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							
4699	I've had questions from some scientists about the status of some of the gbo sites. In particular Fort Yates and Beetles. I know that Fort Yates is done for (drowned in a flood or some other natural disaster. It might be helpful to add a color scheme that is not red but maybe grey for those sites we know will not be up again. Maybe even a note saying site is down for good.	7/10/2012	Cindy			Database table for "defunct" sites, with brief explanation why, and check this in the PHP code for the status pages? Or (static) web page linked somewhere with status of each site? Level of effort?		
4703	New FGM overview plots (EMIC spectrograms)	7/12/2012	Vassilis			A copy of the IDL code, along with the IDL save sets we used as data and a full day's set of plots from January 1, 2012, can be found at ftp://yspace.augsburg.edu/themis/ . You will see that the IDL batch file is set up to produce one daily spectrogram and four 6-hour spectrograms for each axis, in two frequency ranges (0-1 and 0-2 Hz). It didn't take Jennifer very long to produce all of these plots for the past 1 - 1/2 years of Themis data. Having so many different plots may be overkill -- one can often identify events using only the 0-2 Hz, 24-hour plot showing only X axis (transverse to B) data... but you can decide how many of these might be optimal for you to produce. If you or your colleagues have any questions, please get back to Jennifer (posch@augsburg.edu) or me.		
4704	I'm getting a collision in the y-title and the y-labels using default settings. It may indicate some sort of problem.	7/17/2012	Pat			Attached is an image of the problem, only seems to be occurring on the spectral plot. (see how 31 kev is sitting on top of thc_psif_en_eflux) (also, why the default label is 31 kev is another issue, but less important, imo) I generated these plots by running the attached code, then opening the gui and using the manage data->import option to import thc_psif_en_eflux, and thc_psif_density. Clicked through the confirm import menus, then plotted using layout options on default settings.		
4705	The changes that I made to allow more flexible tick aesthetic tick placement don't seem to be working so well on the z-axis.(see image from previous email,steps of 0.9 orders of magnitude don't make sense)	7/12/2012	Pat			If this were the y-axis, you could just change the recommended number of ticks to a number of ticks where the aesthetic selection algorithm selects an even order of magnitude. But that option is unavailable on the z-axis. There are two ways that we could deal with this. #1 use the previous, more restricted, tick selection algorithm for the z-axis. or #2 Allow the user to input a recommended number of ticks even when the "aesthetic" option is selected.

I prefer #2 since it solves the more generic problem with the z-axis of being stuck with a number of nicely placed ticks that you can't control or a number of poorly placed ticks that you can control. | | |
4706	Missing data from McGrath and Kiana magnetometer sites	7/18/2012	Cindy	0	Cindy	Sites are reported as working, but no recent files at the other end, so nothing for wget to pick up. Contacted Harald Frey and Ian Schofield 7/18/2012. Diagnosis in progress.		
4707								
4708								
4709								
4710								

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	v7.0 QA Tasks for Review with Vassilis							
	General							
	Tips of the Month		David		Jim L	Next Candidates: Lynn Wilson Routines; Eclipse auto pprocessing; FGM Reprocessing,CDF library 3.4.1 released (fixes memory issue for Linux users)		
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?		
4647	I am reviewing a paper for GRL that uses THEMIS data incorrectly. Basically, the authors are trying to publish solar array switch spikes as evidence for DLs. I am sorry that I cannot give you more details. will notify the editors of this problem. However, it is entirely possible that such a paper could have been published and I want you to be aware of this problem. Perhaps a warning should be posted on the web site: (1) Axial boom data are not necessarily valid, particularly in the subsolar region. (2) THEMIS EFI data have unwanted "spikes" which come at four times per spin. These spikes are removed in released THEMIS data analysis programs, but the removal process can leave a residue.	6/1/2012	Bob Ergun - Colorado U	1	David/Emmanuel	Will discuss with David 6/18. All changes need to be approved by John Bonnell (very busy with RBSP at the moment). David will wrap up. Emmanuel made changes in beta site 7/5/2012.		
4695	GUI API for other missions to add GUI tabs, load routines, etc	7/6/2012	Jim L	2	Jim L, Developers	Discussed 7/16/2012, JWL to write up proposed tasks, distribute to external devs for feedback.		
	Hannes							
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List up to date as of 6/25/2012		
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	**7/02/2012: THA spin axis offset done 7/6/2012, thd and the in progress.**		
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	**Updated for inner probes, 2012-07-18**		
4472	Inter-spacecraft FGM calibration for ARTEMIS.	1/4/2012	Vassilis	1	Hannes	**6/4/12 from Hannes: Artemis inter spacecraft differences**		

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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		
4493	2D slices, 1.5D Pitch Angle Distributions - command line in progress; GUI?	1/23/2012	Vassilis	1	Aaron	**7/20/2012: Code is working as intended, but could use some simplification.**		
4494	2D slices, 2D Pitch Angle Distributions - command line in progress; GUI?	1/23/2012	Vassilis	1	Aaron	**7/20/2012: Code is working as intended, but could use some simplification.**		
4463	file_http_copy support for proxy servers	12/12/2011	IUGONET	1	Aaron	**Verified correct headers when going through local proxy. Email sent to IUGONET team to test under their configuration, waiting to hear back from them.**	1-3 hrs	
4641	thm_ui_part_getspec_options.txt:							
4641a	I think perhaps the testscript needs to be revised as it seems a bit out of date in places, and also a little confusing sometimes.	5/30/2012	Lydia	1	Aaron	7/20/2012: Rewrite needed, in progress.		
4641b	For the Angular Limits the invalid min/max behaviour is a bit counter intuitive: it truncates the value rather than setting to the last valid value. eg. 450 becomes 45.	5/30/2012	Lydia	1	Aaron	see 4646b	3 -4 hrs for all	
4646	bug reports getspec GUI suite							
4646a	When I try to plot a spectral quantity as a line plot, it uses the y-axis limit as the default, it should actually use the z-axis limit as the default. (Because a line plot for a spectral quantity actually ends up being an X v. Z plot not an X v. Y plot) This is a side-effect of our more thorough implementation of range defaults. Not a huge issue and easy to fix.	5/31/2012	Pat	1	Aaron	7/20/2012: In progress		
4646b	It is a little weird that the getspec panel resets your settings to the last valid and then runs with last valid when you enter an invalid character or an out of range value, but if you set min greater than max, it refuses to run and requests that user correct the entry. I feel like it should correct user entry errors consistently.	5/31/2012	Pat	1	Aaron	**Done.**		
4646c	11.b.i indicates that -20.5 is an invalid entry and should be reset. It actually isn't. It looks like this section was written for testing a valid range between [0,360] when the actual valid range is [-180,180]	5/31/2012	Pat	1	Aaron	**validate test instructions**	1-2 hrs	

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4551	Annotation precision with decimal notation was confusing for me eg I had two ticks at 452.59 and 0.148 when the precision was set to 1.234. When you click auto without changing the precision it changes the annotations to 452.6 and 0.1484	3/15/2012	Lydia	1	Aaron	Jim L to dig up original bug report from TDAS 7.0 QA.		
4683	Aaron reported that if he switches between hardware and software rendering mode in the GUI when the level of zoom is not 100%, it changes the size of the draw area. If you do this repeatedly, the draw area gets smaller with each switch.	6/26/2012	Aaron	1	Aaron			
4685	Widget tree expansion, IDL 8.2	6/26/2012	Pat	2	Aaron	IDL fixed a bug which we had worked around, need a version check to enable/disable the workaround so it will work on all IDL versions.		
4669	(Not 8.2) The slices code should output percent progress to the status bar and/or IDL console. The processing times are usually short (< 1 second per cut for basic slices) but depending on data type and resolution they can be much longer. With the recent addition of averaging over multiple planes the time per slice can easily exceed 30 seconds, making progress reports necessary when taking multiple cuts.	6/7/2012	Aaron	2	Aaron		4-6 hrs	
4543	Axis options: With "bound autoscaling" or "floating center w/ span", allow units other than seconds for a time axis.	3/14/2012	Pat	2	Aaron	Floating center/span not very useful; probably exists only because SPLASH had it. Perhaps it could be removed?	1-4 hrs depending	
4505	Add a TDAS routine to do 1-d cuts - **when ready to work send Aaron Bennenman 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.	1 hr	
4298	the slices code should probably have a keyword to use the new SST calibrations.	7/27/2011	Pat	2	Aaron	On hold till the SST calibrations have found wider use.		
	Cindy							
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/2011	David	0	Cindy	Next October 2012		
4701	cotrans problem, DSL->GSE for THC	7/12/2012	John Podesta	1	Cindy	Z component of velocity moments should have nearly opposite signs between GSE and DSL for THC, but don't…is this a problem? Probably working OK, Cindy to provide test results we can send to John P.		
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, why has 2012 data stopped? Will ping again week of Jul 9. Still waiting to hear back from Sasha.**		
4696	Diagnose UATHA rsync failures	7/7/2012	Jim L	2	Cindy	David Milling replied to email 7/13/2012, possibly related to server downtime at their end. Need to compare 2012 holdings and look for differneces.7/20/2012: Error messages have stopped, now fixed on their end?		
2027e	Finishing the coordinate transformation of the thm_load_state data at input, to include transformation of spinaxis attitude, need to determine keyword switch, implement the rotation of the spinaxis elevation/azimuth from gei to arbitrary coordinates (consult with Pat Vassilis)	7/1/2010	Vassilis	2	Cindy	**In progress 6/15/2012. Convert ra/dec to single cartesian (unit vectors) tplot variable, then cotrans and convert back to spherical. 7/20/2012: Coding finished, testing in progress**		

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3086	add MACCS gmag data from 2007 to our data archive. We already have MACCS data for some years and a process that automatically downloads it/converts to CDF. So the task would involve finding missing files from 2007 and feeding them into our pre-existing processing framework. It should be pretty straightforward, but probably non-trivial because of learning curve/unexpected details.	2/19/2010	James Weygand	2	Cindy	**They are moving all the data to another server - on hold. Once they have completed the move we can get 2007 data and we will update scripts to handle the new data location. In progress as of 5/15/12 at their end. May take a while, if ever.**		
2062	Alberta - At the moment the data files are from Dawson (daws), Churchill (fchu), Island Lake (isll) and Fort McMurray (mcmu). I will add Rabbit Lake and Taloyoak at some time but we have some issues with mag pointing at those 2 sites. If you recall, the agreement between Ian and Vassilis was that this data wouldn't be copied to become part of a mirrored archive like the existing data we provide. Instead, each file would be obtained from this site each time it is requested (using curl or some such). This means we can use our own logs to monitor data usage. Themis Software to be able to retrieve from Alberta		Vassilis	2	Cindy	**Waiting for CARISMA - our side coding done - run a test when data available**		
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).**		
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		
4409l	Leirvorgur (LRV) (Iceland)	10/19/2011	Vassilis	2+	Cindy	**7/13/2012: Zip file received, unpacking and verification of data in progress. 7/20/2012: Unpacked files look OK, testing installation script, will check into SVN when working.**		
778b	Need capability to read in ASCII. IDL has a built in widget to specify ASCII formats.	11/21/2011	Oldie	2	Cindy			
	Jim L							

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4612	GOES 2008 Data	4/20/2012	Andrei Runov	0	Jim L	**Jim to sent email to Howard - on hold until data arrives. Email sent on xx/xx/12.**		
3093	Automate processing of eclipse sunpulse data from FGM team	2/22/2010	Jim L	1	Jim L	**Once prod reprocessing complete send announcement.**		
3093g	production cron job	2/22/2010	Jim L	1	Jim L	**testing in progress**		
4613	Prevent Email Storms when data servers go down	4/25/2012	Jim L	1	Jim L			
4613c	Modify existing processing scripts to log to the database rather than send their own emails	4/25/2012	Jim L	1	Jim L	7/20/2012: Next batch of updates will be GMAG download scripts		
3093i	reprocess entire mission - notify Jim M and Tami before doing	2/22/2010	Jim L	1	Jim L	**Done, 7/20/2012**		
4027b	Reprocessing GOES Data	4/5/2010	Tami - SPDF	3	Jim L	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files. In conjunction with task 4612.		
4656	THEMIS Orbits - Discuss with Dan Cosgrove on**July 9th. From time to time, the first orbit determination after a manuever is very "raw" due to the shortness of the arc, causing large discontinuities in definitive position ephemeris when the arc is propagated back to the manuever burnout time.**	6/4/2012	Vassilis	n/a	Jim L	**Dan C. and Jeff M. suggest that after each maneuver or series of maneuvers, the MOC can curate the orbit determination data so that the back propagation is done from a higher quality orbit solution (e.g. 7 days rather than a few hours). There will still be discontinuities but they should be much smaller. MOC will provide improved definitive ephemeris files to JWL (est. late August 2012). We will reprocess a few days of L1 STATE for each incident. We will also provide Hannes a list of reprocessed**		
4637	Yesterday, we did a data dump on the flatsat, which contained a couple hundred packets of engineering data. We then "restored" the segment and dumped it again. Then we let data accumulate over night. This morning, we dumped the segment again, and while dumping sent the restore command. This test is essentially to see if the same data we dumped yesterday are available in the second dump and what effect if any sending the restore command during the dump might have had. Mark asked me to forward the two files to you. In the first, the first data dump after the first "restore". In the second, the second data dump with a "restore" while the dump was in progress. /home/jmcd/test_data/SSL.FLATSAT.TLM_VC3.2012_145_173946 .0 home/jmcd/test_data/SSL.FLATSAT.TLM_VC3.2012_146_182430. 0 (or do you need the other VC files, too?)	5/30/2012	John McDonald / Jim Lewis	0	Jim L	From what I saw in apid 410, it looks like the dump strategy worked as intended, and we got both copies of the original engineering segment contents, with no ill effects on the VC->L0 processing due to duplicated or out of order packets. Is that enough to declare success, or would you like me to look at some other apids? MOC wants to do some additional flatsat testing under various conditions; JWL to analyze test data and assess impact on apid 410 data. 1/2 hour per test.		
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. **Waiting on Ben to finish 3093 so I can start testing.**		
4509	Some array accesses still use () instead of [].	2/6/2012	A. Breneman	1	Jim L	**For example the ESA packet loading routines, thm_load_peif, thm_load_peeb. Work to be done when 4034a2 work continues**		

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4326b	Then for Particles and Spin Fits	8/18/2011	Vassilis	0	Jim L	in progress - dependent on 4034a2.		
4326c	reprocessing for the moments and spin fits	8/18/2011	Vassilis	0	Jim L	**on hold 3093 is done (task 3093 assigned to Ben)**		
4667	(Not 8.2) If the user selects "No" on the prompt to overwrite an existing themis document a second dialog window pops up with the message "Save cancelled by user". This seems unnecessary.	6/7/2012	Lydia	1	Jim L	in progress - eta 6/22	10 min	
4670	Since the full distribution data is at 3 second resolution when we're in fast survey, we might want to consider stopping transmission of reduced distribution data when we're in fast survey. We could use the saved bandwidth to transmit reduced distribution data in 6 angle mode when we've in slow survey.	6/4/2012	Vassilis	1	Jim L	Requires flatsat testing & MOC support; on hold until NuStar launch/EOC.		
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			
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	1	Jim L	not trivial		
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	1	Jim L	see 4142		
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		
4468	Modify ESA packet loading code to use standard spinmodel routines rather than deprecated ASCII files.		Jim L	1	Jim L	After TDAS 7.0.	1 day	
4430	crib for eclipse despinning code for spin fits and moments	11/9/2011	Jim L	1	Jim L	**on hold- demo exists;dependent on 3093**		
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?		
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	

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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**		
4070	"Add support to thm_cotrans, ssl2gse, and ssl2dsl for /pseudo_dsl keyword. If keyword is present, look for and apply eclipse delta_phi corrections as appropriate."	6/1/2010	Jim L	1	Jim L	thm_load_fit and thm_load_mom, add keyword. In progress - **Will review code Davin checked-in concerning tensor quantities in thm_load_mom.**		
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 prerequsite		
4030c	If scripts change - make changes to processing scripts	5/17/2010	Jim Lewis	1	Jim L	4030a prerequsite	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-E	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		
4286	Create and maintain a list of FBK and FFT (and possibly other?) configuration parameters versus time, to be used by other researchers to located time intervals containing data that was acquired in a particular configuration. Examples (totally made up): THEMIS A Filter Bank Source Selections: 2007-02-23 - 2008-01-01 e12dc, scm3; 2008-01-01 - 2008-05-01 scm2, e34ac; THEMIS A FFT configuration: 2007-02-23 - 2008-01-01 16 frequency bins, e12dc, e56dc, scm1, scm3; 2008-01-01 - 2008-05-01 32 frequency bins, e12dc, e56dc, scm1, scm3	7/15/2011	SPDF - Jim L	2+	Jim L	**phase 1 - list for next Tips of the month, phase 2 - cdf or web page: To be done before the Map in early 2013**		
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							
4152	verify the location of the sun-contaminated bins for each spacecraft and any change in location over time(they should change very slowly if at all). They would then re-activate the sun contamination masking. It was previously disabled because the masking was originally in the from place. Davin said that he wants to create the new configuration files that would be uploaded to the spacecraft.	10/8/2010	Vassilis and Davin	0	Jim M	**Persons that can provide information are: Davin, Deron Pease/McDonald, Michael Luldam and Robert Abiad. Awaiting task 4365 (same process)**		
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	**only ARTEMIS probes - Need to talk to Jim McFadden. Also need MOC Support. 7/20/2012: Table generation script finished and checked in. Ready to test table updates on FLATSAT (in between maneuver sims). After that, modify mode change scripts & test on FLATSAT, then proceed to testing on ARTEMIS probes.**		
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			

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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.		
4688	Ensure that remote_data_dir URLs end in trailing slash	6/27/2012		1	Jim M	Davin objected to mods to file_retrieve, so mods need to happen in thm_load_xxx and other routines that call file_retrieve.		
4689	Add keyword to thm_asi_create_mosaic routine to allow setting the color of the text (in xyouts).	7/2/2012	James Weygand	1	Jim M	Jim M to send email to Weygand, let him know about the new keyword		
4458	Horae (rsync server for mirror sites) is dying and needs to be migrated to a VM Astrea2.	12/8/2011	Jon L	1	Jim M	7/6/2012: Horae is dead. Only mirror site not completely migrated is Chile, waiting to hear back from them.		
4458c	migrate Chile mirror site	12/8/2011	Jon L	1	Jim M	7/6/2012: Waiting to hear back		
4639	Also, there are a bunch of other calibration files that are used FGM and other instruments. The installation of these files is not detailed in the admin guide yet. I created a new section, with only one entry for this particular cal file type. If we want to be thorough, we should probably do the others.	5/30/2012	Pat	1	Jim M	In progress 7/6/2012. 7/20/2012: Cal file installation scripts being updated, will document in admin guide when ready.		
4003	Document: ESA File and Calibation 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**		
4233	Angular Correction for particle data - use Jim McFadden's code if available	1/9/2011	Vassilis	2	Jim M			
4241	Dieter and I have tested the variables, there are two that don't seem to have data for the mission, and their catdesc's seem to indicate that they won't... so can we "turn these off", or is there a plan to use them in the future? EFS_Q_MAG (Data Quality Parameter: set to NaN for EFS, as there is no good measure of data quality.) **EFS_Q_PHA (Data Quality Parameter: Set to NaN, as there is no good way to measure data quality for EFS data.)**	6/6/2011	Tami Kovalick	2	Jim M	They are empty at the moment, by design -- we may have a use for them in the future. Nothing needs to be done with SPDF. Look into EFS_Q_PHA and **check with John Bonnell about the future. If we add these variables notify SPDF.**		
2224	thm_load_mom: for quantities like velocity, the coordinate system isn't stored in the meta data, and none of the units are stored in the place we normally try to store them (from Pat - Vassilis concurs) Will take a look.		Vassilis	2	Jim M			
2035	Split L1 ESA (using Thomas's routine) in master ESA data cdf		Vassilis	2	Jim M	On Hold - awaiting Jim McFadden release: Then send David Sub Task List; Calibration variables removed from L1 data master CDF. (Side note: found and reported a bug in SKTEditor, which the Goddard team has agreed to fix...) Waiting for feedback from Jim McFadden about how calibration data should be handled (TH-A ASCII calibration file (used for all probes) doesn't match anything I removed from the data CDF).		

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4208a	Enhanced MOM Instrument Web Pages	3/5/2010	David	2	Jim M	Talked to David first.		
	Pat							
	Updated FGM calibrations for solar array currents, ADC nonlinearity available?	5/30/2012	Vassilis	0	Pat	Last Recieved - May 2012. May need to remind FGM team if we go a long time without updates.		
4697	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	Write up findings and present to Exelis (Formerly task 4458 – changed due to unrelated task with same number) 7/24/2012 will do dry run of presentation at 2pm. WebEx with Exelis 10am PDT 7/25 (Wednesday)		
4687	if you followed the right set of instructions, you could create a set of plots that is clipped off screen. I verified that this is not an IDL 8.2 issue and occurs on IDL 7.0 as well.	6/27/2012	Pat	1	Pat	" The following steps reproduce the error consistently on Mac (I was unable to reproduce it on Windows). i. increased the size of the current page (containing plots) (I used 12 x 16 inches) ii. zoom out until horizontal scroll bar disappears iii. create a new page iv. add plots to that page The plots I got were clipped on the left side. It appeared as though the dimensions of the plots from the previous page may have still been in use. Switching pages does not correct the issue. The page's dimensions can be made large enough to fit the plots, but the error reoccurs when the dimensions are returned to the default values. Zooming corrects the issue if you zoom in to 100%. Loading a saved file does not appear to reproduce the bug." 7/20/2012: Was blocked by task 4683 (Aaron needed to work on exact same code), can proceed now.		
4690	The query to overwrite data has not been implemented for the goes, wind, and ace tabs.	7/2/2012	Pat	1	Pat	7/20/2012: Finished today?		
4691	We added a feature to remember which selection a user has made for overwriting to the load THEMIS data tab. This information is stored in the THEMIS document so when you replay the document, you don't have to spent several minutes clicking yes and no furiously. (this also avoids errors that would occur if you make a different selection when replaying the data) This feature has not been implemented for the data processing operations. (We would want to do this for the wind, ace, & goes tabs when we do 4690 too)	7/2/2012	Pat	1	Pat	7/20/2012: Finished today?		
4545	Axis options: Major ticks by interval/Annotate every: For a non-time axis, switching between log/linear doesn't update the major tick every field as might be logical. ie. if you set to every 10000 n^1 on linear then switch to log it still tries 10000 10^n. Usually this means it fails to place any ticks/annotations if you switch between log/linear with either major ticks by interval or annotate every set.	3/14/2012	Lydia	1	Pat	Formerly QA271. If you have major tick every set and a mix of log and linear axes on the page and then use set all panels, you're bound to end up with no ticks on the panel with different scaling.		
4537	Deletion of data not reflected in saved/reloaded THEMIS document. Formerly QA206. Also remember to overwrite prompt setting (yes to all, etc)	3/2/2012	Lydia		Pat	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).		

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4460	Add New Routines from Lynn Wilson	3/22/2012	Vassilis	1	Pat			
4460-1	Include: safe, minimal effort, obvious benefit. (21)		Vassilis	1	Pat		3-4 days	
4460-2	Documentation only: LW3 has documented a routine that didn't have documentation previously, but incorporating routine body is no worthwhile.(possible bugs or too much effort) (12)		Vassilis	1	Pat		1 day	
4460-4	Not sure: Need a scientist's opinion on the benefits of the routine. (26)		Vassilis	?	Pat	**Vassilis will talk to Lynn Wilson and ask the benefits of these routines**		
4460-5	Not sure: Need more programmer time to make confident recommendation. (14)		Vassilis	?	Pat	**Vassilis will talk to Lynn Wilson and ask the benefits of these routines**		
4460-6	Helper, only include if required by an included routine. (9)		Vassilis	1	Pat			
4627b	SST: Andrei did some work that makes it look like we may need to look at the inter-anode calibrations for probes B & C.(This may be more Drew than me)	5/17/2012	Vassilis	1	Pat	**Complete 4627a - d by August 1**		
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	1	Pat			
4267c	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	1	Pat	Working on noise removal, etc.		
4627d	SST: After #a-c are done, we need to reprocess SST L2 with sun contamination removed and new calibrations applied.	5/17/2012	Vassilis	1	Pat	need 4267c to be completed		
4002	Document: SST File and Calibation Processing	3/5/2010	David	1	Pat	**to be completed 9/30/12**		
4603	make new SST Cal standard	3/22/2012	Vassilis	1	Pat	Revisit in July **** on hold ****		
4686	There were several reports that the dproc window was too small in IDL 8+. It looks like this is a side effect of the font change.	6/27/2012	Pat	2	Pat	For whatever reason, many widget sizes are specified in characters, instead of more standard units. This means that if the base font size of a character changes, so does the size of a viewable area. Just an FYI, I'm going to be rolling this one into the font size one. I'll list it as a reason why the font size change is such a pain in the rear.		
4550	Major ticks by number/major ticks by interval: It might be nice to have major ticks by interval default to something logical rather than 1 n^1. If you change 'Major ticks every' then 'Major ticks by number' is updated to something that closely matches that interval, but the reverse isn't true. I'm not sure if we necessarily need 'Major ticks every' to update when 'Major ticks by number' is changed, but it might be good to have it default at the beginning to something that sort of matched.	3/15/2012	Lydia	2	Pat			

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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.		