

SOFIA's Outreach Programs: Partnerships on Earth and in the Sky



Stratospheric Observatory for Infrared Astronomy

SOFIA



- **Overarching Goals:**
 - Enhance STEM education in communities across the U.S.
 - Inspire the next generation of explorers, aligned with NASA's goals.
 - Contribute to public understanding of the value of scientific research.
 - Foster international visibility of SOFIA's achievements and discoveries.
 - Support the scientific staff promoting SOFIA to the astronomy community.



SOFIA E/PO Flagship Program: AAA = Airborne Astronomy Ambassadors



Goal: Educators understand research processes and pass that understanding along to students, colleagues, and fellow citizens

- Teams of 2 formal (classroom) & informal (museum, amateur astro club, etc.) educators selected to fly on SOFIA as partners with teams of astronomers.
- Chosen via national calls for applications aligned with Guest Investigator calls
- Criteria in peer review of AAA applications:
 - Quality of plans for post-flight E/PO impact in classroom and community;
 - Geographic and demographic diversity.
- Ambassadors training:
 - Montana State University on-line intro astro class with SOFIA-specific module;
 - Communication with research partners before SOFIA flight series to understand observing project.
- Post-flight:
 - Ambassadors supported by SOFIA Outreach to fulfill proposed STEM education initiatives in their respective schools & communities;
 - Ambassadors become a growing on-line support community.



Airborne Astronomy Ambassadors 2011 Pilot Program Cohort



Stratospheric Observatory for Infrared Astronomy
SOFIA



**Mary Blessing, Herndon, Va., and Cris DeWolf, Remus, Mich.,
with Dana Backman (SETI Inst.)**



**Pamela Harman (SETI Inst.) with Margaret Piper, Frankfort, Ill.,
and Kathleen Fredette, Palmdale, Calif.**



**Marita Beard, San Jose, Calif., and Theresa Paulsen,
Mellen, Wis., with Coral Clark (USRA)**



**Cecilia Scorza (DSI) with Wolfgang Wieser, Munich, German,y
And Jörg Trebs, Berlin, Germany**

AAA Cycle 1 Cohort: 26 educators from 15 states to fly in 2012-13



Melvin Gorman



Gordon Senko



Ira Hendon



Vicente Washington



Jennifer Carter



Glauett M. Ede



Chelen Johnson



Constance Garner



Clifford Denstman



Susan Groff



Mike Orino



John Clark



Matt Cates



Dan Ruby



Ryan Murkwitz



John Walsh



Adrianna Blumberg



Barbara Arzame



Pamela Reeves



Anna Smith



David M. Blank

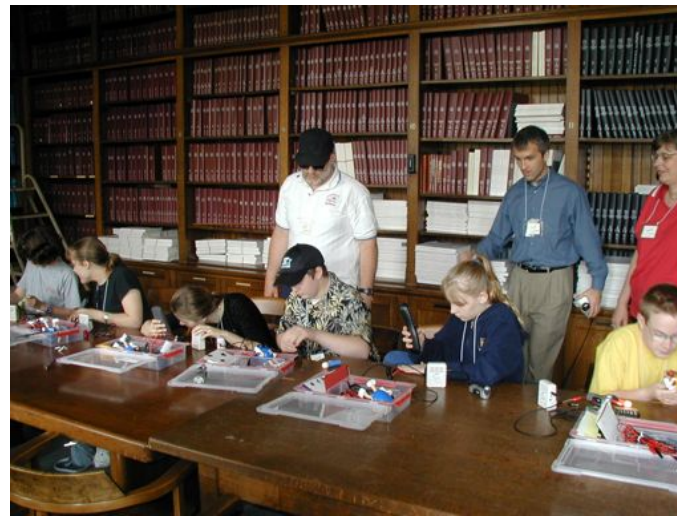


Carvyn Bushman



Other Supported Programs

- Yerkes Observatory (HAWC) E/PO program
 - YAAYS & SEES programs for students with sensory handicaps



Yerkes Obs.
SEES program

- U.T.-Austin & U.T.-Arlington
 - Professional development programs for classroom teachers and informal (museum) educators



SOFIA E/PO programs to be added, FY13+



EP = Earth Partners

Goal: educators have mentoring relationship with SOFIA scientists & engineers

- Individuals or teams of educators; modeled on the ASP's Project ASTRO
- Partnered by Outreach with local SOFIA scientists; not trained for flights
- Could serve as prelude to AAA participation

USRP/EAP/REU = Research experiences for undergraduates

- Summer fellowships at Ames and Dryden for select undergraduates
- Exposure to front-line science and engineering research
- Aimed especially at participants from institutions of under-served populations
- Connect w/ e.g. Pre-REU bridge program administered at S. Carolina State (an HBCU)

SFE = Science Faculty Enrichment program

- For college and university educators not involved in research
- Mentored by SOFIA scientists & engineers regarding front-line research
- Summer workshops managed by Outreach
- Aimed especially at participants from institutions of under-served populations
- Could be parallel with their students' research experience