

THEMIS/ARTEMIS Software Users,

The THEMIS/ARTEMIS Project announces the release of Version 7.00 of the THEMIS Science Data Analysis Software. Version 7.00 contains the following significant New Features and Enhancements to THEMIS/ARTEMIS Data Products and Web Site:

THEMIS/ARTEMIS Data Products:

- All Sky Imager (ASI) products are available as follows:
 - a. L1 cdf's and Mosaics are up to date and available through 1/31/2012.
 - b. Thumbnail cdf files and overview plots are available through 02/29/2012. Thumbnail movies are available through 12/31/2011.
 - c. Full resolution raw data is available and complete for 2007-2010. 2011 complete through September 2011. Full resolution cdf's and keograms are available and complete for 2007-2010. 2011 complete through April 2011.
 - d. Web site Mosaics and Movies have been reprocessed for 2007-2011 seasons. They are up to date and available through December 2011.
- Reprocessed L2 ESA and SST files to remove data for times when the spin period was less than 2.5 seconds. For short spin periods, the IDPU incorrectly assigns time tags to particle distributions.
- Reprocessed L1 ESA and SST files to identify and remove "singleton mode changes", or samples with invalid data that occur when a configuration change is in progress.
- Reprocessed L2 ESA and MOM files to remove problems with duplicate solar wind flag variables.
- Data is now updated daily for most sites in the Greenland/Denmark/Norway network. (Users should note that this is raw, uncalibrated data.) There are also some new sites for which data was not previously available through TDAS: Dombas (DOB), Tristan DaCunha (TDC), Rømø (ROE), Jackvik (JCK).
- Reprocessed L2 FGM data with updated calibration data.
- THEMIS/ARTEMIS spin axes offsets are up to date. (2011-08)
- University of Alberta's GMAG data for listed sites (FSIM, FSMI, GILL, PINA, RANK, SNKQ, ATHA) after May 2011 has been retrieved. In addition MACCS network data for listed sites (CDRT, CRVR, GJOA, NAIN, PANG, IGLO, RBAY) after April 2011 has been recovered as well.
- The Bay Mills magnetometer was installed facing south rather than north in September 2010. The data has now been rotated so that the components are correct. Data from Pine Ridge and Hot Springs has also been reprocessed back to June 2009 and May 2008, respectively, due to calibration changes.
- The L1 STATE cdfs (V00, V01, V02, V03) have been reprocessed for the entire mission. Enhancements are as follows:
 - a. New variables have been added for probe positions and velocities in lunar (SSE and SEL) coordinates.
 - b. Enhanced shadow spin model is now available in standard data products.
 - c. Enhanced spin axis attitude and spin phase corrections for inner probes (THA, THD, THE) for times between March 2010 and September 2011 are now implemented.
- The Data Analysis Center for Geomagnetism and Space Magnetism of the Graduate School of Science, Kyoto University has made the final Kyoto DST data available to TDAS users through Dec 2008.
- The location of the REDR GMAG station was incorrectly listed in the CDF. This has been fixed, and the CDFs have been reprocessed.
- GMAG data from ABK (Abisko, Geological Survey of Sweden), BRW (Barrow, USGS), FCC (Fort Churchill, Geological Survey of Canada), and YKC (Yellowknife, Geological Survey of Canada) is now available through TDAS. Users should note that some data may be uncalibrated, and that data for ABK, FCC, and YKC is at present provided in geographic XYZ rather than geomagnetic XYZ coordinates.
- Pseudo-AE index CDFs have been reprocessed to keep up with changes in the list of excluded AE sites, which is updated approximately once per month.
- L1 solar and lunar ephemeris/attitude CDFs were reprocessed using an updated SPICE/ICY kernel, for better consistency between TDAS coordinate transforms and the mission planning software used by the MOC.

THEMIS/ARTEMIS Web Site

- The list of ASI and GMAG sites and their longitudes and latitudes has been updated.
- The THEMIS/ARTEMIS online help request form has been modified to send the submitter an email notification to confirm their request was submitted.
- Revised magnetometer list to include latest mag coordinates and addition of complete Greenland and Europe sites.
- New related site for Inter-university Upper atmosphere Global Observation NETwork (IUGONET) has been added.
- The THEMIS/ARTEMIS home web pages have been updated as follows:
 - a. added ARTEMIS orbit insertion information
 - b. 2011 nugget animations
 - c. additional meta tags for better search results for inquiries
 - d. added favicon (shows up in browser and bookmarks),
- The THEMIS Data Processing Page has been updated with new reports for Probe Data Processing File Recovery and Stats. An option "BDPS Description" is available which describes how to use and the contents of the new reports.
- Summary plot keys created for all THEMIS/ARTEMIS probe subplots.
- Summary Plot navigation keys now at the top and bottom of the web page.
- Remaining Links activated on the Data Overview web page.
- The Ground Magnetometer status pages available at <http://themis.ssl.berkeley.edu/status.shtml> have been revised to include a more complete list of the Ground Magnetometer sites available.
- Overview and SST plots have been reprocessed for the entire mission, to apply automated SST sun contamination removal.

THEMIS/ARTEMIS Science Team