

SOFIA Cycle 2 Proposal Solicitation

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

Cycle 2 Web page

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Information for Researchers

[Home](#) > [Information for Researchers](#) > [Proposal Calls](#) > Cycle 2

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](#)

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Cycle 2 Details Web

SOFIA - Information for Researchers

www.sofia.usra.edu/Science/proposals/cycle2/phase1.html

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SOFIA Science Center
Stratospheric Observatory for Infrared Astronomy

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Information for Researchers

Home > Information for Researchers > Proposal Calls > Cycle 2

Cycle 2, Phase I

The deadline for proposal submission is June 28, 2013, at 23:59 PDT.

[Download the SOFIA Cycle 2 Call for Proposals Document](#)

[SOFIA Observer's Handbook for Cycle 2](#)

Instruments

For Cycle 2, the following instruments will be available: FLITECAM, FORCAST, GREAT, HIPO, the HIPO/FLITECAM combination, EXES and FIFI-LS. The latter two are expected to undergo commissioning during Cycle 2, and their availability will be limited. Furthermore, proposals for using FIFI-LS will not follow the standard guidelines applicable to the other instruments - see the CIP for details. The instrument capabilities available for Cycle 2 observations are described in the [Observer's Handbook](#). Information about the instrument teams, links to their webpages, and references are available on the [instrument pages](#).

Reserved Observations Catalogs (ROCs)

Summary tables containing the reserved observations for each instrument are included as appendices in the Call for Proposals.

Duplication Checking

Duplications of existing observations, or of observations approved for Cycle 1, but not yet executed, need to be justified explicitly. Proposers should use the [AOR Search page](#), to check for potential duplications.

SOFIA Workshop Presentations

Presentations made at the SOFIA Workshop held at NASA Ames on November 7-8, 2011 are available [here](#).

Proposal Tools, Tutorials, and other Documents

SOFIA Proposal Tool (SPT)

All proposals are to be prepared using the SOFIA Proposal Tool (SPT), which is based on the Astronomer's Proposal Tool (APT) used for Hubble Space Telescope proposals.

[Download SPT](#) (Note: ignore the username/password boxes at the top of the page.)

Exposure Time Estimation

The [on-line calculator](#), [SITE](#) should be used for estimating the exposure times for FLITECAM and FORCAST **imaging** observations. On-line calculators for estimating the exposure time for **Spectroscopic** observations using grisms are available [here](#) for FLITECAM and [here](#) for FORCAST.

An on-line calculator for estimating exposure times for GREAT observations is available [here](#). The calculations are based on the ["Guide to observation planning with GREAT"](#), which also contains detailed information about the instrument.

For the other instruments, HIPO, EXES and FIFI-LS, exposure times should be estimated using the information in the [Observer's Handbook](#).

Atmospheric Transmission

It is useful, and in the case of high resolution spectroscopy necessary, to know the atmospheric transmission as a function of wavelength. This may be done using the on-line tool [ATRAAN](#).

Target Visibility Tool

The on-line target visibility tool for SOFIA, VT has been found not to work on several operating systems and browsers. The issues are being addressed and it is expected that VT will become available by the end of May, 2013. However, the use of VT is not required for examining target visibility, since detailed flight planning is done by the SMO staff. The proposer may determine general target availability for specific dates using other publicly available tools (e.g. <http://catsserver.ing.iac.es/starat/>).

SOFIA Overview paper

["Status of the Stratospheric Observatory for Infrared Astronomy \(SOFIA\)"](#) (Gehrz et al. 2011).

[Cycle 2](#)

[Cycle 2: Phase II Information](#)

[Contact the SOFIA help-desk](#)

Announcements

Cycle 1 Information

Observing with SOFIA

Proposal Calls

Documents and Presentations

SOFIA Science Team

SOFIA Advisory Groups

SOFIA Colloquium

DATA CYCLE SYSTEM

SOFIA Science Archive

Instruments & Capabilities in the Call

- FORCAST, HIPO: All modes
- FLITECAM: Imaging and grism except for long wavelength ($\lambda > 3.8\text{mm}$)
- 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

Maintenance / Phase 2 Integration														Hanger Checks						Line Ops														
F	S	S	M	T	W	T	F	S	S	M	T	H	T	F	S	S	M	T	H	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
December -- 2013														January -- 2014																				

Cycle 2 Start

V&V				Flights				Management Reserve														Install		Observ. Cycle #2-A										
LO	F	S	S	H	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	H	T	W	T						
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
January -- 2014														February -- 2014																				

FIFI-LS Comm. Part 1

EXES Comm. Part 1

FIFI-LS Comm. Part 1														EXES Comm. Part 1														Management Reserve						
Remove	Install	EM/LO	LO	Prep	2 fits				Remove	Install	EM/LO	LO	Prep	2 fits				Remove	M	T	W	T												
21	22	23	24	25	26	27	28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
February -- 2014														March -- 2014																				

FIFI-LS Comm. Part 2

FIFI-LS Comm. Part 2														Management Reserve																				
Remove	Install	LO	4 fits				Remove	Install	LO	4 fits				Remove	M	T	W	T																
28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1
March -- 2014														April -- 2014																				

Call for Cycle 3 Proposals

Observ. Cycle #2-C														Aircraft & TA Heavy Maintenance																				
Remove	Install	Observ. Cycle #2-B				Remove	Install	LO	4 fits				Remove	Prep.	Ferry	Aircraft & TA Heavy Maintenance																		
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5
May -- 2014														June -- 2014																				

Observatory

Project

Bold Outline: Actual Flight / Line Ops

Red Outline: Platform Integration Opportunity

H: Holiday SD: Safety Day GH: German Holiday

- observing flights
- instrument commissioning
- platform flights
- aircraft maintenance/observatory upgrade
- deployed observing flights

Tools and Issues

Proposal Tools & Documentation – all updated for Cy 2

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)

Proposal Tools & Documentation – all updated for Cy 2, cont.

Documentation

- Web site, CfP, Observer's Handbook

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
 - Randolph 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