



Responses to Actions from previous meeting (SUG9)

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SOFIA Users Group #10

Nov 2016





SUG9 Recommended:

1. Talks at AAS meetings
[Outreach presentation (Sanskrit)]
2. Gen 3 Science Instruments: select both
3. Future Science Instrument Calls: efficiency of management, use 7120.8
4. Water vapor monitor
5. Characterize vibration environment for science instruments and update requirements

Education Office: discuss why the scope and reach of the highly successful SOFIA Airborne Ambassador's program has be reduced from National to local

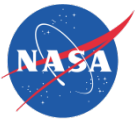




2. Gen 3 Science Instruments: select both

R9.2: Given that each of these instrument projects is scoped at roughly 25% of the SOFIA annual operating cost, we strongly recommend that the Project thoroughly explore the trade space for selecting both of them. Phasing their sequential delivery 1 year apart and modest reallocation of operating costs with impact to realized flight hours should be considered in this trade.

- At the time of SUG9, two instruments were developing instrument concepts for selection
- The HIRMES proposal from NASA/Goddard was selected and will utilize the Gen 3 budget
- To ensure continued development of science instruments at a rapid pace, a Gen 4 science instrument call is being planned for 2017



3. Future Science Instrument Calls: efficiency of management, use 7120.8



R9.3: The SUG recommends that the NASA (as opposed to USRA) Project and Program reach out to GSFC Wallops Flight Facility to better understand how suborbital projects with safety-critical content can be efficiently managed under the 7120.8.

- SUG feedback has been passed to HQ
 - Program Scientist K. Sheth engaged to reduce burden
 - e.g. Center-level Tiger Team
- NASA HQ is beginning planning for the Gen 4 call
 - Anticipated to be issued through ROSES in 1st half of 2017
 - At least 1 new SI
 - Principal Investigator versus Facility Science Instrument ??
 - Joint German/US projects?
 - Modular science instruments?
- Workshop in early 2017 on SOFIA scientific instrumentation?

We shall have a topical SUG meeting on these issues





4. Water Vapor Monitor



R9.4: The SUG recommends that Project Management ensure that staffing for the WVM (currently at a fraction of 1 individual's time) not continue to be a pacing item for resolution of this long standing problem.

- The WVM development plans were updated so that correct WVM data would be reported to the airborne control system (MCCS)
- The required hardware/software upgrades were made, and installed on the aircraft
- Ground testing with aircraft successful for hours of operation
- Mission directors report the WVM has been either inoperative or generating not-credible data in flights due to intermittent problems
- Fault-tree analysis is underway
 - Both ARC and AFRC personnel
- Possibility of reinstalling old WVM if data critically needed



R9.5: The SUG recommends that the unexpected acoustic/vibration environment that was encountered during HAWC+ commissioning be characterized, with SI-to-telescope system Interface Requirements updated accordingly, to enable future instrument projects to design and verify to the correct operational environment.

- the in-flight vibration environment has been characterized (power spectrum click)
- flew with 3-axis accelerometers on HAWC+
- the HIRMES team has been briefed, including the accelerometer data
- HIRMES team has requested more accelerometer data from the flange, to assist robust engineering of their ADR suspension; devices installed for current (GREAT) series

