



NASA's SOFIA Mission Stratospheric Observatory For Infrared Astronomy

Dear Administrator / Supervisor,

Your school or facility could be one of the exceptional few represented in NASA's Stratospheric Observatory for Infrared Astronomy (SOFIA) Cycle 3 Airborne Astronomy Ambassador (AAA) Program. SOFIA is a 747SP aircraft carrying a 2.5 meter-diameter telescope dedicated to astronomical research at altitudes up to 45,000 feet. Educators participating in the AAA program will fly on overnight missions in the pressurized main cabin with scientists and technical support personnel.

This is a unique and remarkable opportunity, and will lead to media coverage of your school/facility. The opportunity requires commitments, described below, from the selected educators and their institutions. Please take a moment to review this information, before initialing and signing the support letter for the AAA educator(s) from your institution. The same information has been provided to the applicants.

SOFIA AAA aims to:

- Enhance Science, Technology, Engineering, and Math (STEM) education in communities across the U.S.
- Support NASA's objective to advance the Nation's STEM education by engaging students, teachers and faculty in NASA's missions and unique assets.
- Contribute to general public understanding of the value of scientific research.
- Foster national and international visibility of NASA's SOFIA mission.

SOFIA AAA educator team members each commit to:

- Participate in overnight observing mission(s) aboard SOFIA during science flights likely to be scheduled during May, June, and September 2015 (actual dates are TBD).
- Participate in pre- and post-flight training and meetings associated with SOFIA flights and scientific research.
- Travel to SOFIA's base in Palmdale, Calif. (near Los Angeles) on a Sunday or Monday and depart the following Friday or Saturday. Please note, this means leaving your classroom / work site for a full week.
- Regular communication with SOFIA program staff and scientists prior to arrival at NASA's Armstrong Flight Research Center (AFRC) Building 703 research aircraft facility in Palmdale.
- Develop or modify existing materials, and implement a SOFIA-oriented classroom curriculum component and/or informal education curriculum component of their design.
- Plan and implement a SOFIA-oriented public outreach component of their design.
- Successfully complete the online Astronomy For Teachers course administered by Montana State University and the National Teacher Enhancement Network (NTEN). The course will be held mid-February – mid-May, and will require approximately 12 – 15 hours of work per week.
- Active participation in ongoing evaluation processes and reporting of activities.

SOFIA offers to Cycle 3 educator Ambassador teams:

- The opportunity to be active and important participants in the education and public engagement work for this unique and high profile NASA program.
- Special access to NASA scientists, engineers, and other mission personnel.
- An Active Astronomy infrared light curriculum kit for each team member.
- Support materials for education and outreach, e.g. SOFIA lithographs, brochures, stickers, and PowerPoint presentation files.

SOFIA AAAs will become:

- Better informed regarding how frontier scientific research is conducted.
- Better informed regarding the breadth and depth of contemporary astrophysics research.
- Better prepared to advise students on careers in STEM fields.
- Members of the SOFIA AAA educator network, contributing to mutual professional development and continued AAA program implementation via electronic communications and social networking.

Important note regarding AAA Cycle 3 flight dates:

- Flights likely will be during May, June or September, 2015; specific dates are yet TBD. **Most teams will be scheduled on science flights during the school year.** SOFIA's science flight schedule is potentially subject to change up to the actual flight dates.
- Tentatively, a given AAA team will fly twice during their week's stay in Palmdale, CA.



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Support provided by SOFIA Outreach:

- Travel expenses, housing, and meals spanning the dates of required pre-flight meetings, flights, and required post-flight meetings.
- Online training course registration fee and graduate course credit.
- Substitute teacher costs, to be reimbursed to the school district.
- Letter certifying additional pre-flight, flight, and post-flight hours of professional development.

Two-person Team Eligibility and Composition Requirements:

- One member must be a full-time science teacher (formal educator) in either middle school or high school.
- The second member may be an in-service formal (classroom) educator in any subject and grade, or an informal (museum, science center, planetarium, etc.) educator, or a community college instructor, or an amateur astronomer with an extensive outreach history.
- Complete application (including essays and support letters) must be received in electronic form by the **December 22, 2014** deadline.
- Participants must be able to walk up a steep and narrow stairway unassisted, sit for an extended period of time in a pressurized cabin, and carry flight materials (personal items, briefing books, etc.) unassisted.
- Participants also must be able to meet the NASA AFRC flight surgeon's safety requirements, including being able to assist in the evacuation of the aircraft in the event of an emergency.
- AAA program applicants must be a US citizen or legal resident teaching in a U.S. school.

Selection Process:

- Applications received by **December 22, 2014**, via website. No faxed applications will be accepted. No mailed applications will be accepted.
- Both team members must submit applications and all attachments (see details below).
- Teams will be selected based on the information in the application and in the essays.
- Selected teams will be notified in February 2015.

We truly appreciate the support for your applicant!

Sincerely,

Dr. Dana Backman, SOFIA Outreach Manager
Coral Clark, SOFIA Education Programs Co-Manager
Pamela Harman, SOFIA Education Programs Co-Manager

Answers to some FAQs are available on our website at:

<http://www.sofia.usra.edu/Edu/programs/ambassadors/faq.html>

For further information, please contact Pamela Harman at: pharman@seti.org or (650) 960-4523.