

# **XDC JANUARY 2008 MONTHLY REPORT**

## **1. LOOKING AHEAD**

**NSA:**

**SGP:**

**TWP**

**XDC:**

XDS DOCUMENTATION: Integrate XDC data stream documentation into the main ARM Web page so external data streams are more easily found.

PUBLIST: Convert PubList in text format to php database Web application.

ACRF SECURITY: Improve security at ACRF Web sites containing sensitive information. This has gotten some action again, see ECO-612 and ECO-563. Canceled BNL order of SSL certificates and will wait for certificates from PNNL.

PROBLEM REPORTING: With the webserver issues resolved, will focus attention on ECO-545 to consolidate DQPR and PIF/CAR problem reporting forms.

**MANUS:**

**NAURU:**

**DARWIN:**

**DMF:**

**SDS:**

**EOP:**

## **2. IOPS AND CAMPAIGNS**

### **3. NEW INSTRUMENTS AND DATA STREAMS**

**NSA:**

**SGP:**

**TWP:**

**XDC:**

FKB GFS: New data streams from NCEP NWP Global Forecast System associated with AMF site FKB are now available from the ARM Archive. Please see <http://www.arm.gov/xds/static/gfs.stm> for the details.

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fkbncepgfsflxX1.c1  
fkbncepgfspprofX1.c1  
fkbncepgfssfcX1.c1  
fkbncepgfssprofX1.c1  
fkbncepgfszprofX1.c1

#### **DATASETS SUBMITTED TO THE IOP BROWSER THROUGH THE XDC:**

BETA-DATA- (No new datasets added this month.)

AMF IOP-DATA- (No new datasets added/modified this month.)

TWP IOP DATA- (No new datasets this month.)

SGP IOP DATA- Added or updated the following IOP datasets:

<http://iop.archive.arm.gov/arm-iop/2006/sgp/mwr/cadeddu-mwr/>  
<http://iop.archive.arm.gov/arm-iop/2006/sgp/ramix/fischer-radon/>  
<http://iop.archive.arm.gov/arm-iop/2007/sgp/pgs/fischer-pflx/>  
<http://iop.archive.arm.gov/arm-iop/2006/sgp/pgs/fischer-pflx/>  
<http://iop.archive.arm.gov/arm-iop/2005/sgp/pgs/fischer-pflx/>  
<http://iop.archive.arm.gov/arm-iop/2004/sgp/pgs/fischer-pflx/>  
<http://iop.archive.arm.gov/arm-iop/2003/sgp/pgs/fischer-pflx/>

<http://iop.archive.arm.gov/arm-iop/2002/sgp/pgs/fischer-pflux/>  
<http://iop.archive.arm.gov/arm-iop/2001/sgp/pgs/fischer-pflux/>

NSA IOP DATA- (No new datasets added/modified this month.)

SPECIAL-DATA: Halthore's Intercomparison results of shortwave radiative transfer models:

[http://iop.archive.arm.gov/arm-iop/0special-data/Shortwave Radiative Transfer Intercomparison/](http://iop.archive.arm.gov/arm-iop/0special-data/Shortwave_Radiative_Transfer_Intercomparison/)

PI-DATA: New Torn carbon data have been arrived this month:

<http://iop.archive.arm.gov/arm-iop/0pi-data/torn/ccg-flasks/>  
<http://iop.archive.arm.gov/arm-iop/0pi-data/torn/co2-16flask/>

SGP IAP 2006: (No new datasets added this month.)

**DMF:**

**4. ACCOMPLISHMENTS**

NSA:

SGP:

TWP:

XDC:

IMMS: Completed BCR-01447: Installed upgraded Instrument Mentor Monthly Summary (IMMS) Reporting System.

RUC/NCEP GRIB2: RUC raw input data changed from GRIB1 to GRIB2. The GRIB2 format has much better compression and is more organized. Installed software and scripts to switch the collection and ingest to handle grib2 files. Also, updated the "Reading netCDF, HDF, and GRIB Files" ARM web site to include information for our users on using grib2 and converting from grib2 to grib1 and netCDF. RUC 20 isobaric and hybrid files are available in grib2 at the Archive starting 2/1/08.

**MODEL INTERCOMPARISONS:** Installed Rangshai Halthore's intercomparison results of shortwave radiative transfer models in the Special Data area of the Archive:

[http://iop.archive.arm.gov/arm-iop/0special-data/Shortwave\\_Radiative\\_Transfer\\_Intercomparison/](http://iop.archive.arm.gov/arm-iop/0special-data/Shortwave_Radiative_Transfer_Intercomparison/)

**NCEP GFS:** NCEP Global Forecast System netCDF data are now available for the AMF site Black Forest, Germany (FKB). See BCR-01449 and XDC documentation for further details (<http://www.arm.gov/xds/static/gfs.stm>) .

**DMF:**

**SDS:**

**EOP:**

## **5. MEETINGS**

**NSA:**

**SGP:**

**TWP:**

**XDC:**

**EOP:**

**DMF:**

**SDS:**

## **6. ISSUES**

**NSA:**

**SGP:**

**TWP:**

**GENERAL:**

**MANUS:**

**NAURU:**

**DARWIN:**

**XDC:**

**WEB SERVER:** There was some “fallout” associated with the move to the new webserver environment in December that occupied much of Kathy, Min, and Rick’s time this month.

**XDC DATA SYSTEMS:** Installation of SWAWT on XDC data systems is currently on hold due to higher priorities.

**CSPHOT & SUOMINET MENTORSHIP:** Continued to monitor Cimel issues. Unit #98 is being shipped back for calibration from the FKB AMF. There are instrument problems with the Nauru Cimel. (DQPR-1871) The Barrow Cimel has been calibrated and is ready to be put back into the field. More details on individual Cimel issues available in the IMMS report <http://www.db.arm.gov/IMMS/> .

**SUOMINET MENTORSHIP:** Compiled and installed code from Jim Liljegren for generating comparison plots for Suominet data. This should help us to determine if the problem noted in DQR D060913.1 has been fixed with the latest version of the data. Updated documentation with latest station map (see XDC Documentation below.)

**RUC13:** RUC 13 isobaric files are now available from NCEP. Starting the process to collect these files. Changes to the ingest will come later. (BCR-01453).

**RESEARCH HIGHLIGHTS:** Submitted cost estimate for major modifications to the Research Highlights application. (No additional work this month.)

**TDMA:** In the process of constructing DODs for the four separate datastreams that will be generated from the TDMA data. These DODs will be added to the ECO-00587 for review. The ingest is being updated to handle multiple input and output data sets. Currently awaiting reprocessed data from Don Collins.

**GOOGLE SEARCH ENGINE:** Contacted Google support for assistance with an abnormally large index. Google had some erroneous information regarding our support contract, which has been straightened out. Also generated monthly statistics for Sept - Dec 2007. After viewing, quarterly statistics will be generated instead.

**WEBSERVICES:** SOAP Services was set up for providing mail list information. Sherman at PNNL confirmed he could get the data through the test scripts. (No additional work this month.)

**OPENLDAP:** LDAP will replace the current Apache/mod\_perl authentication and authorization and provide better performance, reliability and scalability. It will also help when we move to Single Sign-On (SSO) plan. Currently configured Kerberos for securing LDAP. Need to figure out a way to solve the problem of one machine with multiple host names. Probably need to re-configure DNS. (No additional work this month.)

**SSL CERTIFICATE:** Rick inquired about getting a SSL certificate issued from ESnet; they recommended going with a commercial provider. BNL uses Geotrust and has a wildcard certificate that is only good for \*.bnl.gov hosts. ARM needs to buy separate certificate, depending on type from \$250/a. to \$800/a. **UPDATE:** Obtained permission from Jim Mather to register \*.arm.gov with Geotrust, and ordered a wildcard certificate for \$1079 including 1 year support. [No additional work in January: Order was canceled in early February because it was decided to try to get a limited number of individual certificates through PNNL.]

**XDC METRICS:** Looking into installing ARM system metrics at the XDC. (No additional work this month.)

**MTSAT WEB APPLICATION:** MTSAT composite images are available through ([http://www.xdc.arm.gov/data\\_viewers/twpmtsat\\_composite](http://www.xdc.arm.gov/data_viewers/twpmtsat_composite)). Currently working on new web application to handle all the composite images for NSA, SGP, TWP GOES and TWP

MTSAT. The application has been modified to run more quickly and efficiently. (It will go into production after web servers are installed on new production machine.)

GOOGLE MAPS: Added code to detect web navigator and call the appropriate javascript accordingly. Currently, and into the foreseeable future, Internet Explorer will run differently than all other navigators, such as Firefox, Safari, etc. The latest version of the sites map will be published to production in early February.

SITE DRIVING DIRECTIONS: (No new directions this month.)

GLOBAL FORECAST SYSTEM (GFS) NCEP DATA: Visualizations are on hold due to higher priority work. (No additional work this month.)

ETA AND GFS MODEL DATA: Updated ECO-00532 with requested changes to header. Data stream is still being reviewed. See ECR-00476 and ECO-00532 for further details. (No additional work this month.)

FIELD CAMPAIGN DATA: Continued working on EWO-11875- Link to past Field Campaign web pages for each site. Put modifications to layout of past field campaign web page into production.

DQPR, DQA: Made a minor change to display of DQA report entry screen

SARS: Began preparing SARS for AMF China deployment.

PI DATA PRODUCTS: Continued work in support of ECO-00599 “Handling of PI Data Products”. Awaiting input on current development efforts.

ARM METADATA: Continued work on an application similar to the current IOP metadata system and the PI Products system being built, to potentially be used to support general ARM data stream metadata assignments and modifications. (No additional work this month.)

AMERIFLUX: (No new data this month.)

<http://iop.archive.arm.gov/arm-iop/0special-data/ameriflux/>

**NWS SOUNDINGS:** New quality assured data for Sept and Oct 2007 arrived from NCAR for the following data streams: nsa06snwsupabrwX1.b1, sgp06snwsupaddcX1.b1, sgp06snwsupatopX1.b1, sgp01snwsupaounX1.b1

**BIRTH OF A DATA STREAM (BODS):** (No new BODS this month.)

**XDC DOCUMENTATION:** Updated documentation for the Suomi Network GPS stations:

<http://www.arm.gov/xds/static/suomigps.stm>

**FILE TRANSFER:** The XDC sent 10,587 files with a volume of ~378 GB this month.

**DMF:**

**SDS:**

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**7. SPENDING REPORT:**

(Report sent under separate cover.)