THEMIS Science Data Analysis Software Monthly Accomplishments – March 2008

THEMIS Science Data Analysis Software – TDAS (Bleeding Edge Distribution - post v3.02)
1. The thm_part_getspec package uses a new, more robust algorithm to calculate pitch and gyro phase spectragrams. A REGRID keyword has been added for pitch and gyro phase spectragrams to let the user set a desired level of accuracy. A bug was also fixed that caused the code to bomb when a phi range was specified for theta spectrums.
2. New time smoothing algorithm and faster version of high-pass filter are available.
3. The following mods have been made to the THEMIS Gui:
      a. Message buffer scrolls and retains all messages. All message windows point to this buffer so the messages are consistent between windows.
      b. History window scrolls to the most recent commands.
      c. Added 'PS' option for postscript plotting, with dialog box for choosing filenames.
4. The EFI calibration suite now despins correctly (using an EFI-specific algorithm). The EFI calibration suite now loads all calibration parameters from auto-loaded calibration files.

THEMIS Web
1. The Data Processing Status's web page (option on the Data drop down menu) was updated with additional content which will allow the user to more fully get the status of file recovery and data product inventory. Reference the link: http://themis.ssl.berkeley.edu/status.shtml.
2. A Tohban FAQ list has been released and accessible from the Tohban web page.
3. Region of interest panel added to summary plots and key updated.
4. Updated ASI web display to switch between Ekati/Yellowknife on March 1st, 2008.

THEMIS Data Products
1. All Summary and Overview plots have been reprocessed with the latest Software enhancements.
2. New Versions of the Level 2 ESA, MOM and FIT master CDF files and processing routines have been tested. Reprocessing to create revise L2 cdf's will occur next month (April 2008).
3. L1 and L2 FGM CDFs were reprocessed to correct a FGL 1/4 sec sample timing error.
4. ESA Numerical Data description written for VMO.
5. Created a DVD of all Carson City EPO GMAG data (ASCII format) for teacher/students.
6. Coordinated creation of new data mirror at Austrian site using the data from French mirrored site.

THEMIS Science Data Processing
1. March 1, 2008 a GBO ASI major milestone achieved. This was the first day that all 20 GBO's were running and transmitting real-time data.
2. Reprocessed all overview and hourly ASI plots for the web site for October 1, 2007 to March 10, 2008.
3. Reprocessed all all-sky imager cdf-files for October 1, 2007 to March 10, 2008.
4. Replaced old site Ekati with new site Yellowknife in plots and in software
5. Offloaded ASI data from 13 hard-drives recovered from various GBO's. Includes data up through early 2008.
6. Downloaded ACE data is now accessible, archived, and integrated into the THEMIS data processing system.