CSET
DATA MANAGEMENT

Steve Williams, Scot Loehrer, and Linda Echo-Hawk

NCAR Earth Observing Laboratory (EOL)

Computing, Data, and Software Facility (CDS)

CSET Science and Planning Meeting

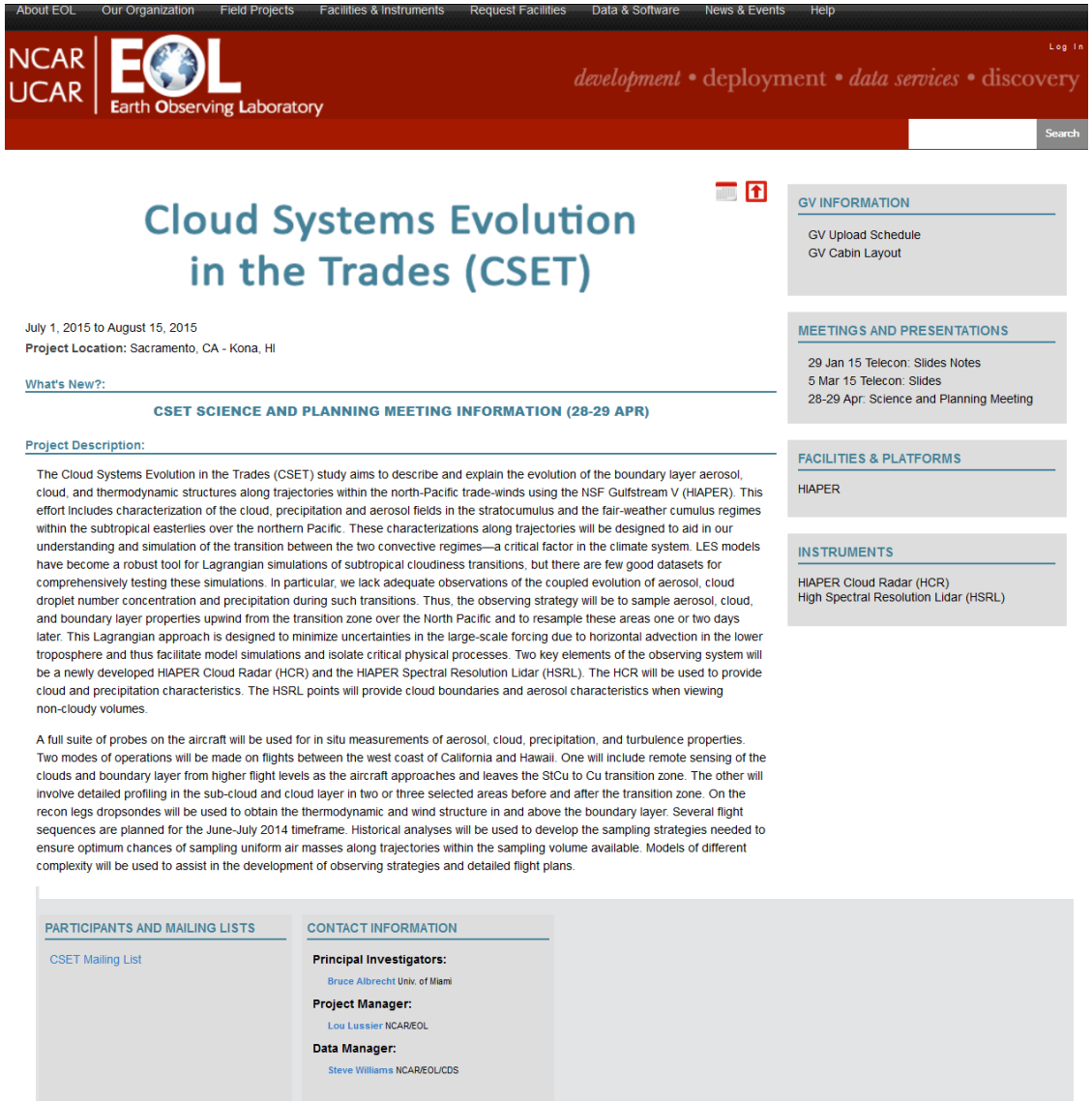
Boulder, CO

28-29 April 2015

EOL CSET support sponsored by NSF

NCAR

Project Web Site at NCAR/EOL



- **Project description**
- **Field Catalog**
- **Data Archive**
- **Publications**
- **Logistics**
- **Documents**
- **Meetings**
- **Mailing lists**
- **Education & outreach**
- **Contact Information**

https://www.eol.ucar.edu/field_projects/cset

CSET DATA POLICY CONSIDERATIONS

- Develop a Project Data Policy → In addition to the EOL Data Policy

- EOL Data Policy revised May 2014 and can be found at: http://www.eol.ucar.edu/content/eol-data-policy

  - EOL Facility data can only be restricted for a 12 month period starting at the end of the field phase. "Preliminary" Data will be available immediately following Field Phase

  - Letter requesting data restriction must be submitted to the EOL Director (> two months before the start of field project)

  - After 12 months, EOL Facility data will be open to the Science Community (even if other Project data remain restricted)

- CSET Project Data Policy must be approved by NSF

CSET DATA POLICY SUMMARY (Proposed)

- **All investigators must agree to promptly submit their processed "preliminary" data to the CSET archive no later than 15 February 2016**
- **All "preliminary" data shall be provided to other CSET Investigators upon request (restricted as appropriate)**
- **During the initial 1-year data analysis period, data may be provided to a third party (outside CSET) only with the permission of the investigator(s) who collected the data**
- **All data will be considered public domain not more than one year following the end of the CSET project (15 August 2016)**
- **Any use of the data will, at a minimum, include acknowledgment or use of DOI. Co-authorship TBD with the investigator(s) who collected the data**

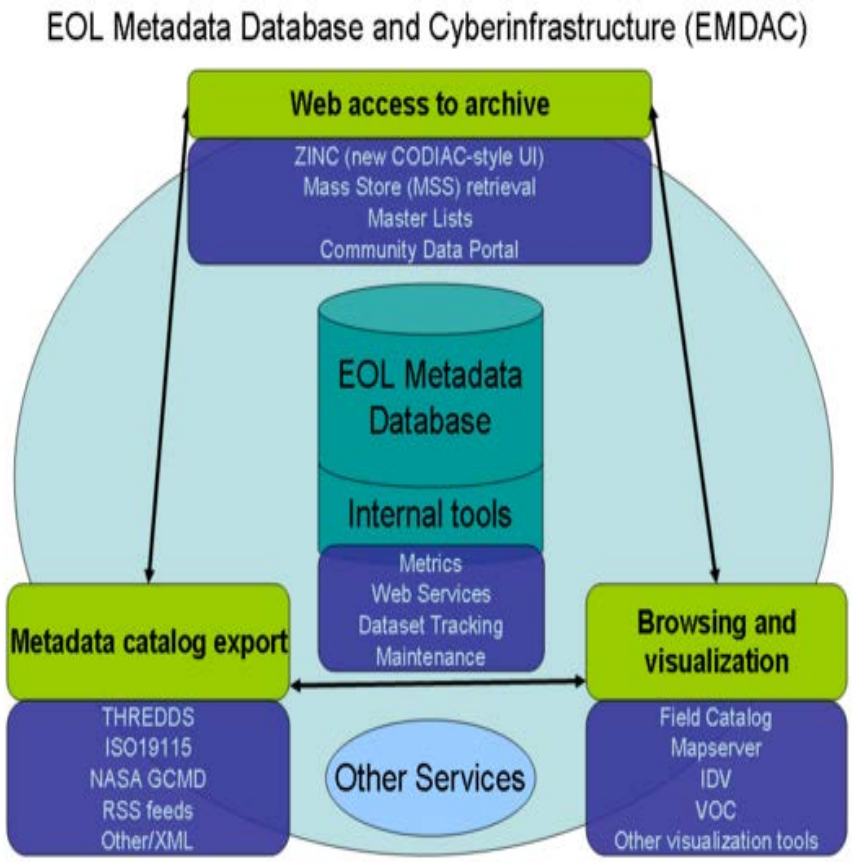
DRAFT CSET DATA MANAGEMENT MILESTONES

Event	Deadline
End of Field Campaign	15 August 2015
“Preliminary” Data Submission	15 February 2016
Final Data Submission	15 August 2016
Data Analysis Period (CSET Investigators have exclusive access to the data during this period). Data may be password protected	15 August 2015 to 15 August 2016
Data becomes Public Domain	15 August 2016

CSET Digital Object Identifiers (DOIs)

- DOIs becoming functional for proper citation of datasets (similar to publications).
- Provide users with a simple, standard way to reference datasets.
- Allows for the unique tracking of metrics for individual datasets.
- Allows for linking of related datasets and publications.
- NCAR has established a process for creating DOIs (DataCite Registration)
- DOIs are considered “perpetual” and provides proper attribution.

EOL DATA MANAGEMENT



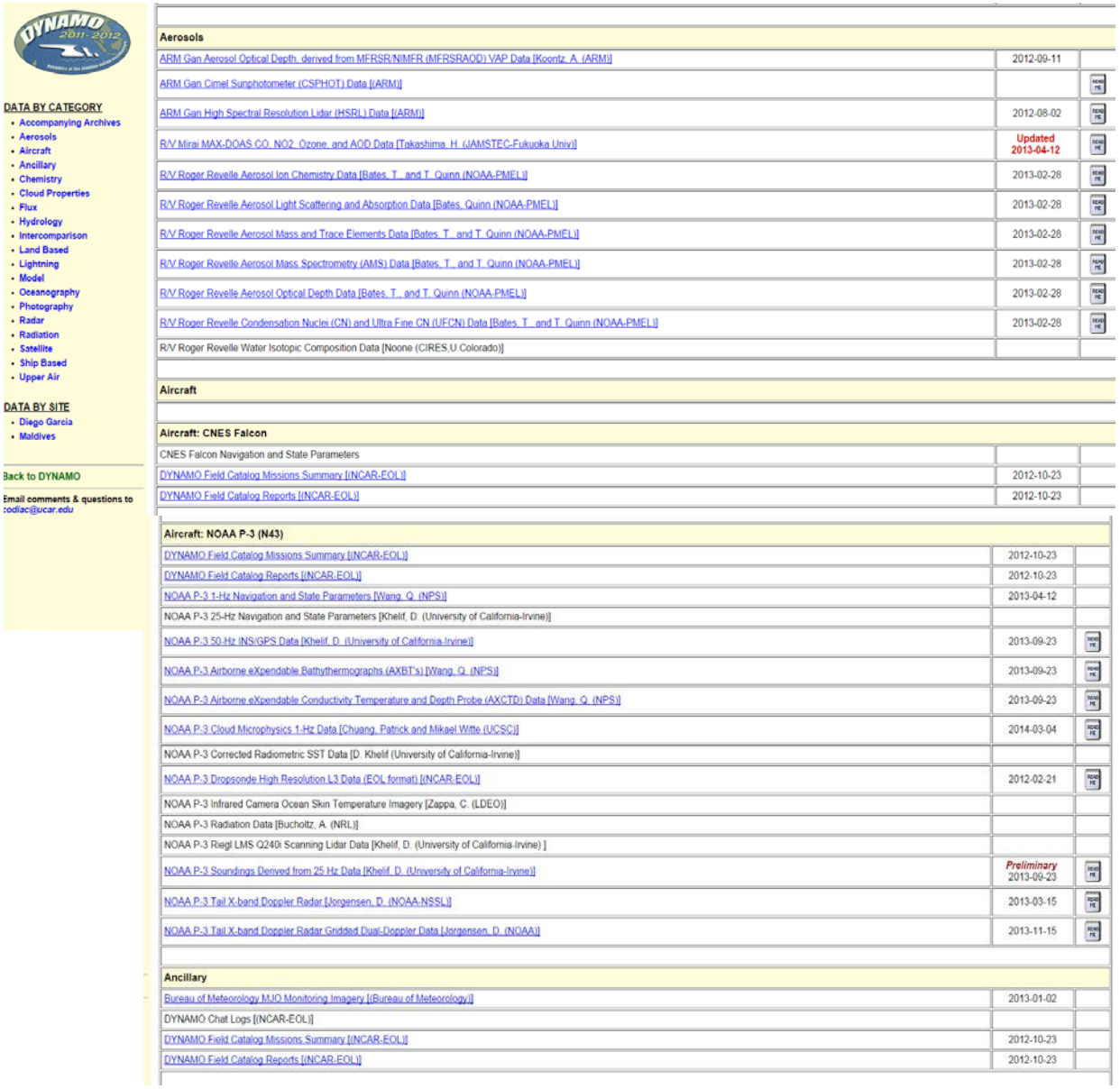
EOL Data System (EMDAC)

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**
- **Data documentation**

CSET Data Archive at NCAR/EOL



DATA BY CATEGORY
- Accompanying Archives
- Aerosols
- Aircraft
- Ancillary
- Chemistry
- Cloud Properties
- Flux
- Hydrology
- Intercomparison
- Land Based
- Lightning
- Model
- Oceanography
- Photography
- Radar
- Radiation
- Satellite
- Ship Based
- Upper Air

DATA BY SITE
- Diego Garcia
- Maldives

Back to DYNAMO

Email comments & questions to codiac@ucar.edu

Aerosols		
ARM Gan Aerosol Optical Depth, derived from MFRSR/NIMFR (MFRSRAOD) VAP Data [Koontz, A. (ARM)]	2012-09-11	
ARM Gan Cimel Sunphotometer (CSPHOT) Data [(ARM)]		
ARM Gan High Spectral Resolution Lidar (HSRL) Data [(ARM)]	2012-08-02	
R/V Mirai MAX-DOAS CO, NO2, Ozone, and AOD Data [Takashima, H. (JAMSTEC-Fukuoka Univ)]	Updated 2013-04-12	
R/V Roger Revelle Aerosol Ion Chemistry Data [Bates, T., and T. Quinn (NOAA-PMEL)]	2013-02-28	
R/V Roger Revelle Aerosol Light Scattering and Absorption Data [Bates, Quinn (NOAA-PMEL)]	2013-02-28	
R/V Roger Revelle Aerosol Mass and Trace Elements Data [Bates, T., and T. Quinn (NOAA-PMEL)]	2013-02-28	
R/V Roger Revelle Aerosol Mass Spectrometry (AMS) Data [Bates, T., and T. Quinn (NOAA-PMEL)]	2013-02-28	
R/V Roger Revelle Aerosol Optical Depth Data [Bates, T., and T. Quinn (NOAA-PMEL)]	2013-02-28	
R/V Roger Revelle Condensation Nuclei (CN) and Ultra Fine CN (UFCN) Data [Bates, T., and T. Quinn (NOAA-PMEL)]	2013-02-28	
R/V Roger Revelle Water Isotopic Composition Data [Noone (CIRES,U Colorado)]		
Aircraft		
Aircraft: CNES Falcon		
CNES Falcon Navigation and State Parameters		
DYNAMO Field Catalog Missions Summary [(NCAR-EOL)]	2012-10-23	
DYNAMO Field Catalog Reports [(NCAR-EOL)]	2012-10-23	
Aircraft: NOAA P-3 (N43)		
DYNAMO Field Catalog Missions Summary [(NCAR-EOL)]	2012-10-23	
DYNAMO Field Catalog Reports [(NCAR-EOL)]	2012-10-23	
NOAA P-3 1-Hz Navigation and State Parameters [Wang, Q. (NPS)]	2013-04-12	
NOAA P-3 25-Hz Navigation and State Parameters [Khelif, D. (University of California-Irvine)]		
NOAA P-3 50-Hz INS/GPS Data [Khelif, D. (University of California-Irvine)]	2013-09-23	
NOAA P-3 Airborne eXpendable Bathythermographs (AXBT's) [Wang, Q. (NPS)]	2013-09-23	
NOAA P-3 Airborne eXpendable Conductivity Temperature and Depth Probe (AXCTD) Data [Wang, Q. (NPS)]	2013-09-23	
NOAA P-3 Cloud Microphysics 1-Hz Data [Chuang, Patrick and Mikael Witte (UCSC)]	2014-03-04	
NOAA P-3 Corrected Radiometric SST Data [D. Khelif (University of California-Irvine)]		
NOAA P-3 Dropsonde High Resolution L3 Data (EOL format) [(NCAR-EOL)]	2012-02-21	
NOAA P-3 Infrared Camera Ocean Skin Temperature Imagery [Zappa, C. (LDEO)]		
NOAA P-3 Radiation Data [Bucholtz, A. (NRL)]		
NOAA P-3 Riegl LMS Q240i Scanning Lidar Data [Khelif, D. (University of California-Irvine)]		
NOAA P-3 Soundings Derived from 25 Hz Data [Khelif, D. (University of California-Irvine)]	*Preliminary* 2013-09-23	
NOAA P-3 Tail X-band Doppler Radar [Jorgensen, D. (NOAA-NSSL)]	2013-03-15	
NOAA P-3 Tail X-band Doppler Radar Gridded Dual-Doppler Data [Jorgensen, D. (NOAA)]	2013-11-15	
Ancillary		
Bureau of Meteorology MJO Monitoring Imagery [(Bureau of Meteorology)]	2013-01-02	
DYNAMO Chat Logs [(NCAR-EOL)]		
DYNAMO Field Catalog Missions Summary [(NCAR-EOL)]	2012-10-23	
DYNAMO Field Catalog Reports [(NCAR-EOL)]	2012-10-23	

- Will be linked on the CSET home page
- Data organized by categories and sites
- Includes operational as well as research data sets
- Data sets and documentation linked as they become available
- Notification of updates to data sets
- Research data sets will be password protected as required by the CSET Data Policy

CSET Dataset Documentation Guidelines

Data Set Documentation Guidelines

The documentation (i.e., the "Readme" file) that accompanies each project data set is as important as the data itself. This information permits collaborators and other analysts to understand any limitations or special characteristics of the data that may impact its use. Data set documentation should accompany all data set submissions, including both preliminary and final. The following outline and content is recommended and should be adhered to as closely as possible to make the documentation consistent across all data sets.

Data Set Documentation/Readme Outline:

Title: This should match the data set name

Author(s):

- Name(s) of PI and all co-PIs
- Complete mailing address, telephone/facsimile numbers,
- E-mail address of PIs, and web 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 web address references (i.e., additional documentation such as Project web 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 assurance and 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. Please provide links for any publications, if available.

Provides a set of guidelines for the layout and contents of documentation to be submitted with data sets to the CSET Data Archive.

CSET Dataset Submission Instructions

PECAN Data Submission Instructions

The PECAN home page contains relevant links to project and data documentation, distributed data access, and other collaborating projects' data sets.

An initial master list of all PECAN international data sets (with links) has been compiled to provide easy access to all PECAN data sets (both operational and research). Data sets are grouped by platform and sorted by data type (i.e., aerosol, cloud properties, radar, satellite, etc.). This list will be updated frequently. It is available directly at PECAN Master List.

If you collected data for PECAN, 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 Steve Williams. If you already have your data sets available on-line, please provide the web link or FTP access information. Once your data set (with metadata) is available, a link will be provided from the master list web 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 PECAN Long-term Data Archive at NCAR Earth Observing Laboratory. Data set (and metadata) documentation guidelines are available by direct link at: PECAN Data Set Documentation ("Readme") Guidelines.

To expedite matters, the EOL has established an anonymous FTP capability to accept your PECAN data set(s). The Internet address is:

FTP: ftp.eol.ucar.edu
Login: anonymous (*No password required.*)
cd /pub/data/incoming/pecan *(NOTE: This command should be done all in one step.)*

It is very important to **send an e-mail to sfw at 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., authorship information including corresponding author(s), data formats, descriptions, acknowledgments, and metadata). Documentation files may be e-mailed to sfw at ucar.edu directly if preferred.

The data set will be password protected unless a specific request is received indicating that we should NOT password protect the data set. You will receive a project-specific "user ID" and "password." 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 EOL shipping address below.

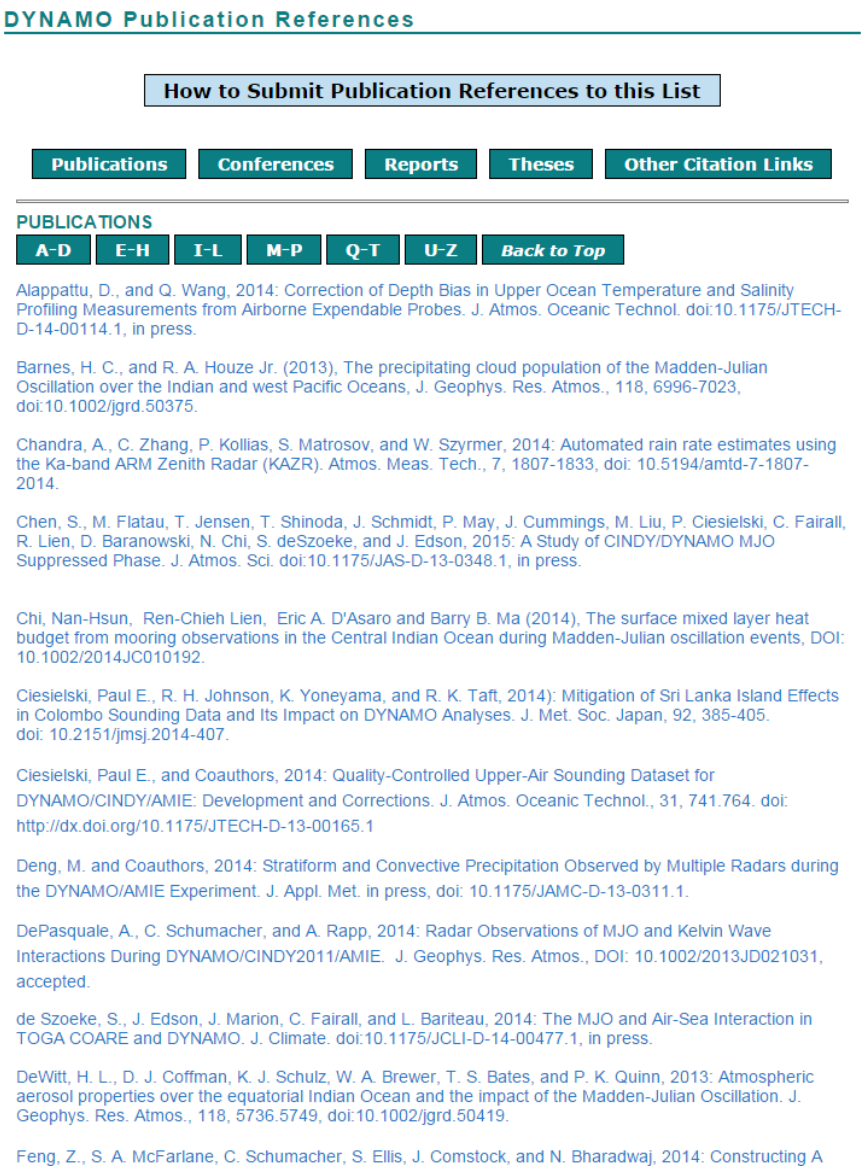
Thank you very much for your assistance in providing final data to the PECAN archive. Feel free to contact me should you encounter any problems or have any questions.

Steve Williams
PECAN Data Manager

Steve Williams
NCAR Earth Observing Laboratory (EOL)

- Provides the instructions for submitting data to the CSET Data Archive **after the field phase**.
- Important to send an email to sfw@ucar.edu when submitting data sets.
- **These instructions are different from those for uploading products to the field catalog.**
- There is no specified naming convention for data sets submitted to the CSET Data Archive.

CSET Publications Library



DYNAMO Publication References

How to Submit Publication References to this List

Publications | Conferences | Reports | Theses | Other Citation Links

PUBLICATIONS

A-D | E-H | I-L | M-P | Q-T | U-Z | Back to Top

Alappattu, D., and Q. Wang, 2014: Correction of Depth Bias in Upper Ocean Temperature and Salinity Profiling Measurements from Airborne Expendable Probes. J. Atmos. Oceanic Technol. doi:10.1175/JTECH-D-14-00114.1, in press.

Barnes, H. C., and R. A. Houze Jr. (2013), The precipitating cloud population of the Madden-Julian Oscillation over the Indian and west Pacific Oceans, J. Geophys. Res. Atmos., 118, 6996-7023, doi:10.1002/jgrd.50375.

Chandra, A., C. Zhang, P. Kollias, S. Matrosov, and W. Szyrmer, 2014: Automated rain rate estimates using the Ka-band ARM Zenith Radar (KAZR). Atmos. Meas. Tech., 7, 1807-1833, doi: 10.5194/amtd-7-1807-2014.

Chen, S., M. Flatau, T. Jensen, T. Shinoda, J. Schmidt, P. May, J. Cummings, M. Liu, P. Ciesielski, C. Fairall, R. Lien, D. Baranowski, N. Chi, S. deSzoeke, and J. Edson, 2015: A Study of CINDY/DYNAMO MJO Suppressed Phase. J. Atmos. Sci. doi:10.1175/JAS-D-13-0348.1, in press.

Chi, Nan-Hsun, Ren-Chieh Lien, Eric A. D'Asaro and Barry B. Ma (2014), The surface mixed layer heat budget from mooring observations in the Central Indian Ocean during Madden-Julian oscillation events, DOI: 10.1002/2014JC010192.

Ciesielski, Paul E., R. H. Johnson, K. Yoneyama, and R. K. Taft, 2014): Mitigation of Sri Lanka Island Effects in Colombo Sounding Data and Its Impact on DYNAMO Analyses. J. Met. Soc. Japan, 92, 385-405. doi: 10.2151/jmsj.2014-407.

Ciesielski, Paul E., and Coauthors, 2014: Quality-Controlled Upper-Air Sounding Dataset for DYNAMO/CINDY/AMIE: Development and Corrections. J. Atmos. Oceanic Technol., 31, 741.764. doi: http://dx.doi.org/10.1175/JTECH-D-13-00165.1

Deng, M. and Coauthors, 2014: Stratiform and Convective Precipitation Observed by Multiple Radars during the DYNAMO/AMIE Experiment. J. Appl. Met. in press, doi: 10.1175/JAMC-D-13-0311.1.

DePasquale, A., C. Schumacher, and A. Rapp, 2014: Radar Observations of MJO and Kelvin Wave Interactions During DYNAMO/CINDY2011/AMIE. J. Geophys. Res. Atmos., DOI: 10.1002/2013JD021031, accepted.

de Szoeke, S., J. Edson, J. Marion, C. Fairall, and L. Bariteau, 2014: The MJO and Air-Sea Interaction in TOGA COARE and DYNAMO. J. Climate. doi:10.1175/JCLI-D-14-00477.1, in press.

DeWitt, H. L., D. J. Coffman, K. J. Schulz, W. A. Brewer, T. S. Bates, and P. K. Quinn, 2013: Atmospheric aerosol properties over the equatorial Indian Ocean and the impact of the Madden-Julian Oscillation. J. Geophys. Res. Atmos., 118, 5736.5749, doi:10.1002/jgrd.50419.

Feng, Z., S. A. McFarlane, C. Schumacher, S. Ellis, J. Comstock, and N. Bharadwaj, 2014: Constructing A

- Will provide links to all CSET publications
- Includes refereed papers, conferences, reports, and theses.
- Needs the input of investigators.
- Can also include papers in submission stage (via password protection) if desired.

NCAR UCAR | EOL Earth Observing Laboratory — *Development • Deployment • Data • Discover*

DEEPWAVE

A study of deeply propagating gravity waves from the Earth's surface to the mesosphere

International Science and Operations Planning Meeting: Jan 21-22

DEEPWAVE INTERNATIONAL SCIENCE AND OPERATIONS PLANNING MEETING

21-22 January 2014

University of Canterbury

Christchurch, New Zealand

DEEPWAVE Meeting Summary Report

Meeting Presentations

NOTE: Password Required to View Presentations

For a PDF of one of the following presentations, click on the corresponding title. In some cases a PowerPoint Slideshow is also available, for those click on the PPSX after the title. A PowerPoint viewer can be downloaded from Microsoft.

TUESDAY, 21 JANUARY 2014

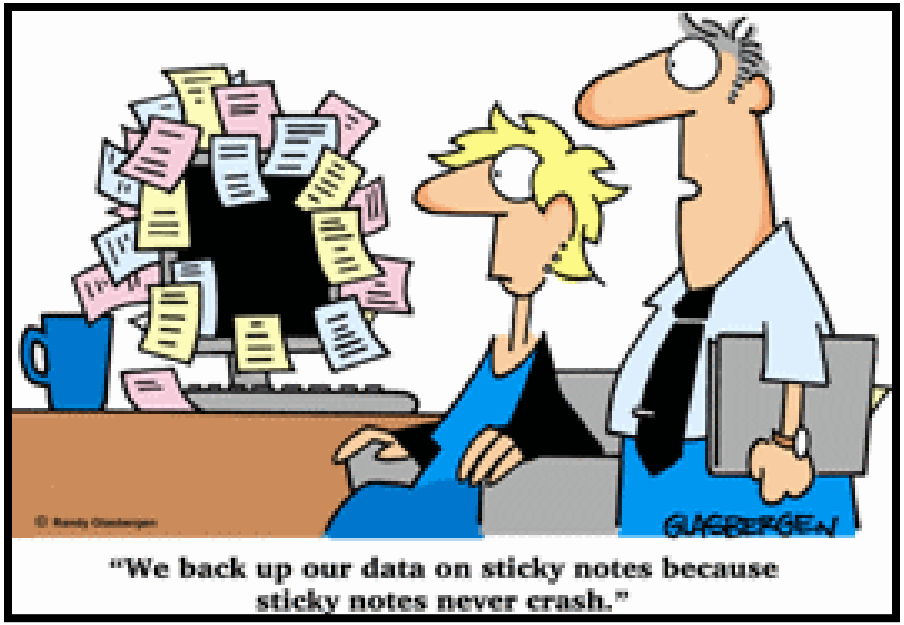
08:15 - 08:50	Light Breakfast
08:50 - 09:00	Introductions and Local Logistics (Andy Sturman, Ron Smith)
	DEEPWAVE PI presentations
09:00 - 09:30	DEEPWAVE Science Overview (Dave Fritts, GATS) [PPSX]
09:30 - 10:00	Satellite observations of waves in the middle atmosphere (Steve Eckermann, NRL)
10:00 - 10:20	Modeling and predictability of mountain waves (Jim Doyle, NRL)
10:20 - 10:30	Break
10:30 - 11:00	Mountain wave launching and energy diagnostics (Ron Smith, Yale)
11:00 - 11:30	Modeling gravity wave breakdown in the middle atmosphere (Dave Fritts, GATS) [PPSX]
11:30 - 12:00	Results from the 2013 DEEPWAVE Dry Run (Smith, Doyle, Fritts and Eckermann)
12:00 - 13:30	Lunch

…. Finally, please provide a final copy of your PPT presentation for this Planning Meeting Documentation.

A PDF and/or PPSX copy of your presentation (not the PPT file) will be posted on the CSET web site (password protected)

CDS

EARTH OBSERVING LABORATORY — Development Deployment Data Services Discovery



Thank you!
Questions?

https://www.eol.ucar.edu/field_projects/cset

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Scot Loehrer (loehrer@ucar.edu)
Linda Echo-Hawk (echohawk@ucar.edu)