
IRSA Transition

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SUG #13

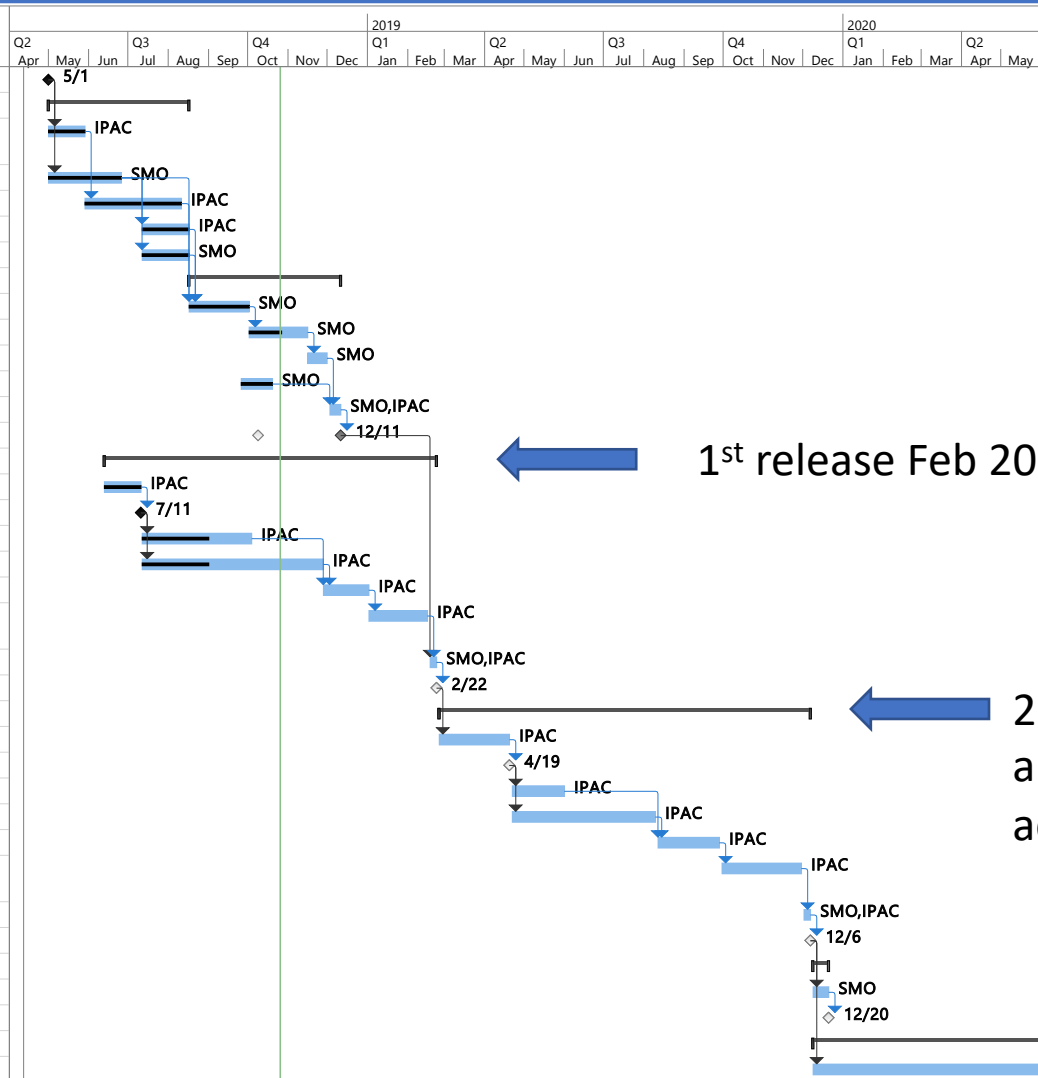
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IRSA Transition

- NASA HQ has mandated that the permanent archive for SOFIA data will be at IPAC and served out via the NASA/IPAC Infrared Science Archive (IRSA)
- IRSA curates the science products of NASA's IR and submm missions, including Spitzer, WISE, Herschel, Planck
- IRSA will receive the SOFIA science data and build software and web interfaces to search, retrieve, and display the data
 - Includes all raw and processed science data as well as:
 - DCS user data, GO proposals, and observing plans (metadata)
 - Auxiliary data files (e.g., QA notes)
- Project Implementation Plan was signed in July 2018
 - ConOps, Data Transfer ICD, Schedule were also agreed upon

IRSA Transition Schedule

ID	Task Name	% Complete	Duration	Start	Finish	Resource Names
1	Begin project	100%	0 days	5/1/18	5/1/18	
2	Initial development	100%	78 days	5/1/18	8/16/18	
3	Set up IRSA transfer system, staging area, and database	100%	20 days	5/1/18	5/28/18	IPAC
4	Develop SMO packaging and transfer software	100%	40 days	5/1/18	6/25/18	SMO
5	Evaluation of sample data	100%	54 days	5/29/18	8/10/18	IPAC
6	Develop IRSA ingestion software	100%	26 days	7/12/18	8/16/18	IPAC
7	Update SMO operating procedures	100%	26 days	7/12/18	8/16/18	SMO
8	Data Transfer to IRSA	69%	82.5 days	8/17/18	12/11/18	
9	Data Transfer - Cycles 5-4	100%	32 days	8/17/18	10/1/18	SMO
10	Data Transfer - Cycles 3-1	58%	33 days	10/2/18	11/15/18	SMO
11	Data Transfer - Cycle 0	0%	11 days	11/16/18	11/30/18	SMO
12	Data Transfer - Observing Plan Metadata	100%	18 days	9/26/18	10/19/18	SMO
13	Evaluation of Data	0%	6.5 days	12/3/18	12/11/18	SMO,IPAC
14	Data Review Complete	0%	0 days	12/11/18	12/11/18	IPAC
15	First release	39%	183 days	6/13/18	2/22/19	
16	1st Release - Design	100%	20 days	6/13/18	7/10/18	IPAC
17	1st Release - Design Walkthrough	100%	0 days	7/11/18	7/11/18	SMO,IPAC
18	1st Release - API Development	62%	60 days	7/12/18	10/3/18	IPAC
19	1st Release - UI Development	37%	99 days	7/12/18	11/27/18	IPAC
20	1st Release - Beta Version Integration	0%	25 days	11/28/18	1/1/19	IPAC
21	1st Release - Beta Version Testing and Updates	0%	33 days	1/2/19	2/15/19	IPAC
22	1st Release - Review	0%	5 days	2/18/19	2/22/19	SMO,IPAC
23	1st Release - Complete	0%	0 days	2/22/19	2/22/19	IPAC
24	Second Release	0%	205 days	2/25/19	12/6/19	
25	2nd Release - Design	0%	40 days	2/25/19	4/19/19	IPAC
26	2nd Release - Design Review	0%	0 days	4/19/19	4/19/19	SMO,IPAC
27	2nd Release - API Development	0%	30 days	4/22/19	5/31/19	IPAC
28	2nd Release - UI Development	0%	80 days	4/22/19	8/9/19	IPAC
29	2nd Release - Beta Version Integration	0%	35 days	8/12/19	9/27/19	IPAC
30	2nd Release - Beta Version Testing and Updates	0%	45 days	9/30/19	11/29/19	IPAC
31	2nd Release - Review	0%	5 days	12/2/19	12/6/19	SMO,IPAC
32	2nd Release - Complete	0%	0 days	12/6/19	12/6/19	IPAC
33	DCS External Interface Closure	0%	10 days	12/9/19	12/20/19	
34	Update Operating Procedures	0%	10 days	12/9/19	12/20/19	SMO
35	DCS External Archive Deactivated	0%	0 days	12/20/19	12/20/19	SMO
36	Third Release	0%	520 days	12/9/19	12/3/21	
37	3rd Release - Development	0%	520 days	12/9/19	12/3/21	IPAC



1st release Feb 2019

2nd release Dec 2019 and shut off external access to DCS

3rd release Dec 2020

IRSA Transition Schedule:

- **First Release: Feb 2019**

- Data for 3 instruments: FORCAST, FIFI-LS, GREAT
- 2 cycles: OC4 and OC5 for Levels < 4
- All cycles for Level 4 data
- Includes metadata (e.g., proposal information)
- Testing by SMO and IRSA will begin 15 Dec.

- **Second Release: Dec 2019**

- All instruments
- All cycles
- External access to DCS will be shut down; internal access by SMO will persist

- **Third Release: Dec 2020**

- Advanced visualization features
- Expanded integration of SOFIA with other IRSA tools

IRSA Transition Status:

- SMO has begun to push data to IRSA
 - Currently all raw and processed data for all instruments from OC4 and OC5 have been transferred to IRSA
 - Transfer halted until IT/MMOC transition completed but will resume next week with data from OC3
- Data review was held on 10 Oct to discuss issues found with files
 - Most issues have been addressed; those that haven't are not blockers for 1st release and will be dealt with in time for the 2nd release
- IRSA is developing GUIs and middleware APIs (search software)
 - Examples are shown on the next few slides
- SOFIA now represented on IPAC web pages, with links to SMO and the DCS:
<https://www.ipac.caltech.edu/project/sofia>
- SMO Staff:
 - Kaori Nishikida (DCS, data transfer)
 - Li Sun (DCS, metadata and database issues)
 - Ryan Arneson (DPS, post-doc, repairing headers, transfers, testing)
 - William Vacca



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Featured Image: Comet C/2014 Q2 (Lovejoy)



SOFIA data are now available at IRSA!

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Stratospheric Observatory for Infrared Astronomy (SOFIA)

[SOFIA Search](#)[Documentation](#)

Mission Characteristics

Description:	SOFIA is a Boeing 747SP aircraft modified to accommodate a 2.5 meter reflecting telescope. Its nine first-light instruments will provide researchers with access to a continuous wavelength coverage from the optical to the submillimeter (0.35 - 655 microns).
Wavelength:	0.35 - 655 μm
Area Coverage:	Targeted
Instruments:	2.5-m telescope with <ul style="list-style-type: none"> FORCAST mid-infrared camera and spectrograph (Herter et al. 2012) GREAT heterodyne spectrometer (Heyminck et al. 2012) FIFI-LS far-infrared spectrometer (Fischer et al. 2018) EXES, FPI+, HAWC+, FLITECAM, HIPO - not yet archived at IRSA
Time Coverage:	25 May 2010 - present
Science Products Generated:	Observation data and calibration files
Acknowledgement:	Information for Authors

IRSA Services

[NASA SOFIA Archive \(Help\)](#)

Interface to the NASA SOFIA Archive.

Other Resources:

[SOFIA Science Center](#)[SOFIA home page](#)[FORCAST Observer's Handbook](#)[Documentation for FORCAST](#)[FORCAST Data Handbook](#)[Documentation for FORCAST](#)[GREAT Observer's Handbook](#)[Documentation for GREAT](#)[FIFI-LS Observer's Handbook](#)[Documentation for FIFI-LS](#)[FIFI-LS Data Handbook](#)[Documentation for FIFI-LS](#)[Known Data Product Issues](#)[List of known issues with SOFIA data products](#)

