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		
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	Obtain beta for upcoming IDL 8.3 release & evaluate for SPEDAS compatibility issues		Tami					
4956	Detect/repair missing(?) samples near FGM range changes in both waveform and spin fit data		Vassilis		Eric			
4957	Slices code: coordinate keyword vs. rotation keyword		Aaron		Aaron	Coordinate keyword should specify well-known coordinate systems; rotation keyword should specify arbitray slice orientations relative to specified coordinate system. Current code muddles the two concepts – move rotation specifications into the code to handle the "rotation" keyword rather than "coordinate".		
4958	thm_load_esa_pot: nonstandard treatment of "datatype" keyword		Jim M		Pat	Rename datatype keyword to clarify that this is actually controlling where the spacecraft potential comes from, not the data types to load or process.		
4959	SST calibrations: exclude samples immediately before/after attenuator state changes		Pat		Pat	Attenuator changes not perfectly synchronized with telemetry indications; results in glitches that can look like injections. Exclude these samples in calibration & L1->L2 processing.		
4960	Glitches at eclipse entry/exit that look like FGM range changes; some real range changes seem to be handled improperly		Yuri K, Eric		Jim L	May be a problem with FGM L0->L1 processing and detection of range changes.		
4961	Improve error reporting for cron jobs		Jim L		Nick?	The summary plot and AE index processing are particularly prone to misleading or confusing error reports. There is probably a lot of room for improvement in our logging and error reporting process for these and other automated processing jobs.		
4962	Reprocess THEMIS AE index to remove spikes and gaps				Jim M?			
4963								
4964								
	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**		
	Aaron							
4936a	Slices code: allow plotting against energy instead of velocity		Aaron		Aaron	Almost done, need to adjust scaling a bit for combined ESA/SST data		
4936b	Slices code: Add option for logarithmic x and y axes		Aaron		Aaron			

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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.		
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		
	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!		
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.		
	Eric							
4901	GOES overview plots				Eric	Should include e-, i+, B field, s/c position, X rays, AE index, B wave survey (like FGM wave survey)		
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?		
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							
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			

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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		
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							
4948	SPEDAS global configuration panel?		Jim L		Nick	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?		
4931	We should have a routine to do NaN cleanup for tplot variables		Pat		Nick	Add a keyword argument /nan_cleanup to tdeflag, to perform the NaN removal but none of the other interpolation operations.		
4709	Manual eclipse processing resets "last processed" date for automated processing; some processing logs not preserved	7/24/2012	Jim L	1	Nick	If the automated processing is up to date, and I manually reprocess a time range early in the mission, the "last processed" date will get reset to the earlier date, which could trigger an unintended reprocessing of the full mission. "last processed" date should only be updated if it moves forward in time. Maybe script should just process last 10 days unconditionally? Will need to be careful about merging correction data into products if a correction is being re-calculated.		
4942	Updated FGM spin_cal files available		Hannes		Nick	Update files in SVN, deploy to production, reprocess affected data. Reprocessing for 2013 in progress		
4950	Data availability database updates		Nick		Nick	Might need some PHP modules installed on astraea2		
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	After 4942		
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?		
	Pat							
	Updated FGM calibrations for solar array currents vs. spin phase?	5/30/2012	Vassilis	0	Pat	Last Recieved – Jan 2013. May need to remind FGM team if we go a long time without updates. Check again in mid-August 2013		
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.		

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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?		