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| Investigation: FIELDS |
| Progress accomplished this period: | July 2013 Reporting Period |
| 1. | Project Management and Product Assurance |
|  | a. | Project Management* Submitted cost change proposal to SwRI per RFP with revised SOW
* Supported a review of the UNH HVOC first batch screening results.
* Supported the following Acceptance Reviews
	+ None
* Supported the following PSRs:
	+ AEB SN5
	+ SDP Ship Set #3 (SNs 11, 12, 13, 14)
* Supported the following PERs:
	+ None
* Supported the following TRRs:
	+ None
* Supported the following FRBs
	+ None
* Received delivery of the following flight hardware items at UNH
	+ Screened LEDs and HV diodes for the balance of UNH HVOC builds (from ATC)
* Delivery of the following flight hardware items from UNH to FIELDS partners
	+ Screened and selected UNH HVOCs for EDI Gun, qty. 37. (to IWF)
	+ EDI Gun BGS SN3 (to IWF)
* Delivery of the following flight hardware items from UNH or LASP to the IS and Observatories
	+ AEB SN5
* CDRL and contract deliverable submissions this month:
	+ None
* Prioritized and coordinated the efforts of the UNH team, subcontractors, foreign partners, outside vendors and in-house workshops to optimize schedule performance. This month’s activities in this regard include:
	+ UNH team
		- The SDP and HVOC efforts, given the shared commitments of key individuals and the critical paths, require constant monitoring and adjustment. SDP will get the resource priority if conflicts arise. This was not an issue in July.
	+ UNH machine shop
		- Final tapping and inspections of cylinders, radial wire clamps and back-plates for units SNs 17&18. Other than adjustments that may be needed during assembly, SDP flight hardware machine shop work is complete.
	+ UNH electronics shop
		- Supported SDP integration
		- Supported EDI HVOC assembly
	+ Vendors
		- Coordination of vibration test activities with our vendor, BAE (upcoming tests for GDU and SDP).
		- Surface treatment of final FM SDP parts
	+ FIELDS team partners, IS and S/C teams
		- Coordination of UNH support of the EDI Gun assembly effort on site at IWF. Turco traveled to IWF 29 Jul-2Aug.
		- Continue weekly FIELDS team meetings
 |
|  | b. | Product Assurance |
|  |  | Turco / Salwen* Supported SDP FM13/14 TV testing
* Inspection of EDI FM7 sensor PWAs after parylene
* AEB FM5 bag and cleanliness inspection
* New batch of HV diode inspection after screening
* Delivery of HVOCs and BGS to IWF
* SDP TVAC testing SN13, 14.
* SDP Thermal Bonding, SN15
* SDP parts inspections
* SDP Ferrule Crimping, SN15, 16
* EDI HV OPTO QA
* SDP PSR review support
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| 2. | Systems Engineering and FIELDS I&T |
|  |  | Rau / Dors* Performed SDP 13/14 Magnetics and FIT Test and released reports for SS3
* Performed SDP 13/14 Acceptance testing and logged FIELDS operating hours
* Performed AEB SN05 Magnetics and released report
* Supported SDP SS3 and AEB SN05 PSR’s
* Delivered AEB SN05 to IS and assisted with install and testing on OBS-4
* Continued FIELDS verification entry into DOORS
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| 3. | Post-Delivery Support |
|  |  | * Support OBS-1 Acoustics and EMI testing
* Supported OBS-2CPT
* Supported OBS-1 to OBS-2 mini stack shock testing
* Supported OBS-3 Functional
* De-Integrated Magnetometers and ADP simulator from OBS-3 functional test
* Reviewed test data
* Supported OBS-2 TV test planning
* Submitted ADP Observatory Test procedure to MIS
* Supported and reviewed WOA and procedure development at IS/OBS levels
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| 4. | Science activities |
|  |  | SWT and SWG * Supported science activities as needed

Science data processing activities* Support provided as needed.
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| 5. | Magnetometers |
|  | a. | DFG  |  |
|  |  |  | * Remote support of DFG functional testing at Goddard
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|  | b. | AFG |  |
|  |  |  | * Continued data reduction/software development activities, including GSFC-supported visit by Hannes Leinweber (at GSFC) to discuss data processing and archiving, as well as calibration file formats. Continued development of a Level 2 calibration procedures as needed for the magnetometer conference that is part of the level 2 data reduction process.
* Submitted revised FY13 to EOM budget in response to RFP UNH 13-01-07.
* Began clean-up of documentation, etc., for flight hardware deliveries.
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|  | c. | SCM | * SCM FM1 => SENSOR S/N FM1 + PREAMP S/N FM1
	+ - Delivered to UNH, 03 OCT 2011
* SCM FM2 => SENSOR S/N FM2 + PREAMP S/N FM2
	+ - Delivered to UNH, 25 JUL 2012
* SCM FM3 => SENSOR S/N FMS + PREAMP S/N FM4
	+ - Delivered to UNH, 25 JUL 2012
		- FM3 harness delivered to UNH without the outgassing certification
* SCM FM4 => SENSOR S/N FM3 + PREAMP S/N FM5
	+ - Delivered to UNH, 27 FEB 2013
		- FM4 PSR on April 23.
* SCM FMS => Continued to schedule sensor bake-out in France.
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| 6. | EDI |
|  |  | Sensor* Ship set 3 - SN 7
	+ Performed functional test after parylening of boards

Gun - UNH efforts* Delivered UNH-built opto-couplers to IWF
* Tested refurbished Beam Generation SN 3
* Delivered refurbished Beam Generation SN 3 to IWF

Gun - IWF efforts* Ship set 4 - Gun SN 4
* Re-assembled Gun and installed in vacuum chamber for calibration
* Started calibration
* Ship set 3 - SN 7
	+ Installed UNH optocouplers on DEFL1&2 boards

Optics* Continued work on ship set 4 and Flight Spare

Software* Continued implementation and testing of electric field mode

HVOCs (UNH)* Delivered the first 37 devices to IWF (hand carried by Steve Turco).
* Completed screening per agreement with tiger team and PCB
	+ Conducted partial discharge testing on all devices. 46 of 46 passed, zero counts
	+ Conducted Thermal Cycling, 45 devices.
	+ Bonducted burn-in 1 (Cold) (24 hours -20C, Iin=0ma, HV Diode leads shorted @6KV), 45 devices. Two (2) devices showed excessive leakage current and were removed.  Test continued.
	+ Completed burn-in #2, 40 hours @ 70C, If=0mA, HV Diode leads shorted @ 6KV (Standoff)
	+ Completed burn-in #3, 160 hours @70C, If=0-15mA peak, Vcc=6KV, 20% duty cycle LED
	+ Successfully conducted a review of the test data with the tiger team and PCB
	+ Conducted a retest on 6 devices for the burn-in #3 due to an error in setting the correct If per recommendations of the tiger team
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| 7. | SDP/BEB/LVPS  |

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|  | a. | SDP/BEB/LVPS (KTH/IRFU/Oulu)KTH/IRFU SDP BEB’s:* Parylening of units FM17-18 completed.
* Post parylene testing found FM17 - to be OK. But for FM18 - Motor did not run. Checked the test points in the motor driver circuit and found DIRA signal stuck at 0V. Found parylene in pin 22 of J2S of SCP.
* Units FM17-18, to be hand carried back to UNH on 8th of Aug.
* Test results of calibration testing of EM BEB and FM17 was distributed. Review of data lead to cancelation of the SDP/ADP cross calibration planned for Sept.

KTH/IRFU ADP BEB’s:* DPA of LM124 received, no definitive finding.

KTH/IRFU SDP Preamp/Boom Cable Assembly:* All testing completed for units FM17-18, to be hand carried back to UNH on 8th of Aug.

KTH/Oulu/IRFU Sphere / Yo-Yo Mechanism:* No new developments.

KTH/IRFU/Oulu Management:* Continue to work all issues related to testing, documentation, hardware, shipping and QA/PA and shipping needs (almost done).

KTH Product Assurance (OHB Sweden):* Inspection of SDP HW FM17-18 before parylene.
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|  | b. | SDP/BEB/LVPS (UNH)LVPS:* No activity

A-BEB’s:* Still need to coating of LM124 on FM3 before going into storage.

S-BEB’s:* ‘Nulled’ GT, FM 13-16 boards for torque monitors.
* FM15 & FM16 have the Booms loaded and the Pre-amps pinned out.
* Boom harnessing processed, as well as both motors are fully harnessed.
* Crimping and load testing is complete.
* Vib-rac work is on deck.

SDP MGSE:* Stable. No new developments.

UNH SDP EGSE:* Stable. No new developments.

SDP Preamp:* Crimped Probe E1 and E2 to 15-012-44 and 16-013-45 preamp respectively.

SDP Mechanical / Electrical:* Completed Integration of FM's 15 & 16
* Prepare for PER for FM 15, 16… FFT, PER, VIBE, and Post Vibe FFT scheduling.
* Began integrated FM17 & 18 major sub-assemblies including:
	+ Front Assembly (Cylinders, Trumpets and Front Panel), Back Plate Assemblies, Motor Thermal Straps.
* Completed machining FM18 Back Plate
* All that is left for SDP is assembly of the RWC's, helicoiling and installing the

 bearings into the Back Plate.* FM17 & FM18- Inner and Outer Cylinders are mated, concentric and torqued/staked.
* Torque Monitors are mechanically complete.
* Trumpets are mated to Front End Plates.

SDP Thermal:* Completed and submitted TVac test report for FM 13, 14
* Setting up for TVac testing for FM 15, 14 and then FM 17, 18

SDP EMC:* Report submitted for CE01/03, chassis leakage and magnetic testing for FM 15, 14.

FM SDP * Final assembly of SNs 15 and 16.
* FM13 & FM14 have successfully completed all environmental testing and are being operated by FIELDS for accumulation operating time. All that is required is Cho-foiling, cleaning and final UV inspection prior to bagging and shipment.

SDP QA:* Monitored the assembly and test activities for the flight units

AEB (UNH)* No activity
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|  | c.  | SDP (LASP) (Preamp)* No activity
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| 8. | ADP |
|  | a. | ADP* Completed overdue ADP test reports including FM3 & FM4 TVAC as well as the FM4 vibration test report.
* Organized and scanned ADP/AEB as-run and as-built data
* Completed FM3 and FM4 TVAC and vibration verification reports
* ADP I&T activities:
	+ Obs #1 – No activity
	+ Obs #2
		- Reviewed and approved Obs#2 ADP WOA as-run paperwork
	+ Obs #3 – No activity
	+ Obs #4
		- Reviewed and approved Obs#4 ADP WOA as-run paperwork

SDP* Provided LASP inputs to SDP SN15 & SN16 PER package

Axial Electronics Box (AEB)* Supported the AEB FM5 Pre-ship Review
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| 9. | DSP, Thermal, Systems Engineering, Product Assurance and Management (LASP) |
|  |  | DSP* No activities this month.

Thermal – No activities this month.Systems Engineering and Program Management* Prepared LASP cost to complete proposal
* Submitted LASP cost to complete proposal to UNH

Quality Assurance, Parts, and Materials Engineering* Shipped ADP contamination witness foils to MMS IS contamination engineer.

Supported program as needed |
| 10. | CEB  |
|  | a. | Hardware |
|  |  |  | CEB (Rau, Dors, Bodet, Nolin)* No activity. CEB hardware activities are complete.
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|  | b. | CDPU Software, Support for Operations, I&T and Post-Delivery activities (Needell) |
|  |  |  | * Supported Post delivery activities as needed.
* Continued participation in Commissioning Planning
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| 11. | GSE (Mello, Chutter, Bodet) |
|  |  | GSE Hardware* No activity

FIELDS Simulator* No activity

GSEOS & GSE Software* Support TV
* Support OBS/IS FIELDS testing
* Telemetry screen improvements
* CPT cur/volt logging improvements
* SOC testing
* Keep repository up to date
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| 12. Problems encountered (some resolved) and updates this period |

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|  |  | AEB* [UPDATE] Out of Family Noise on Bias Voltage DAC (AEB FM3, ADP5 Side, TV cold) (PFR-10160.53-94-IP)
	+ - OPEN WORK: DPA on the failed part received, no conclusion drawn.

SDP* Fine wire disconnected - crimp slip (SDP FM8), Open rework (SNs 3, 4) (PFR-10160.53-75-IP)
	+ Inspection revealed the fine wire from the probe/yo-yo assembly had come completely out of the crimp ferrule inside the preamplifier during the TV test.
	+ TV test of SDP SNs 7&8 was completed.
	+ Root cause investigation revealed inadequate control of the crimping process. FRB defined rework and retest activities.
	+ Crimp process redefined and approved
	+ Impact to other units:
		- SNs 3-6 will be reworked
		- New process applied successfully to 7-12
		- New process applies for all subsequent units
	+ NCR to remain open until rework is complete on units already delivered: SNs 3-6. A plan for this rework was presented and agreed at the PSR for SNs 7-10.
	+ UPDATE: The probes were removed from SNs 5&6. Prescribed rework and retest was performed at UNH in April and early May 2013.
		- OPEN WORK: Review of the DPA report received on the failed part.

EDI* Board-level test failure SN6 Gun Beam Board - damaged LVDS chip (PFR-10160.53-110-OP)
	+ The LVDS driver chip was damaged during board-level test on the SN6 Beam board due to a missing EGSE ground.
	+ Proposed Actions/Corrections:
		- Replace the part and inspect. DONE.
		- Correct the test setup and confirm. DONE.
		- Resume board level testing of the Beam Board, DONE.
		- Provide analysis assessing risk, if any, to other components on the board.
	+ UPDATE:
		- SN6 Gun has been placed back in cleanroom environment. Testing will resume in August.
		- Awaiting NCR details and analysis from IWF.
* EDI GDU SN2 open work (PFR-10160.53-101-IP)
	+ GDU SN2 exhibited problems during the Gun calibration and component level TV test. See PFR-10160.53-56 [Thermal Vacuum Com Locks and Fold-Backs (EDI GDU SN2)] and PFR-10160.53-47 [GDE fold-back during SN2 Gun Calibration]. The unit was delivered to GSFC to participate in I&T, but needs to be returned to UNH and IWF for rework.
	+ Rework plan:
		- -Install new UNH-built optocouplers on DEFL1 and DEFL2 board and in any other gun HV amplifiers that have exhibited LED current trends.
		- -Remove 27 Ohm resistor from GUN25V supply line in GDE/Gun harness
		- -Install 20 Ohm resistor on HV-FIL board in Gun
	+ Retest plan:
		- -Gun calibration at IWF
		- Sensor stand-alone vacuum testing at UNH
		- GDU integration and environmental testing
* EDI GDU SN3 open work (PFR-10160.53-103-IP)
	+ GDU SN3 exhibited problems during the component level TV and vacuum tests. See PFR-10160.53-81 [GDE Converter Fold Back and Comm Locks observed during TV test (GDU SN FM3)] and PFR-10160.53-83 [Sensor FPGA reset (EDI GDU FM3)]. The unit was delivered to GSFC to participate in I&T, but needs to be returned to UNH and IWF for rework.
	+ Rework plan: Install new UNH-built optocouplers on DEFL1 and DEFL2 board and in any other gun HV amplifiers that have exhibited LED current trends.
	+ Retest plan:
		- Gun calibration at IWF
		- Sensor stand-alone vacuum testing at UNH
		- GDU integration and environmental testing
* EDI GDU SN5 open work (PFR-10160.53-106-IP)
	+ GDU SN5 exhibited problems during the component level TV and vacuum tests. PFR-10160.53-105 [Red Limit Violations on GDU SN5] and PFR-10160.53-96 [Converter Foldbacks (GDU FM5)]. The unit was delivered to GSFC to participate in I&T, but needs to be returned to UNH and IWF for rework.
	+ Rework plan: Install new UNH-built optocouplers on DEFL1 and DEFL2 board and in any other gun HV amplifiers that have exibited LED current trends.
	+ Retest plan:
		- Gun calibration at IWF
		- Sensor stand-alone vacuum testing at UNH
		- GDU integration and environmental testing
* UPDATE: Anomalously low LED current of channel D5 in Gun FM4 (PFR-10160.53-104-IP)
	+ At IWF: performed test of assembled Gun; deflection channel 5 (DEFL2 board) exhibited a failure: HV output does not work below 1500V. The electronics board stack was disassembled and the following tests were performed
	+ The DEFL2 board was tested on the bench with no problems.
	+ Nothing was found during a visual inspection of the board under a microscope.
	+ During a test in a thermal chamber between -30C and +70C (four cycles), one out of approximately 65 tests (near 50C) showed the problem
	+ Further testing in the temperature range 50C to 60C (approximately 190 tests) did not show the problem
	+ The board stack was reassembled
	+ The problem re-occurred when testing the assembled board stack. Putting a small amount of pressure on the board made the problem disappear. Removing that pressure made it re-appear.
	+ UPDATE:
		- SN4 Gun and GDE are now in calibration. The initial energy level of 1keV has been successfully completed with no adverse trending observed.
* [UPDATE] Negative Current spikes seen on Plate 7 Optocoupler during calibration (GUN SN4) (PFR-10160.53-85-AP)
	+ HK data analysis done at IWF indicates problems with several optocouplers. OC7 shows the isolated downward spikes. Manfred (IWF) is confident that replacing the positive side optocoupler will solve the issue. For OC6 the case is not as clear as we do not understand the behavior, so we may have to replace both optocouplers and maybe also the drive circuit for the LEDs.
	+ An FRB, conducted 4 Jan 2013, defined additional diagnostic steps. Another FRB will be conducted to review the diagnostic results prior to any disassembly
	+ Screening of optocouplers: all optocouplers in Gun FM4 were screened. It is pretty obvious that our screening process is not helping us to identify bad parts. Lack of being able to use elevated temperatures may be the most likely factor.
	+ Further activity with SN4 Gun awaits tiger team recommendation.
	+ 1 Apr 2013: UNH has identified screened IWF HVOCs to use for the rework of this Gun and has provided them to IWF.
	+ Replacement parts have been integrated at IWF, board level testing was successful.
	+ UPDATE:
		- SN4 Gun and GDE are now in calibration. The initial energy level of 1keV has been successfully completed with no adverse trending observed.
* [UPDATE] Failure to set the Wehnelt voltage (EDI Gun SN4, Q4 on HV-FIL board SN4) (PFR-10160.53-78-IP)
	+ During inital tests in vacuum preparing for the calibration of Gun S/N 4 a failure to set the wehnelt voltage occurred (at IWF).
	+ The failure mode could be explained by a damaged transistor on the HV-FIL board.
	+ The HV-FIL board was replaced in SN4 Gun. The suspect board was returned to UNH for test and DPA of the suspected part, Q4.
	+ 8 May 2013
		- The DPA revealed electrical overstress (excessive voltage) applied to the Emitter.
		- Q4 was replaced in HV&Fil board SN4 and the board retest was successful.
		- Since the exact location of HV discharge is unknown it is hard to know if other parts may have been stressed.
		- Clarify the configuration at the time the problem was noticed. Determine what other boards and components might have been overstressed.
	+ UPDATE: 31 May 2013
		- SN4 Gun and GDE are now in calibration. The initial energy level of 1keV has been successfully completed with no adverse trending observed.
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| 13. Issues and concerns |
|  |  | From FIELDS PM* The progress of Gun/GDE activity is much too slow. This is the critical path for GDU and FIELDS. UNH will continue to coordinate with IWF to provide support of testing and assembly activities on site at IWF as needed. Jon Googins will support Gun board assembly at IWF in August.
* In an effort to meet the late September NLT date provided by the project, the SDP team is nesting the assembly and test activities of the last two pairs of deployers much more closely than with previous pairs. Personnel and GSE conflicts will likely be factors. The DPM is working closely with the SDP team to find the optimum path.

From LASP PM* GSFC spacecraft mechanical has indicated that the 50 to 100 Hz sine vibration environment could be a problem even with analytical notches. GSFC mechanical has recommended that Obs #1 vibration test results be evaluated prior to performing any other risk mitigation activities.
* MLI blankets were touching the –Z launch latches on Obs#2. With LASP’s direction the blankets were modified to have acceptable clearances. The templates should get changed. UNH and LASP need to watch this going forward and inspect every observatory closely.
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NCR Summary: Provided separately (Excel file)

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| Activities planned for next reporting period |
|  |  | Management |
|  |  |  | * Begin discussion of science data algorithm topics as part of the weekly FIELDS team meetings.
* Support SwRI review of the FIELDS cost change proposal submitted 31 July.
* Continue to support the GDU tiger team.
* Continue to push open RFAs and NCRs to closure
* Continue to prioritize and coordinate the work of the UNH team and its FIELDS partners. Similarly, prioritize and schedule work in the UNH electronics and machine shops and with outside vendors. Note the following.
	+ FIELDS Team, IS and S/C Partners:
		- Continue to use the weekly FIELDS meeting for coordination of near-term activities. Post-delivery support activities are increasingly the subjects of these meetings. Dave Rau and Scott Tucker are key players in coordinating this support.
		- Coordinate UNH support of the EDI Gun effort at IWF. Googins will travel to IWF in August
		- Coordinate U of Iowa support of Optics/Sensor integration
		- Coordinate delivery of flight spare SCM from LPP
	+ UNH team
		- Completion of the SDP I&T activities will get priority if conflicts of resources, particularly with EDI HVOCs, are encountered.
		- UNH will work with IWF to support its Gun testing and assembly efforts.
	+ UNH Machine Shop:
		- EDI HVOC fabrication. 30 more housing sets are needed.
	+ UNH Electronics Shop:
		- EDI Sensor stack boards
		- EDI HVOC assembly
		- Support for SDP and EDI GDU assembly
	+ BAE:
		- Vibration services for SDP
* Closely monitor status and schedule performance of team members. Identify schedule risks and provide assistance for mitigation if warranted. Work to minimize schedule slippage.
* Coordinate problem investigations and associated resolution.
* Support FRBs;
* Support/staff T/V testing as needed
* Update the Gun and GDE schedule.
* Support the flight opto-coupler manufacture/test;
* Receive delivery of the following items at UNH
	+ S-BEBs & Preamp/Cable assemblies SNs 17&18 (from KTH)
	+ Thermal hardware needed for the remaining SDP and GDU assemblies (from SwRI)
	+ EDI Gun/GDE SN4 (from IWF)
* Prepare and conduct the following PERs and associated TRRs
	+ SDP SNs 15 &16
	+ SDP SNs 17 &18
* Prepare and conduct the following PSRs or Acceptance Reviews.
	+ PSR: SDP 15&16
* Make or coordinate delivery of the following to GSFC IS or S/C teams
	+ SDP SNs 13&14
* CDRL and contract deliverable submissions:
	+ None planned
* Support/staff T/V testing as needed
* Update the Gun and GDE schedule
 |
|  |  | Product Assurance, Configuration Management, Parts, Materials, Facilities |
|  |  |  | Turco/Salwen* Support HVOC assembly
* Support SDP TV testing
* EIDP uploading

Software Product Assurance (Heirtzler)* Continue support for EDI and/or CDPU software testing as needed
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|  |  | Systems Engineering & FIELDS I&T |
|  |  |  | Rau / Dors* Support SDP 15/16 PER
* Continue submitting FIELDS verification material for closure
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|  |  | Post-Delivery Support |
|  |  |  | IS and Observatory Support FIELDS* Support ADP +Z RE install and functional testing on OBS-4
* Support 2nd and 3rd motion and functional testing on OBS-4 mag booms
* Delivery and integration of SDP 13/14 onto OBS-4
* Support magnetometer integration onto OBS-3 booms
* Support OBS-1 Magnetics Swing Test
* Support OBS-1 Vibration testing
* Support OBS-1 post Vibe ADP RE deployment and functional
* Support OBS-2 Acoustics Test
* Complete Confined Space Training Course in preparation for TV test support
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|  |  | Science |
|  |  |  | SWT and SWG* Support science telecons as needed

Science data processing activities* Support data processing activities as needed.
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|  |  | AFG |
|  |  |  | * Follow up on LM6142 concerns
* Clean up documentation, etc., for flight hardware deliveries
* Continue data reduction/software development activities
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|  |  | DFG |
|  |  |  | * Support of in-flight calibration prearrangements at UCLA and Goddard
* Remote support of DFG functional testing at Goddard
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|  |  | SCM |
|  |  |  | * FMS overall bake-out pending.
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|  |  | EDI |
|  |  |  | Top Level* Start GDU SN 4 Assembly
* Prepare procedures and scripts for Observatory TB/TV

Sensor* Ship set 3 - SN 7
	+ MCP module assembly, final sensor assembly and vacuum test
* Ship set 3 - SN 8
	+ Thermal test
	+ Send boards out for parylening
* Ship set 1 - SN 9
	+ DC Beta Test of HV Capacitor and Preamplifier Board
	+ MCP Supply Board BLT

Gun - UNH efforts* Board level test of HV-FIL board SN 9
* Refurbish and test beam generation system SN 5 (spare)

Gun - IWF efforts* Ship set 4 - Gun SN 4
	+ Gun calibration; deliver to UNH
* Ship set 4 - SN 6
	+ Diagnose problem with insufficient HV stack output
* Ship set 3 - SN 7
	+ Board level tests

Optics* Continue work on ship set 4 and Flight Spare

Software* Continue impementation and testing of electric field mode

HVOCs (UNH)* Conducted the post screening review of the fully tested 43 devices.
	+ Per tiger team agreement, retested successfully 6 device increasing the drive current for the dynamic profile… ie.. Currently in burn-in #3, 160 hours @70C, If=0-15mA peak, Vcc=6KV, 20% duty cycle LED
* Prepared kits for next 45 HVOC's. Qty 30 kits mechanically assembled.
* Completed potting of the next 30 of 45 devices.
* Qty 15 kits ready for initial bakeout and LED install.
* Cleaning up minor issues of screening test set-up.
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|  |  | SDP/LVPS/BEBs/Preamp/Probe (KTH/ Oulu/IRFU) |
|  |  |  | SDP:* Participate in PER, PSR and other reviews.

S-BEB’s & Preamp & Probe:* Deliver SDP BEBs for SDPs 17-18 to UNH
* Prepare the test reports for the all shipped units.

A-BEBs and LVPS:* No activity planned

KTH Management and Product Assurance:* Write the inspection report of the repaired AEB FM3 BEB5
* Inspection of new SDP HW FM17-18
* Submission of Final inspection report for SDP FM15-18
* Acceptance data package preparation for all delivered hardware
 |
|  |  | SDP/LVPS/BEBs/Preamp/Probe (UNH) |
|  |  |  | UNH SDP:* Environmental testing of FM 15-16.
	+ FFT, PER, TRR, vibration test for SNs FM15 & FM16
* FM18 Back Plate, BEB's/Pre-amps/Booms, & thermal hardware
* Build and conduct FFT on FM 17-18.
* Spare FM2 kit is largely complete with the Outer Cylinder final drilling and tapping now complete, QA will follow later this week. Only outstanding hardware is surface treatment of spare RWC hardware, the quote is in process

LVPS and BEBs* Coat LM124 on AEB FM3
* Do final test of FM5 LVPS before placing in storage
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|  |  | ADP/SDP/DSP (LASP) |
|  |  |  | QA/Parts/Materials* Support the project as necessary.

DSP – No activityADP* Support I&T at Goddard as needed

AEB – No activitySDP* Support SDP integration activities as requested by UNH.

ThermalSystems and Program Management* Focus on EIDP and verification tasks
* Support any UNH requests for cost justification with the FIELDS proposal to SwRI
 |
|  |  | CEB Hardware |
|  |  |  | FM4 and FS CEB* Flight spare kits are complete. No further activity is planned.
 |
|  |  | CDPU Software, Support for Operations, I&T and Post-Delivery activities (Needell) |
|  |  |  | * Support Post Delivery.
 |
|  |  |  |  |
|  |  | GSE (Mello, Chutter, Bodet) |
|  |  |  | GSE hardware* No planned activity

GSEOS & GSE Software* Support OBS/IS FIELDS testing
* Telemetry screen improvements
* SOC testing
* Keep repository up to date

FIELDS Simulator (FS)* No planned activity
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|  |  |  |

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