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							
4929	Improve "basic" cribs		Pat		TBD	The tplot cribs under ssl_general/examples are good examples to follow for style. Cribs should be directly executable (not wrapped in a function call), with explanatory banners and comments. They should demonstrate loading raw L1 data, calibrated L1 data, and L2 data, including usage of the most common keyword parameters (probe, datatype, type, coord). They should also demonstrate how to calibrate already-loaded raw L1 data, and perhaps some examples of plotting or manipulating the data. Eclipse corrections and other more advanced analysis examples should be moved into one of the "advanced" cribs, or removed completely.		
4929	Improve "basic" cribs		Pat		TBD	Missing a basic "esa" crib		
4929	Improve "basic" cribs		Pat		Volunteers?	Still to do: asi cotrans dproc efi export fbk fft fgm fit spinfit gmag overplot scm		
4941	SPEDAS vs. SPADES or other acronym?							
4946	Problem with mirroring cron job at UCLA		Jim L		Cindy, sysadmins	rsync job failing, but ssh works?		
4948	SPEDAS global configuration panel?		Jim L		Cindy?	Might be useful for non-plugin-specific configuration: tplot verbose level, command to launch browser, temp directory. Another tab in file configuration panel, or separate menu item for global vs. plugin config?		
4950	Data availability database updates		Nick		Nick	Might need some PHP modules installed on astraea2		
4951	Inconsistent directory listing format from justice web server		Tami		Sysadmins?	Sometimes they get HTML formatted listing, sometimes plain ls output. Affects SPDF data product ingest process.		
4952								
4953								
4954								
	Hannes							
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	12/06/2012: Cal files updates, all probes from mid-August 2012 on.		
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	5-24-2013 Updated for 2012-12-01 – 2013-02-21, tha, thd, the		
4472	Inter-spacecraft FGM calibration for ARTEMIS.	1/4/2012	Vassilis	1	Hannes	6/4/12 from Hannes: Artemis inter spacecraft differences show good results with current calibration		
	Aaron							
4314d	combination of ESA and SST data could only be done in the Geometric mode. Would be great if it could be done in other modes as well.	8/11/2011	Xuzhi	1	Aaron	In progress, maybe ready to demo in 1 week	1 hr	
4744	Add combined ESA/SST moments capability to new particle routine	07/24/13	Pat	1	Aaron	I was talking to Drew about particle stuff yesterday and we got to talking about how our goal for THEMIS particles should be combined ESA/SST particle products. (Spectra and moments) Doing this for spectra should be pretty easy with the new routine. (Just pass in a concatenated structure and it should work.) Doing this for moments would be pretty tricky in the current configuration because it makes a lot of assumptions about the particular instrument that it is working with. But Aaron and I were thinking that we could probably add moments capability to the the new particle routine pretty easily and this could be done in a way that was sufficiently generic that it would not choke on a combined particle distribution struct. I don't think it would be more than a week for one of us to do this.		
4936a	Slices code: allow plotting against energy instead of velocity		Aaron		Aaron			

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4936b	Slices code: Add option for logarithmic x and y axes		Aaron		Aaron	How to deal with "donut hole" around 0 velocity?		
4725	Generate combined ESA/SST moments in GUI	06/25/13	GEM-TDAS tutorial			Very preliminary at the moment, add to GUI in 6-12 months (so probably sometime in 2014)		
4929	Improve "basic" cribs		Pat		Aaron	sst mom part_products		
4908	Prevent unnecessary reloads of particle data		Aaron	1	Aaron	Keep track of last requested time interval in common blocks, so that gaps at beginning/end of day don't cause unnecessary reloads.		
	Cindy							
	Ping Sasha for status of back AE station data					Pinged 7/2013, waiting for response		
4687	Check with Ian Schofield about status of Dr. Hayashi's 1-sec STEP data set.	41369	Cindy		Cindy	2013/10/17: Data being converted now, should be available in a couple of weeks		
4903	Not receiving current data from Russian GMAG sites, seems like server has been moved or renamed?		Cindy			10/18/2013 Communication established!		
4842	GUI API – Plugin access to GUI configuration settings dialog (remote, local data dirs, etc)	1/18/2013		1	Cindy	Convert to tabbed interface, like "load data" panel. Need to fix bug in handling hw vs. sw rendering setting (corrupts draw object). Most load panels converted, "yyy" still to do		
4937	Wrong lat/long for several USGS stations				Cindy	Fix master CDFs and reprocess		
4938	Reprocess old Kiana GMAG data				Cindy	Cap filling for extended network disconnection, Harald recently recovered data from hard drive.		
4924	Add new Alaska station and revived Arctic station to GIMA processing scripts, master CDFs, etc		Cindy		Cindy			
4743	Clean up GMAG processing scripts		Cindy	2	Cindy	many variations of wget wrappers, will be much cleaner when code is consolidated. Should also look into consolidating database schemas for the various scripts.		
4761	Add STEP polar magnetometer network (6 sites) to our data set.	9/17/2012	Vassilis		Cindy	4/04/2013: May take a year or more for Ian Schofield to collect and process Kanji Hayashi's data. Some 1-min data available for public use at step-p.dyndns.org/~khay (Dr. Hayashi's web portal).		
	Eric							
4909	Compare magnetometer data between old & new GOES routines		Jim L		Eric	Positive feedback from Drew, still waiting to hear from other users		
4935	Use FGS-FGL correlation, FGS-FGE correlation, and presence of spikes in dB/dt to detect timing issues in FGS data.				Eric	FGS-FGL and FGS-FGE comparisons should be performed and reported packet-by-packet. See if spikes are detectable in very low fields (e.g. ARTEMIS). Output format should be amenable to further processing. Alternate approach: compare integrals, as opposed to samples or derivatives. Will any of this work for very low fields?		
4933	Improper overwriting of data when replaying data processing operations				Eric	First the user loads some data, does a basic data processing operation on the data (such as smoothing). Then the user loads the same type of data for a different date and tries the same data processing operation, it will prompt the user to overwrite the variables created during the first data processing operation. If the user says 'no' or 'notoall' and then saves the document, closes IDL and reopens/replays the document -- it will default to overwriting the already smoothed data, regardless if the user selected 'no' or 'notoall' to overwriting.		

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4689	need to keep clicking "yes to all" when replaying document that overwrites data. Also need to track deletions of data.	03/27/13	Pat	2	Eric	Looking into this one, I found that quite a few operations don't have overwrite queries tracked: Interpolate pwrspc calc nudge getspec Some seem to default to overwriting, some default to repeated queries to user. Original report: I loaded data for probes b and c and then went to plot the data and realised I should have loaded a and b for the tests. I returned to the load data panel and loaded the probe a data before deleting the probe c data. After saving as a themis document and reopening, the c data was loaded but not deleted. The data that was loaded and deleted using delete all data following the testscript does not appear when you reopen the document (as you'd expect).		
4931	We should have a routine to do NaN cleanup for tplot variables		Pat		Eric	Add a keyword argument /nan_cleanup to tdeflag, to perform the NaN removal but none of the other interpolation operations.		
4905	Acknowledgments for GOES data from NOAA?		Eric			Contact Howard Singer to find out who should approve acknowledgements		
4750	Add support for a standalone GSM->aGSM cotrans routine	08/02/13	Eric		Eric	Should accept either solar wind velocity data, or a user-provided rotation angle. Should live with other analytic transforms.		
4736	Add support for aGSM coordinates to neutral sheet model	06/27/13	Eric	2	Eric			
	Jim L							
4940	Bug in thm_cal_fgm affecting spin_cal file production		David Fischer		Jim L	X and Z axes are switched, sensor orientation matrix not being applied if spin_cal corrections are disabled		
4944	thm_load_fgm reloads and time clips state data if state is already loaded and less than a day is requested.		Pat		Jim L			
4748	Jumps in FGS and FGL around times of FGM range changes	07/29/13			Jim L	May be a dropped sample at the time of the range change? Problem goes away with the start of the next L0 packet.		
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	0	Jim L	May have fixed problem – if packet header time corresponds to spinphase between 0 and 143 degrees, timestamps need a -1 spin period correction (integration interval is V1 to V1, not MSSS to MSSS). Reprocessing L1 FIT to QA area to test.		
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	0	Jim L	See 4142 After 4764		
4921	Add data quality flags (1 minute cadence) to state CDF, similar to ROI/maneuver flags.					For example: SDT time intervals, spin rate out of bounds, boom deployments, shadows, misconfigured EEPROM tables		
4692	Repeated prompts to load STATE support data	4/12/2013	Aaron		Jim L	I'm unsure on whether or not I'm seeing the correct behavior when state support data is loaded for cotrans operations. For SSE/SEL transforms the SLP data is loaded once, kept in the gui, and the user is not prompted again. For transforms that require state the user is prompted every time, unless all the required state data has been loaded manually. Might be related to thm_ui_check4spin, which never checks the spin model common block?		
	Jim M							
4947	Evaluate despike algorithm from GSFC code				Jim M			
4943	Gaps and spikes in AE index as shown on summary plots.		Vassilis		Jim M	It appears that there are gaps now in the AE that weren't there before. These seem to be due to cases when one station has gaps and because (maybe) flags are put in there the AE software makes the superposed result (the histogram) also a flag. The solution is to tell it to ignore flags, or to deflag the data by linear interpolation prior to creating AE. Additionally spikes are now evident, whereas before they were not there. (Example: THB 2012-07-03)		
4732	Rename TDAS to SPEDAS for next release	06/25/13	GEM-SPEDAS		Jim M	Get some feedback from SVN users before committing to the repository reorg On hold until we're sure what the final name will be.		
4925	Look at FLATSAT spectrograms and onboard vs. ground moments				Jim M	Results look good; waiting for final approval from Jim McFadden		

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4906	Add 2-hour orbit plots for THEMIS A,D,E (without RBSP)					New plots are there for Oct 17, reprocessing back data.		
4758	Clean up s/c potential (onboard and ground), FBK and EFS data for time intervals when SDTs are running				Jim M?	Cleanup to be done in L1->L2 processing, using time intervals when SDTs were being run. Eliminate this contaminated data from summary plots and L2 data files. Time intervals to be provided by MOC and/or John Bonnell. After Jim L's task 4921.		
	Nick							
4942	Updated FGM spin_cal files available		Hannes		Nick	Update files in SVN, deploy to production, reprocess affected data		
4949	Reprocess missing 2-hour lunar orbit plots		Shanshan		Nick			
4901	GOES overview plots				Nick	Should include e-, i+, B field, s/c position, X rays, AE index, B wave survey (like FGM wave survey)		
4939	Crash when trying to load ACE, CLUSTER, THEMIS mag data for default date via CDAWeb		Alexander Freed		Nick	CDAWlib functions may be attempting to write into the current directory even if user doesn't have permission (current directory might be the IDL installation directory, depending on how it's started).		
4934	Reprocess eclipse-corrected L2 FGM data to QA area				Nick			
4920	Top label cut off on summary plot PNGs since Sep 16				Nick	Seems to affect most recent couple of days, then fixes itself. Some processing step is messing with the margins but haven't found which step yet.		
4928	Evaluate alternate CDAWeb->tplot code (without temp CDFs) from Aaron R. and Scott B.				Nick	CDAWeb panel working fine as is, no further action required.		
4752	Add GUI configuration option to specify command to use to spawn a web browser				Nick	No standard environment variable on Linux/Mac to reliably get user's preferred browser. (Hold until work on new configuration panel is completed?)		
4729	Investigate bug tracking/wiki support for SPEDAS developers	06/25/13	GEM-SPEDAS		Nick?	Rehost tools on non-UCB domain?		
4738	User-friendly indication of availability of various THEMIS products over time (e.g. no L2 MOM until boom deployment)	06/25/13	GEM-TDAS tutorial		Nick?	THEMIS, GOES, WIND, RBSP done. Allow user to expand/collapse the tables for each mission to save space.		
	Pat							
	Updated FGM calibrations for solar array currents vs. spin phase?	5/30/2012	Vassilis	0	Pat	Last Recieved – Jan 2013. May need to remind FGM team if we go a long time without updates. Updates received 10/2013, but date ranges from month to month are a bit inconsistent.		
4718	Add new variables to SST L2 master CDF	06/06/13	SPDF		Pat	New SST calibrations working well enough to start making new L2 CDFs. Will have to be careful to avoid premature deployment while QA-ing new master CDFs and L1->L2 code.		
4945	Bad formatting in tplot variable labels		Pat	2	Pat	;split into components split_vec,'tha_state_pos_gsm' tplot,'tha_state_pos_gsm',var_label='tha_state_pos_gsm_x' ;var_label is all 'x's We should fix this. Whoever gets this should talk to me about it first though, cause there are some tricky aspects with tplot backwards compatibility. Specifically, we want tplot to use different formatting only in the cases when it would/will output '****'s. If you just switch over to variable width auto-formatting in all cases it will probably break tplot.		
4929	Improve "basic" cribs		Pat		Pat	calc, trace, plotxy, plotxyz		
4907	tplot namespaces		Pat		Pat	Add capability to create tplot variables in different namespaces (e.g. for creating tplot variables inside GUI without disturbing existing variables). Is it feasible to get this change implemented in time for the next SPEDAS release?		