

| Task # | Task Description  | Date      | Reported By | Pri | Assigned To | Notes   | Estimate | Script, Suite, UIC, DevC |
|--------|---|-----------|-------------|-----|-------------|---|----------|--------------------------|
|        | <b>To be Assigned or Discussed</b>  |           |             |     |             |   |          |                          |
| 5026   | Add heat flux (derived from eflux) to L2 ESA  |           | Tai Phan    |     | TBD         | Will implement after Tai does some testing to determine how   |          |                          |
| 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  |          |                          |
| 5089   | Show UFS bar in overview plots  |           | Vassilis    |     |             | After 5088  |          |                          |
| 5090   | Method/crib to subtract SST-FT channels from corresponding SST-O channels to remove electron contamination in SST psif data   |           | Pat         |     |             | Option, or crib?  |          |                          |
| 5091   | Reprocess overview and ESA ground moments plots   |           |             |     | Jim M       | L2 CDFs have had background subtraction applied, not reflected in summary plots   |          |                          |
| 5095   |   |           |             |     |             |   |          |                          |
|        |   |           |             |     |             |   |          |                          |
|        | <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>  |          |                          |
|        | <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   |          |                          |
| 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>  |          |                          |
| 4929   | Improve "basic" cribs   |           | Pat         |     | TBD         | Missing a basic "esa" crib  |          |                          |
| QA154  | If I set an illegal phi range(min > max) and hit apply, it prints an error message and reverts the setting to the last valid, but then it still generates the data product. |           | Pat         |     |             | Since there was an error, I would think that it shouldn't try to generate it? This happens for the other range limits too, energy range limits, fac settings. Pretty much everything. |          |                          |
| QA155  | If edit the min and the max. To put a valid min(not the default) but an invalid max, it will revert both the min and the max.   |           | Pat         |     |             |   |          |                          |
| QA156  | If I set a phi max of 360.5, the error message is "phi max must be less than or equal to zero"  |           | Pat         |     |             | If feel like there is some modular arithmetic/congruence calculation going on behind the scenes. but the message doesn't really make that clear.                                      |          |                          |

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| 4968   | SPEDAS wiki   |            |              | 1   | Aaron       | Slices (done), spectrograms (done), moments (in progress), background info & documentation for general particle  |          |                          |
|        | <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 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? Or try contacting Oleg?   |          |                          |
| 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   |          |                          |
| 5045   | Develop mini-GEM tutorial with SPEDAS 1.00 updates  |            | Vassilis     |     | Cindy       | Tutorial: incorporate examples using Van Allen probes, POES,   |          |                          |
| 5092   | GIMA network changed directory structure  |            | Cindy        |     | Cindy       | Need to update ualaska rsync jobs to reflect new layout  |          |                          |
| 5094   | Add ~10 new AUTUMN-X gmag stations  |            |              |     | Cindy       |  |          |                          |
| 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 <a href="http://step-p.dyndns.org/~khay">step-p.dyndns.org/~khay</a> (Dr. Hayashi's web portal). 2014-10-01 Some data is there on the server, but it looks sparse...is there anything missing? |          |                          |
|        | <b>Eric</b>   |            |              |     |             |  |          |                          |
| 5074   | POES overview plots   |            | Eric         |     |             | Wen Li had some suggestions. These will be a little more complicated than the THEMIS and GOES overview plots, with data from multiple spacecraft.  |          |                          |
| 5073   | SPEDAS plugin API refactoring   |            | Jim L        |     | Eric        | Move away from 1 config file per "hook", to 1 config file per plugin just to define the entry point for that plugin's initialization code, do everything else via API calls rather than config files.  |          |                          |
| 5068   | Develop a compound widget to make the Data Analysis window code reusable by plugins   |            |              |     | Eric        | After 5073   |          |                          |
| 5046   | User guide updates  |            |              |     | Eric        |  |          |                          |
|        | <b>Jim L</b>  |            |              |     |             |  |          |                          |
| 4983   | Steps in plot of FGS-Tsyg – related to timing problems or new issue?  |            | Vassilis     |     | Jim L       |  |          |                          |
| 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.   |          |                          |
| 5033   | Draft document: "general" development guidelines  |            |              |     | Jim L       | Circulate to Davin, and then the rest of the change committee members  |          |                          |
| 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.  |          |                          |
|        | <b>Jim M</b>  |            |              |     |             |  |          |                          |
| 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        |     |             | Not default, add a keyword & documentation   |          |                          |

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| 5078   | Moments code crashes, problem seems to be due to missing fgs data?   |            | Tai Phan    |     | Jim M       | dead time corrections should be done in L1->L2 processing. Also, DTC don't seem to be working!  |          |                          |
| 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.  |          |                          |
| QA116  | refactor wavelet transform   |            |             |     |             | When we're done with QA, we should really consider refactoring the wavelet transform code in the data processing panel. It's very difficult (almost impossible) to figure out what's happening in 'spd_ui_dproc_par_choose'.  |          |                          |
| 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.   |          |                          |
|        | <b>Nick</b>  |            |             |     |             |   |          |                          |
| 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.   |          |                          |
| 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 |          |                          |
| 5093   | Help request: pitch angle distributions crash in VM release  |            | L. Alves    |     | Nick        |   |          |                          |
| 5086   | block average bug  |            |             |     | Nick        |   |          |                          |
| 5085   | Build and test VM release with IDL 8.4   |            |             |     |             | This forces everything to be compiled, so we can see if there are any issues with IDL 8.4, besides the () versus [] issue Aaron found and fixed.  |          |                          |
|        |  |            |             |     |             |   |          |                          |
|        | <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. <a href="#">Check again in January 2014</a>   |          |                          |
| 5087   | scpot vs. sc_pot keyword (needs more prominent warning)  |            |             |     | Pat         |   |          |                          |
| 5088   | Ultrafast survey flag in L1 scmode CDF   |            | Vassilis    |     | Pat         | UFS = presence of SCW or EFW for > 15 sec, with no gaps more than 1 sec long  |          |                          |
| 4929   | Improve "basic" cribs  |            | Pat         |     | Volunteers? | Still to do: asi efi export fbk fft fgm fit spinfit gmag scm  |          |                          |
| QA152  | (page options) The "apply to all" option propagates the header/footer text, but should only copy the formatting options. This could probably wait until after release. |            | Aaron       |     |             | (on a side note: it might be a nice feature to have a tab-specify apply to all as we've done with the x/y and z axis options)   |          |                          |
| QA153  | This is unrelated to the test suite, but I noticed that the GUI's title bar icon is still the THEMIS logo (might only show up on windows).                             |            | Aaron       |     |             |   |          |                          |
| QA163  | (minor) Apply to all does not propagate title size, font, and color to other panels.   |            | Aaron       |     |             |   |          |                          |

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| 5084   | Evaluate options for producing a call graph from a corpus of IDL code |      | Jim L       | 2   | Pat         | Write a custom parser, or leverage existing IDL tools? |          |                              |