Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E	Crib	QA Suite or Script	UG	Qref	Adm Guide	Dev Guide	Web
	To be Assigned or Discussed														
4239															
4240															
4241															
4242															
4243															
4244															
	General														
4229	Davin's commits review														
4229d	8630	5/2/2011	David	1	David	sent Davin email on 5/2/11									
4043	Paper on interdependentcies of FGM and STATE Reprocessing	4/19/2010	Pat	1	Jim L	David - Put Paper into themis doc format									
QA202	Check with Jon Loran further about a THEMIS SVN read only SSL account for IUGONET and ERG	12/16/2010	David	QA	David	On Hold									
QA203	Put links to the ERG and IUGONET web sites on the themis website	12/16/2010	David	QA	David	sent ERG and IUGONET folks email									
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.	2/24/2011	Team	1	David	IDL Error report to ITT									

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	Harald															
	L1's and mosaics are up-to-date and available through March 31, 2011				Harald											
	Thumbnail Data:				Harald	Updates ready 7-10th of the next month										
	- cdf files done until February 2011															
	- overview plots done until February 2011															
	- movies done until April 30, 2010															
	Full-resolution raw data:				Harald											
	- complete for 2007, 2008, 2009															
	- Up to date and complete until April 2010															
	Full resolution data:				Harald											
	- data cdf done for all 2007 and 2008 and up todate and complete through April 2010															
	- keogram cdf done for 2007-2008, 2008-2009 and up to date and complete through April 2010															
	Web site mosaics and movies:															
	- Mosaics and movies reprocessed for 2007/2008 and 2008/2009 seasons															
	- Mosaics and movies up to date until April 30, 2010															
	Web site overview plots with full resolution data:															
	- overview plots done for 2007-2009 and until April 2010															
2069d	UCLA – mirror site set-up		Vassilis	1	Harald	UCLA has 2-1TB and 2-2TB bricks.										
	Hannes															
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List updated 5/16/11										
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	**offsets sent to instr scientists ; email from Braunschweig: Karl-Heinz will produce new Artemis calibration files in 2-3 weeks (first week in June).**										
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	Attitude determinations to resume, results should be available ~2 weeks dependent on 4018a										
4034b	Ferdinand sent was an attempt on his part to automate the shadow processing. He wanted feedback whether the products produced are adequate and if the code is amenable to automation. We can pick it up with him once you have gone through it.	4/14/2010	Vassilis	1	Hannes	**Waiting for feedback from Ferdinand about state of inner probe eclipse models, long & short eclipse models**										
4154	GSE-GSM ………	10/11/2010	Vassilis	1	Hannes											
4058	This is getting a bit out of hand I think. How about a configuration file? The software just reads keywords from a configuration file. With such a configuration file it is possible to set keywords automatically (for the scientists) but additionally it would give us the possibility to keep track of what the software does automatically. When I do calibrations I can then save the configuration file together with the results and not worry about the things that the software might have done automatically.	5/10/2010	Hannes	3	Hannes	Hannes sent out new version for review.										
2074c	quality flag for FGM data		Vassilis	3	Hannes	on hold										
2082a	Spin modeling during shadows BugZid=43		Vassilis	3	Hannes	Jim L to write routine. Hannes send info.										

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	Aaron														
4235	Determine why bulk velocity vector is off on SST plots.	5/13/2011	Vassilis	1	Aaron	**determine what caused the difference and whether based upon that there is a bug or "just as it is". Run the comparison on a few more plots.**									
2013af	Mark one count level (dashed line)		Vassilis	2	Aaron	**Have Andrea and Xuzhi, Shanshan and Stephen check it out**									
4204	The enhancement for QA 156 is to add a "lazy ytitles" option to the GUI. This means that a ytitle that has separators like spaces or underscores will have newlines inserted in their place so that long titles can fit in crowded layouts. This is a standard command line feature.	3/2/2011	Pat	2	Aaron	**in progress**	2 days								
QA076a	SST Test Suite: (Feature) Reports that default labels are cluttered. Specifically, sst_en_eflux y-label is long, & the content of the label is more appropriate for the z-axis. I agree, but making the defaults work better will take some effort.	2/3/2011	Pat (from Michael)	2	Aaron	see 4204									
4012	When Cindy & I tried to load tha_eff on 2007-03-23, it didn't load and said some calibration quantity couldn't be found. When I tried to load the same thing, I didn't have a problem. So the trick would be to find out what changed from my computer to Cindy's computer and to figure out how often our user's computers are going to have the same problem that Cindy's computer had.	3/22/2010	Pat	2	Aaron	**Jim M: I have no trouble with EFF data either for linux or windows.**	4-6 hrs								
3014	We don't have support for filled symbols. This means symbols are only outlines.	12/11/2009	Pat	2	Aaron										
3031	GUI Overview plots sometimes have diamond shaped artifacts in the sample rate bar. Should fix.	1/5/2010	Vassilis	2	Aaron	This is a side-effect of the a way that symbols are used as a hack to generate the sample rate bar. Fix after 3014 is fixed.	1/2 day								
QA038	Windows - Layout option	1/21/2011	Christine	2											
QA038a	6.a) I forgot to click Add to make new panels for each spacecraft's data and thus ended up with all data on one panel. The only way to fix this, that I saw, was to delete all the data and then start over, making sure to add a panel before selecting each dataset. As a user, I feel there should be an option to move data from one panel to another without having to remove it and select it again. For instance, we should be able to click and drag a piece of data from one panel to another panel.	1/21/2011	Christine	2	Aaron	checkbox - toggle	1-2 days								
QA038c	6.f) When the 5 panels have been made of the data, the type of data in each panel is labeled but the spacecraft is not included in the label. You only know which spacecraft is represented if you hover your mouse over the panel. I think the panel should have the sc label, especially for printing purposes.	1/21/2011	Christine	2	Aaron	come up with how to fix options with level of effort									

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QA038d	REALLY don't like how when you select the dependent variable, the window slides over to center it. I want it to stay wehre it was unless I slide the window myself. Otherwise I'm constantly sliding it back to the left in order to see which variable I want to select.	1/21/2011	Christine	2	Aaron	fix only for windows									
QA038g	10.c,d) If you change the panel row number, you have to also change the panel row number to which you are changing it to. Ex. 10.c) asks to select the 3rd panel and click the up arrow key twice, and click apply. You can't do this unless you ALSO select panel 1 and click the down arrow key twice. Same for 10.c and d...You can't apply panel 3 to row change to 5 unless you change 5 to some unused row number. Should this be automated? If not then at least the suite's directions should be altered.	1/21/2011	Christine	2	Aaron	alter test suite and resolve for simple case - talk to Christine									
QA038h	10.h) If you don't click cancel, but apply it and hit ok and go back to manually change it back to the original plot, the plot keeps the same width for each panel as when there were 3 columns, even now there is only 1, so each panel is very short instead of being its full, one-column size. This shouldn't be the case.	1/21/2011	Christine	2	Aaron	analysis - for discussion with level of efforts									
1579	When importing a variable with a valid 'V' component in its data struct, but no spec flag set in its meta data, the loaded data object fails to load the y-axis. This should be fixed, as it ends up incorrectly loading certain spectral quantities.		Pat	4	Aaron										
2121	When thm_load_fit is called requesting a single data type it will also return some auxiliary data types. For example: thm_load_fit,probe='b',datatype='fgs' returns: 1 thb_fit_code 2 thb_fit_npts 3 thb_fgs. load bug or test script bug) b. The relpathnames all keyword is broken.			4	Aaron										
2028	Variable units – generic solution - thm_load_spin, _state, _hsk, _sst, _esa, _bau, _fgm, _fbk, _fft, _fit, _scm, _efi, _trg, _asi, _gmag, _ask, _mom, _esa_pkt		Vassilis	4	Aaron										
2029	From Hannes		Hannes	4	Aaron										
2029a	Provided is the most common plot used by scientists that look		Hannes	4	Aaron										
2029b	The level 2 CDF files at http://themis.ssl.berkeley.edu/data_download.shtml should contain position in various coordinate systems as well. Preferably in the same resolution as the data. Otherwise Scientists need to get the position from another source. Notes from Vassilis: option to introduce the data in RE with keyword (one RE =6,478 kilometers ???). Like thm_load_fgm /pos_units= 'RE'. Also thm_load_state keyword out_coord = 'GSM', 'GSE',...etc.		Hannes	4	Aaron										
2029c	If one loads fgm data from probe 'a' and let's say there are no data for the chosen interval. The variables tha_fgl and tha_fgl_gsm etc. should all be empty. It could be those variables still contain data from the previously loaded interval.		Hannes	4	Aaron										
2030	upgrade thm_load to work with probe assignments		Vassilis	4	Aaron										
2031	move functionality of thm_load_state2 into thm_load_state and delete thm_load_state2		Vassilis	4	Aaron										

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2032	Multiple enhancements concerning keywords, valid_names and thm_load routines		Vassilis	4	Aaron										
2013w	Integrate our own slicer3.pro gui with regular 2-D slice plots.		Vassilis	4	Aaron	on hold	2 days	Y	Y	Y	Y				
Cindy															

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	New Programmer														
4001	Document: Administrators Guide	3/1/2011	David	1	tbd	50% time									
4214	THEMIS Pipeline proof of concept regression tests	3/23/2011	Jim L	1	tbd	50% time									
4214a	VC->L0	3/23/2011	Jim L	1	tbd										
4214b	L0->L1	3/23/2011	Jim L	1	tbd										
4214d	empermeris->state v00	3/23/2011	Jim L	1	tbd										
2046	Create a more efficient & productive prototype QA Instrument Command Line Script - first template (s) functional blocks then scripts for FGM, ASK, SCM, FIT, MOM, ASI, EFI, FFT, FBK, Gmag, State, SST, ESA		Vassilis	1	tbd	In progress. Several templates created, selecting the appropriate command line routines to test.									
4200	Yuri has generated a 3 parameters for the THEMIS spacecraft L,L*,Mlat. These parameters are very useful scientifically. The task would be to archive these parameters in CDF and add a load routine in TDAS to read them. Currently, the data will be made available to us by Yuri via tab separated ascii files.	1/19/2011	Yuri Shprits	2	tbd	part of the state cdf									
2175	L2 File Definitions Document	3/1/2011	David	2	tbd										
4214	THEMIS Pipeline proof of concept regression tests														
4214c	L1>L2	3/23/2011	Jim L	2	tbd										
4214e	GMAG	3/23/2011	Jim L	2	tbd										
4214f	AE Index	3/23/2011	Jim L	2	tbd										
4214g	ASI	3/23/2011	Jim L	2	tbd										
4214h	mosaics	3/23/2011	Jim L	2	tbd										
4214i	summary plots	3/23/2011	Jim L	2	tbd										
2149g	write a routine to check time tag monotonicity and repair tplot variable if necessary (with options for "replace with NaN" and "delete")		Jim L	2	tbd	Create a routine to clean up tplot variables. Use in the load routines were susecptible. Recommend that we just remove what is needed to make the time tags monotonic, and issue a warning indicating that the user should consult the THEMIS software team about that data.									
2149h	integrate time tag fixer-upper with TDAS load routines		Jim L	2	tbd										
4135	Now that the L1 ESA/SST/MOM reprocessing is underway, these CDFs will soon contain the full ESA and SST configuration words, in addition to the solar wind flags, sweep modes, and so forth. With the full configuration data available, if someone wants to use a property of these instrument configurations that's not already present as a L1 variable, we don't need to reprocess L1 to add it -- we just write a little more code for TDAS, to extract the new attribute from the configuration data that's already present.	9/10/2010	Jim L	3	tbd		2-4 hrs								
4135a	Write some TDAS routines that take an apid and a configuration word, and return a structure with all the relevant properties of that configuration. This is basically reimplementing some logic that's already in the L0->L1 processing code (written in C). If anyone ever needs other attributes of the instrument configuration (for example: the angle maps corresponding to each configuration), we would update these routines to return the additional information.	9/10/2010	Jim L	3	tbd										

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4135b	In the load and/or calibration routines for ESA, SST, MOM: rather than using the ESA solar wind flags and sweep mode from the L1 CDFs, use the ESA full configuration instead (which is present in all three L1 types, for convenience), and use the routines from 4135a to extract the solar wind flags, sweep mode, and any other useful attributes. I think SST does not have any configuration flags similar to the ESA quantities (there's the attenuator status, but that's separate from the instrument configuration word), but it needs them in the future, they should be handled the same way as ESA (extract from SST configuration word instead of adding L1 variables). I can do this, but if the routines from part (a) are well-documented, any of us could probably do this part.	9/10/2010	Jim L	3	tbd										
2078	bau_sunpulse_met assumes x86 endiannes (BugzID=13)		Vassilis	3	tbd										
4027b	Reprocessing GOES Data	4/5/2010	Tami - SPDF	1	tbd	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files.									

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	Jim L														
4238	Issue with STATE emphermis	5/27/2011	Jim L	0	Jim L	update script - to commit 6/6									
4034a	Ferdinand sent was an attempt on his part to automate the shadow processing. He wanted feedback whether the products produced are adequate and if the code is amenable to automation. We can pick it up with him once you have gone through it.	4/14/2010	Vassilis	0	Jim L										
	Option1) Just to recap: it will be more difficult than I thought to support switching between the default spin model and the eclipse spin model from F. Plaschke et al. It can't be implemented as a simple correction to the default model -- I would have to introduce a whole new set of variables in the L1 STATE CDF, duplicating the existing set of spin model variables, to be able to switch between corrected and uncorrected models. And eventually, we'll probably end up using the corrected model exclusively, so we'd end up with a lot of unused variables cluttering up the state CDFs.	4/16/2010	Vassilis	0	Jim L	TDAS side - select on the fly to get the correction or not (keyword) - **can build both standard and eclipse spin models from new state CDFs, keeping changes out of trunk until I get back from vacation**	5 days	Y	Y						
4034a1	Code modifications: 1. Add keyword "use_eclipse_corrections" to spinmodel_interp_t (defaults to "don't use") 2. Add informational message to state whether corrections are in use or not 3. Add similar keyword & informational message to other routines as necessary (thm_cotrans, ssl2dsl, thm_cal_fgm, etc)	11/22/2010	Vassilis	0	Jim L	must change everything that the calls the spin model **- in progress; FGM, EFI, SCM (wavelets) and Spin Fits complete and Jim sent email to Vassilis, Hannes and Ferdinand to take for a tst drive (5/9-10); Others to do: particle distributions (esa**		Y	Y						Y
4034a2	At the moment, I have Ferdinand's eclipse spin models for THB and THC. There was some discussion about whether one of these models would also be appropriate to use for the THA, THD, and THE, but I don't remember what the recommendation was, or if that work is still in progress. The other thing I remember from our previous conversation is that they were thinking of distinguishing between "short" and "long" eclipses, and using different eclipse spin models for each situation.

The models I'm currently using are "thb_modell_2.sav" (dated Jul 9 2010), and "thc_modell_2.sav" (dated Aug 20, 2010). | 4/8/2011 | Vassilis | 1 | Jim L | **awaiting Ferdinand** | | | | | | | | | |
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										
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	1	Jim L	not trivial	3-5 days	Y							
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	1	Jim L	see 4142									

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2047	Separate E and B timestamps for spin fits: a) make a revised V02 master CDF with E and B separated b) change thm_load_fit to support V01 and V02 of the L1 CDFs c) change the L0->L1 processing code d) change the L1->L2 processing code e) test the changes, then reprocess to create the V02 CDFs (keeping the V01 files around for a while to ease the transition)	before the millenium started and when bugzilla's roam the free world	Vassilis	1	Jim L	**Hard for SPDF to deal with, with their plotting tools - review priority with Vassilis; Check again with John Bonnel regarding timing differences between fgm and efi spin fits**	4-5 days								
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.**									
4030a	Review Onboard Scripts for possible error.	5/17/2010	Jim Lewis	1	Jim McFadden, Davin, Robert Abiad	**can duplicate on flatsat. Jim Mcfadden and Davin to review Jim L's email.**									
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									
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.**									
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									
4207a	Each of us should probably take a look at all the shell scriptswe're responsible for, scrub them for issues like this, and in the case of jobs running on gaia (and any other hosts that were recently upgraded), check the recent processing logs to make sure any failures are not signs of these or other incompatibilities.	3/11/2011	Jim L	1	Jim L										
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		2 hrs								

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4022	Update L1 master cdfs to support SPDF hosting	3/25/2010	David	3+	Jim L	I think 4022 is a an end-of-mission task: basically clean up all the L1 CDFs, so they are fully ISTP compliant and as compatible as possible with SPDF's tools. But "ISTP compliant" is a moving target -- they keep adding new checks to the SKTEditor software -- so I think we made a task to do one final cleanup and reprocessing at the end of the mission, as opposed to reprocessing every time they introduce a new SKTEditor check that renders our L1 files non-ISTP-compliant. So 4022 = final end-of-mission adjustments to master CDFs, 4023=final reprocessing. Both should remain open, with no immediate action required as far as I know.									
3093	Automate processing of eclipse sunpulse data from FGM team	2/22/2010	Jim L	3+	Jim L										
4040	Spinfits - separate E&B timestamps?	4/15/2010	Jim L	3	Jim L	SPDF has issue creating plots on the L1 data with their software									
4046	either thm_load_fit or the GUI code that calls thm_load_fit should split the data into separate tplot variables for E and B, before importing them into the GUI data model. I think thm_load_fft already does something like this. **See task 4040**	4/23/2010	Pat	3	Jim L	Jim M 4/23: thm_load_fit also splits into efit and bfit variables, so unless you need to look at raw bytes, the 'fit' datatype is not needed. Pat: Agreed. Short term, excluding the data type from the GUI seems like an easy solution.									
2082a	Spin modeling during shadows BugZid=43		Vassilis	3	Hannes	Jim L to write routine. Hannes send info.									
2038	STATE Web Page (s)		Vassilis	3	Jim L	review web pages									
2039	bad timing sun pulse times (early January 2009)		Vassilis	3	Jim L	Clarification needed									
2040	L1 Data Processing History Info: SCM, EFI, STATE		Vassilis	3	Jim L										
2043	Refactor repeated CDF library code in CDF processing tools BugZid=50		Vassilis	3	Jim L										
2077	Non Monotonic timestamps. BugzID=72		Vassilis	3	Jim L										

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2047	task 2047 in my name: "Seperate E and B timestamps for spin fits", which is also a change to the L1 FIT master CDF and associated TDAS code. But unlike the spacecraft potential enhancement (which only adds new CDF variables, and is more-or-less backward compatible), 2047 would require us to bump the L1 FIT CDF version number to V02, and produce both V01 and V02 for a while, so users of TDAS 5.20 and earlier will still be able to load L1 FIT data. So I'm not sure whether the spacecraft potential task should include 2047, or not.	3/2/2010	Jim L	4+	Jim L										
4075	describe the FBK data type, time tag specified to correspond to the beginning of the time interval of the data that went into the FBK data, the middle, or the end, or is that unspecified, and what's happening here is that the time tagging is being changed in year 3+ of the mission - in the L1 file definition document, at least, does not define the time-tagging conventions to this level of detail.	6/11/2010	John Bonnell	4	Jim L										
4023	Before EOM reprocess L1 cdf's due to master cdf changes for SPDF	3/25/2010	David	4	Jim L										
2080	Phantom packets" cause non-monotonic distribution times. BugzID=25, low priority.		Vassilis	4	Jim L										
2081	Evaluate CDF compression algorithms BugZid=81		Vassilis	4	Jim L										
2083	Add "last processed" time to L1 (and L2?) CDFs BugZid=115		Vassilis	4	Jim L										
2084	. transforming one data point from SM coordinates to GSM coordinates. ct=time_double('2008-02-16/04:50:00') dipole=[[0],[0],[1]] v=[1,2,3] store_data,'dipole_sm',data={x:ct,y:dipole,v:v} cotrans,'dipole_sm','dipole_gsm',/SM2GSM cotrans,'dipole_gsm','dipole_gse',/GSM2GSE get_data,'dipole_gse',data=dipole_gse xdipgse=dipole_gse.y[0] ydipgse=dipole_gse.y[1] zdipgse=dipole_gse.y[2] tilt=atan(xdipgse,zdipgse) When I check the data for 'dipole_gsm', the values are 0,0,0. I'm not sure what they SHOULD be, but I know that their magnitude should equal 1. sqrt(x^2+y^2+z^2)=1		Christine	4	Jim L										
4097	cdf's with MD5 checksum	7/19/2010	Jim L	4	Jim L	Jim L to send email with subtasks and estimates									
4201	Kyoto final data - may have different URL naming scheme	2/2/2011	Jim L	4	Jim L	they are only up to 2003 in final									
	Jim M														
2283a	Solar Wind moments corrected (Stephan Erickson) 5/27/11: found a bug in the handling of the suffix keywords. It'll take the afternoon to fix the bug and change the crib sheet...	4/18/2011	Vassilis	1	Jim M	**email crib sent to Jim McFadden on 5/31, then to Alaska PI and James Weygand**									
4229	Davin's commits review														
4229a	8619, 8620, 8625, 8629	5/2/2011	David	1	Jim M	**in progress 8620 file retrieval issue**									

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2283b	There is another aspect to this problem. Dead-time corrections are severe for ion ESA SW data and there are no dead-time corrections for onboard moments. Some algorithm will have to be developed that does this correction after the fact. Davin developed an algorithm like this for Wind 3DP. That algorithm may not work directly due to differences in energy sweeps, but something like it could be developed for THEMIS. Davin and I can provide some advice and direction. Similarly electron onboard moments in the SW may also need some corrections -- this should also be worked out at the same time.	11/2/2009	Jim Mcfadden	2	Jim M	**talked to Jim McFadden who will make dead time corrections in ground based to process onboard moments better**									
4233	Angular Correction for particle data - use Jim McFadden's code if available	1/9/2011	Vassilis	1	Jim M										
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)		Vassilis	2	Jim M	**not allow velocity to go bad**									
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 L	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).									
4208a	Enhanced MOM Instrument Web Pages	3/5/2010	David	2	Jim M	Talked to David first.									
4003	Document: ESA File and Calibation Processing	3/5/2010	David	3	Jim M										
2088	Themis Developers Guide		Vassilis	3	Jim M										
2091	Once Jim McFadden completes his mods for n_3d_new_3 reprocess L2 cdf's - entire mission		Vassilis	3	Jim M										
2055	ESA L2 from L1 (not packets) - create L2 and test thoroughly, then reprocess ESA		Vassilis	3	Jim M	On Hold; awaiting Jim L to split L1 into master cdf									
4042	Script to run every two weeks to runs IDL TDAS and checks if a file can be loaded from THEMIS SPDF file (s)	4/19/2010	Pat	3	Jim M										
2090	that streamlines the generation of gmag stackplots and a crib to show how to do this. (< than a day)		Vassilis	3	Jim M		2 hrs								
4218	thm_part_moments angular restriction	4/4/2011	Vassilis	3	Jim M										
2093	AE Indexes Issue Jan 8-12, keyograms Jan 12-13, Stripes- Vassilis: minor nuisance		Vassilis	4	Jim M										
2094	Overview plot change: mode bar seems thick		Vassilis	4	Jim M	nothing we can do easily									
2095	Mosaic Processing - permanent script needed		Vassilis	4	Jim M										
2100	EFI calibration		John Bonnell	4	Jim M										

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2100d	DC offset between 4sdo and 2sdo in boom plane		John Bonnell	4	Jim M	Which is better? Assigned to J. B. (low priority).									
2100h	Try to track down frequency scaling problem in DPWRSPC (dlimit setting? Compare to old plots?).		John Bonnell	4	Jim M	On Hold - low priority									
2100p	Modify THM_CAL_FIT to treat efs datatype - Install E12/E34 conditional based on th?_fit_code TPLOT variable. If E12 switched to E34 software needs to be revised to handle		John Bonnell	4	Jim M										

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	Lydia														
4210	Modeling SST fluxes	3/12/2011	Vassilis	1	Lydia	on hold		?	?						
4237	I encountered a very minor bug when using thm_load_esa. Calling thm_load_esa, probe='b' for 2009-08-26/00:10:10 for 1 day causes an error (command line only, not with GUI).	5/26/2011	Lydia	1	Lydia	It might be a good exercise to run the following as a way to familiarize yourself with the following: esa crib, esa command line (load) QA script and maybe some of the tests in the GUI QA ESA Full Test Suite									
4119a	Reorganize sun contamination keywords. (Add 'manual' option to method_sunpulse_clean)	8/26/2010	Vassilis	2	Lydia	Drew was very pleased									
4119b	Add 'automatic' option to method_sunpulse_clean which will sum across time range provided by user in new keyword.	8/26/2010	Vassilis	2	Lydia	Drew was very pleased									
4119c	Create a new crib that shows only a few simplified options to the users. (all_angle_median,scale_sphere,manual bin selection(for fill), automatic bin selection)	8/26/2010	Vassilis	2	Lydia	Drew was very pleased									
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	3	Lydia	Email sent to Ian at Alberta on 5/31.									
4120	Add title support to plotxy	8/27/2010	Christine	3	Lydia	email Christine and ask her to take a look									
4121	Add multi-row/column span to plotxy	8/27/2010	Christine	3	Lydia	email Christine and ask her to take a look									
3053	102. Tplot_gui -- overwrite warning when importing data, even if variable gets renamed.	2/3/2010	Pat	3	Lydia	in progress									
2267	if you want to load a template, you need to pass the template path in via a keyword, or select an option to open it from the THEMIS->File Menu. I think we should consider adding the template path to the configuration file that we save, so that it can be loaded automatically.	10/19/2009	Pat	3	Lydia	see Pat									
4013	Plot Description Doc Button	3/22/2010	David	3	Lydia	see Pat									
2036	GOES 10-12 Test data: h. update labels (Howard's request - minor tweak)		Vassilis	3	Lydia	see Jim L									
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	3	Lydia	see Pat - on hold as MACCS data base in transition									
4005	The TDAS Software will be enhanced to incorporate data from the STEREO mission. (CL and GUI) ? For Vassilis	3/8/2010	David	4	Lydia	see Pat or Jim L									
4006	add the following ancillary ground-based observations: MAGDAS Network, Auroral Electrojets (AE) and Ground Radars (SuperDarn, AMISR and Sondrestorm)	3/8/2010	David	4	Lydia	see Pat									

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3007	EPO-GMAG msgs: modify the script and only issue this message if > 2 days	12/8/2009	David	4	Lydia	see Pat									

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	Pat														
2069	Support Mirror Sites		Vassilis	0	Pat										
2069a	Japan (ISAS)		Vassilis	0	Pat										
2069b	Austria		Vassilis	0	Pat										
2069c	France		Vassilis	0	Pat	(Rumi - not always up to date for gmags)									
2070	Support gmag data remote sites.		Vassilis	0	Pat										
2070a	Augsburg (MACC's)		Vassilis	0	Pat										
2070b	Alberta		Vassilis	0	Pat										
4138e	Run simulation for variety of energies for all detectors, record energy deposited as a function of path length and projected path	12/14/2010	Davin	1	Pat	**in progress - Should be running small version soon**									
4138f	Run simulation for range of initial positions around the full sphere.	9/17/2010	Davin	1	Pat	**in progress**									
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	1	Pat	**Pat has enough info to generate tables to send to the S/C, Davin to ask Peter Harvey for more info. Vassilis to email Davin.**									
3055	**Install Calibration parameters from Davin (replace/amend current description)**	12/18/2009	Davin	1	Pat	**awaiting values from Davin; New parameters from Drew soon.**	for #a and #b - 4-6 hrs								
3055a	Verify/Install attenuation parameters for each attenuator. There should be 8x5 = 40 parameters	12/14/2010	Davin	1	Pat										
3055b	Verify/Install geometric factor corrections for each aperture. There should be 8x5 = 40 parameters.	12/14/2010	Davin	1	Pat										
4072	Put eclipse spin model correction code in SST as already has been done for esa packet pgm	6/8/2010	Jim M	1	pat	wait for SST calibrations									
4068	Lynn Wilson possible enhancements	6/1/2010	Lynn Wilson	1	Pat	Review Lynn's software and generate list of features									
4156	Calibration of different anodes - energy efficiency	10/18/2010	Vassilis	1	Pat	if Davin provides values for 3055									
2060	L2 cdf Quality Flags: for SST		Vassilis	2	Pat										
4002	Document: SST File and Calibation Processing	3/5/2010	David	2	Pat										
4208b	Enhanced SST Instrument Web Pages	3/5/2010	David	2	Pat	Talked to David first.									

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2176	I ran into a small annoyance today when loading a themis document. I had originally loaded ESA and SST data for one time period, then overwrote that data by loading the same quantities but for a different time period. I did this several times and then saved the document for later. When re-opening the document I got a series of prompts asking whether I would like to re-write each quantity. It would speed up and streamline the process in this case if data that was later overwritten is not loaded when you open the document.	7/20/2009	Aaron	3	Pat	I spoke to Pat about this yesterday and we both agreed that while we cannot be sure which quantities should be re-loaded and which shouldn't (some may have been used temporarily for calculations). However, we can store the users's original choice to overwrite the data or not. So while we may not be able to save on loading time we can still keep the user from having to click multiple messages and from having to remember what they chose originally. The latter is particularly important since they may receive errors or get corrupted data if they do not choose the correct option - **in progress**									
2201	One feature that was never implemented for the mini-language is globbing.(The ability to use '*' and '?' to reference multiple tplot variables at once.) This is a feature that is standard with many of our other tplot data processing routines. I think it would be very useful to include in the mini-language.	8/5/2009	Pat	3	Pat	**in progress**	40								
3091	Add a configuration setting "force_download", which if enabled, will download data even if the remote file is older than the local file. This comes up if you're switching back and forth between using QA data and production data; once you've downloaded QA data, it's hard to download (usually older) production data without manually removing any QA files. This should apply to all data sources -- THEMIS, GOES, WIND, etc.	2/22/2010	Vassilis	3	Pat										
3065	68. GUI z-axis options -- when Fixed Min/Max selected, value in spinners does not reflect current range as it does for X and Y axes. Displayed range when spinners desensitized is inaccurate.	2/10/2010	Aaron	4	Pat	check draw object									
2279	How's it going with the stats? I noticed the query takes some time because it's looking at the whole table. It could be refined for specific time periods. The delay in return could be what's causing Dave to have access problems - or the SSL firewall?	10/23/2009	Tim	4	Pat	see 2277									
2135	I didn't realize the cotrans messed up the velocities for earth centered coordinates. Maybe what we really need to do is modify cotrans so that it correctly transforms velocities. Users can incorrectly transform velocities just as easily using thm_cotrans on the command line, as they can using the coord keyword.		Pat/Jim L	4	Pat										
2124	I loaded a plot which had the line color as white. Because the legend plots in the same color as the line, the legend text did not show up. We should probably just put in a check for this case. If the line is white and the background is white then draw the text in black		Pat	4	Pat										

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2063	Problem with edit3dbins is being caused by IDL's mouse system variable not being updated correctly on Macs. The ctime procedure, used to interactively select a time from a tplot window, relies on this variable to determine when a selection has been made in the tplot window. If the variable is never updated then ctime gets caught in an infinite loop. It's unclear whether this is specific to a particular OS version, but the routine should probably be modified at some point to maximize compatibility with Macs. In the meantime the alternate method of calling gettime that I copied you on yesterday should provide a temporary way around this bug.		Aaron	4	Pat	verify note in quick reference guide and then task will be closed									
2106	Add the ability to right-click on a variable in the widget-tree and display a popup with basic information about the quantity such as dimensions, range, or other meta data as well as the ability to rename variable		Pat	4	Pat	originally part of task 64, however, after further evaluation, it was determined this best belonged with the widget tree rather than the analysis window									
2220	I found a small bug in the z-axis panel in the gui. If I change the z-axis annotation size of a layout with 2-panels each with one spectrogram, when I apply this change, it gets applied to both panels, even if set-all is off.	8/27/2009	Pat	4	Pat										
3063	40. CL tplot options -- setposition test plots all look the same	1/15/2010	Pat	4	Pat	Long-standing tplot bug, may not ever be fixed									
4029	One of Michael Hartinger (a grad student in atmos) is having trouble with thm_part_getspec when the SST is in fast survey mode. The routine can take a very long time to run because of the higher resolution. I think we should put a feature request on the list to automatically downsample the particle data in time. Normally, I would suggest that uses downsample using one of our interpolation routines, but because the particle data is stored in a special common block, there is no easy way for end users to perform this operation.	4/6/2010	Michael Hartinger / Pat	4	Pat	Michael supplied code for thm_part_moments	4-8 hrs								