SOFIA Cycle 2 Proposal Solicitation

B-G Andersson
USRA
SOFIA Science Operations Manager

SUG meeting April 26, 2014
SOFIA Cycle 2 [U.S.] Call for Proposals

Stratospheric Observatory for Infrared Astronomy
(SOFIA)
Observing Cycle 2
Call for Proposals
April 26, 2013

This document and all other information pertaining to SOFIA observing Cycle 2 may be found at http://www.sofia.usra.edu/Science/proposals/cycle1.
Cycle 2 Assumptions and Background
Cycle 2 “Boundary Conditions”

- Cycle 2 will be open to world astronomical community
- Period offered: January–December 2014 in four observing campaigns
- Intermixed with observatory development and instrument commissioning
- No Southern Hemisphere deployment planned
- Aircraft “Heavy Maintenance” (“D–Checks”) excludes observations in June – October 2014

- Approximately 175 hours of time will be offered in the US call and approximately 60 hours for GTO programs
- Approximately $600k available for GI grants
- Director’s Discretionary Time route becomes available at FOC (Currently expected by September 2013)
## Cycle 2 Proposal Solicitation & Selection Time Line

### US queue:

<table>
<thead>
<tr>
<th>Event</th>
<th>2013 dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call for Proposals Released</td>
<td>April 29</td>
</tr>
<tr>
<td>Delaying the release until Monday allows the GREAT team to incorporate the results from their April commissioning flights in the call (ROC)</td>
<td></td>
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<tr>
<td>Update “opportunity” planned for</td>
<td>June 1</td>
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<tr>
<td>Proposal deadline</td>
<td>June 28</td>
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<tr>
<td>Technical Review</td>
<td>early August</td>
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<td>Peer Review</td>
<td>August 19-21</td>
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<td>Directors’ Review</td>
<td>Mid September</td>
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<tr>
<td>Announce Selections</td>
<td>~September 20</td>
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<tr>
<td>Phase 2</td>
<td>October</td>
</tr>
<tr>
<td>Cycle starts (nominally)</td>
<td>January 1, 2014</td>
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<tr>
<td>First Science Campaign starts</td>
<td>February 11, 2014</td>
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Cycle 2 Web page

Cycle 2

The SOFIA Cycle 2 Call for Proposals (CfP) has been released. This call solicits observing proposals for approximately 175 hours of science observing using SOFIA. It is being issued on behalf of NASA by the Universities Space Research Association (USRA).

The proposal process consists of two phases. Phase I requires the preparation and submission of a scientific justification, a feasibility analysis and a high level description of the proposed targets and observations. The peer review and proposal selection are based on the Phase I submission. Proposals that are awarded time will be required to submit detailed observation specifications during Phase II.

A formal update to the CfP is scheduled for June 1, 2013. This will allow us to disseminate knowledge about observatory and instrument capabilities gained from the analysis of data from commissioning flights currently underway. We do not foresee any major changes from the capabilities as described in the Observer’s Handbook for Cycle 2, released concurrently with the CfP on April 26, 2013.

The deadline for submitting proposals is June 28, 2013. Proposal selections will be announced in September, 2013, and the Cycle 2 observing period is from February to December, 2014.

The CfP document links to the Observer’s Handbook for Cycle 2, and other details about preparing and submitting a proposal may be found at the "Cycle 2: Phase I Information" link below.

Cycle 2: Phase I Information

Cycle 2: Phase II Information

Contact the SOFIA help-desk
Cycle 2 Details
Web
Instruments & Capabilities in the Call

- FORCAST, HIPO: All modes
- FLITECAM: Imaging and grism except for long wavelength (\(l > 3.8\) mm)
- GREAT:
  - L1, L2: All frequencies
  - M: OH, 2.51 THz, line only
- EXES: High-resolution mode, shared risk
  - Limited to “about one flight”
- FIFI–LS: proposals solicited to join the “Science Verification Team” (US will allocate time and funding to successful GIs)
  - Limited to “about one flight”
- FDC/FPI+: **Not** offered as science instrument in Cycle 2
## Cycle 2 Detailed Planning Overview

### Cycle 2 Start

- Bold Outline: Actual Flight / Line Ops
- Red Outline: Platform Integration Opportunity

### FIFI-LS Comm. Part 1

- **February 2014**
  - **Install**
  - **EM/LO**
  - **LO**
  - **Prep**
  - **2 Flights**
  - **Remove**

### EXES Comm. Part 1

- **February 2014**
  - **Install**
  - **EM/LO**
  - **LO**
  - **Prep**
  - **2 Flights**
  - **Remove**

### FIFI-LS Comm. Part 2

- **March 2014**
  - **Install**
  - **LC**
  - **LC**
  - **Remove**

### FIFI-LS Comm. Part 2

- **April 2014**
  - **Install**
  - **LC**
  - **LC**
  - **Remove**

### Aircraft & TA Heavy Maintenance

- **May 2014**
  - **Install**
  - **Prep**
  - **Ferry**

### Call for Cycle 3 Proposals

### Observatory

- **4/18/2013**

**Legend:**
- **Blue:** observing flights
- **Green:** instrument commissioning
- **Orange:** platform flights
- **Gray:** aircraft maintenance/observatory upgrade
- **Light Blue:** deployed observing flights

**Abbreviations:**
- **H:** Holiday
- **SD:** Safety Day
- **GH:** German Holiday
Cycle 2 Detailed Planning Overview

- **Cycle 2 End**

- **Cycle 3 Proposals Due**

- **Cycle 3 Proposals selected**

- **Heavy Maintenance**

- **EXES Comm. Part 2**

Science hour estimates were calculated based on maximum possible flights at 89% reliability.

4/18/2013

**Observing Cycle 2**

- **Observatory**
- **Project**

- **Bold Outline:** Actual Flight / Line Ops
- **Red Outline:** Platform Integration Opportunity
- **H:** Holiday
- **SD:** Safety Day
- **GH:** German Holiday

Rev. A
Tools and Issues
Exposure estimation tools etc.

- DCS provides exposure time calculators for FORCAST and FLITECAM imaging through SITE
- Exposure time calculator for GREAT
- Exposure time calculators for FLITECAM and FORCAST grism mode
- Sensitivities and algorithms for EXES exposure times on web site.
- ATRAN available on SOFIA web site
- SPT Calculates required overheads
- VT (Visibility Tool) deemphasized for Cy 2 call (platform/browser issues)
Documentation


Support

- Active and responsive user support, including Help Desk and FAQs, primarily provided by Ravi Sankrit and Andrew Helton
Cycle 2 Staffing Assignment

• Instrument/Support Scientists:
  - EXES
    • Adwin Boogert (Support Scientist; starts Sept ‘13)
    • Bill Vacca (Deputy Support Scientist)
  - FIFI-LS
    • Randolf Klein (Instrument Scientist)
  - FLITECAM
    • Maureen Savage (Instrument Scientist)
    • Ryan Hamilton (Post-doc, Assistant Instrument Scientist, starts June ‘13)
  - FORCAST
    • Jim De Buizer (Instrument Scientist)
    • Andrew Helton (Deputy Instrument Scientist)
  - GREAT
    • Göran Sandell (Support Scientist)
  - HIPO
    • Jeff van Cleve (Support Scientist)

• User Support Scientists:
  - Ravi Sankrit (lead), Andrew Helton