos.,
- E-mail address of PIs, and WWW address (if applicable)
- Similar contact information for data questions (if different than above)

1.0 DATA SET OVERVIEW:

- Introduction or abstract
- Time period covered by the data
- Physical location (including lat/lon/elev) of the measurement or platform
- Data source if applicable (e.g. for operational data include agency)
- Any World Wide Web address references (i.e. additional documentation such as Project WWW site)

2.0 INSTRUMENT DESCRIPTION:

- Brief text (i.e. 1-2 paragraphs) describing the instrument with references
- Figures (or links), if applicable
- Table of specifications (i.e. accuracy, precision, frequency, resolution, etc.)

3.0 DATA COLLECTION AND PROCESSING:

- Description of data collection
- Description of derived parameters and processing techniques used
- Description of quality control procedures
- Data intercomparisons, if applicable

4.0 DATA FORMAT:

- Data file structure and file naming conventions (e.g. column delimited ASCII, NetCDF, GIF, JPEG, etc.)
- Data format and layout (i.e. description of header/data records, sample records)
- List of parameters with units, sampling intervals, frequency, range
- Data version number and date
- Description of flags, codes used in the data, and definitions (i.e. good, questionable, missing, estimated, etc.)

5.0 DATA REMARKS:

- PI's assessment of the data (i.e. disclaimers, instrument problems, quality issues, etc.)
- Missing data periods
- Software compatibility (i.e. list of existing software to view/manipulate the data)

6.0 REFERENCES:

- List of documents cited in this data set description

T-PARC DATA SUBMISSION INSTRUCTIONS

Return to EOL T-PARC Home Page

A T-PARC Data Management World Wide Web (WWW) page has been created and is accessible from the T-PARC home page. This page contains relevant links to project and data documentation, distributed data access, and other collaborating projects data sets.

An initial master list of all T-PARC international data sets (with links) has been compiled to provide easy access to all T-PARC data sets (both operational and research). Data sets are grouped by categories and sorted by data type. This list will be updated frequently. It is linked from the T-PARC data management WWW page or directly at: http://data.eol.ucar.edu/master_list/?project=T-PARC .

If you collected data for T-PARC, please review this list to verify that your data set(s) are properly named with the appropriate Principal Investigators (PIs) identified. Please e-mail any corrections, additions, or deletions directly to sfw@ucar.edu or loehrer@ucar.edu. If you already have your data sets available on-line, please provide the WWW link or FTP access information. Once your data set (with meta data) is available, a link will be provided from the master list WWW page along with a submission date to track future data set upgrades or revisions (if needed).

Please submit your data set(s) (including accompanying metadata or documentation files) to the U.S. T-PARC Long-term Data Archive at NCAR/Earth Observing Laboratory (EOL). Data set (and metadata) submission guidelines are available from the T-PARC Data Management Page or by direct link to: http://www.eol.ucar.edu/projects/t-parc/dm/data_doc.html .

To expedite matters, NCAR/EOL has established an anonymous FTP capability to accept your T-PARC data set(s). The Internet address is:

FTP: ingest.eol.ucar.edu
LOGIN: anonymous
PASSWORD: use your e-mail address
cd pub/incoming/tparc

It is very important to send an e-mail to sfw@ucar.edu and loehrer@ucar.edu, indicating that the data file(s) have been FTPed, along with the file(s) names, data contact information, any data restrictions, and appropriate file documentation (i.e. data formats, descriptions, acknowledgments, and metadata). Documentation files may be e-mailed to sfw@ucar.edu and loehrer@ucar.edu directly if preferred. If password protection is required for these data, please indicate this at the time of submission. You will receive a unique "user ID" and "password" that can be changed at any time upon request. For users without direct Internet access, or if your data set(s) are too large to FTP, you may send digital file(s) on magnetic or optical media (with documentation) by conventional mail to the NCAR/EOL shipping address below.

Thank you very much for your assistance in providing final data to the T-PARC archive. Feel free to contact me should you encounter any problems or have any questions.

Steve Williams
T-PARC Data Manager

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P.O. Box 3000
Boulder, Colorado, USA 80307

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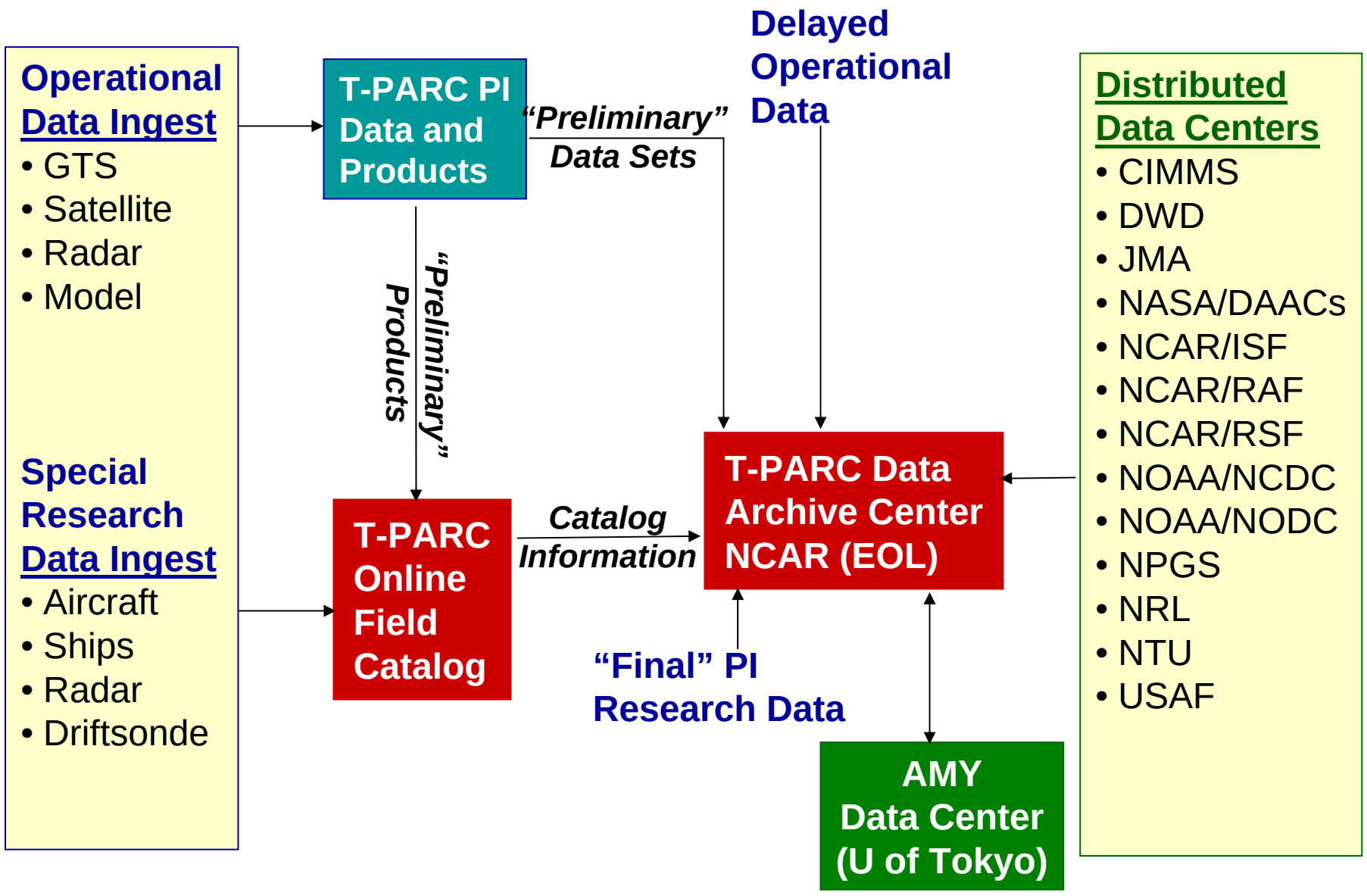
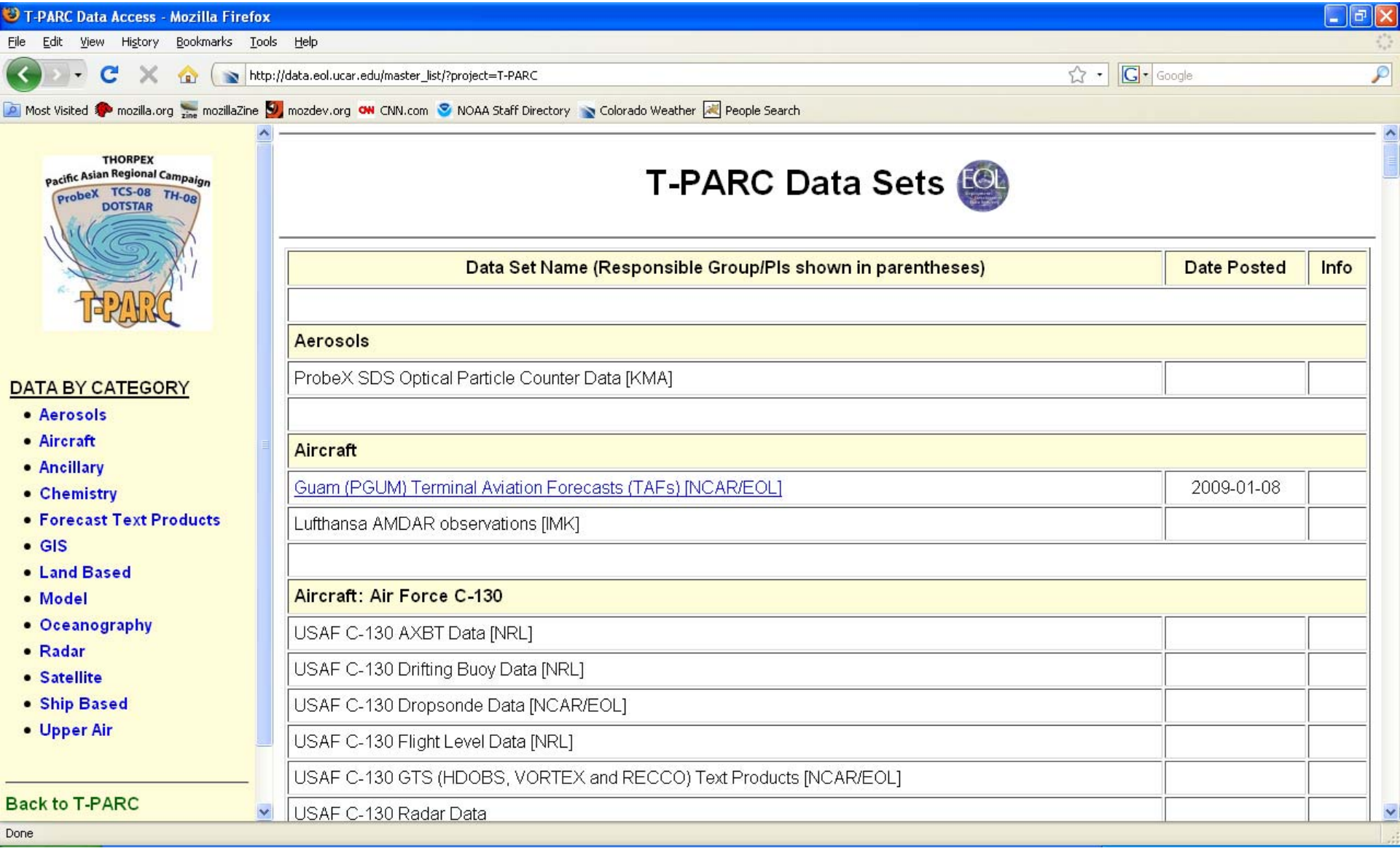
http://www.eol.ucar.edu/
Shipping Address:
UCAR Foothills Laboratory I
3450 Mitchell Lane
Boulder, Colorado, USA 80301

T-PARC/TCS-08 Data Flow Model




T-PARC Data Access - Mozilla Firefox
File Edit View History Bookmarks Tools Help
http://data.eol.ucar.edu/master_list/?project=T-PARC
Google
Most Visited mozilla.org mozillaZine mozdev.org CNN.com NOAA Staff Directory Colorado Weather People Search
THORPEX
Pacific Asian Regional Campaign
ProbeX TCS-08 TH-08
DOTSTAR
T-PARC
DATA BY CATEGORY
Aerosols
Aircraft
Ancillary
Chemistry
Forecast Text Products
GIS
Land Based
Model
Oceanography
Radar
Satellite
Ship Based
Upper Air
Back to T-PARC
T-PARC Data Sets
EOL
Data Set Name (Responsible Group/PIs shown in parentheses)
Date Posted
Info
Aerosols
ProbeX SDS Optical Particle Counter Data [KMA]
Aircraft
Guam (PGUM) Terminal Aviation Forecasts (TAFs) [NCAR/EOL]
2009-01-08
Lufthansa AMDAR observations [IMK]
Aircraft: Air Force C-130
USAF C-130 AXBT Data [NRL]
USAF C-130 Drifting Buoy Data [NRL]
USAF C-130 Dropsonde Data [NCAR/EOL]
USAF C-130 Flight Level Data [NRL]
USAF C-130 GTS (HDOBS, VORTEX and RECCO) Text Products [NCAR/EOL]
USAF C-130 Radar Data
Done

PROJECT PUBLICATION LIST AND ARCHIVE

T-REX Publications

(How to Submit Publication References to this List)

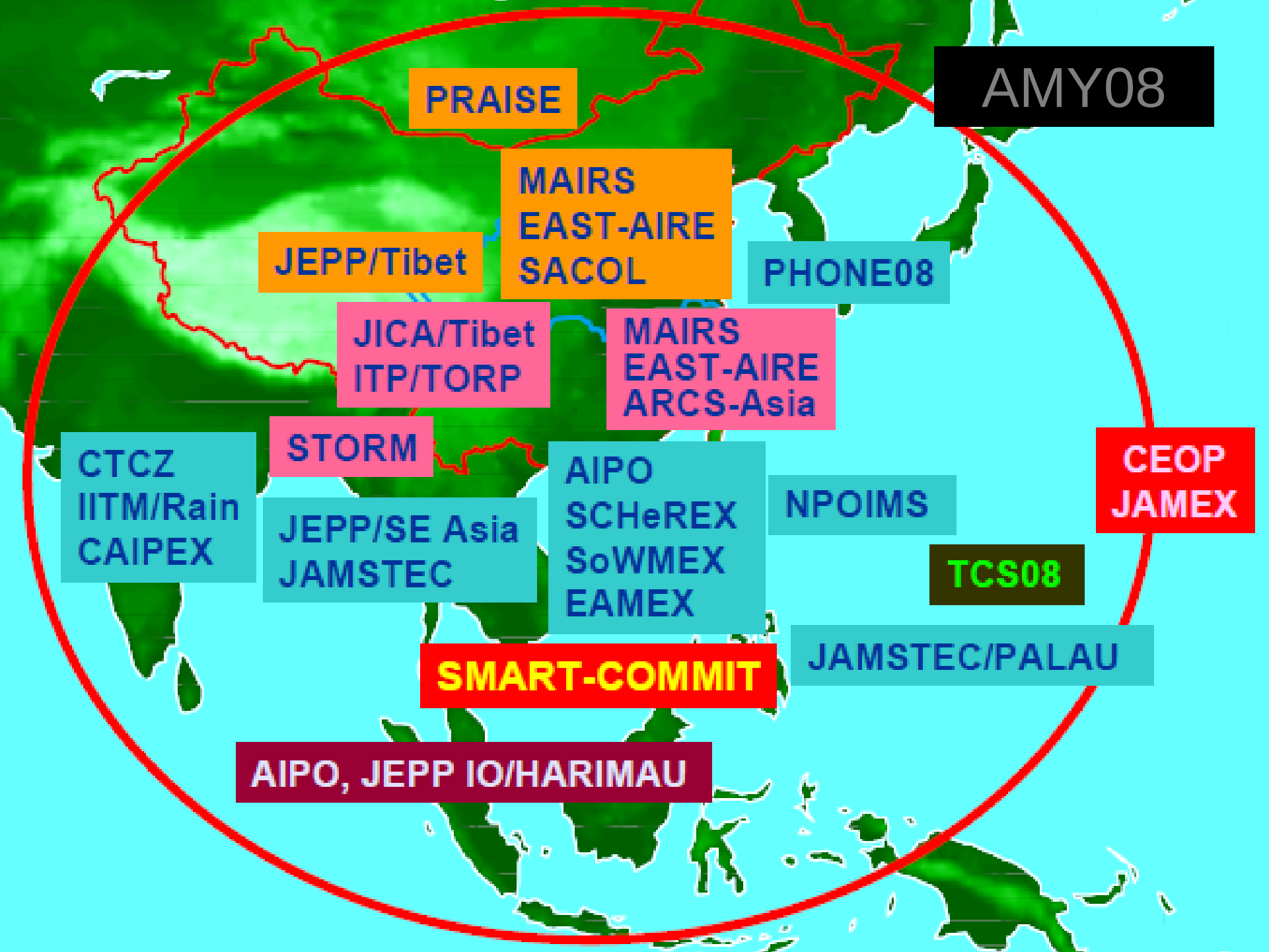
Web of Science Meteorological Abstracts - *(UCAR access only)*

Peer Reviewed Publications

- Doyle, J.D., and D.R. Durran, 2007: Rotor and sub-rotor dynamics in the lee of three-dimensional terrain. J. Atmos. Sci., 64, 4202.4221.
- Grubišić, V., and B. J. Billings, 2007: The intense lee-wave rotor event of Sierra Rotors IOP 8. J. Atmos. Sci., 64, 4178.4201.
- Grubišić, V., and B. J. Billings, 2007: Climatology of the Sierra Nevada mountain wave events. Mon. Wea. Rev. In press.
- Grubišić, V., and M. Orlić, 2007: Early observations of rotor clouds by Andrija Mohorovičić. Bull. Amer. Meteor. Soc., 88, 693-700.
- Poulos, G.S., J. Wang, D. K. Lauritsen, and H. L. Cole, 2007: Targeted dropwindsondes in complex terrain. J. Atmos. Oceanic Technol., 24, 1489-1494.
- Sheridan, P.F., Horlacher, V., Rooney, G.G., Hignett, P., Mobbs, S.D., and Vosper, S.B., 2007: Influence of lee waves on the near-surface flow downwind of the Pennines. Q. J. R. Meteorol. Soc., 133, 1353-1369.

Conference Proceedings

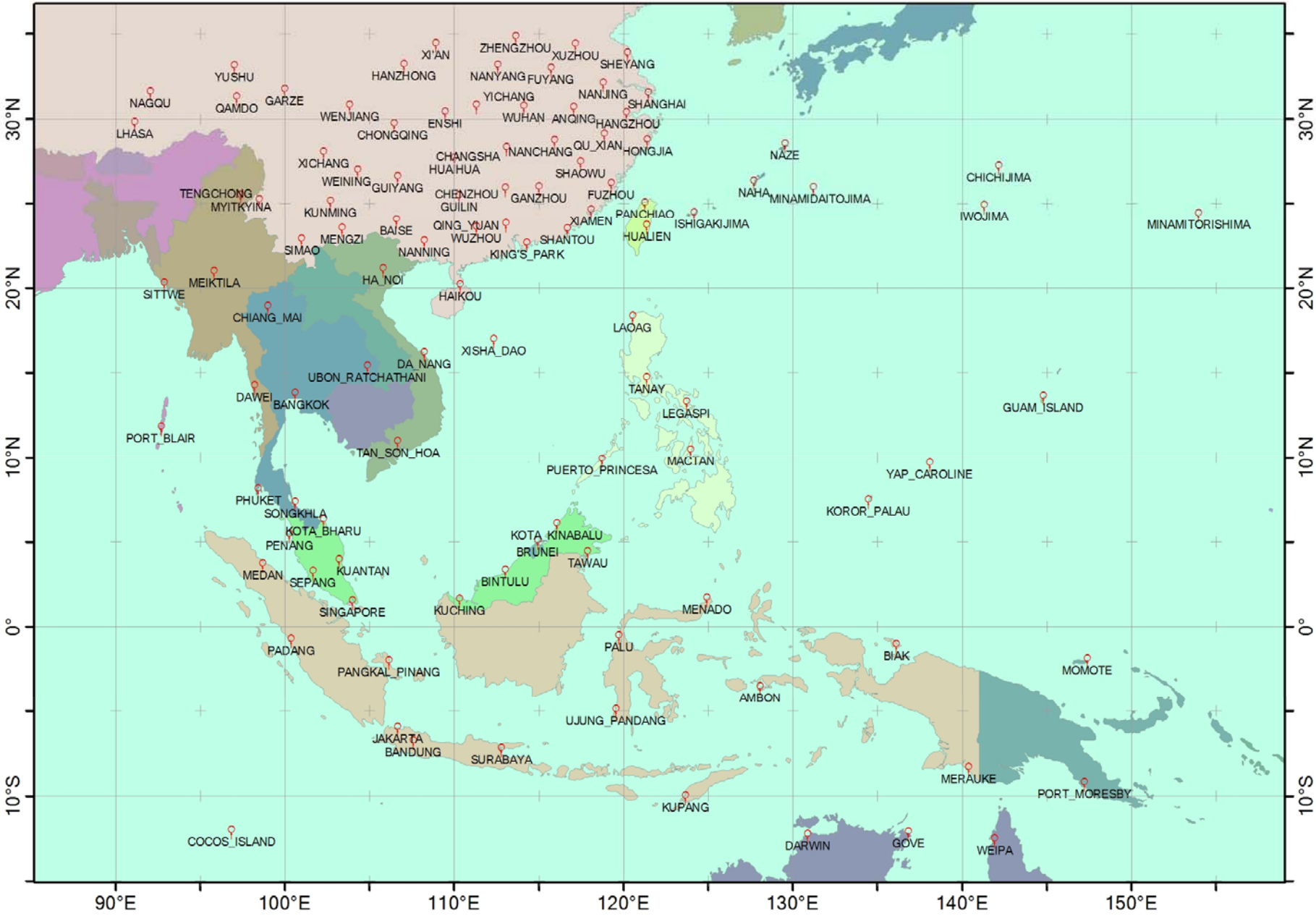
- Grubišić, V., L. Armi, J. P. Kuettner, S. J. Haimov, L. Oolman, R. R. Damiani, and B. J. Billings, 2006: Atmospheric rotors: Aircraft in situ and cloud radar measurements in T-REX. AMS 12th Mountain Meteorology Conference, Santa Fe, Amer. Meteor. Soc.
- Grubišić, V., and B. J. Billings, 2006: Sierra Rotors: A comparative study of three mountain wave and rotor events. Poster. AMS 12th Mountain Meteorology Conference, Santa Fe, Amer. Meteor. Soc.


AMY08
PRAISE
MAIRS
EAST-AIRE
SACOL
JEPP/Tibet
PHONE08
JICA/Tibet
ITP/TORP
MAIRS
EAST-AIRE
ARCS-Asia
STORM
CTCZ
IITM/Rain
CAIPEX
JEPP/SE Asia
JAMSTEC
AIPO
SCHeREX
SoWMEX
EAMEX
NPOIMS
CEOP
JAMEX
TCS08
SMART-COMMIT
JAMSTEC/PALAU
AIPO, JEPP IO/HARIMAU

AMY Project Description Summary and Data Collection

	Scientific Targets	Period	Area/Site	Data	URL
CEOP	Continental Hydroclimatology -Monsoon, Semi-arid, Cold, High-elevation -Aerosol, WEBS, Extreme, Isotope -Hydrological Application	07-10	Global	Reference sites (25 sites in Asia) NWP Models (MOLTS and 3D Grided Global) Satellites (250km, Monsoonal Region, Global)	http://www.ceop.net/
MAIRS	Interactions between the human-natural components	2005-2014	Semi arid: China Urban:Yangtze River Delta	Surface Fluxes, Atmospheric aerosols (dust). Land-cover-use, Biological components Aerosol propaties and emmision, Atmosphere chemical components,	http://www.mairs-essp.org/
ITP/TORP	Impact of the Tibetan Plateau on Global Change	05-15	Tibetan Plateau	3 Key PBL stations(Surface layer and Boundary layer, surface radiations, surface fluxes, soil parameters, temperature and water vapor vertical profiles), isotope, glacier, POPs, permafrost, dust storm, ecosystem, water vaper	http://www.itpcas.ac.cn/973/
SACOL	Monitoring of long term tendencies in climate changes Monitoring of the aerosol effect on water cycle Studies of interaction between land surface and atmosphere Improve the climate model; Validation of space-borne observations	From April 1, 2006 - Daily	Lanzhou	Boundary layer, Surface radiation, Surface fluxes, Soil parameters, Ambient air analyzers, Aerosol optical properties, Aerosol vertical profile, Temperature and water	http://climate.lzu.edu.cn/index.asp
PRAISE	Inter-annual and seasonal variability of hydrologic cycle in the strongly transitional zone of vegetation in the northeastern Asia, and their interaction with atmospheric and surface-biophysical processes. Specific topics includes, drought persistence and their relevance to the land-atmophere interaction and impact of land-use/land-cover change on the rainfall variability.	07-11	around Mongolia	Two flux sites in the Taiga forest and steppe grassland measures surface fluxes of momentumn, heat and water, radiation components, surface meteorology, and profiles of soil temperature and mositure, and biophysical parameters. Four AWSs measures surface meteorology, radiations, and soil temperature and mositure.	
AIPO	to identify the characteristics, patterns, and causes of air-sea interactions over the AIPO joining area and the intrinsic mechanisms of their impacts on the short-term climate anomalies over China.	06-11 May-June	East Luzon Island Karimata strait off Java coast Xi-Sha Island Northern SCS off Kuzon	Surface mooring Subsurface mooring Subsurface mooring Air-sea flux tower Intensive RV cruise Intensive RV cruise	http://973aipo.lasg.ac.cn/

Upper Air Sounding Stations of AMY



ARCHIVE ISSUES/ACTION ITEMS TO BE ADDRESSED

- Dataset Status
- Metadata/Documentation
- Any QC or other issues
- Expected Dataset Availability/Submission
- Publications

CONTACT: http://www.eol.ucar.edu/projects/t-parc

E-mail: sfw@ucar.edu