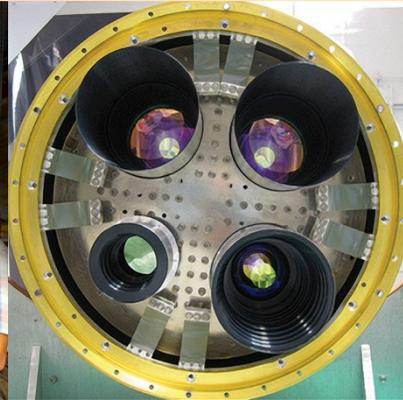
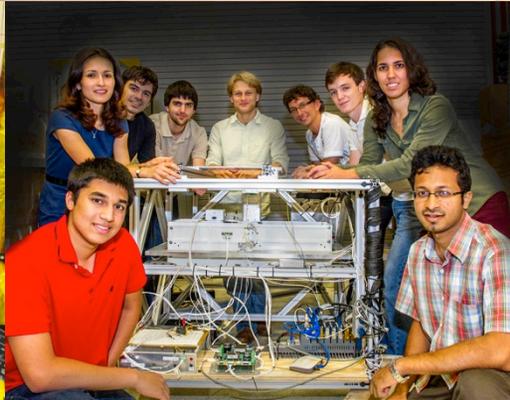
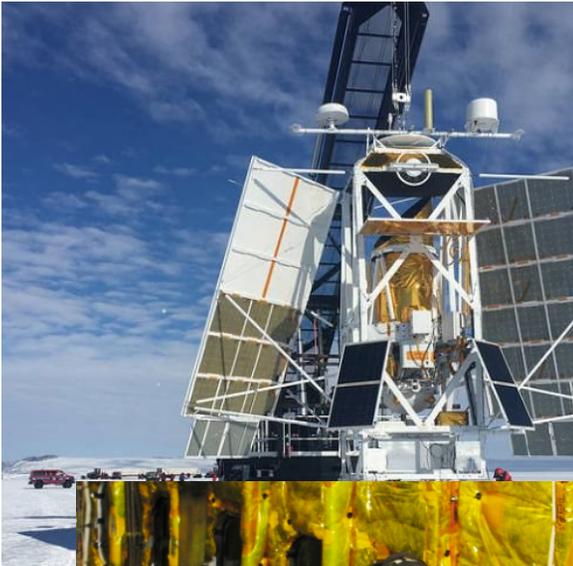
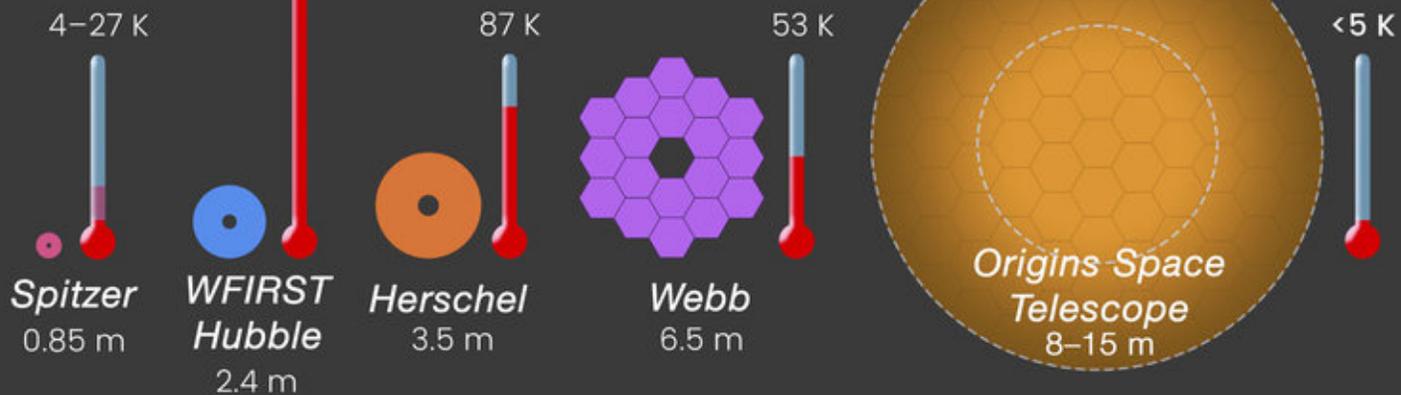


# Far Infrared Next Generation Instrumentation Community Workshop



March 23,  
2017



## Discussion Introduction & Lessons Learned

Desire community input on how to better serve the far-IR (20-600 micron) instrument builders.

Majority Call for Instrumentation Proposals (CfP) are in annual ROSES announcement

<http://solicitation.nasaprs.com/ROSES2017>

- APRA/Astrophysics Research (due in March)
  - Balloon, Sounding Rocket, (low TRL) Detector Development
- SAT/Strategic Astrophysics Technology (due in March)
  - mid TRL (3-6) tech development for Exoplanet, Physics of Cosmos, and Cosmic Origins  
“strategic” mission/mission concepts (not competed missions)

These alternate every other year

- PICASSO/Planetary Instrument Concepts for the Advancement of Solar System Observations (solicited in 2017 Step-1 Sept, Step-2 Nov)
  - low TRL
- MATISSE/Maturation of Instruments for Solar System Exploration
  - mid TRL

# ROSES Solicitations

## C.24 INSTRUMENTS FOR GONDOLA FOR HIGH-ALTITUDE PLANETARY SCIENCE

**NOTICE:** The Planetary Science Division may solicit proposals for this program element as part of ROSES-2017. Draft text for this program element was released as [program element C.26 of ROSES-2016](#). When the final text for this program element is issued it will be as an amendment to ROSES-2017 at least 90 days in advance of the Step-2 proposal due date.

### GHAPS / Instruments for Gondola for High-Altitude Planetary Science

- Wavelength focus is 300 nm to 5 um, however it will fly above 99.5% of the atmosphere.

## D.13 SOFIA NEXT GENERATION INSTRUMENTATION

**NOTICE:** NASA expects to issue a call for proposals for the development of the next generation of instrumentation for SOFIA in the late summer / early fall of 2017. Final text will be released by Amendment to ROSES-2017 at least 90 days prior to the due date for proposals. Until then the due dates will appear as TBD in Tables 2 and 3.

TODAY's  
Discussion  
1:30-3:15pm

## Others....

- Flight Opportunities Program provides a “ride” if you provide the instrument
- SBIR/Small Business

# SOFIA Instruments



- Next Generation Instrument Call in ROSES-2017
- We still are working how to best do instruments on SOFIA, and wanted to share some lessons learned from the past call how we are doing things differently this time.

**TODAY's  
Discussion  
1:30-3:15pm**



Olive branch

# Collect and listen to community input



## ■ The Lesson (What Did We Learn?)

- The community should have the opportunity to provide input into the actual call itself; solicit feedback before the final Call for Proposals (CfP).

## ■ The Description (What Went Wrong?)

- 3<sup>rd</sup> Gen released the CfP, followed by a FAQ session; it was difficult to change the timeline or specifics in the CfP.

## ■ The Mitigation (What Can We Do Differently?)

- Hold workshop(s) and allow for community feedback on draft CfP prior to the release of the final CfP;
- Release of draft call and sufficient time for community feedback to be incorporated into final CfP.
- Current Mitigations:
  - Mar 23<sup>rd</sup> Workshop prior to finalization and release of draft CfP
  - Add a plan for a Q&A webex/telecon/pre-proposal workshop (before final CfP)

# Provide the best opportunity for “cutting edge” instrument



## ■ The Lesson (What Did We Learn?)

- We limited our opportunity for “cutting edge instrument technology” by not allowing technology development (requirement of TRL6 at CSR/Concept Study Report) and only allowing for 2 year development.

## ■ The Description (What Went Wrong?)

- 3<sup>rd</sup> Gensolicitation had strict cost/schedule requirements.

## ■ The Mitigation (What Can We Do Differently?)

- Asking the community for ideas to optimize the approach for an airworthy instrument development with “cutting edge performance.”

# Clearly identify the contents of the Concept Study Report



## ■ The Lesson (What Did We Learn?)

- Provide an example and/or more specific information regarding what is required in the Concept Study Report (CSR) and how the CSR is used in the NASA project flow (NPR 7120.5).

## ■ The Description (What Went Wrong?)

- 3<sup>rd</sup> Gen timeline from selection to delivery assumed the CSR would serve as a PDR-ready (end of Phase A) product.

## ■ The Mitigation (What Can We Do Differently?)

- We are considering re-phasing the timeline from selection to delivery.
- A detailed list of the CSR contents will be in the CfP.
- Provide clearer requirements for the development process, including technical reviews, airworthiness/safety standards, and approaches for tailoring and deviations.