

# THEMIS and ARTEMIS Science Data Analysis Software Monthly Accomplishments

## June 2011

### THEMIS and ARTEMIS Science Data Analysis Software (TDAS) - Post v6.0

1. Added force\_download parameter so that data download can be required even if local data is newer than remote data.  
To use set !THEMIS.force\_download=1
2. Implemented preliminary efficiency calibrations for SST. (Based on GEANT4 simulations)
3. Implemented code to merge Foil & Foil-Thick SST data into a single data product for SST electrons.
4. Fixed crash that occurs in SST calibration code when loading less than a full day of data.
5. TDAS enhancements for applying eclipse spin model corrections have been released to the science team for QA and validation.  
Data types affected: calibrated EFI, FGM, and SCM waveforms; calibrated EFI and FGM spin fits; and calibrated particle moments.
6. thm\_part\_getspec program has been fixed to allow negative limits.
7. When importing data into the GUI from the command line using tplot\_gui there is now the option to rename the variables as they are loaded to prevent overwriting variables of the same name that have already been loaded into the GUI.

### THEMIS and ARTEMIS Data Products

1. Reprocessed ESA and MOM for full mission to remove solar wind flags with near-duplicate time tags.
2. Reprocessed FGM data post 2010-08-15 using new calibration data.
3. All Sky Imager (ASI) products are available as follows:
  - a. L1 cdf's and Mosaics are up to date and available through 6/30/2011.
  - b. Thumbnail cdf files and overview plots are available through 5/31/2011.  
Thumbnail movies are available through 5/30/2010.
  - c. Full resolution raw data is available and complete for 2007-2009. 2010 complete through April 2010.  
Full resolution cdf's and keograms are available and complete for 2007-2009. 2010 complete through April 2010.
  - d. Web site - Mosaics and movies reprocessed for 2007, 2008, 2009 and 2010 seasons. They are up to date and available through 5/31/10.

### THEMIS Web Site

1. The THEMIS home web page has been updated as follows:
  - a. with 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),
2. The 2011 publications and nuggets list has been updated.

### Conferences, Collaboration and Trainings

1. The biannual training for THEMIS Data Analysis Software (TDAS) was provided at this year's GEM conference, June 2011, in Santa Fe, NM. It was attended by 16 researchers from seven US Universities, GSFC and Japan. It was an interactive session with valuable input from the science community. In addition, interest was expressed in importing Antarctica GMAG data into TDAS.