

# SOFIA User's Group Perspective

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# The SOFIA Users Group (SUG) was chartered during 2012, replacing the SOFIA Science Steering Committee

- The SUG is chartered by USRA to advise the SMO Director on matters pertaining to SOFIA mission effectiveness.
  - Serves as a conduit for the interests, priorities and concerns of the astronomy community that is using, or is interested in using SOFIA.
- The SUG is NOT chartered by NASA and does not advise NASA.
  - Many aspects/issues/concerns impacting SOFIA effectiveness are outside the SUG advisory purview
- The SUG meets biannually, and will hold its 12<sup>th</sup> meeting tomorrow
  - Committee and Project polled for topics ahead of each meeting
  - Agenda then discussed with Project and corresponding presentations are developed for the SUG
- Each SUG meeting yields a written report to the SMO Director
  - All reports are publically available on the SUG website along with presentations by the Project:
    - <https://sofia.usra.edu/science/sofia-overview/advisory-groups/sofia-users-group-sug>
- The SMO has been generally responsive to SUG advice and provides excellent support for conductance of SUG meetings
  - Example topics for which change was effected: adequacy of GO funding, software staffing, rapid L3 data product delivery, utilization policy issues, solicitation methodology for new instrumentation

# SOFIA team performance has steadily improved with operations experience

- Notable areas of improved performance:
  - Strong consistent effort to survey GO community in order to reveal operations factors that limit science productivity and develop mitigations for them
  - Relationship between science and aircraft operations appears to be very good and tightly focused on mission science productivity
  - Good schedule performance on delivery of Level-3 data products
  - Good professional outreach effort
    - Two SOFIA conferences organized during FY-17 (Pacific Grove, CA & Ringberg Castle Germany)
    - Factor of ~3.7 US oversubscription on cycle 5 CfP, ~4.1 on cycle 6 CfP
    - Growing publication rate going into 2017
  - Significant improvement in public and professional outreach
    - Particularly science-oriented posts on social media
  - Very strong and effective level of Project Scientist and Program Scientist engagement
    - Strong focus on science productivity and team building
  - Resilience to dealing with aircraft problems and successful implementation of key aircraft upgrades

## Several open operations issues impacting science productivity

- GO funding within the Priority 2 selection band is delivered too late to enable GO staffing (post docs and graduate students) – [SUG R11.1](#)
- Long standing problems with interpretation of WVM data are limiting the science productivity of the observatory -- [SUG R11.2](#)
- FIFI-LS realized productivity of 360 flight hours per paper falls short relative to the SOFIA Program goal of 20 hrs/paper – [SUG 11 report](#)

Overall – SOFIA science productivity and operations efficiency are increasing with experience and new instrumentation

- Dedicated team pulling together
- upGREAT and HAWC+ instrument upgrades successful and impactful
- HIRMES next generation instrument in development
- Third generation instrument and upgrade solicitation schedule will enable incorporation of resulting new science capability into Senior Review proposal
- US General Observer CfP oversubscription on increasing trend
- Overall accomplishment, evolving instrument capability, and SOFIA team focus can yield successful Senior Review proposal