

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								
4744	Add combined ESA/SST moments capability to new particle routine	07/24/13	Pat			I was talking to Drew about particle stuff yesterday and we got to talking about how our goal for THEMIS particles should be combined ESA/SST particle products. (Spectra and moments) Doing this for spectra should be pretty easy with the new routine. (Just pass in a concatenated structure and it should work.) Doing this for moments would be pretty tricky in the current configuration because it makes a lot of assumptions about the particular instrument that it is working with. But Aaron and I were thinking that we could probably add moments capability to the the new particle routine pretty easily and this could be done in a way that was sufficiently generic that it would not choke on a combined particle distribution struct. I don't think it would be more than a week for one of us to do this.		
4745	tplot_ascii formatting bug	07/25/13	Andre Runov			<p>He was trying to print spectral tplot variables with values a few values that are very small negative numbers. (e.g. -1.23456789e-14, caused by round-off error in operations that would ideally be producing a result that is zero.) What he found is that the spaces between the columns can disappear which breaks parsing when he tries to read the values back in.</p> <p>#1 This should be fixed. It should detect if it needs additional space to write a number and use wider columns.</p> <p>#2 There is no keyword in tplot_ascii to manually control formats. There should be. (The workaround I gave him was to edit tplot_ascii.pro, obviously no ideal)</p>		
4746	Crash in moments_3d	07/26/13	Pat			<p>I was accidentally using values in the energy extrapolation that went too high and the extrapolations in my sst code generated values that were quite a bit too large.</p> <p>When passed into thm_part_moments I got a crash:</p> <pre>% TRIQL: Too many iterations in tqli. % Execution halted at: MOMENTS_3D 330 /home/pcruce/IDLWorkspace82/TDAS/idl/ssl_general/science/wi nd/moments_3d.pro % THM_PART_MOMENTS 297 /home/pcruce/IDLWorkspace82/TDAS/idl/themis/spacecraft/parti cles/moments/thm_part_moments.pro % \$MAIN\$</pre> <p>The issue occurs because particle routines use floats and the numbers grew big enough during the calculation that they rolled into +-inf, which broke the routine that finds the eigenvalues/vectors for the moment matrix. The Particle routines intentionally use floats for storage because it saves memory. I say that this is not a big issue because the inputs were probably large enough that they wouldn't ever come up (correctly) for earth physics, but they weren't *that* far outside realistic ranges either. It would be preferable if the routine outputs a value (like infinity) or terminates with a clearer error message. Possible solutions would be to put a catch block in for the error, check the moment matrix for invalid values before triql, or cast to double before the operation and cast back to original data type afterward.</p>		
4747								
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	General							
	Tips of the Month		David		Jim L	Next Candidates: Lynn Wilson Routines; Eclipse auto processing; FGM Reprocessing, CDF library 3.4.1 released (fixes memory issue for Linux users), Simplified eclipse spin model corrections, new SST calibrations, specplot datagap		
4664	Laptop locks UCB and UCLA	6/6/2012	David	0	Team			
4661	I tried to load 3dp datatype pm for 2012 - the testscript says to check availability at http://sprg.ssl.berkeley.edu/data/wind/3dp/ and test different combinations. There are cdfs for 3dp pm for 2012 on that site, but the have are _v05 and don't load. Should they load?	6/6/2012	Lydia	1	Jim L	Wait till after WIND reprocessing and see what happens to version numbers, if they're all consistent then 5 minute change to load routine. Will not do "load highest version" -- responsibility of WIND developers.		
4464	All plug-ins for v7.10 - add a section to User's Guide for Plug-ins	3/22/2012	David	1	Jim L	Discuss at the appropriate time what the content would be. Also add a link for VM on the Software Web Page or Developers web page?		
	Hannes							
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List up to date as of 9/20/2012		
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	12/06/2012: Cal files updates, all probes from mid-August 2012 on.		
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	5-24-2013 Updated for 2012-12-01 – 2013-02-21, tha, thd, the		
4472	Inter-spacecraft FGM calibration for ARTEMIS.	1/4/2012	Vassilis	1	Hannes	6/4/12 from Hannes: Artemis inter spacecraft differences show good results with current calibration		
2074c	quality flag for FGM data. Dependencies on Ben's tasks 3093 and JWL's tasks 4142 and 2266.		Vassilis	2	Hannes	quality flags for FGM data: Hannes talked to Ferdinand and suggests some flags in the state CDF: times when eclipse spin model adjustments were performed; times when spin fit & FGL data used to refine the eclipse spin model; times when V03 attitude corrections are available; times when spin fit timing had problems. Some of these flags already present in state CDF spin model variables. JWL will document in L1 file definition document. Final item not so easy, since we have trouble even detecting the timing problem in spin fits. Keep task open, Vassilis says we can come back to it when we have clarity on the spin fit timing.		
	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		
4719	ESA energy table updates – TDAS mods (ESA packet processing, calibration, summary plots, etc)	8/2/2012	Jim L	1	Aaron			
4711a	Getspec rewrite, sanitize ESA	05/23/13			Aaron	Convert to physical units, standard internal representation, strip extraneous fields to save memory		
4711c	Getspec rewrite, Apply theta,energy,phi limits	05/23/13			Aaron	disables bins based on user specified limits		
4711g	Getspec rewrite, Make PA/Theta spec	05/23/13			Aaron	Tracking down last few discrepancies (e.g. fringing)		
4711h	Getspec rewrite, Make Gyro/Phi spec	05/23/13			Aaron			
4711i	Getspec rewrite, Make En spec	05/23/13			Aaron			
4740	Getspec rewrite, bells, whistles, keywords etc.	07/08/13			Aaron	~1 week work remaining		
4741	Getspec rewrite, GUI modifications to support new code	07/08/13			Aaron			

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4505	Add a TDAS routine to do 1-d cuts - when ready to work send Aaron Benneiman an email for clarity of task and then review at the S/W meeting again with Vassilis.	2/6/2012	Aaron Breneman	2	Aaron	You could obtain a 1D cut of a slice by aligning the custom orientation vector (slice_orient keyword) such that the desired cut is along the x or y axis. The data could then be pulled directly from the array returned by thm_part_slice2d via the 'part_slice' keyword. This returns an R x R array containing the interpolated slice data (R=resolution). The x & y axis values for the array are returned in the 'xgrid' and 'ygrid' keywords. 7/08/2013: Good feedback from Stefan, seems to be working well, one or two minor issues to confirm with Aaron B.	1 hr	
4314d	combination of ESA and SST data could only be done in the Geometric mode. Would be great if it could be done in other modes as well.	8/11/2011	Xuzhi	4	Aaron	on hold, after mods to support combined ESA/SST moments	1 hr	
4825	Implement error estimates (/get_error) for angular spectrograms	12/10/2012	Vassilis			Needs discussion		
	Cindy							
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/2011	David	0	Cindy	Next September 2013		
4781	GMAG station status: troubleshoot stations with no data reported				Cindy			
	Ping Sasha for status of back AE station data					Pinged 7/2013, waiting for response		
4687	Check with Ian Schofield about status of Dr. Hayashi's 1-sec STEP data set.	41369	Cindy		Cindy	September 2013		
4720	Update GMAG master CDFs with correct GIMA PI credited	06/05/13	Dieter B		Cindy	Master CDFs first, data CDFs when convenient to reprocess		
4842	GUI API - Plugin access to GUI configuration settings dialog (remote, local data dirs, etc)	1/18/2013		1	Cindy	Convert to tabbed interface, like "load data" panel.		
4743	Clean up GMAG processing scripts		Cindy	2	Cindy	many variations of wget wrappers, will be much cleaner when code is consolidated.		
4761	Add STEP polar magnetometer network (6 sites) to our data set.	9/17/2012	Vassilis		Cindy	4/04/2013: May take a year or more for Ian Schofield to collect and process Kanji Hayashi's data. Some 1-min data available for public use at step-p.dyndns.org/~khay (Dr. Hayashi's web portal).		
4481	New data product, AE index from THEMIS+std sites	1/9/2012	Vassilis	1	Cindy	awaiting Russian data 7/2/2012: Still need data from 2007-2010. 7/27/2012: Getting current data again, still waiting for older data. 12/17/2012: Older data in different formats, Sasha is getting some other people involved and expects to deliver by Spring 2013. Sasha pinged 04/2013		
4409	AE Stations: I am interested in including the "standard AE ground stations" i.e. the ones that go into the computation of the AE index - there are 12 - into the THEMIS pipeline. This is because we can then include them into the computation of our own pseudoAE. They include: FCC: Fort Churchill, LRV: Leirvorgur, a couple in Russia and one in Scandinavia etc. They should be available somehow. The ones in Russia have been made available through APL, and THEMIS has contributed to their refurbishment. I think we have established communication with APL's Kazue Takahashi and he said a couple of years ago that routine delivery of the Russian stations was impending. So by now they should be ready...I think he should be a good source of information about the other stations as well, if you cannot find them on the web by searching or at WDC Kyoto.	10/19/2011	Vassilis	2+	Cindy			
4409b	Dixon (DIK) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	Downloads in progress. Data from 2011 on has been made available; they have agreed to provide data back to 2007. No 1 sec data available (minimum 1 minute sample interval). Sasha pinged 04/2013.		
4409c	Cape Chelyuskin (CCS) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	see 4409b		
4409d	Tixie Bay (TIK) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	see 4409b		
4409e	Cape Wellen (CWE) - closed, replaced with Pebek (?) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	see 4409b		

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Eric								
4731	Add support for loading netcdf files	06/25/13	GEM-SPEDAS	1	Eric	Implement netcdf2tplot as first step, then work with Janet Green to develop load routine for GOES netcdfs. Load routine now working for particle & mag data, working on some bug fixes, where should routines go in SVN ?		
4736	Add support for aGSM coordinates to neutral sheet model	06/27/13	Eric	2	Eric			
4724	Calendar widget should indicate valid date range	06/25/13	GEM-TDAS tutorial	2	Eric	Maybe a tooltip?		
4728	Use SPDF web services to write a generic SPEDAS plugin to import arbitrary data sets	06/25/13	GEM-SPEDAS	2	Eric	First step: check out SPDF resources, figure out which services would work best with TDAS, estimate effort to implement simple proof of concept.		
4737	NaN vs "missing" in legend box	07/01/13	Pat	2	Eric	If cursor is outside the range of loaded data, should show "Missing" or "Out of range" instead of NaN in legend box.		
4714	Set up cron jobs for mirroring NOAA data at UCB and UCLA	05/24/13	Eric	2	Eric			
4689	need to keep clicking "yes to all" when replaying document that overwrites data. Also need to track deletions of data.	03/27/13	Pat	2	Eric	Looking into this one, I found that quite a few operations don't have overwrite queries tracked: Interpolate pwrspc calc nudge getspec Some seem to default to overwriting, some default to repeated queries to user. Original report: I loaded data for probes b and c and then went to plot the data and realised I should have loaded a and b for the tests. I returned to the load data panel and loaded the probe a data before deleting the probe c data. After saving as a themis document and reopening, the c data was loaded but not deleted. The data that was loaded and deleted using delete all data following the testscript does not appear when you reopen the document (as you'd expect).		
4764	Steps/Sawtooth pattern in FGS data near perigee	9/24/2012	Vassilis	1	Eric	Sudden changes at packet boundaries, probably a spin fit timing issue. On hold pending Jim L's analysis		
4764a	Script to identify time intervals with FGL/FGH/FGE coverage in high B field	9/24/2012	Vassilis	1	Eric	Look at THD starting from early March 2013 (after full reset), see when glitches start happening. Anything to do with eclipse periods?		
4764b	Look at FGS dB/dt and FGS header times to identify when glitches are occurring	9/24/2012	Vassilis	1	Eric			
4764c	When glitches are present, compare FGS and waveform data looking for time offsets (off by 1 spin in FGS?)	9/24/2012	Vassilis	1	Eric	Seems to be happening intermittently, every other packet?		
Jim L								
4742	Limit time range of data loaded by cdf2tplot	07/09/13	Peter Schroeder			We have been using cdf2tplot to load RBSP/EFW data into IDL, but we have run into an issue that I'm hoping someone else has solved before I try to reinvent the fix. The problem is that the amount of data in one of our daily burst files can be huge: way too much for many machines to handle. We are trying to figure out how to load only a portion of a cdf file (for example, extracting 10 minutes from a daily file using a defined timespan). I don't see an obvious way to do this in cdf2tplot. I do see that cdf_load_vars allows you to load by record index, which is what I think you would have to do. JWL to email Peter with suggestions from group discussion.		
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	0	Jim L	not trivial. After 4764		
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	0	Jim L	See 4142 After 4764		

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4692	Repeated prompts to load STATE support data	4/12/2013	Aaron		Jim L	I'm unsure on whether or not I'm seeing the correct behavior when state support data is loaded for cotrans operations. For SSE/SEL transforms the SLP data is loaded once, kept in the gui, and the user is not prompted again. For transforms that require state the user is prompted every time, unless all the required state data has been loaded manually. Might be related to thm_ui_check4spin, which never checks the spin model common block?		
4734	trange keyword doesn't clip for thm_load_state	06/25/13	GEM-TDAS tutorial		Jim L	By design (to avoid clipping spin model). Leave spin model alone, but clip other tplot variables?		
4849	Change L0->L1 code to prevent out-of-order timestamps in iesa and isst configuration history.	1/29/2013	Nick		Jim L	Include configs from previous and next day, then clip to the desired day before writing into L1 CDFs.		
4831	Admin guide updates: eclipse spin corrections, chk_bfds_archive	1/3/2013			Jim L			
4815	Developer guide updates for GUI API, placeholders for rest of SPEDAS to plugin interface	12/7/2012	Vassilis	1				
4709	Manual eclipse processing resets "last processed" date for automated processing; some processing logs not preserved	7/24/2012	Jim L	1	Jim L	If the automated processing is up to date, and I manually reprocess a time range early in the mission, the "last processed" date will get reset to the earlier date, which could trigger an unintended reprocessing of the full mission. "last processed" date should only be updated if it moves forward in time.		
4716	Add examples of eclipse spin model corrections to crib sheets (fgm, efi, scm, fit, mom)	7/27/2012	Vassilis	1	Jim L	fgm, fit, mom, updated; efi, scm, new eclipse crib in progress.		
4735	Socware ksh directory cleanup	8/24/2012	Jim L	1	Jim L	/disks/socware/thmsoc_dp_current/src/ksh out of sync with repository; some files/subdirectories not present in SVN; some junk files (emacs backups, etc)		
4326c	L1->L2 reprocessing for eclipse spin model corrections	8/18/2011	Vassilis	1	Jim L	After 4034a2, when eclipse spin model corrections are trustworthy enough to enable by default for L1->L2.		
4451	operating the particle instruments in "accumulate" rather than "snapshot" mode. So we'd be getting into some unexplored territory. The time tagging code in the L0->L1 particle distribution processing would need some slight modifications to support "accumulate" mode. The ESA load routines use the L0 packets directly, and probably also assume "snapshot" mode, so that's another potential set of required modifications. I wouldn't be surprised if the ESA and SST calibration code also assumes snapshot mode. It would need to be tested with real data (since we have no way to generate a realistic particle data stream on FLATSAT).	12/1/2011	Vassilis	1	Jim L	5/21/12 as per Vassilis - give it a shot; Awaiting flatsat availability - after SST table updates and ESA energy table updates. Probably will have to wait until NuStar launch/EOC. In Progress		
4451b	Modify instrument scripts to enable accumulate mode, flatsat testing	6/12/2011	Jim L	1	Jim L / Ops	When MOC support available, probably after NuStar.		
4451c	tdas mods - if accumulate mode approved discuss at S/W meeting	12/1/2011	Vassilis	1	Jim L	double chech slices and getspec as per Aaron (next up)		
4451d	Put one probe in accumulate mode and verify correct L0->L1 and L1->L2 processing with live data.	6/12/2011	Jim L	1	Jim L			
4476	Discuss thmsoc_dp_current deployment process, avoid unintended updates from trunk	1/5/2012	Jim L,David	1	Jim L	After QA, review CDF "software version" requirement with SPDF.		
4465	Diagnose, repair? Spikes in FGS data.	12/14/2011	Vassilis	1	Jim L	No code changes required. Document on web site (anomalies/watch out fors) as something to be aware of when		
2074c	quality flag for FGM data - Jim L perform analysis, define task - someone else to do development		Vassilis	1	Jim L	quality flags for FGM data: Hannes talked to Ferdinand and suggests some flags in the state CDF: times when eclipse spin		
4034a3	awaiting feedback and performing analysis	11/22/2010	Vassilis	1	Jim L	Tips of the Month at some point?		

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4236	Ferdinand P. suggests that we make available a diagnostic quantity produced by the eclipse spin modeling procedure. Add "phase" diagnostic quantity (from eclipse spin modeling process) to L1 STATE CDF, to give end users a sense of the expected angular error in the eclipse spin model.	5/23/2011	Ferdinand	1	Jim L		1-3 days	
2047	Separate E and B timestamps for spin fits: a) make a revised V02	before the	Vassilis	1	Jim L	Hard for SPDF to deal with, with their plotting tools - review		
4030	cross-check SST psir6 and psif data types for excess counts in psir6	4/8/2010	Jim McFadden	1	Jim L	Jim L talked to Davin and sounds like we can shut the data off. Jim L will send email on the time saved by shutting this off.		
4030b	Correct Existing Data	5/17/2010	Jim McFadden	1	Jim L	4030a prerequisite		
4030c	If scripts change - make changes to processing scripts	5/17/2010	Jim Lewis	1	Jim L	4030a prerequisite	4-5 days	
QA110	as you know we have a few folks here in our SPDF group who are using the THEMIS-B and C data for a lunar project. They have found and I've confirmed through CDAWeb, that the time stamps and associated data measurements for October, 9, 2010 THEMIS-B ESA, after time 15:58:40.695 are of a different resolution and the data values are either 0.0 or -NaN.	2/7/2011	Tami	1	Jim L	Web Site - instruments will have a web page with "Sources of Data Anamolies". The first one being the ESA issue		
4301	"bad" themis thg l2 files - instrument files; L0->L1 processing produces incomplete/empty CDFs	8/1/2011	Tami	2	Jim L	one fixed - one priority 2 (data type VBx appeared once due to corrupted packet, produced empty CDF)		
2248	once in a while (maybe 10-20 occurrences per probe during the entire mission), the FGM range doesn't change on all three axes at once:	9/10/2009	Jim L	2	Jim L			
	Jim M							
4732	Rename TDAS to SPEDAS for next release	06/25/13	GEM-SPEDAS		Jim M	Issues with thm prefixes -> spedas or spd, repository organization. First step may be to rename things in the release build scripts without disturbing the repository, if practical. Make separate nightly zip file with SPEDAS rather than TDAS "branding".		
4739	Investigate SVN-level access controls (e.g. keep SPEDAS developers out of ssl_general?)	07/01/13	Jim L		Jim M			
4690	thm_mom_cotrans_cltestsuite is obsolete, either needs a complete rewrite to conform to current thm_load_mom usage, or merge any non-redundant tests into existing test scripts.	03/04/13	Jim M		Jim M	This test script can be dropped. In fact, most of the "cotrans" CL test scripts should be folded into the instrument "load" CL tests, with the exception of tests like cotrans_all_combos.		
4820	Need IDL-only FITS reader code suitable for inclusion in SPEDAS	12/11/2012	Mini-GEM		Jim M	Checked into SVN, needs to be documented in developers guide.		
4821	Use improved IDLDOC procedure to generate TDAS HTML documentation?	12/11/2012	Mini-GEM		Jim M	better format, more web-friendly? IDL 8.0+ versions OK since it won't be distributed with TDAS, only the HTML output.		
4779	SVN commit hooks for updating "Help->About" screen with current revision number. Possible for TDAS version string as well?	10/9/2012		1	Jim McT	It might be a good idea to add some functions like "get_tdas_revision" or "get_tdas_version_string", so that only a couple of files would be subject to version string updates, rather than having version string literals scattered around the TDAS code base that would all have to be updated. Will try making an ASCII file in bleeding_edge and release builds, see how that works before implementing SVN hooks.		
4152b	change the ESA tables such that the minimum magnetospheric electron energy becomes lower (about 3eV, or lower). McFadden can specify the lower energy	10/20/2011	Vassilis	0	Jim M	Scripts appear to be running but we're still seeing the old configs. Need to work with John McD, seems like a flatsat setup issue.		

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4152c	change the ESA tables such that electrons and ions can be changed separately into magnetospheric and solar wind modes.	10/20/2011	Vassilis	0	Jim M			
4694	Developers guide/admin guide update: troubleshooting SSH (SVN/rsync) access	7/6/2012	Jim L	1	Jim M	When setting up SVN access for a new user (or an old user using a new computer), or if a host key has changed, might need to do an interactive SSH login to answer the host key verification prompt before SVN or rsync will work. Dev guide due to SVN+SSH issue, Admin guide due to rsync over SSH issue. Additional note: people using putty/pageant on 64-bit machines should make sure they're using the latest version of putty, otherwise will have hard-to-diagnose access problems. 10/10/2012: Recent versions of MacOS ship with a different version of OpenSSH which causes problems for svn+ssh URLs. Resolution: edit .subversion/config [tunnels] section, add new 'tdas' protocol with "tdas = ssh -T -p 36867", then use "svn+tdas" instead of "svn+ssh" URLs.		
4003	Document: ESA File and Calibration Processing	3/5/2010	David	1	Jim M			
4312	Quality flags for efi are wrong including electric field offsets in computation. On hold until Michael Hartinger sorts out.	8/8/2011	Vassilis	1	Jim M	discuss with Vassilis		
4208a	Enhanced MOM Instrument Web Pages	3/5/2010	David	2	Jim M	Talked to David first.		
	Nick							
4834	Add additional links to instrument configuration history pages	1/10/2013	Bob McGuire	1	Nick	1) From ESA, SST, other instrument pages 2) L1/L2 master CDFs 3) Possibly from one of the "Data" dropdown menu items? Emmanuel working on web site updates		
2078	bau_sunpulse_met assumes x86 endiannes (BugzID=13)		Vassilis	3	Nick	Tmtools libdecom code. On first call, do runtime call to check whether floats are big-endian or little-endian, set a static flag in that routine, then do appropriate conversion. JWL to test.		
4684	thm_cal_fit: clean up NaNs in fgs and efs, reprocess L2 FIT		Jim L			After 4683. Will need to change code that writes variables to L2 CDF. Jim L to test sample reprocessed L2 file.		
4708	Add nan_cleanup keyword to thm_load_fit and thm_cal_fit. Default should be "no cleanup" for backward compatibility.	5/22/2013	Jim L		Nick	On hold until we see whether this is needed or not		
4704	Web site code & files should be checked into SVN	5/9/2013	Jim L		Nick	Workflow to update web site might need to change to keep in sync with repository. After 4706		
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		1	Nick	What to do about differences between structure fields in the various system variables (!themis, !cdf_leap_sec, !goes)? Working, but doesn't support CDF_LEAP_SEC preserve_tt2000 setting yet.		
4729	Investigate bug tracking/wiki support for SPEDAS developers	06/25/13	GEM-SPEDAS		Nick?	Trac & wiki installed, testing to see if it's a good fit for us or if we want something simpler?		
4738	User-friendly indication of availability of various THEMIS products over time (e.g. no L2 MOM until boom deployment)	06/25/13	GEM-TDAS tutorial		Nick?	In progress.		
	Pat							
	Updated FGM calibrations for solar array currents vs. spin phase?	5/30/2012	Vassilis	0	Pat	Last Recieved – Jan 2013. May need to remind FGM team if we go a long time without updates. Check again in late June 2013		
4771	Writeup for new SST calibration	9/28/2012		1	Pat/Drew	For senior review. After 4844. Incorporating feedback from Drew & other researches. Memory footprint/processing speed significantly improved.		
4711b	Getspec rewrite, sanitize SST	05/23/13			Pat	Convert to physical units, standard internal representation, strip extraneous fields to save memory		
4711d	Getspec rewrite, FAC transform	05/23/13			Pat	In progress. Needed to test some of Aaron's code updates.		
4711e	Getspec rewrite, Regrid	05/23/13			Pat			
4711f	Getspec rewrite, Apply PA and gyro limits	05/23/13			Pat			

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4740	Getspec rewrite, bells, whistles, keywords etc.	07/08/13			Pat	Adding support for new SST calibrations, about 1 week effort remaining		
4718	Add new variables to SST L2 master CDF	06/06/13	SPDF		Pat	When new SST calibrations are validated.		
4861	Code maintenance issue – GUI coordinate systems			1	Pat	But there may be a code maintenance issue since we maintain two lists of supported coordinate systems. (One in thm_ui_req_spin.pro & one in thm_ui_cotrans_new.pro I just used a comment to future programmers, but a single list would probably be more durable.		
4696	Reorganize crib sheets	04/03/13	Pat	1	Pat	Maybe separate directories for “basic”, “advanced”, experimental” functions? (Will also need to update users guide and quick reference guide to reflect new crib locations)		
4627c	SST: We need to generate a combined spectrum product that includes the FTO(low) channel. This would be adding the FTO(low) channel to the F+FT combined spectrum that we've already created.	5/17/2012	Vassilis	2	Pat			
4267d	Write code to remove proton and electron contamination from the electron and proton distributions using data and efficiencies from the F & O channels.	6/27/2011	Pat	2	Pat	Working on noise removal, etc.		
4627e	SST: After #a-d are done, we need to reprocess SST L2 with sun contamination removed and new calibrations applied.	5/17/2012	Vassilis	2	Pat	need 4267c to be completed		
4603	make new SST Cal standard	3/22/2012	Vassilis	2	Pat	Revisit in July ** on hold **		
4717	A limitation for tplot came up for the EMIC plots. If you want to use the var_label feature(for example, to plot spacecraft position below spacecraft data) you can only put the var labels at the very bottom of the plot. In the case of EMIC, what we actually want to do is a layout that looks like this (from top to bottom) Plot1PrbA Plot2PrbA VarLabelPrbA Plot1PrbB Plot2PrbB VarLabelPrbB Plot1PrbC Plot2PrbC VarLabelPrbCetc...	8/2/2012	Pat	2	Pat	You can't actually do this in tplot right now. To work around this limitation for the EMIC plots, I'm going to do some tricks making separate plots in the z-buffer and concatenating them then reposting them to the z-buffer. This will work for the overviews, but it is an ugly kluge. We should consider a task that adds this feature to tplot.(The task would be to add the feature to tplot and to add examples to the tplot cribs showing how to use the features) 8/6/2012: Workaround exists for EMIC plots, assess level of effort for more general solution. Will need Davin's approval if changes are nontrivial. Probably 2-4 days effort.		
4520	The bug that Drew had reported yesterday turned out to be not a bug, but because the bins that the sun decontamination code selected differed depending on the date selected and this wasn't clearly reported to the end-user. I put an informational message in to clarify what is happening, but after talking with Drew there are two other solutions that don't fit within the scope of QA, but would be good to consider later. There features are: #1 Add a keyword that returns the the bins that were flagged by automatic sunlight decontamination to the end user. #2 Provide an option to window the automatic sunlight decontamination code so that one test is not applied to the entire time period.	2/22/2012	Pat	2	Pat			
2060	L2 cdf Quality Flags: for SST		Vassilis	2	Pat			
4208b	Enhanced SST Instrument Web Pages	3/5/2010	David	2	Pat	See current ESA Instrument Web Pages - Make recommendations to Vassilis to improve.		