

SOFIA Guest Investigator Guidelines

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Background

- The Guidelines were drafted in the past several months, collecting a set of rules and instructions related to participation by Guest Investigators in flights
- The SUG requested, in an earlier meeting, that such Guidelines be written and discussed
- The document was circulated to the SUG in advance of the present meeting in order to obtain feedback

Guideline (1)

- WHO FLIES? Guest Investigators (GIs) who request to participate in SOFIA observing flights shall be accommodated in a non-interference basis with Observatory operations. The Director shall approve all GI fliers. Priority will be given to those who have observations on a flight and who have not flown before.

Guideline (2)

- SAFETY: GIs participating in flights must obey safety rules and follow observatory policies. This includes submission of a Health form to the Dryden flight surgeon, participation in egress training. Egress training is typically scheduled on the day before a flight, so as not to make too long a workday on the day of flight; however, for Monday flights it may be scheduled on the day of flight.

Guideline (3)

- **HEALTH:** If you feel you are sick with an infectious disease, or you feel you will have a health issue on the flight, then please do not participate in the flight. The instrument scientists will take care of your observation, and you can request a future flight. Specifically, if you had a fever within the two days before the flight, or if you have fluid in your ears, please excuse yourself by informing your escort, the Mission Director for that flight, or the USRA DAOF manager (Bill Latter) or Science Operations manager (B-G Andersson).

Guideline (4)

- GIs participating in flights must obey crew rest guidelines. For GIs, the default crew rest guideline is that they must have at least an 8 hour quiet rest during the 24 hours before their flight, and not working more than 3 hours in the 8 hours before takeoff.

Guideline (5)

- On the day of flight, the participating GI is to arrive at the pre-flight crew briefing if one is scheduled. If not, the participating GI is to coordinate with the Mission Director when and where to arrive.

Guideline (6)

- During a flight, the participating GI will sit in the “First Class” section near the front of the Main Deck of SOFIA. From pre-flight briefings and discussions with the Instrument Scientist team or the Mission Director, the GI should know which leg his or her targets are scheduled to be observed on. Paying attention to the timeline, the GI should proceed to the Instrument Science console by the time of his or her target’s first flight leg.

Guideline (7)

- While observing the target, the participating GI is part of the science operations team, which is led by the Instrument Scientist. The sequence of events is: target acquisition (by the telescope operator, who then hands control to the science operations team), instrument and chopper setup, and observing scripts run from the instrument console. The GI can verify target acquisition but there is generally little role in this step. Observing setup is by the Instrument Scientist and Instrument Operator, who are seated in front of the Science Instrument and Principal Investigator racks. During the flight leg, quick-look data reduction is used to inspect progress. Real-time decisions can be made after the first images. The participating GI will provide his or her feedback on progress, and input to decisions on how to proceed, to the Instrument Scientist. Very limited amounts of change can be made during a flight. Coordinates can only be changed minimally (no more than ~10 arcminutes) and no changes that alter the flight path can be made. Prioritization among the observing scripts (typically, number of repeats in a filter) can be made.

Activation of Accepted Target of Opportunity

- Guest Investigators with **Observations** containing a Target of Opportunity (ToO) for which the coordinates or date could not be specified must activate their proposal as soon as they have identified a target that matches their criteria. Activation is done via an email to the SOFIA Helpdesk. The activation email must clearly describe the target, providing enough information to prove that it matches the criteria of their accepted proposal. The Director will approve (or not) the activation based on this information. When the target brightness is unknown, a subsequent trigger criterion may be imposed based on the evolution of the target's brightness. Upon activation, the project becomes an approved, high priority observation. However, the observing time is still not guaranteed, because it depends on the priorities of other accepted or scheduled programs and the impact to the observatory once the details of the observing sequence and timing have been worked out.
- If the proposal has already been through Phase II with well-developed AORs, and those AORs are correct for the new target, then the proposal will be ready for scheduling. Otherwise, the project enters Phase II (defined in the Call for Proposals and detailed instructions to be received upon activation). AORs are developed and iterated with the relevant Instrument Scientist.

Feedback to the Science Center

- All Guest Investigators, potential observers, and archive users are encouraged to ask questions and provide feedback to the Science Center through the SOFIA Helpdesk. We also have a SOFIA Users Group, which comprises 10 members of the observing community, and you may volunteer to serve on that Group, which has a rotating membership. (The Charter and reports are found on the SOFIA website.) The names of SUG members are public, and you may provide feedback through any of the SUG members.