APAC Briefing: SOFIA

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FORCAST 19\(\mu\)m, 37\(\mu\)m; Herschel 70\(\mu\)m; Spitzer 3\(\mu\)m

USRA | NASA | SOFIA | Spitzer | Herschel

Image courtesy of: De Buizer, Lim, Radomski
SOFIA’s SMO* has carefully considered the FMR report and embraces its recommendations.

The SMO is working with NASA to drive the needed changes to improve scientific output and impact and to increase operational efficiencies via automation.

*SMO: Science Mission Operations, according to NASA’s Prime Contract to Universities Space Research Association
Program activities underway (1/3)

• The Project leadership (NASA and the SMO) conduct regular (generally weekly) strategic meetings preparing the plan to address and implement the FMR recommendations

• Identifying and eliminating or reducing “impediments to change” both within SMO (USRA) and external to SMO (NASA, DLR, DSI)

• Eliminate SMO activities not directly related to “enhancing science productivity”

• The SMO is undergoing a reorganization
  • Added new science role – Associate Director (AD) for Research: Jim Jackson
  • Reduce and consolidate other AD roles
  • New roles and responsibilities for staff to enhance efficiencies
Program activities underway (2/3)

• Recently conducted a test 5-flight week
  • Use results and modeling to refine optimization for high quality science
  • Draft report outlines advantages and disadvantages of more frequent shorter flights vs. fewer longer flights (weekly 5 x 8 hr vs. 4 x 10 hr)

• Cycle 8 Selections and Cycle 9 Call for Proposals
  • Reduce instrument modes and instruments offered

• New post-doc and staff scientist positions: requisitions & ads created

• Developing new “automation” software to reduce mundane repetitive activities of staff

• Cross-training staff (ex: TO/IO, pipeline/instrument scientists)

• Make SOFIA pipeline software publicly available
  • Pipeline software is being rewritten to Python
Program activities underway (3/3)

- Cycle 8 selections to reflect emphasis on “enhancing science productivity”
  - Panel Chairs of October 14-16 TAC meeting lauded vast improvement of quality of SOFIA proposals over the last few years
  - Increased proposal pressure (Cy7 oversubscription 4.7 increased to Cy8’s 5.9)
  - Selections to be announced in December depend on negotiations with NASA
  - Goal: Fewer but longer instrument campaigns; optimization of flight length & frequency; adjustment of observing time to accommodate better/worse observing conditions

![Hours Requested by Instrument](chart.png)
Central Regions of the Milky Way

- First SOFIA Legacy Science Program (Hankins, et al.) completed
- L3 Data publicly available
- LSP Team to provide enhanced L4 products

USRA | NASA | SOFIA

FORCAST 25 µm
FORCAST 37µm (QuickLook mosaiced)
The Galactic center: 25 um (FORCAST), 37 um (FORCAST), 70 um (PACS)

Preliminary work