



SCIENCE

Plans for the SOFIA 2nd Generation Instruments AO

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SOFIA 2nd Generation Instruments



This presentation discusses the process for NASA to acquire and fund additional instrument capabilities for SOFIA.

This presentation does not discuss the process to acquire additional German instrument capabilities.

Even where it is not explicitly written down on the charts, it is the assumption, plan, and desire that the two processes will be coordinated in such a way that

- The overall SOFIA Observatory capabilities will be improved through the totality of additional instrument capabilities acquired by both countries.
- Each country's requirements (e.g. procurement regulations, decision process, funding arrangements) are respected.

SOFIA 2nd Generation Instruments



SOFIA's instrument suite can be upgraded, enhanced, refreshed throughout the life of the observatory

- Always has been part of the SOFIA program plan
- Funding for new U.S. instrument calls is one component of NASA's SOFIA budget
- Funding for NASA selections will be available in FY12 or FY13, so planning is underway for a 2011 or 2012 solicitation

SOFIA development priorities for project funding are

- Begin science operations and ramp up flight hours
- Initiate second generation science instrument(s)
- Complete deferred observatory and systems upgrades

SOFIA 2nd Generation Instruments



The AO will solicit:

- Facility instruments
 - General purpose instruments that are maintained and operated for GOs by SOFIA Science Mission Operations
- Major Instrument upgrades
 - Major upgrades and modifications to existing instruments
- Smaller (less expensive) investigations: Special purpose instruments, flight demonstration of new technology with focused science
 - Special purpose instrument for observations not practical with a general purpose instrument; available to GOs through partnership with the instrument team
 - Flight demonstration (i.e., instrument or instrument upgrade) of high risk/high payoff technology and science investigations

SOFIA 2nd Generation Instruments



There are several issues which must be established early so that the solicitation can be carried out smoothly. These include

- Setting up appropriate firewalls at ARC and DFRC
- Establishing the role of USRA and setting up any necessary firewalls, contract clauses, conflict avoidance plans, etc.

Because these issues have not yet been resolved, and because the necessary legal protections are not yet in place, public discussions are still very general.

SOFIA 2nd Generation Instruments



A notional schedule §

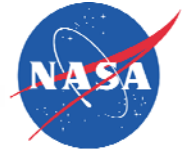
- Asilomar workshop: June 2010
- Establish firewalls and legal protections: 2010
- Start writing draft solicitation: Summer 2010
- Draft solicitation released: Late 2010/Mid 2011
- Solicitation released: Spring 2011/Early 2012
- Proposals due: Mid 2011/Spring 2012
- Selection announced: Late 2011/Fall 2012
- Contract initiated: Early 2012/Late 2012

§ Notional (adj.): theoretical, speculative, imaginary, fanciful

Major uncertainty in schedule is budget driven

Schedule will be adjusted as necessary to coordinate with German process and with SOFIA platform development progress

SOFIA 2nd Generation Instruments



Basic principles/assumptions for U.S. process:


- The solicitation will be released by SMD at NASA HQ, and SMD will take full responsibility for the solicitation and the solicitation/evaluation/selection process.
- SMD has established processes and practices for soliciting and selecting instruments, and the community generally understands and trusts those processes and practices; therefore, to the greatest extent possible, existing SMD processes and practices will be used.
- The solicitation will be fully open to the science community; therefore care must be taken to assure that there is no appearance of favoritism by the SOFIA Program (ARC, USRA) to any proposers.
- The selected investigation must be technically feasible within the SOFIA Observatory system; therefore participation by the SOFIA Program in providing technical constraints for the AO, technical information for proposers, and technical evaluation of proposals is critical.
- Proposers who are knowledgeable about the current capabilities and future possibilities of SOFIA is critical; therefore the SOFIA Program must be proactive in creating the conditions for excellent proposals.

SOFIA 2nd Generation Instruments



The AO Process

- SOFIA solicitation for new instruments will be issued as an amendment to the SALMON AO
 - Stand Alone Mission of Opportunity Notice
 - Available at <http://nspires.nasaprs.com/>
- The SOFIA instrument call is a “Focused Mission of Opportunity” in SALMON parlance
 - Similar to the recent instrument call for the ExoMars mission
- A SOFIA Instrument AO Library has been recently initiated and will be populated as documents are finalized
 - Available at <http://soma.larc.nasa.gov/SOFIA/>
- The standard SMD AO process will be used

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*Science Office for Mission Assessments (SOMA)
LaRC - 2010*

Stratospheric Observatory For Infrared Astronomy Additional Information Home Page

- + [SOMA Home](#)
- SOFIA Add'l Info**
- + [Reference Library](#)
- + [SALMON AO Additional Info](#)



"The Stratospheric Observatory for Infrared Astronomy (SOFIA), a joint program by NASA and the German Aerospace Center,"

+ [NASA SOFIA Mission Page](#)

Page Under Construction

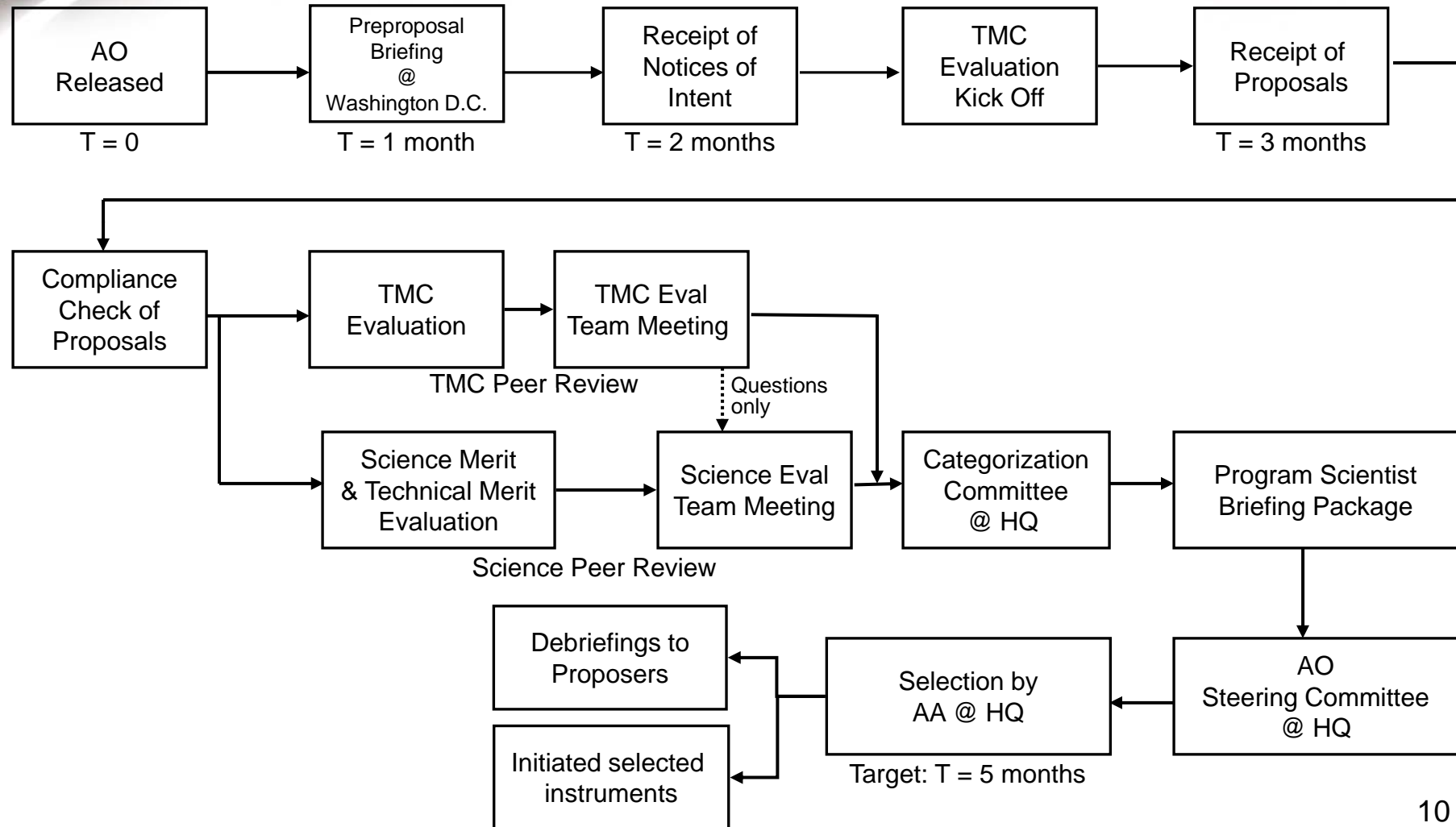
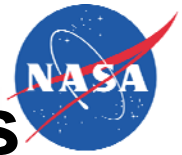
SOFIA In Flight (Credit:NASA)

Last Updated

06.07.10/9:30A.M.

"NASA intends to solicit instrument investigations for the SOFIA Observatory. The solicitation will be implemented as an amendment to the SALMON AO and will be a "Focused Mission of Opportunity" in SALMON parlance. The standard SMD AO process will be used. A draft solicitation is planned for sometime in the late 2010 to mid 2011 timeframe. Further information may be found in the presentation "NASA's Future Instrumentation Plans" presented by Paul Hertz at the SOFIA workshop on Scientific Opportunities For new Instrumentation, Asilomar 2010 (<http://www.sofia.usra.edu/ScienceWorkshops/asilomar.html>)."

Standard SMD Proposal Evaluation & Selection Process



SOFIA 2nd Generation Instruments



How will this Asilomar Workshop provide input for the SOFIA Instruments AO

- The workshop may identify areas of special interest (“NASA solicits proposals in any area, but NASA is particularly interested in proposals in the following areas.”)
- The workshop may stimulate discussions on the kinds of instrument investigations, including categories of instruments, that capitalize on the promise of SOFIA
- The workshop may lead to suggestions to NASA on what to solicit and how to improve the AO process.
- The workshop will enable discussion between SOFIA users and instrumentalists that will result in compelling science and instrument concepts and, hopefully, better proposals

QUESTIONS

