Task #	Task Description	Reported By	Pri	Assigned To	Notes	Estimate (hrs)
	To be Assigned or Discussed					
2067	Taking a brief look at scm data around uploading, I have realized that scw waveforms were saturated for THC between May 22 (included) and May 27 (uploading) and for THB on May 22 (included), May 26 and May 30 (just after uploading on May 29). Looking at scw waveforms on June 1st, and 3rd, I have checked that the waveforms are no longer saturated on THC as well as on THB. So, the issue seems to be temporary. The other probes (THA, THD, THE) seem to be not concerned. I do not know whether such saturations were expected due to maneuvers or operations but I have preferred to let you know about these facts.	Olivier	1	tbd		
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.	Pat	tbd	tbd		
2107	Add a new feature that allows the user to delete variables from the data processing window (avoids having to open the manage data window every time)	Aaron	tbd	tbd		
2108	Manage Data: The manage data fields should be made tabable.	Aaron	tbd	tbd		
2109	Calculate If the cursor is clicked onto the the last line in the program area, and if that line is blank, then inserted data names will appear either at the top of the field or at a recently clicked location.	Aaron	tbd	tbd		
2123						
	General					
	Review EFI web pages on beta site	David		John B		
	Create web pages for FFT, FBK and FIT	David		Chris Cully	target 7/3	
	Enhanced SST and MOM Instrument Web Pages	David		Davin		
	EFI Wiki Pages	David		John B		
	SST Wiki Pages	David		Davin		
	New Server Installation	Vassilis		Jon L		
	Greenland data total magnetic field is only about 250 nT even if no baseline subtracted (from Harald).	Vassilis		J Weygand	Waiting for student to have time.	
	Review corrections to the EFI Web pages from Amanda	David		John B		
	Move EFI Web Pages from beta to official web site	David		Amanda	After John has verified changes	
	Problem with the front page of the web site. When you hover the mouse over the "Data" link near the top of the page, then move down to the "Data processing" or "Collaboration tools" menu items, the next level of fly-out menus is unreadable -- they're blocked by one of the images next to the "Latest News & Events" section. I'm using Firefox 2.0.0.20 on Windows. When I look at the site in Internet Explorer instead of Firefox, the menus comes out on top of the image like they're supposed to.	David		Amanda	Amanda not yet notified	
	SST, ESA and EFI Wiki pages - initial entries	Vassilis		Vladimir		
	Calibration - send sample to Vassilis and David Sibeck	Vassilis		Vladimir		
	Link to Plots	Vassilis		Vladimir		
	Data contain engineering, deployment, maneuver, and science data are in the same stream. From the data description, only maneuver flag state_man is provided. Do you provide information about the time intervals when the data are on, say, engineering level? This data, though valuable in many respects, may be confusing if interpreted as science data. To provide such information, it is possible, for example, to add some bits to existing state_man flag. (from Vladimir) Quality flags (for each instrument to be added to L2 State cdf).	Vassilis		Vladimir		
	L2 File Definitions Document - awaiting L1 document to be completed to use as template.	Vassilis		Andreas		
	Clean-up the power ripples from the FGM data.	Krishan			awaiting programmer	
	Revise the Data Products Web page and send to Amanda	David		David		
	Harald					
	Keograms being updated.				Current status ASK through October 5 2008	
	The THEMIS movies are now up to date and finished through the end of April. There will be a ~4 days delay because we wait with the mosaic generation until that all the station data have been transmitted					
	Mosaic reprocessing post-February 2008 (Full Resolution).				Process full resolution for March 1-15 2008, Jan 15 2009 and onward. (Jim M)	
	Overview plots for web site done though 4/30/2009.					

	CDF file up to date through 4/30/2009. During the tail season I kept these up to date every 10 days. Now I planned to keep up with this task only once a month somewhere around the 10th of the following month.					
	Summary Plots through March 2008.					
	L2 ASI cdf's					
	When L2 ASI available Quality Flags and History Status?					
	Tim					
2068	Data Recovery	Vassilis	1	Tim	Awaiting info from Jon	
2069	Support Mirror Sites	Vassilis	1	Tim		
2069a	Japan (ISAS)	Vassilis	1	Tim		
2069b	Austria	Vassilis	1	Tim		
2069c	France	Vassilis	1	Tim	(Rumi - not always up to date for gmags)	
2069d	UCLA – mirror site set-up	Vassilis	1	Tim	UCB sent 08T UCLA loaded 06T. Four bricks sent to UCLA - UCLA must reconfigure server first . UCLA will need to supply SSH key - RSYNC Key	
2070	Support gmag data remote sites	Vassilis	1	Tim		
2070a	Augsburg (MACC's)	Vassilis	1	Tim	One of our researchers (Jim M) noted a problem in the Pangnirtung data - Nain and Cape Dorsett updating routinely. Other stations - Problem with ASCII files? Awaiting reply from Erik. If no reply by 6/12 Tim will ping Erik again.	
2070b	Alberta	Vassilis	1	Tim		
2070c	Greenland	Vassilis	1	Tim		
2071	Processing full resolution ASI data disks (Apr-Nov 2008).	Vassilis	1	Tim	On Hold for IT to complete backup.	
2072	Reprocess of ESA L2 data from these dates and all days after until 5/31. This is needed to fill in a missing energy bin in 88x15 full electron mode.	Jim M	1	Tim	On Hold for IT.	
2096	Inventory of Products, monitoring and building new alarms for Production Data Processing. Draft document produced. Next version with Harald's info as well	Vassilis	2	Tim		
2097	Create checksum files for gmag (completed), ASI then Probe files	Vassilis	3	Tim		
	Hannes					
2073	New FGM offsets for tail season	Vassilis	1	Hannes	in progress	
2074	V03 STATE	Vassilis	1	Hannes		
2074a	Test FGM with new V03 STATE cdf	Vassilis	1	Hannes		
2074b	See email concerning parms ("thx_sci_mode", "thx_hsk_issr_mode") sci_mode - know fast survey, issr_mode - when IDPU thinks fast survey	Vassilis	2	Hannes		
2074c	quality flag for FGM data	Vassilis	2	Hannes	talk to Uli	
2075	Spin Axis offsets – Improve the new spin axis offsets calibration routine – In progress. A new technique has been developed for inside magnetosphere with high accuracy. Once complete a paper to be published. Sent data to Karl Heinz, included in the distribution	Vassilis	1	Hannes		
2082	Spin modeling during shadows BugZid=43	Vassilis	3	Hannes		
	Aaron					
2033	VMO file generation	David	1	Aaron		
2033a	One variable change to ASI files and possibly the whole repository	David	1	Aaron	awaiting answer from Jan	
2033b	SCM and EFI L2 variables	David	1	Aaron		
2033c	L2 STATE (?)	David	1	Aaron		
1404	Making data active, then selecting clear active, then trying to make data active again(without reselecting), does nothing. It should add the data quantities that are still highlighted in the tree. This probably a result of the panel maintaining a list that duplicates the widget-state rather than querying the widget state as needed, and can probably be most reliably fixed by just replacing this list with queries to the widget tree.	Pat	1	Aaron		2
227b	Variable options - 2)After removing a variable the '-' delete button remains sensitive yet no variables are selected and clicking it does nothing. Either the button should be desensitized or another trace (first or adjacent maybe) should be selected after a delete.		1	Aaron		1
551	Change a setting, then check "set all", then click Apply (as opposed to checking "set all", then changing a setting, then clicking Apply). The change should still propagate to all panels. This is probably a phase II bug.		1	Aaron		3
37	Add horizontal slider bar to top of draw area, slider vertical as well		1	Aaron		16
1296	Analysis: include keywords - analysis of needed changes	Vassilis	1	Aaron		40

1303	While I was documenting the draw object I noticed a bug in the way variables are drawn. The routine that calculates the space variables occupy, ignores layout row/column, so if variables are in the left column and right column, it will overestimate the amount of space that variables take and draw the panels with too much space. I'm not sure that this is might priority because we aren't putting a lot of effort into deal with multi-column layouts. But bugs like this are probably replicated in a number of places. Specifically, code that: (1) assumes panels will be lined up in a single column. (2) assumes that panel index will correspond to display position. Will have problems. We may want to put a note to test this in the next phase of testing, so that we can identify all the problems in this set. Another example: The variable panel assumes (2), so that if panels are arranged out of order it selects the incorrect default when opened.	Pat	1	Aaron		4
1067	Axis Options: 1) Insufficient precision for Unix times in bound autoscale min/max. 2) The first time I tried setting the autoscale min/max, I used 0 and 20. When I applied the change, I got a cryptic status bar message "Draw Object Error: Updating panels". I think this is because none of the data had an X axis value in that range. If so, that should be checked for, and result in a warning dialog rather than a status bar message. 3) Floating Center: Span not calculated correctly for logarithmic scales; for a time axis the calculated span is way too large. It looks like it might be using log(max-min) instead of log(max)-log(min).	Pat	1	Aaron		4
593	Bug with writing flat-file, the code is being too restrictive with its types. Need a standing rule to always promote bytes to 4-byte integers.		1	Aaron		8
1196	Overview plots - nodownload flag bugs 1.Catch error FILE_LINES: Error opening file. File: /Users/pcruce/data/themis/tha/l1/fgm/0000/tha_fgmcal.txt No such file or directory. Execution halted at: THM_CAL_FIT 79 2. Catch Error - Expression must be a structure in this context: DAT. Execution halted at: SPLIT_VEC 41. 4. Catch error - Expression must be a structure in this context: TMP. Execution halted at: THM_UI_OVERPLOT 561.	Pat	1	Aaron		2
1318	I noticed a bug in the GetVarData method on the loaded data object. If it's called with the dlimits option and then called later on the same quantity but w/ the dlimits option set the original pointer will be replaced with an null pointer.	Aaron	1	Aaron		4
1065	Another bug is that when Apply is hit (continuing from the procedure in bug #1, separate e-mail), the fixed scaling (both limits) is updated in log space when I had asked for only the lower limit to be changed to center^2/(upper limit). This is not a difficult mod, but it seems to be in the draw object, and I do not know how to step through the code b/c the focus shifts away from the command line.	Michael	1	Aaron		2
	Bryan					
2002	Sit-in on GEM PPT Slide Reviews	David	1	Bryan		4
2021	It looks like there's a bug that limits specplot's ability to handle short timespans of data when setting the DATAGAP. Until we can get a fix out, you should be able to get the output you want by using the \options command to set the 'overlay' to 1 options, 'tha_ffp_??_*', 'overlay', 1. then you might have too reset the color bar with the zlim command: zlim, 'tha_ffp_??_*', 10e-14, 10e-5			Bryan	Is this fixed?	
1248	D Power Spectrum doesn't seem to work on thg_pseudoAE. The dproc status bar returns "thg_pseudoAE Not processed." The seems to be some problem with loading the resulting tplot variable into the GUI as the console reports: STORE_DATA(177): Creating tplot variable: 243 thg_pseudoAE_dpwrspc STORE_DATA(76): "" not a valid handle name This also happens with tha_peif_density.	Bryan	1	Bryan		4
2025	thm_part_moments2 so that it properly handles single-angle energy spectra when pitch/gyrophase constraints are requested by the user.	Vassilis	1	Bryan	Is this fixed?	

481a	We need to add a meta data structure to spectra data objects so that they y-axis for these plots will be automatically set to linear or logarithmic depending on the type of spectra.	Bryan	1	Bryan		28
2020	If requesting 1 hour of data using timespan, then load data using one of our load data routines. Recommend if there is a fix at the load cdf level and generic.	Vassilis	1	Bryan		
2026	Get Spec - 1) Step 11,b,i: Throws a CL error (after the popup): Traceback Report from THM_UI_PART_GETSPEC_OPTIONS_EVENT: Array subscript for PASPEC must have same size as source expression. Execution halted at: THM_PART_MOMENTS2 1070	Vassilis	1	Bryan		
2013	Think about making 2D slices through distribution. See medical imaging code in IDL demo."	Vassilis	2	Bryan	wait until July	
2013a	2D first migrate code into crib	Vassilis	2	Bryan	in progress	
2013b	2D with med imaging code	Vassilis	2	Bryan		
2013c	3D slices	Vassilis	2	Bryan		
2027	thm_load_state - phase II (consult with Ken)		2	Bryan	Re-visit - streamline	
2027a	For STATE CDF files, the following variable attributes should be defined, consistent with they way they are defined in the L2 FGM file: units, coordinate_system (consult with Jim L.)	Vassilis	2	Bryan		
2027b	Once defined in the CDF, thm_load_state should take the values from the dlimits.cdf.vatt to set the metadata for the tplot variables: dlimits.data_att.units, dlimits.data_att.coord_sys	Vassilis	2	Bryan		
2027c	For thm_load_state, the suffix gets added to support data, but support data is not transformed: if you call thm_load_state, coord='gse', suffix='_gse', /get_support_data only the pos and vel get transformed, but all get the _gse suffix.	Vassilis	2	Bryan		
2027d	in thm_load_state, the code to delete support data that was loaded for coordinate transformation should be just del_data, '*_state_temp' e. THC braid photoelectrons	Vassilis	2	Bryan		
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 and Ken)	Vassilis	2	Bryan		
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	3	Bryan		
2029	From Hannes	Hannes	3	Bryan		
2029a	Provided is the most common plot used by scientists that look at magnetic field data. Four panels Bx By Bz Bt and the position X Y Z as variables. Often the radial distance R is another variable. It would be great if someone enters e.g. tplot,'tha_fgs_gsm' such a useful default plot would appear. I am currently not able to produce such a plot using tplot. Another useful plot would be instead of one trace per panel, 5 traces per panel. One for each spacecraft and 5 sets of positions as variables at the bottom. For example: tplot,'th?_fgs_gsm' could produce such a plot. Also some standard plots that combine ground and spacecraft data could be useful. Notes from Vassilis: define keyword /positions default 'none', allow GSM X Y Z, R Lat Long,.....	Hannes	3	Bryan		
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	3	Bryan		
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	3	Bryan		
2030	upgrade thm_load to work with probe assignments	Vassilis	3	Bryan		
2031	move functionality of thm_load_state2 into thm_load_state and delete thm_load_state2	Vassilis	3	Bryan		
2032	Multiple enhancements concerning keywords, valid_names and thm_load routines	Vassilis	3	Bryan		
	Cindy					
2000	Prep for GEM - sort out projector, PPT slides, make trip	David	1	Cindy		40
2022	Train Jim L to give GUI Training at SSL	David	1	Cindy		

64	Analysis Panel - Need to provide a way for users to select a new variable name when data is manipulated. A default name will be provided, but need an editable text box for user to enter a different name. Loaded Data - add suffix to variable names		1	Cindy		8
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	Aaron	1	Cindy		
964	I noticed a bug with the x-grid thickness. For some reason if I use a style like dotted and increase the thickness, the thickness doesn't appear to increase properly for the portion of the grid near the axis itself. This is a pretty minor aesthetic thing, so I don't think it will be a big deal if we put it in the next phase.	Pat	1	Cindy		3
1510	If you get an invalid marker error during marking, with either track one or track all turned on. (For example by starting/ending a marker outside of a panel), the vertical/horizontal bars don't get turned back on, after marking is complete.	Pat	1	Cindy		3
1220	The panel that the selected trace is on should be selected.	Bryan	1	Cindy		2
1434	Markers: If I get a warning because I ctrl-click without dragging.(ie "Could not create marker because marker had insufficient width") It will treat the CTRL as if it is off, even if I leave it pressed. We might want to fix this, although it doesn't appear to be doing anything too harmful.	Pat	1	Cindy		3
1066	Layout Options: I noticed that if the user has 'Show Data Components' checked but they forgot to or don't realized they must select both X and Y variables then no message is given to inform them. This may be confusing for the user as they'll have no way of knowing why the 'Add ->' button isn't working in such a case.	Aaron	1	Cindy		1
1304	This is not super important, but I noticed that the "draw between points" option in the line options window offers the same units regardless of whether the quantity being plotted is a time or not. For example, If I plot state_pos_x vs state_pos_y, I can go into the line options, and set "Do not draw between points if separated by more than 1 hour", and instead it will not draw between points if the separation is more than 3600 km. To fix, The convention we've adopted on the other panels, is to show the time related options(seconds,minutes,hours,days) when isTime is on, and to show the non time related options when it is off(<none>), rather than the full list (seconds,minutes,hours,days,<none>)	Pat	1	Cindy		1
962	When selecting data, L1 and L2 can be selected at the same time and the result was confusing. since the low-level commands can only load one or the other, the GUI interface should enforce the same restriction.	David Sibeck	1	Cindy		8
703	Suggestions: The plot for a given panel disappears if logarithmic scaling is chosen for a fixed axis with negative limits. No error is thrown and the plot reappears when the values or scaling are changed. In the future we may want to send a notification to the user as to what happened.		1	Cindy		2
2098	An IDL crib sheet has been provided that generates magnetic field and position data with the same resolution. Scientists very often like to have a set of dayfiles of magnetic field data and position. So the crib heet could be called inside a loop and for each day an output ASCII file could be produced. An option could be all 5 spacecraft merged with only one time column. Additionally a desired resolution could be another option	Hannes	3	Cindy	wait until end of July	32
	Hithesh					
2014	Peter wrote code to reset ETC Kicker (1/8 or 1/9) after hang-up.	Peter	1	Hithesh		
2014a	Put together a simulation of ETC VHDL Design.	Peter	1	Hithesh	Working with Robert and may need MODELSIM software.	
2014b	learn VHDL - . Look at the ETC VHTL programs and understand themis	Peter	1	Hithesh	in progress and almost complete	
2014c	First try to simulate in Modelsim. If unable to freeze ETC, then move to hardware simulation. If the problem is caused by Asynchronous signal (sun pulse), we won't be able to simulate the problem	Peter	1	Hithesh	Need to discuss with Michael Ludlam on using sun pulse generator to recreate the problem on flatsat	

2015	Logic Analyzer setup	Vassilis	1	Hithesh	Connections not complete yet. Ran it remotely. Works, but connections have to be checked . ETU needs to be restarted/checked. FSW booted to V21.	
2016	Review FSW Specifications document for v5 changes. Need to add documentation on external memory dump .	Peter	1	Hithesh	Finished and sent to Peter	
2017	ESA – investigate invalid configs from Survey to burst mode in IDPU scripts.	Vassilis	1	Hithesh	Talk to Jim Lewis and / or Jim McFadden to acquire details of the problem. Did this occur before or after v4.0? How important is the problem? In Progress	
2018	Leftover 512 burst packets	Vassilis	1	Hithesh	Will have to talk to John or Deron at Ops to get more details.	
2019	Assisting Deron on EFI sensor diagnostics test		1	Hithesh		
	Jim L					
2023	Install latest release on Stephen Mende's Mac	David	1	Jim L		
2024	GUI Training for Stephen Mende	David	1	Jim L		
	V03-L2 cdf STATE	Vassilis	1	Jim L		
2034	V03-L2 cdf STATE -attribute structure	Vassilis	1	Jim L	need code for missing variables -in progress. After some discussion with Hannes, we decided that the attribute structure for the new spin phase correction variable is incorrect.	
2034c	writing some code to fill in the position and velocity variables for GSE and GSM coordinates.	Vassilis	1	Jim L	automation in progress	
2034d	I need to add support to thm_load_state (and any load/cal routines that call thm_load_state, e.g. thm_cal_fgm) for specifying which version V00, V01, V02, V03 should be used for cotrans and calibration	Vassilis	1	Jim L	in progress enough data for Hannes to start testing	
2034e	I need to enhance the spinmodel routines to use Hannes' spin phase correction, if present With these code changes in place, we can hopefully make some kind of comparison between FGM data calibrated/cotrans-ed with V02 vs. V03 state to verify that the V03 attitude and spin phase corrections are working properly.	Vassilis	1	Jim L	In progress -- won't happen before 5.1 is released, so this work will occur in a private branch instead of the trunk. Testing of V03 spin axis orientation (by Hannes) can start now, then we'll do another round of tests when the spinmodel code is modified to use the V03 spin phase corrections.	
2034f	revised QA script for STATE (path finder for other scripts to be revised later)	Vassilis	1	Jim L	Still in progress. V03 missing variables are fixed. QA scripts for thm_load_state in progress, but probably won't be ready for 5.1 release. Waiting for Hannes to complete his testing.	
2035	Split L1 ESA (using Thomas's routine) in master ESA data cdf	Vassilis	1	Jim L	Send David Sub Task List	
2076	SM coord transformation in thm_cotrans does not work: fixing that would be too drastic a change for a patch release, because it might break a lot of existing code. The issue is: if the in_coord parameter is not explicitly specified, and the dlimits structure also does not specify the coordinate system, do we want to try to figure it out from the "in_suffix" argument (current behavior, doesn't work for SM coords), or just fail with a message that a coordinate system must be specified with either the in_coord argument or dlimit structure (probably a better solution, but might break existing code).	Vassilis	2	Jim L	Issue Warning and not to let it fail. Clarification Needed	
2036	GOES 10-12 Test data: h. update labels (Howard's request - minor tweak)	Vassilis	2	Jim L		
2037	J. Kissinger's cotrans routine (from GSE to SSE coordinates)	Vassilis	2	Jim L		
2038	STATE Web Page (s)	Vassilis	2	Jim L		
2039	bad timing sun pulse times (early January 2009)	Vassilis	2	Jim L	Clarification needed	
2040	L1 Data Processing History Info: SCM, EFI, STATE	Vassilis	2	Jim L		
2041	thm_load_state out_coord velocity calculations wrong	Vassilis	2	Jim L		
2042	FGM range changes in the mid packet. Post Proc maybe a solution to eliminate the spike. BugzID=44. Bfield mid-packet jumps.	Vassilis	2	Jim L		
2043	Refactor repeated CDF library code in CDF processing tools BugZid=50	Vassilis	2	Jim L		
2044	L0 to L1 processing: look ahead to the next packet before processing the current packet. BugzID=67	Vassilis	2	Jim L		
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	2	Jim L		

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) BugzID=45	Vassilis	2	Jim L		
2047a	FGS sample times and values, showing repeated timestamps. BugzID=113 (BugzID=67 must be done first)	Vassilis	2	Jim L		
2047b	Repeated timestamps and gaps in spin fit data BugZid=113 (#67 may fix this one as well).	Vassilis	2	Jim L		
2077	Non Monotonic timestamps. BugzID=72	Vassilis	2	Jim L		
2078	bau_sunpulse_met assumes x86 endiannes (BugzID=13)	Vassilis	2	Jim L		
2079a	FGL issue. We have learned that FGL data from probes C, D and E has a 0.25 sec timing error, starting in summer 2007, and continuing to the present (Feb 2008) time. We would like to fix these timestamps in the L1 CDF files. Process should be generic so future corrections can be easily handled. Low Priority steps or tasks: a. create a flag for the affected L1 variables somehow, to prevent confusion about which corrections have or have not yet been applied. So each entry in the proposed correction file should have some sort of tag identifying what the correction is, which could be looked up in the CDF as a variable, variable attribute, or global attribute.	Vassilis	3	Jim L		
2079b	Change L0-L1 code to take corrections into account.	Vassilis	3	Jim L		
2080	Phantom packets" cause non-monotonic distribution times. BugzID=25, low priority.	Vassilis	3	Jim L		
2081	Evaluate CDF compression algorithms BugZid=81	Vassilis	3	Jim L		
2083	Add "last processed" time to L1 (and L2?) CDFs BugZid=115	Vassilis	3	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	3	Jim L		
	Jim M					
2048	Process full resolution for March 1-15 2008, Jan 15 2009 and onward.	Vassilis	1	Jim M	on March 5, 2008	
2049	MOM Quality Flags and MOM Processing History	Vassilis	1	Jim M	Ready to go - Ready for Re-processing	
2050	Incorrect adjustment on S/C potential. Effects L2 cdfs. Fix in thm_cal_mom	Vassilis	1	Jim M		
2951	New ESA Quality flag for Jim McFadden	Jim McFadden	1	Jim M	in progress, reprocessing to wait until week of 6/29-7/3	
2052	Add quality flag verbiage to ESA and MOM Data Description web page.	David	1	Jim M	Talk to Jim McFadden	
2053	Revise ESA Processing History Web Page	David	1	Jim M	Awaiting reprocessing completion	
2054	Issue with ESA data and Overview Plots. Pgm Change and reprocessing from Feb 2009-current ?		1	Jim M	Program is fixed, reprocessing can go at any time, Email sent to Tim., will commit after MOM flags are up. Will need to reprocess ESA and Overview plots for the following:	
			ETC-sst-esa table load TH-A 2009-02-02 22:30:14.			
			ETC-sst-esa table load TH-D 2009-02-13 20:36			
			ETC-sst-esa table load TH-E 2009-02-13 22:27			
			ETC-sst-esa table load TH-B 2009-02-17 23:50:38			
			ETC-sst-esa table load TH-C 2009-02-18 00:52:20			
2055	ESA L2 from L1 (not packets) - create L2 and test thoroughly, then reprocess ESA	Vassilis	2	Jim M	awaiting Jim L to split L1 into master cdf	
2056	SCM L2 cdf	Vassilis	2	Jim M	in progress	
2057	SCM CAL File Processing Doc	Vassilis	2	Jim M	text completed. Put into std document format and send to Olivier for review	
2058	found 3 errors in the new th*_l2_esa masters - the good news is, with them fixed in our masters, all plotting issues w/ the ESA files (in CDAWeb) seem to have been resolved.	Vassilis	2	Jim M		
2059	L2 Data Processing History Info Completed: ESA Still to be Done: SST, MOM, FGM, FBK, FFT, FIT	Vassilis 7	2	Jim M		

2060	L2 cdf Quality Flags: for SST	Vassilis	2	Jim M		
2061	Data Description Paragraphs	David	2	Jim M		
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	Jim M		
2085	Summary Plot mods	Vassilis	2	Jim M		
2085a	Fix duplicate velocity units by removing 'km/s' from ytitle and maintaining 'km/s' in ysubtitle	Vassilis	2	Jim M		
2085b	Either make velocity labels into ('X','Y','Z') or make velocity labels into 'VX','VY','VZ'. So that the components are easier to distinguish.	Vassilis	2	Jim M		
2085c	Modify ytitles on esa eflux and sst eflux so that they do not collide. (Insert '!C's or change setting to make tplot do this automatically).	Vassilis	2	Jim M		
2085d	Set the scales on the zoomed out(24 hr) plots so that they are not autoscaled. Information on appropriate yranges should come from Vassilis.	Vassilis	2	Jim M		
2085e	Change labels on temperature lines so that they are done in different colors (and possibly different linestyles).	Vassilis	2	Jim M		
2085f	If necessary, Update the plot key so that it reflects any of the changes above. It'd probably be best to give this task to me, since I've done the past modifications of the plot key.	Vassilis	2	Jim M		
2086	Orbit Plot on Summary Plot web page - on the right side, 3 plots vertically, each overview plot there would be orbit panels (coordinate with Harald).	Vassilis	2	Jim M		
2087	Administrator's Guide	Vassilis	2	Jim M		
2088	Themis Developers Guide	Vassilis	2	Jim M		
	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		
2089	Thm_fgm_overviews currently loads the data out of the fit file. It should probably load the data out of the fgm file. Only needs to load from one data source. Jim M thinks the thm_load_fit can be deleted	Vassilis	2	Jim M		
2090	that streamlines the generation of gmag stackplots and a crib to show how to do this. (< than a day)	Vassilis	2	Jim M		
2091	Once Jim McFadden completes his mods for n_3d_new_3 reprocess L2 cdf's - entire mission	Vassilis	2	Jim M		
2092	thm_load_mom changes - reconcile mods with Davin at an appropriate time.	Vassilis	2	Jim M		
2093	AE Indexes Issue Jan 8-12, keyograms Jan 12-13, Stripes-Vassilis: minor nuisance	Vassilis	3	Jim M		
2094	Overview plot change: mode bar seems thick	Vassilis	3	Jim M	nothing we can do easily	
2095	Mosaic Processing - permanent script needed	Vassilis	3	Jim M		
	Michael					
2064	In the process of using XDEGAP in THM_CAL_EFI to check for data gaps, I found that XDEGAP does not do any type checking. Integer inputs do not get recast, so NaNs cannot be assigned. Instead, those assignments become zeros. I propose to for the output to be at least float (no need to do anything, if the input is float or double), so that NaNs can always be assigned.	Michael	1	Michael	Warning msg only	
2065	A related enhancement to XDEGAP would be to add a FLAG kw to allow the user to choose different flags to fill the gaps (NaNs, by default).	Michael	1	Michael		1
2099	npot computation	Jim McFadden	1	Michael		
2099a	Formula	Jim McFadden	1	Michael	McFadden has found bugs in the pipeline. I am on hold until he works those out (he is working with Bonnell and Mozer).	
2099b	Modify THM_SCPOT2DENS to work stand-alone and with THM_FITGMOM_OVERVIEWS.	Jim McFadden	1	Michael		
2099c	McFadden requires more information on the bias changes from John as of 6/5	Jim McFadden	1	Michael	J.B. says closed as of 6/11	
2099d	Integrate Nishamura's Npot routine as an option into THM_SCPOT2DENS	Vassilis	1	Michael	On Hold	
2100	EFI calibration	John Bonnell	1	Michael		

2100a	Insert CL message for the begin/end times of the encountered gaps. Also, output to kw and recored # gaps in metadata.	John Bonnell	1	Michael		
2100b	Implement nominal and minimum # of spins, and NaN data where intervals are shorter than min # of spins.	John Bonnell	1	Michael		
2100c	Implement my suggestion to put the EDC offset output into a structure w/ one tag for ea. datatype.	John Bonnell	1	Michael		
2100d	DC offset between 4sdo and 2sdo in boom plane	John Bonnell	3	Michael	Which is better? Assigned to J. B. (low priority).	
2100e	Reason for detecting frequent gaps?	John Bonnell	1	Michael	Closed -> Waveburst data is often shorter than estimation window.	
2100f	Check burst mode behavior w/ on-the-fly offset	John Bonnell	1	Michael	Use LASP?	
2100g	Updated metadata, CL, and keywords to work with on-the-fly offset method.	John Bonnell	1	Michael		
2100h	Try to track down frequency scaling problem in DPWRSPC (dlimit setting? Compare to old plots?).	John Bonnell	1	Michael	On Hold	
2100i	Poor despinning bug fix	John Bonnell	1	Michael		
2100j	Kepko and efi offsets	John Bonnell	1	Michael		
2100k	"Case-by-case" calibration parameters ("short-term" high accuracy corrections). LASP does this, but needs integration.	John Bonnell	1	Michael		
2100l	Deconvolution -- LASP does this, but needs integration (see 2h).	John	1	Michael		
2100m	The EFI program headers should include what inputs are valid for each keyword. Documentation	John Bonnell	1	Michael		
2100n	thm_load_efi - allow multiple coord's to be entered. Do not overwrite plot variables	John Bonnell	1	Michael		
2100o	efs data deleted when thm_load_fit run twice, second time only fgs data requested	John Bonnell	1	Michael		
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	3	Michael		
2100q	Correlate to onboard spin fits using EFP data. Look at FGM.	John Bonnell	1	Michael	Talk to Jim L	
2100r	Add the DATATYPE kw to KYOTO_AE_LOAD , and load only AE data by default	John Bonnell	3	Michael		
2100s	Get the downloader (KYOTO_AE_DOWNLOAD based on the new version of FILE_HTTP_COPY) working	John Bonnell	3	Michael		
2101	THM_SPINFIT simulates the on-board spin fits	John Bonnell	2	Michael		
2101a	Useful for investigating why the ground and on-board fits are different. Need wrapper for multiple TPLOT vars.	John Bonnell	2	Michael		
2101b	Needs to run faster	John Bonnell	2	Michael		
2101c	John to get me example code from Chris Cully.	John Bonnell	2	Michael		
2102	FBK frequencies	John Bonnell	2	Michael		
2102a	Resolve conflict bet C. Cully and John B's bin center values. Conflict resolved. John agrees with Chris	John Bonnell	2	Michael		
2102b	Derive bin centers from CDFs (currently the bin centers are hard coded).	John Bonnell	2	Michael		
2102c	Make sure that bin center assignment from L2 works with any changes that Jim M. makes	John Bonnell	2	Michael		
2102d	John wants to calibrate by signal source – thm_cal_fbk	John Bonnell	2	Michael		
2103	EAC offsets	John Bonnell	2	Michael	John has taken AC coupled data -> he will get me the offsets and the switch-over times.	
2104	L2 CDF	John Bonnell	2	Michael	J. B. to talk to Vassilis about expectations for users. Michael to find out what the programming task is.	
2105	EFI Calibration Document	David	2	Michael		
	Pat					
2001	Prep for GEM - sort out projector, PPT slides, make trip	David	1	Pat		40
2003	SPLIT_VEC routine changes From Michael: SPLIT_VEC should also split the labels (as well as the traces), if there are the same number of labels as traces. Otherwise, you get the error: MPLOT: Incorrect number of labels and often also the wrong label displayed for the split trace. From Vassilis - Colors also, preserving the dlimits	Michael Vassilis	1	Pat		

946	Print - Step 3) I can create eps files, and verify thet the .eps file is ok using ghostview or ps2pdf, but these do not print out. The 2 copies option does not seem to work. Step 4) The PCL4 file has only 35 bytes and does not print. The PCL5 fileis larger, but does not print.	Jim M	1	Pat	(step 4, may not be fixable) for discussion	16
2004	wavepol.pro and twavepol.pro - Put Olivier's into the distribution, test	Vassilis	1	Pat		
608	Variables: When axes are locked, draw object should recalculate space needed between panels to display variables.		1	Pat		3
2005	str_element does not add to embedded structures (BugzID=69)	Vassilis	1	Pat		
1456	Page Options: When the font on the variables is set to monospace symbol, the following warning shows on the command line: % IDLGRSRCDEST::DRAW: Select Charmap failure (Encoding: 0x756e6963) (FreeType error info: (38) invalid charmap handle).Setting the annotations to "Scientific Notation" and the Font to "Monospace Symbol" or "Symbol", generates many copies of this error on the console: % IDLGRSRCDEST::DRAW: Select Charmap failure (Encoding: 0x756e6963) (FreeType error info: (38) invalid charmap handle). This probably has something to do with the IDL formatting commands that we've inserted into the annotation string.	Pat	1	Pat	related to 1422	8
2006	boundary normal coordinates. BugzID=59.	Pat	1	Pat		
2007	Error msg for when timestamps of data do not match in tvector_rotate, tdotp, and tcrossp.	Pat	1	Pat		
2008	Tplot auto scaling. BugzID=41.	Pat	1	Pat		
2009	Be able to plot ASI & GMAG observatory positions and GOES data on the same plots that are generated by THEMIS Station keyword executing thm_crib_trace.pro	Pat	2	Pat	Wait until Vassilis comes back in July	
2010	Tplot enhanced crib - Davin should be involved and the cribs should not be too overwhelming. Possibly multiple cribs by functions	Pat	3	Pat		
2011	Christine's code to rotate the XY coord's along Earth direction was very effective. Also it was used by others. We need to streamline it, and it's very similar to the others you've already written.	Pat	3	Pat		
2012	GMAG L2 attributes error - from Pat (very low priority - revisit)	Pat	3	Pat		
2063	Make A-E Index an L2 cdf. (tba)	Pat	3	Pat		
2066	While generating an overview plot for probe c on 2009-6-3 I received a number of (~30-40) conversion errors (some where on line 400), get email from Aaaron or David	Pat	3	Pat		
	Misc					
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.		1		IDL Error report to ITT	