

Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E; crib; script; suite; UG; DevG; Qref; AdmG
To be Assigned or Discussed								
4609	Time_double aborts	4/16/2012	Harald	0				
4611	Additional TT2000 Support Tasks							
4611a	Add support to cdf_leap_second_init for a configuration file and no_download option. Could probably be cloned from goes_init, goes_read_config, goes_write_config. Required for tt2000 rollout; any of us could probably do it. (See also: task 4516, similar issue for ISTP and WIND configuration; partial dupe of 1315 (Future Tasks) which also mentions a similar issue for ACE configuration.)	4/17/2012		1	Pat			
4611b	Storable Configuration	4/17/2012		1	Pat			
4611c	Manually install SPDF leap second table in the correct location on SSL data server. Inform mirror sites to start pulling updates from SSL or SPDF. Required for tt2000 rollout; could go to anyone.	4/17/2012		1	?			
4611d	Nightly thmsoc cron job to check/install updates to SPDF leap second table on SSL data server. Lower priority; probably won't be another update for at least a year.	4/17/2012		4	Ben	Complete by April 2013		
4611e	Add support to GUI configuration settings panel for editing/saving cdf_leap_second configuration. (See also: tasks 4516 and 1315 for ACE, WIND, ISTP).	4/17/2012		4	Ben			
v7.0 QA Tasks for Review with Vassilis								
4499	Greenland GMAG stations -- move data to standard location thg/l2/mag ?	1/31/2012	Tami					
4508	GUI xy axis: improve aesthetic ticks	2/9/2012	Pat			Formerly QA112, QA276. I'm not really happy with the way that the aesthetic ticks option performs if you request more ticks than the number of orders of magnitude visible on a log axis. For example, on a plot of 1-1000, it will correctly select major ticks at 10 & 100, but you can't make it put more than 2 major ticks on the axis with that range. It seems like it would make sense for it to be able to put major ticks at $10^{1.5}$ and $10^{2.5}$. Or if the ticks are not in scientific notation, maybe put the ticks at the nearest round number to $30(10^{1.47})$ and $300(10^{2.47})$.		
4510	Remove incorrect FGM range correction code from thm_cal_fit	2/10/2012	Jim L			FGM range correction is already applied in the L0->L1 processing. Code is disabled by hard-coding a variable value, but should be completely removed. Does this routine actually need the thx_fit_hed data it's trying to use?		
4512	GUI plots: separate y-axis on right of panel	2/14/2012	Mark Wilber			Significant changes to draw object; formerly QA128. Not a high priority for Mark.		
4518	FGM calibration updates for THA/2010-12-07 (residual spin tone in FGH data)	2/21/2012	Forrest /Vassilis		FGM team (revised calibration), Jim M (install cal file updates)	Insert time interval with corrected offsets into our calibration data. FGM team to determine corrections, Jim M to update data files. Verify that reprocessed data has spin tone removed, then notify Forrest Mozer that issue is fixed.		
Aaron								
4468	Ongoing - Review all commits by Davin, Peter, etc for impact to TDAS.	3/27/2012	David	0	Aaron	Provide weekly report and spreadsheet		

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4493	2D slices, 1.5D Pitch Angle Distributions - command line in progress; GUI?	1/23/2012	Vassilis	1	Aaron	We need collapsed BV plots. I.e., we often do not care about gyrovelocity direction but only pitch angle direction. The electrons especially (but sometime ions too) are gyrotropic. Then we can increase the counting statistics if all the look directions with the same pitch angle (but different phases) are averaged into a single point. in		
4494	2D slices, 2D Pitch Angle Distributions - command line in progress; GUI?	1/23/2012	Vassilis	1	Aaron	We sometimes need cuts in a very special direction: B-M, 2D cut, where the P direction is normal to a specific, user-specified N direction. The N direction needs to be specified by the user as (1,0,0) or (0,0,1) etc. Then the cut would be made such that M is along the NxB direction, such that M,N,B form an orthogonal system. In progress		
4498	sst contamination removal: excessive console output if no bins selected - simple solution	1/30/2012	Jim L	1	Aaron	Noticed in CL contamination test. May be hard to move that warning out of the loop.	1 hr	
4521	GUI getspec: issues when setting phi limits and starting phi at same time	2/8/2012	Aaron	1	Aaron	I produced two phi plots with the phi limits set to 45 - 180; the second plot also had the start angle set to 90 degrees. That plot begins at 90 degrees and appears as it should until just past 160 degrees at which point the remainder appears to be 'smeared' and ends at a maximum of ~440. Because of this it is also hard to tell if it looped back to the data between 45-90 correctly.		
Ben								
4612	GOES 2008 Data	4/20/2012	Andrei Runov	0	Jim L / Ben	Jim to send email to Howard		
4027b	Reprocessing GOES Data	4/5/2010	Tami - SPDF	3	Ben	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files.		
4458	Horae (rsync server for mirror sites) is dying and needs to be migrated to a VM Astrea.	12/8/2011	Jon L	0	Ben	** In Progress ** Will start rsync testing once remote access has been established.		Y
3093	Automate processing of eclipse sunpulse data from FGM team	2/22/2010	Jim L	1	Ben	In progress. Reprocess L1 State Data. Apply eclipse sunpulse corrections to L1 State CDFs - in progress. Will proceed with as-is version of corrections, and once automated, will extend/refine them.		
3093b	apply eclipse sunpulse correction to L1 State data	2/22/2010	Jim L	1	Ben			
3093c	integrate into L1 pipeline	2/22/2010	Jim L	1	Ben			
4503	thm_load_fgm does not throw error for invalid probe, only prints a message...should this be a more severe error?	2/3/2012	Ben	1+	Ben	Will remove thrown-error from thm_check_valid_name.pro (restore it to its previous version), and instead of throwing an error, the load routine will be modified to keep track of the requested inputs and processed inputs, and provide a summary/error report at the end of the load routine.		
Jim L								
4612	GOES 2008 Data	4/20/2012	Andrei Runov	0	Jim L / Ben	Jim to send email to Howard		
4535	Onboard moments (peim velocity X-component) incorrect, 2010-12-07, THA, 14:59:10 through 14:59:40. Ground-computed moments from burst data look OK.	3/5/2012	Forrest Mozer	0	Jim L	To close the loop I would review with Vassilis at the next S/W meeting and mention Forrest's concern. Send out an "announcement"?		

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4365d	Write a small program to insert correct checksums into the files Jim M will produce. (Should be finished by the time Jim M delivers the RAW command scripts.)	4/11/2012	Vassilis	0	Jim L			
4365e	Ops team: Put FLATSAT into engineering mode, run the checksummed RAW command files, supplied by Jim L, to update the EEPROM. Dump a segment of EEPROM memory to show the effect of running the table update scripts. Take whatever steps necessary to copy the EEPROM tables into the SST memory (run the SST startup scripts?). Put FLATSAT back into science mode, acquire some data to verify that the ETC is still outputting properly formatted packets after the table change. Let Jim L know when FLATSAT telemetry has been dumped and where to find it.	4/11/2012	Vassilis	0	Ops Team	New tables uploaded to FLATSAT EEPROM, still in the process of verifying the upload. Need another memory dump (first one didn't dump all the modified tables). And it seems we forgot to update a checksum somewhere. Peter Harvey is on the case, and will let us know what we need to do to fix the problem. So there will be a few more rounds of the ops team running commands and dumping tables, with me processing the telemetry and handing it off to Jim M to verify.		
4365f	Process FLATSAT data to L0 packets/L1 CDFs, verify properly formatted SST data after the table update. (Note: data will be all zeroes, no way to test the sun contamination removal on	4/11/2012	Vassilis	0	Jim L			
4034a2	thm_parts_moments update (spin moments mods)	11/22/2010	Vassilis	0	Jim L	initial simple way, final fix is to fix esa and sst 3D data structures. Probably a good idea to make a THEMIS-specific moment calculation routine, to avoid extensive changes to WIND code currently being used. Jim McFadden (as of 3/26/12) said he would review what Jim L sends him. in progress		
4326b	Then for Particles and Spin Fits Jim M	8/18/2011	Vassilis	0	Jim L	in progress - dependent on 4034a2. On hold, after QA.		
4456	GET_MOMENT3D is bombing when it calls STORE_DATA.	3/7/2012	Peter	0	Jim M	sent new version to Peter awaiting and will check with Davin		
4348	For Overview plot processing look at setting up multiple VM processors	8/24/2011	Pat	1	Jim M	** In Progress **		
4365	reverse-engineer the process of updating the onboard tables that define the ESA and SST angle/energy modes. Jim M: he process of creating the RAW commands will result in an IDL routine which has the same functionality as the "lost" code that Davin wrote in 2008. This will make future changes easier.	9/8/2011	Vassilis	0	Jim M			
4365a	Sanity check of current configuration: Jim and Davin will provide a range of ETC memory addresses to be validated. Ops team will request a memory dump of those locations, probably on one of the inner probes, via apid 407 memory dump packets. JW L (or maybe Ben S) will write a tool to stitch the memory dump packets back together into a memory image, which Jim and Davin can inspect to make sure we are working with the correct memory range. Hopefully this will be a targeted test -- a small range of addresses, rather than a complete memory dump (which would take extra care and error checking to interpret). If it's a small enough dump, we can possibly avoid having to write a tool and just look at the raw hex from a few 407 packets.	9/8/2011	Vassilis	0	Jim M			

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4365b	ETC table upload utility: Davin may have something in his backups. If not, JWL will resurrect a "cmd2raw" utility we used during I&T to convert ASCII files of IDPU commands to a properly checksummed RAW command file, which the ops team can then upload to the probes. Jim McFadden and/or Davin will have to provide the list of IDPU commands.	9/8/2011	Vassilis	0	Jim M	Peter confirmed that updating the EEPROM tables is probably the way to go (as opposed to sending CDI commands to manipulate the SST memory directly). We went over some scripts the ops team was able to find for an earlier table update. They make heavy use of "raw hex" commands. Jim M can convert his binary table images into a similar file of raw commands, but without filling in the checksum fields. I can adapt some of the IDPU GSE code to read in a file of raw commands (provided by Jim M), fix the checksums, and output the properly checksummed commands. This is what we would give to the ops team in order to run the FLATSAT test. ** In Progress**		
4365c	Produce a set of files with non-checksummed RAW commands implementing the desired EEPROM changes (and another set to revert the FLATSAT tables back to what they were before the experiment). (finish by early next week?)	4/11/2012	Vassilis	0	Jim M			
4365f	Inspect apid 407 memory dump packets to verify that EEPROM was updated successfully.	4/11/2012	Vassilis	0	Jim M	in progress		
4365g	If all goes well: Ops team: Run the EEPROM update script on one of the probes. Verify that the EEPROM update has effected the desired changes.	4/11/2012	Vassilis	0	Jim M, Jim L, Ops Team, Science Team			
4365h	If something goes wrong on FLATSAT: Diagnose what went wrong, restore EEPROM to what it was before the test, retry with corrected table update procedure.	4/11/2012	Vassilis	0	Jim M, Jim L, Ops Team			
Lydia								
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/2011	David	0	Lydia	Next October 2012		
4481	New data product, AE index from THEMIS+std sites	1/9/2012	Vassilis	1	Lydia	in progress - creating the ae index		
4497a	give the user the ability to add x/y axis titles					in progress		
4497b	make any changes necessary to the default behaviour (eg. move information from the y labels to the y titles, could be tricky if people are plotting two different things on one plot)							
Pat								

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4471	Support TT2000 CDF time format in cdf2tplot	1/4/2012	RBSP	1	Pat	should complete by May 2012; When data is imported from cdf with tt2000 times, they'll be converted to unleaped unix times. This makes comparison to other missions using unix timestamps easy. We will offer a configuration option so that users can choose to leave the leap seconds, in if they want, but we'll still use the same time representation: double precision second since 1970. This will require a change to time_double, similar to the change that was make to support CDF_EPOCH16, it may also require a change to cdf_info_to_tplot. I know that this is very low level code, so I'll put priority on keeping the changes as small as possible, and maintaining backwards compatibility. **In Progress** cdf with leap seconds from SPDF in testing		
4477	Reprocess SLP data for 2012 leap second	1/9/2012	Jim L	1	Pat	Pre-2012 files also need reprocessing for update to ICY/SPICE kernel. ** In Progress **		
4460	Add New Routines from Lynn Wilson	3/22/2012	Vassilis	1	Pat	also lasp code? Ask Vassilis (50% time)		
4458	Create a set of Benchmark Tests against IDL future versions (now for v8.2 beta). Run these tests and produce a report. In addition present this report to Exelis in a web conference with a demo of TDAS. Benchmark Tests should include tests for PC, Mac (leopard and lion) and Linux O/S.	3/21/2012	David	1	Pat	50% Time		
4504	Updated FGM calibrations for solar array currents, ADC nonlinearity available? Talk to Ferdinand.	2/3/2012	Pat	1	Pat	These usually come from David Fischer in Germany, separately from the cal files Hannes periodically updates.		