

XDC MAY 2010 MONTHLY REPORT

3. LOOKING AHEAD

XDC:

WEBSERVER: Evaluate performance issues with new web design. Need to consider alternate configurations with load-balanced servers and new DB machines with more memory. **Update:** *Attached hardware requirements and specifications for review and ordering to ECO-786. Next:* *HW to be ordered by PNNL in June.*

ACRF SECURITY: Improve security at ACRF Web sites containing sensitive information (See ECO-612 and ECO-563). SSL Certificates are in place. LDAP servers are running at BNL and ANL and the BNL server is getting any updates from the PeopleDB and is replicating those updates to the ANL server. **Update:** *Examined options for Single-Signon application, and settled on the open-source Jasig Central Authentication Service. Next:* *Develop applications, e.g.: PeopleDB profile editor, IT VLAN and work towards implementing a single sign-on system.*

AMF Ancillary Facility Data for China: Make data available before STM. **Update:** *Completed the data for the first deployment site (Zhangye, Western China), Additional data for the second deployment (Xianghe) have been delivered to the XDC. Next:* *Complete metadata for data delivered. Update:* *summer student arriving in June to work on metadata.*

WEB SYSTEM: Generate usage statistics for all web pages; analyze trend over ACRF whole period of existence. Installed new version of webalyzer and enabled GeoDB feature to get a more reliable picture of the geographical distribution of our web-visitors, submitted initial results for review by Rolanda and Jim Mather, ran statistics over entire period of record (1997 to present). **Update:** *Automated statistics to update on a weekly basis and publish to <http://www.arm.gov/usage/> and equivalently for all the other virtual hosts.*

ASP FC DATA: Merge past ASP data into the FC metadata system. **Update:** *Archive upgraded FC data-storage system, will easily accommodate ASP data. Next:* *Meet with Stephen Springston, the archivist of the ASP data, to review data content and define PMTs for documentation. This is currently a low priority.*

VISST: Satellite based retrievals of cloud and radiation properties by Pat Minnis' group at NASA/Langley using the VISST (Visible Infrared Solar-Infrared Split Window Technique) algorithm will be available soon for Darwin, Manus and Nauru. The

data streams are both pixel-level (4-km) retrievals and averages on a 0.3 or 0.5 degree latitude-longitude grid. **Update:** *VISST-derived gridded and pixel cloud and radiation products from MTSAT now available.* **Next:** *Data usage notes and documentation updates, and news-item announcement.*

XDC Documentation: Update details on all XDC activities and prepare status update for Jim Mather's visit in May. **Update:** *Reviewed and updated XDC documentation and prepared BNL database dependencies overview.*

CSPHOT ARRA Instruments: Many issues with currently deployed instruments. May need to accelerate their refurbishment/recalibration by swapping in the new ARRA instruments when they arrive. **Update:** *3 of 6 new CSPHOTs arrived in May, remainder expected in June.* **Next:** *ARRA instruments will be shipped via SGP to Aeronet for pre-deployment calibration. Laurie Gregory, Richard Wagener, and Lynn Ma to visit Aeronet operation at NASA GSFC at the end of July to discuss various deployment/calibration options and instrument maintenance issues.*

5. NEW INSTRUMENTS AND DATA STREAMS

XDC:

VISST: VISST-derived pixel cloud and radiation products from the GOES9 satellite are available through the Archive for Darwin, Manus and Nauru for May 2003 through October 2005 (twpvisst###pxg09v3minnisX1.c1, where ### = dar, man, nau).

VISST-derived gridded and pixel and cloud and radiation products from the MTSAT satellite are available through the Archive for Darwin, Manus and Nauru for October 2007 through December 2007 (twpvisst###pxm1rv3minnisX1.c1, twpvisst###gridm1rv3minnisX1.c1, where ### = dar, man, nau).

VISST-derived gridded cloud and radiation products from the MTSAT satellite are available through the Archive for the entire TWP domain (10N-20S, 120E-180W for October 2007 through December 2007 (twpvisstgridm1rv3minnisX1.c1).

DATASETS SUBMITTED TO THE FIELD CAMPAIGN BROWSER THROUGH THE XDC:

AAF DATA- Continued receiving final data for the RACORO FC:
<http://www.arm.gov/campaigns/aaf2009aafcloud/>

6.ACCOMPLISHMENTS

XDC:

WEB STATISTICS: Automated generating statistics on a weekly basis, including a geographic distribution of users (<http://www.arm.gov/usage/>).

7.MEETINGS

XDC:

Hosted Jim Mather for an update on XDC activities.

8. ISSUES

XDC:

AOS/MAOS: XDC folks met with Springston folks to begin to answer DMF ingest developer questions about upcoming instruments.

CSPHOT & SUOMINET MENTORSHIP: Continue to monitor Cimel issues. Updating ingest for level 2, version 2 Data. Updated handbook, now under review. Unit #99 at Graciosa (GRW) was replaced with unit #98 (DQPR 2403). The Nauru instrument is having problems with channel 340 (DQPR 2397). Continue to review and consult on ARRA purchase (ECO-00765). Three new ARRA Cimels arrived in May and are begin calibrated, with 3 more expected in June. The XDC is planning to meet with Aeronet in July. Details on individual Cimel issues are available in the IMMS report <http://www.db.arm.gov/IMMS/>.

LDAP: Configuring LDAP production server for implementing a single sign-on. Configured CAS to use LDAP. Set up Basic login process.

RESEARCH HIGHLIGHTS: Numerous changes have been made, primarily to serve both the ARM and ASR Web sites.

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PEOPLE DB: Created a summary table of all ARM email mailing lists,
<https://www.arm.gov/people/pw/email-list-summary>

TDMA: A preliminary copy of the TDMA handbook has been received. Awaiting comments on the ECO before being handed off to the web publishing team. The new TDMA-APS ingest is completed, but needs a review before being tested on development. Work on three new TDMA-APS size distribution ingests has been started. Waiting on new data (size distribution, hygroscopic, CCN and new TDMS/APS). See ECO-00587, BCR-01491.

DQPR/PIFCARDQR: Work progressing well on requests for additions and bug fixes to the DQPR2 system. Only a few issues remain. Waiting for feedback on 'DQPR Activity and Comment History Summary' tool requested by Rick Wagener. (See EWO-13212 for additional information).

NWS SOUNDINGS: Received quality controlled high resolution sounding data for January and February 2010. The following data streams are available through the ARM Archive:

nsa06snwsupabrwX1.00, nsa06snwsupabrwX1.b1

sgp06snwsupaddcX1.00, sgp06snwsupaddcX1.b1

sgp01snwsupaounX1.00, sgp01snwsupaounX1.b1

sgp01snwsupatopX1.00, sgp01snwsupatopX1.b1

FILE TRANSFER STATS: The XDC sent 15,061 files with a volume of ~310 GB this month.