

| Task #                             | Task Description  | Date Opened | Reported By | Pri | Assigned To | Notes   | Estimate | A&E; crib; script; suite; UG; DevG; Qref; AdmG |
|------------------------------------|---|-------------|-------------|-----|-------------|---|----------|--|
| <b>To be Assigned or Discussed</b> |   |             |             |     |             |   |          |  |
| 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 FTP 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        |     |             |   |          |  |
| 4972                               | Unnecessary downloads when loading IUGONET data   |             | Mini-GEM    |     | TBD         | File downloaded even when it's freshly created on local filesystem. May be related to server reporting timestamps in UTC vs. local time? IUGONET team to provide test case  |          |  |
| 4982                               |   |             |             |     |             |   |          |  |
| 4983                               |   |             |             |     |             |   |          |  |
|                                    |   |             |             |     |             |   |          |  |
| <b>General</b>                     |   |             |             |     |             |   |          |  |
|                                    | 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  |          |  |
| 4664                               | Laptop locks UCB and UCLA   | 6/6/2012    | David       | 0   | Team        |   |          |  |
| 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. Should they load? | 6/6/2012    | Lydia       | 1   | Jim L       | <b>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.</b>  |          |  |
| 4464                               | All plug-ins for v7.10 - add a section to User's Guide for Plug-ins   | 3/22/2012   | David       | 1   | Jim L       | Discuss at the appropriate time what the content would be. Also add a link for VM on the Software Web Page or Developers web page?  |          |  |
| <b>Hannes</b>                      |   |             |             |     |             |   |          |  |
| 4018a                              | New Calibration FGM parameters and spin axis offsets  | 5/10/2010   | Hannes      | 1   | Hannes      | <b>12/06/2012: Cal files updates, all probes from mid-August 2012 on.</b>   |          |  |
| 4080                               | Attitude Determination next few months  | 6/21/2010   | Hannes      | 1   | Hannes      | <b>5-24-2013 Updated for 2012-12-01 – 2013-02-21, tha, thd, the</b>   |          |  |
| 4472                               | Inter-spacecraft FGM calibration for ARTEMIS.   | 1/4/2012    | Vassilis    | 1   | Hannes      | <b>6/4/12 from Hannes: Artemis inter spacecraft differences show good results with current calibration</b>  |          |  |

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| 2074c  | quality flag for FGM data. <b>Dependencies on Ben's tasks 3093 and JWL's tasks 4142 and 2266.</b>   |             | Vassilis          | 2   | Hannes      | 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 are available; times when spin fit timing had problems. Some of these flags already present in state CDF spin model variables. JWL will document in L1 file definition document. Final item not so easy, since we have trouble even detecting the timing problem in spin fits. Keep task open, <b>Vassilis says we can come back to it when we have clarity on the spin fit timing.</b> |          |  |
|        | <b>Aaron</b>  |             |                   |     |             |  |          |  |
| 4468   | Ongoing - Review all commits by Davin, Peter, etc for impact to TDAS.   | 3/27/2012   | David             | 0   | Aaron       | Provide weekly report and spreadsheet  |          |  |
| 4957   | Slices code: coordinate keyword vs. rotation keyword  |             | Aaron             | 1   | 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”. <b>12/20/2013: User testing and validation in progress.</b>  |          |  |
| 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.   |          |  |
| 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. <b>OK to proceed.</b>   |          |  |
| 4979   | Integrate SST contamination removal options with particle slices code   |             | Aaron             |     | Aaron       | Initially I thought this would be as simple as changing a couple keywords when loading the data, but it's now being performed post-load. The new code is in the SST sanitization routine for thm_part_products so it should be simple to drop a call to that into the slices code. It should be quick, but less trivial than a couple of keyword/widget changes.   |          |  |
| 4968   | SPEDAS wiki   |             |                   | 1   | Aaron       | Slices documentation, background info & documentation for general particle processing  |          |  |
| 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  |          |  |
|        | <b>Cindy</b>  |             |                   |     |             |  |          |  |
| 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 March 2014  |          |  |
| 4781   | GMAG station status: troubleshoot stations with no data reported  |             |                   |     | 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       | <b>2013/10/17: Data being converted now, should be available in a couple of weeks</b>  |          |  |
| 4970   | Add Plugins menu to main menu bar, develop API routines so plugins can add their own menu items   |             | Mini-GEM          |     | Cindy       |  |          |  |
| 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       |  |          |  |
| 4976   | Install & run test cases for WHAMP Fortran code at UCLA   |             | Vassilis          |     | Cindy       |  |          |  |
| 4967   | SPEDAS wiki   |             |                   |     | Cindy       | SPEDAS API documentation and other notes for plugin developers   |          |  |
| 4924   | Add new Alaska station and revived Arctic station to GIMA processing scripts, master CDFs, etc  |             | Cindy             |     | Cindy       |  |          |  |

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| 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 <a href="http://step-p.dyndns.org/~khay">step-p.dyndns.org/~khay</a> (Dr. Hayashi's web portal).   |          |  |
| 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 Spring 2013. Sasha pinged 04/2013  |          |  |
| 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 pseudoAE. They include: FCC: Fort Churchill, LRV: Leirvorgur, a couple in Russia and one in Scandinavia etc. They should be available somehow. The ones in Russia have been made available through APL, and THEMIS has contributed to their refurbishment. I think we have established communication with APL's Kazue Takahashi and he said a couple of years ago that routine delivery of the Russian stations was impending. So by now they should be ready...I think he should be a good source of information about the other stations as well, if you cannot find them on the web by searching or at WDC Kyoto. | 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  |             |                   |     |             |  |          |  |
| 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? |          |  |
| 4956   | Detect/repair missing(?) samples near FGM range changes in both waveform and spin fit data  |             | Vassilis          |     | Eric        |  |          |  |
| 4981   | Generate GOES summary plots from GUI  |             | Jim L             |     | Eric        |  |          |  |
| 4905   | Acknowledgments for GOES data from NOAA?  |             | Eric              |     |             | Contact Howard Singer to find out who should approve acknowledgements  |          |  |
| 4966   | SPEDAS wiki   |             |                   |     | Eric        | Document GOES plugin (data source, available data sets, processing notes if any)   |          |  |
| 4974   | Quick start guide for VM users (explain how to get the VM software from Exelis, how to install and start TDAS in VM)  |             | Mini-GEM          |     | Eric        | Merge existing guide into users's guide, quick start guide, wiki   |          |  |
| 4735   | tsyganenko support in GUI   | 06/25/13    | GEM-TDAS tutorial |     | Eric        | Does this mean we'd have to distribute the DLM/DLL/so files with TDAS instead of providing a separate download? How would this work for the VM?  |          |  |
| 4963   | Elena Grigorenko help request   |             | Vassilis          |     | Eric        | Use TDAS VM to plot particle distributions in phase space density.   |          |  |

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| 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        | Coding finished, verifying test results  |          |  |
|        | <b>Jim L</b>   |             |              |     |             |  |          |  |
| 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       |  |          |  |
| 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  |          |  |
| 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? |          |  |
| 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 should only be updated if it moves forward in time.   |          |  |
| 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 (BugzID=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.  |          |  |

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| 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 "accumulate" mode.<br>The ESA load routines use the L0 packets directly, and probably also assume "snapshot" mode, so that's another potential set of required modifications. I wouldn't be surprised if the ESA and SST calibration code also assumes snapshot mode. It would need to be tested with real data (since we have no way to generate a realistic particle data stream on FLATSAT). | 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. <b>In Progress</b> |          |  |
| 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 check slices and getspec as per Aaron ( <b>next up</b> )  |          |  |
| 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 for) as something to be aware of when  |          |  |
| 2074c  | quality flag for FGM data - <b>Jim L perform analysis, define task - someone else to do development</b>   |             | Vassilis     | 1   | Jim L       | quality flags for FGM data: Hannes talked to Ferdinand and suggests some flags in the state CDF: times when eclipse spin   |          |  |
| 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 error in the eclipse spin model.  | 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       | <b>Hard for SPDF to deal with, with their plotting tools - review</b>  |          |  |
| 4030   | cross-check SST psir6 and psif data types for excess counts in psir6  | 4/8/2010    | Jim McFadden | 1   | Jim L       | <b>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.</b>   |          |  |
| 4030b  | Correct Existing Data   | 5/17/2010   | Jim McFadden | 1   | Jim L       | <b>4030a prerequisite</b>  |          |  |
| 4030c  | If scripts change - make changes to processing scripts  | 5/17/2010   | Jim Lewis    | 1   | Jim L       | <b>4030a prerequisite</b>  | 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, 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  |          |  |
| 4301   | "bad" themis thg l2 files - instrument files; L0->L1 processing produces incomplete/empty CDFs  | 8/1/2011    | Tami         | 2   | Jim L       | <b>one fixed - one priority 2 (data type VBx appeared once due to corrupted packet, produced empty CDF)</b>  |          |  |
| 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       |  |          |  |
|        | <b>Jim M</b>  |             |              |     |             |  |          |  |
| 4947   | Evaluate despikes algorithm from GSFC code  |             |              |     | Jim M       |  |          |  |
| 4943   | Gaps and spikes in AE index as shown on summary plots.  |             | Vassilis     |     | Jim M       | Code now in production   |          |  |

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| 4980   | Adjust upper energy range of SST overview plots, multi-probe plots, and any other SST electron plots.   |             | Vassilis    |     | Jim M       | Updated in repository, not yet in production   |          |  |
| 4962   | Reprocess THEMIS AE index & summary plots to remove spikes and gaps, fix SST energy ranges  |             |             |     | Jim M?      | After 4980 (should start 12-23-2013)   |          |  |
| 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.   |          |  |
| 4965   | SPEDAS wiki   |             |             |     | Jim M       | ESA instrument info, data structures, calibration processes  |          |  |
| 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 <b>On hold until we're sure what the final name will be.</b>  |          |  |
| 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. <b>After Jim L's task 4921.</b>   |          |  |
| 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.   |          |  |
| 4820   | Need IDL-only FITS reader code suitable for inclusion in SPEDAS   | 12/11/2012  | Mini-GEM    |     | Jim M       | Checked into SVN, needs to be documented in developers guide.  |          |  |
| 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.  |          |  |
| 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 that would all have to be updated. <b>Will try making an ASCII file in bleeding_edge and release builds, see how that works before implementing SVN hooks.</b>  |          |  |
| 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       |  |          |  |
| 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 issue, Admin guide due to rsync over SSH issue. <b>Additional note: people using putty/pageant on 64-bit machines should make sure they're using the latest version of putty, otherwise will have hard-to-diagnose access problems. 10/10/2012: Recent versions of MacOS ship with a different version of OpenSSH which causes problems for svn+ssh URLs. Resolution: edit .subversion/config [tunnels] section, add new 'tdas' protocol with "tdas = ssh -T -p 36867", then use "svn+tdas" instead of "svn+ssh" URLs.</b> |          |  |
| 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. <b>On hold until Michael Hartinger sorts out.</b>  | 8/8/2011    | Vassilis    | 1   | Jim M       | <b>discuss with Vassilis</b>   |          |  |
| 4208a  | Enhanced MOM Instrument Web Pages   | 3/5/2010    | David       | 2   | Jim M       | Talked to David first.   |          |  |

| Task # | Task Description  | Date Opened | Reported By    | Pri | Assigned To | Notes   | Estimate | A&E; crib; script; suite; UG; DevG; Qref; AdmG |
|--------|---|-------------|----------------|-----|-------------|---|----------|--|
|        | <b>Nick</b>   |             |                |     |             |   |          |  |
| 4964   | Populate SPEDAS wiki with content from user's guide                                 |             |                |     | Nick        |   |          |  |
| 4964   | GOES summary plots (processing scripts, cron jobs, web site menus)                  |             |                |     | 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?   |          |  |
| 4971   | Crash when loading RBSP "ECT" particle data via CDAWeb                              |             | Mini-GEM       |     | Nick        | Related to 2-d array per sample?  |          |  |
| 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.   |          |  |
|        | <b>Pat</b>  |             |                |     |             |   |          |  |
|        | 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. <b>Check again in mid-August 2013</b>   |          |  |
| 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. <b>Will have to be careful to avoid premature deployment while QA-ing new master CDFs and L1-&gt;L2 code.</b>   |          |  |
| 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.  |          |  |
| 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 path forward.   |          |  |
| 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.  |          |  |
| 4978   | FAST plugin   |             | Bob Strangeway |     | Pat         | Implement FAST plugin & gui tab; may duplicate some functionality from the CDAWeb interface but that's OK – it gives us a way to cleanly integrate any FAST-specific analysis and plotting tools, summary plots, etc.   |          |  |
| 4945   | Bad formatting in tplot variable labels   |             | Pat            | 2   | Pat         | <pre> ;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 </pre> <p>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.</p> |          |  |
| 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?   |          |  |
| 2060   | L2 cdf Quality Flags: for SST   |             | Vassilis       | 2   | Pat         | Bitfields, or CDF_DOUBLE (like ESA quality flag)? <b>Not for this reprocessing.</b>   |          |  |

| Task # | Task Description  | Date Opened | Reported By | Pri | Assigned To | Notes   | Estimate | A&E; crib; script; suite; UG; DevG; Qref; AdmG |
|--------|---|-------------|-------------|-----|-------------|---|----------|--|
| 4861   | Code maintenance issue – GUI coordinate systems   |             |             | 1   | Pat         | But there may be a code maintenance issue since we maintain two lists of supported coordinate systems. (One in thm_ui_req_spin.pro & one in thm_ui_cotrans_new.pro I just used a comment to future programmers, but a single list would probably be more durable.   |          |  |
| 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 <b>** on hold **</b>  |          |  |
| 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 actually want to do is a layout that looks like this (from top to bottom)<br>Plot1PrbA<br>Plot2PrbA<br>VarLabelPrbA<br>Plot1PrbB<br>Plot2PrbB<br>VarLabelPrbB<br>Plot1PrbC<br>Plot2PrbC<br>VarLabelPrbC<br>....etc...  | 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 overviews, but it is an ugly kluge. We should consider a task that adds this feature to tplot.(The task would be to add the feature to tplot and to add examples to the tplot cribs showing how to use the features) 8/6/2012: Workaround exists for EMIC plots, assess level of effort for more general solution. Will need Davin's approval if changes are nontrivial. Probably 2-4 days effort. |          |  |
| 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 in to clarify what is happening, but after talking with Drew there are two other solutions that don't fit within the scope of QA, but would be good to consider later. There features are:<br>#1 Add a keyword that returns the the bins that were flagged by automatic sunlight decontamination to the end user. #2 Provide an option to window the automatic sunlight decontamination code so that one test is not applied to the entire time period. | 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.   |          |  |