

Task #	Task Description	Date	Reported By	Pri	Assigned To	Notes	Estimate	Script; suite; UIC; DevC;
	To be Assigned or Discussed							
4929	Improve "basic" cribs		Pat		TBD	The tplot cribs under ssl_general/examples are good examples		
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		
5026	Add heat flux (derived from eflux) to L2 ESA		Tai Phan		TBD	Will implement after Tai does some testing to determine how		
5045	Develop mini-GEM tutorial with SPEDAS 1.00 updates		Vassilis			Tutorial: incorporate examples using Van Allen probes, POES,		
5049	spedas.org: add article with full list of capabilities (not just since last		Nick					
5050	spedas.org: road map for future development		Nick					
5051	Load Data tabs: each tab should get some text stating the time range for which data exists		Nick					
5054	THEMIS web page		Bob McGuire			Add page to THEMIS site describing pseudo-AE index products, which stations they are derived from. Bob M will update master CDFs at CDAWeb to link to this page.		
5055	Recurring task: periodically check CDAWeb plots, legends, etc. To ensure that they're consistent with what our software produces.		Bob McGuire			Especially important when new CDFs or variables are added, or when people are prepping for Senior Review		
5068	Develop a compound widget to make the Data Analysis window code reusable by plugins							
5071								
5072								
5073								
	General							
	Tips of the Month		David		Jim L	Next Candidates: Lynn Wilson Routines; Eclipse auto processing; FGM Reprocessing, CDF library 3.4.1 released (fixes memory issue for Linux users), Simplified eclipse spin model corrections, new SST calibrations, specplot datagap		
4661	I tried to load 3dp datatype pm for 2012 - the testscript says to check availability at http://sprg.ssl.berkeley.edu/data/wind/3dp/ and test different combinations. There are cdfs for 3dp pm for 2012 on that site, but the have are _v05 and don't load. Sho	6/6/2012	Lydia	1	Jim L	Wait till after WIND reprocessing and see what happens to version numbers, if they're all consistent then 5 minute change to load routine. Will not do "load highest version" -- responsibility of WIND developers.		
	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							
4468	Ongoing - Review all commits by Davin, Peter, etc for impact to TDAS.	3/27/2012	David	0	Aaron	Provide weekly report and spreadsheet		
5070	Exercise and troubleshoot simulation software				Aaron			
QA030	Enhancement: 2d slices during eclipses?		Aaron			One of the researchers down here came by wondering if there was an option to apply the eclipse corrections when producing 2D slice plots. At the moment we can't use the corrections because the slices code assumes that energy and angle bins are static within a mode (this was primarily done to boost		

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QA076	Layout options (feature)		Aaron			(feature) I think it would be best to move the manual panel placement widgets from the panel options window to layout options (perhaps a new tab). That way all panel placement options would be in a single window, which seems more intuitive and should lessen potential conflicts.		
4730	Integrate idlneturl into file_http_copy?	06/25/13	GEM-SPEDAS		Aaron	Would have to sacrifice IDL 6.3 compatibility, but most users should have upgraded by now. OK to proceed.		
4968	SPEDAS wiki			1	Aaron	Slices (done), spectrograms (done), moments (in progress), background info & documentation for general particle		
4725	Generate combined ESA/SST moments in GUI	06/25/13	GEM-TDAS tutorial	2		Very preliminary at the moment, add to GUI in 6-12 months (so probably sometime in 2014)		
4929	Improve "basic" cribs		Pat	2	Aaron	sst mom part_products		
	Cindy							
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Cindy	Weekly on Mondays		
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/2011	David	0	Cindy	Check again in February 2015		
4781	GMAG station status: troubleshoot stations with no data reported				Cindy			
	Ping Sasha for status of back AE station data					Maybe Vassilis can ping?		
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		
5038	New GIMA ground station (Toolik Lake)		Cindy		Cindy	There's a new station, Toolik Lake .		
4975	Quick start guide for plugin developers, including design guidelines for CDFs, better documentation for time_double, file_retrieve, and other useful tools for creating load routines and GUI plugins		Mini-GEM		Cindy			
4967	SPEDAS wiki				Cindy	SPEDAS API documentation and other notes for plugin developers		
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). 2014-10-01 Some data is there on the server, but it looks sparse...is there anything missing?		
4481	New data product, AE index from THEMIS+std sites	1/9/2012	Vassilis	1	Cindy	awaiting Russian data 7/2/2012: Still need data from 2007-2010. 7/27/2012: Getting current data again, still waiting for older data. 12/17/2012: Older data in different formats, Sasha is getting some other people involved and expects to deliver by Sprin		
4409	AE Stations: I am interested in including the "standard AE ground stations" i.e. the ones that go into the computation of the AE index - there are 12 - into the THEMIS pipeline. This is because we can then include them into the computation of our own pseu	10/19/2011	Vassilis	2+	Cindy			
4409b	Dixon (DIK) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	Downloads in progress. Data from 2011 on has been made available; they have agreed to provide data back to 2007. No 1 sec data available (minimum 1 minute sample interval). Sasha pinged 04/2013.		
4409c	Cape Chelyuskin (CCS) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	see 4409b		
4409d	Tixie Bay (TIK) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	see 4409b		
4409e	Cape Wellen (CWE) - closed, replaced with Pebek (?) (AARI, Russia)	10/19/2011	Vassilis	2+	Cindy	see 4409b		
	Eric							
5039	New Load Data tab for POES mission		Vassilis		Eric	Instrumentation and data availability should be similar to GOES. CDASWeb now has several GOES, POES data sets online in CDF format and may have better processing and cleanup algorithms applied.		

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QA161	Unnecessary(?) "draw" operations in various option windows (x,y,z, panel)		Aaron			I noticed while testing #1 and similar bugs that many of our options windows (x/y, z, panel) are calling draws, or at least draw object updates, when they're opened. I'm wondering if there is a particular reason we've done that in some cases, or if it was just sloppiness. Since draw operations can be expensive and can lead to cases like #1 where an invalid setting cannot be fixed (hopefully we catch it beforehand) it seems like it would be better practice to not draw until we need to. For x/y axis and panel options I think there are general update methods called to populate/update the widgets that include draw calls. Separating the draws from those helper functions, or at the very least allowing a keyword to disable them in some situations, should work in those cases.		
5046	User guide updates				Eric			
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		
4956	Detect/repair missing(?) samples near FGM range changes in both waveform and spin fit data		Vassilis		Eric			
4966	SPEDAS wiki				Eric	Document GOES plugin (data source, available data sets, processing notes if any)		
	Jim L							
2074c	quality flag for FGM data. (see also 5024, 4921)		Vassilis	2	Jim L	quality flags for FGM data: Hannes talked to Ferdinand and suggests some flags in the state CDF: times when eclipse spin model adjustments were performed; times when spin fit & FGL data used to refine the eclipse spin model; times when V03 attitude corrections not available, times when FGM data is noisy post-eclipse		
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		
5024	L2 FGM and other CDFs do not exclude eclipse time intervals		Bob McGuire		TBD	Remove eclipse intervals from FGM L2, also add quality flags at 1 minute cadence. Then implement similar strategy for other instruments.		
5024	L2 FGM and other CDFs do not exclude eclipse time intervals		Bob McGuire		TBD	Remove eclipse intervals from FGM L2, also add quality flags at 1 minute cadence. Then implement similar strategy for other instruments.		
5033	Draft document: "general" development guidelines				Jim L	Circulate to Davin, and then the rest of the change committee members		
4983	Steps in plot of FGS-Tsyg – related to timing problems or new issue?		Vassilis		Jim L			
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.		
4969	SPEDAS wiki				Jim L	Spin model and eclipse processing, L0->L1 processing		
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	tplot namespaces	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		

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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 s		
4849	Change L0->L1 code to prevent out-of-order timestamps in iesa and isst configuration history.	1/29/2013	Nick		Jim L	Include configs from previous and next day, then clip to the desired day before writing into L1 CDFs.		
4831	Admin guide updates: eclipse spin corrections, chk_bfds_archive	1/3/2013			Jim L			
4815	Developer guide updates for GUI API, placeholders for rest of SPEDAS to plugin interface	12/7/2012	Vassilis	1				
4709	Manual eclipse processing resets "last processed" date for automated processing; some processing logs not preserved	7/24/2012	Jim L	1	Jim L	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		
4716	Add examples of eclipse spin model corrections to crib sheets (fgm, efi, scm, fit, mom)	7/27/2012	Vassilis	1	Jim L	fgm, fit, mom, updated; efi, scm, new eclipse crib in progress.		
2078	bau_sunpulse_met assumes x86 endiannes (BugID=13)		Vassilis	3	Nick	Tmtools libdecom code. On first call, do runtime call to check whether floats are big-endian or little-endian, set a static flag in that routine, then do appropriate conversion. JWL to test.		
4735	Socware ksh directory cleanup	8/24/2012	Jim L	1	Jim L	/disks/socware/thmsoc_dp_current/src/ksh out of sync with repository; some files/subdirectories not present in SVN; some junk files (emacs backups, etc)		
4326c	L1->L2 reprocessing for eclipse spin model corrections	8/18/2011	Vassilis	1	Jim L	After 4034a2, when eclipse spin model corrections are trustworthy enough to enable by default for L1->L2.		
4451	operating the particle instruments in "accumulate" rather than "snapshot" mode. So we'd be getting into some unexplored territory. The time tagging code in the L0->L1 particle distribution processing would need some slight modifications to support "accumu	12/1/2011	Vassilis	1	Jim L	5/21/12 as per Vassilis - give it a shot; Awaiting flatsat availability - after SST table updates and ESA energy table updates. Probably will have to wait until NuStar launch/EOC. In Progress		
4451b	Modify instrument scripts to enable accumulate mode, flatsat testing	6/12/2011	Jim L	1	Jim L / Ops	When MOC support available, probably after NuStar.		
4451c	tdas mods - if accumulate mode approved discuss at S/W meeting	12/1/2011	Vassilis	1	Jim L	double chech slices and getspec as per Aaron (next up)		
4451d	Put one probe in accumulate mode and verify correct L0->L1 and L1->L2 processing with live data.	6/12/2011	Jim L	1	Jim L			
4476	Discuss thmsoc_dp_current deployment process, avoid unintended updates from trunk	1/5/2012	Jim L,David	1	Jim L	After QA, review CDF "software version" requirement with SPDF.		
4465	Diagnose, repair? Spikes in FGS data.	12/14/2011	Vassilis	1	Jim L	No code changes required. Document on web site (anomalies/watch out fors) as something to be aware of when		
4034a3	awaiting feedback and performing analysis	11/22/2010	Vassilis	1	Jim L	Tips of the Month at some point?		
4236	Ferdinand P. suggests that we make available a diagnostic quantity produced by the eclipse spin modeling procedure. Add "phase" diagnostic quantity (from eclipse spin modeling process) to L1 STATE CDF, to give end users a sense of the expected angular err	5/23/2011	Ferdinand	1	Jim L		1-3 days	
2047	Separate E and B timestamps for spin fits: a) make a revised V02	before the	Vassilis	1	Jim L	Hard for SPDF to deal with, with their plotting tools - review		
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.		

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4030b	Correct Existing Data	5/17/2010	Jim McFadden	1	Jim L	4030a prerequisite		
4030c	If scripts change - make changes to processing scripts	5/17/2010	Jim Lewis	1	Jim L	4030a prerequisite	4-5 days	
QA110	as you know we have a few folks here in our SPDF group who are using the THEMIS-B and C data for a lunar project. They have found and I've confirmed through CDAWeb, that the time stamps and associated data measurements for October, 9, 2010 THEMIS-B ESA,	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		
4301	"bad" themis thg l2 files - instrument files; L0->L1 processing produces incomplete/empty CDFs	8/1/2011	Tami	2	Jim L	one fixed - one priority 2 (data type VBx appeared once due to corrupted packet, produced empty CDF)		
2248	once in a while (maybe 10-20 occurrences per probe during the entire mission), the FGM range doesn't change on all three axes at once:	9/10/2009	Jim L	2	Jim L			
	Jim M							
5056	FGM b_total data shows up as sometimes scalar, sometimes 1-element array		Bob McGuire		Jim M	Master CDFs corrected, issue was limited to FGM. Hold reprocessing until 5024 and related tasks (FGM quality flags) are implemented.		
5057	Apply offset correction to equalize pxxm_pot with vaf s/c potential (optional keyword)		Jim M					
4977	MAVEN plugin		Mini-GEM		Jim M	Start with the "boilerplate" plugin code to get a MAVEN tab implemented; "guts" of the plugin will be implemented as instrument leads develop their data products & load routines.		
5065	Autodetect SDT intervals from science or housekeeping data?		Jim M		Jim M?	See 4921. We can get a list from the MOC but it would be a very manual process. If we can reliably autodetect SDTs from science or housekeeping data, that would be better.		
4821	Use improved IDLDOC procedure to generate TDAS HTML documentation?	12/11/2012	Mini-GEM		Jim M	better format, more web-friendly? IDL 8.0+ versions OK since it won't be distributed with TDAS, only the HTML output.		
4965	SPEDAS wiki				Jim M	ESA instrument info, data structures, calibration processes		
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.		
4927	Rename SPEDAS str_replace function to resolve conflict with Fanning's popular "Coyote graphics" IDL library.				Jim M			
4739	Investigate SVN-level access controls (e.g. keep SPEDAS developers out of ssl_general?)	07/01/13	Jim L		Jim M			
4690	thm_mom_cotrans_cltestsuite is obsolete, either needs a complete rewrite to conform to current thm_load_mom usage, or merge any non-redundant tests into existing test scripts.	03/04/13	Jim M		Jim M	This test script can be dropped. In fact, most of the "cotrans" CL test scripts should be folded into the instrument "load" CL tests, with the exception of tests like cotrans_all_combos.		
4779	SVN commit hooks for updating "Help->About" screen with current revision number. Possible for TDAS version string as well?	10/9/2012		1	Jim McT	It might be a good idea to add some functions like "get_tdas_revision" or "get_tdas_version_string", so that only a couple of files would be subject to version string updates, rather than having version string literals scattered around the TDAS code base		
4152c	change the ESA tables such that electrons and ions can be changed separately into magnetospheric and solar wind modes.	10/20/2011	Vassilis	0	Jim M			

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4694	Developers guide/admin guide update: troubleshooting SSH (SVN/rsync) access	7/6/2012	Jim L	1	Jim M	When setting up SVN access for a new user (or an old user using a new computer), or if a host key has changed, might need to do an interactive SSH login to answer the host key verification prompt before SVN or rsync will work. Dev guide due to SVN+SSH is		
4003	Document: ESA File and Calibration Processing	3/5/2010	David	1	Jim M			
4312	Quality flags for efi are wrong including electric field offsets in computation. On hold until Michael Hartinger sorts out.	8/8/2011	Vassilis	1	Jim M	Other QF issues for EFI: SDT time intervals; incorrect biasing on THA due to changes in photoemission		
4208a	Enhanced MOM Instrument Web Pages	3/5/2010	David	2	Jim M	Talked to David first.		
	Nick							
5047	CDAWlib compatibility issues		Nick		Nick	Compile a report of issues we had (mixed case filenames, execute() calls, namespace issues, required subset to support "Load Data from CDAWeb") and forward to Tami to see which changes can be easily made at their end.		
5061	Javascript isn't working for asi_map.shtml		Nick		Nick	Can get ATHA to show, but no other sites		
5066	Web site help request form is insecure				Nick	Last week I got a burst of 20,000 messages to the help request inbox from somebody spamming the form. We need a CAPTCHA at least, and probably other security measures,		
5067	Create a plugin based on the code we received from BARREL				Nick			
4743	Clean up GMAG processing scripts		Cindy	2	Nick	many variations of wget wrappers, will be much cleaner when code is consolidated. Should also look into consolidating database schemas for the various scripts.		
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.		
	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		
4929	Improve "basic" cribs		Pat		Pat	calc, trace, plotxy, plotxyz		
5036	Troubleshoot/enhance CL test scripts for file_http_copy, file_touch		Jim L		Pat			
5069	Add keyword options to tinterpol_mxn to simplify working with NaNs				Pat			
QA140	Mission-specific logic in spd_ui_loaded_data object		Jim L			Should be abstracted somehow so that general purpose SPEDAS code does not have dependencies on mission-specific variable naming conventions (possibly via new plugin API features)		
QA141	Mission-specific logic in call_sequence object		Jim L			Calls THEMIS-specific spd_ui_load_data2obj routine – should be abstracted somehow to avoid mission-specific dependencies in general-purpose SPEDAS code (perhaps via new plugin API features)		

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5064	Particle data doesn't load correctly if operation is repeated		Drew Turner		Pat	We've got some code that is supposed to prevent re-loading the data if you've already loaded it. The code is getting confused because normally particle data is stored in a common block, but /sst_cal data is stored as a tplot variable.		
4973	Best way to load higher-dimensional data into GUI?				Pat	Will this require changes in tplot? How can we support high-dimension data in the GUI (to at least allow it to be loaded, and let plugins supply the visualization/rendering code?) Probably not for upcoming release, but we should at least have a credible		
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?		
2060	L2 cdf Quality Flags: for SST		Vassilis	2	Pat	Bitfields, or CDF_DOUBLE (like ESA quality flag)? Not for this reprocessing.		
4627c	SST: We need to generate a combined spectrum product that includes the FTO(low) channel. This would be adding the FTO(low) channel to the F+FT combined spectrum that we've already created.	5/17/2012	Vassilis	2	Pat			
4267d	Write code to remove proton and electron contamination from the electron and proton distributions using data and efficiencies from the F & O channels.	6/27/2011	Pat	2	Pat	Working on noise removal, etc.		
4627e	SST: After #a-d are done, we need to reprocess SST L2 with sun contamination removed and new calibrations applied.	5/17/2012	Vassilis	2	Pat	need 4267c to be completed		
4603	make new SST Cal standard	3/22/2012	Vassilis	2	Pat	Revisit in July ** on hold **		
4717	A limitation for tplot came up for the EMIC plots. If you want to use the var_label feature(for example, to plot spacecraft position below spacecraft data) you can only put the var labels at the very bottom of the plot. In the case of EMIC, what we actu	8/2/2012	Pat	2	Pat	You can't actually do this in tplot right now. To work around this limitation for the EMIC plots, I'm going to do some tricks making separate plots in the z-buffer and concatenating them then reposting them to the z-buffer. This will work for the overvi		
4520	The bug that Drew had reported yesterday turned out to be not a bug, but because the bins that the sun decontamination code selected differed depending on the date selected and this wasn't clearly reported to the end-user. I put an informational message	2/22/2012	Pat	2	Pat			
4208b	Enhanced SST Instrument Web Pages	3/5/2010	David	2	Pat	See current ESA Instrument Web Pages - Make recommendations to Vassilis to improve.		