



Cycle 1 Progress and Plans

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Executive Summary



- Observatory improvements have greatly improved the pointing and tracking performance of SOFIA
 - Focal Plane Imager provides sub-arcsecond pointing and tracking for virtually all fields
- FORCAST has been commissioned as a Facility Class Instrument
- SOFIA and GREAT executed a highly successful Southern Hemisphere deployment
 - 9 out of 9 flights were successful
- Triggered three Target of Opportunity Observations
 - Comet C/2012 S1 (ISON) with FORCAST
 - Comet C/2012 S1 (ISON) with GREAT (later retracted due to faintness of comet)
 - Nova Delphini 2013 with FLITECAM and FORCAST [not yet executed]
- Major hits to the program due to unforeseen problems
 - Power supply failure on Telescope Assembly
 - Government Shutdown
 - Hold time problem with FLITECAM
 - Loose insulation fasteners in cavity





Baseline Available Hours

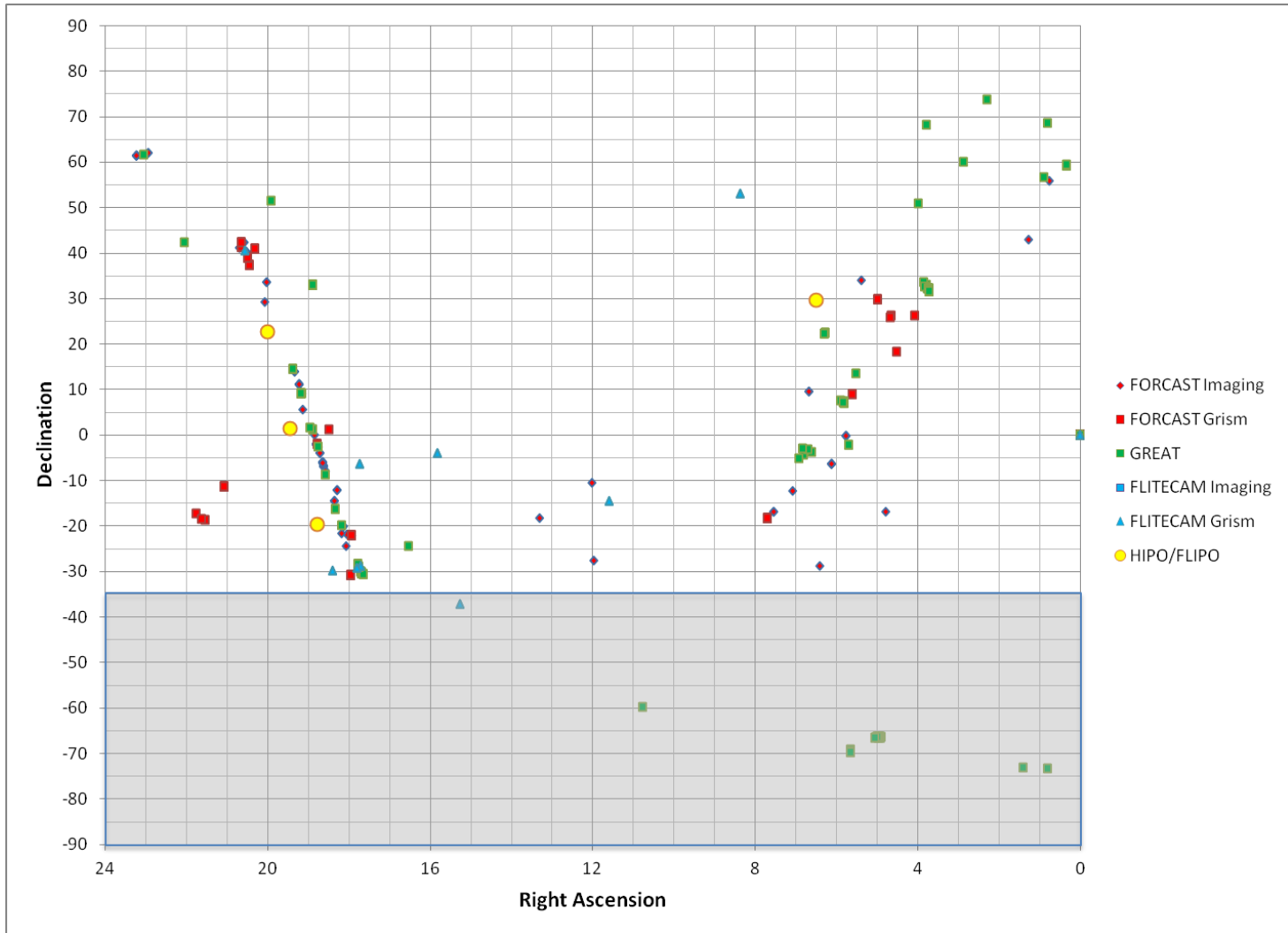


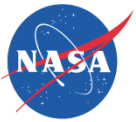
	US	Germany
Baseline Science Hours	262.0	65.5
GTO Hours	35	32.8
Calibration Hours	35.8	4.9
General Investigator Hours	176.7	24.2

Actual scheduled hours will depend on additional factors such as instrument configurations, sky visibility, and scheduling efficiency.

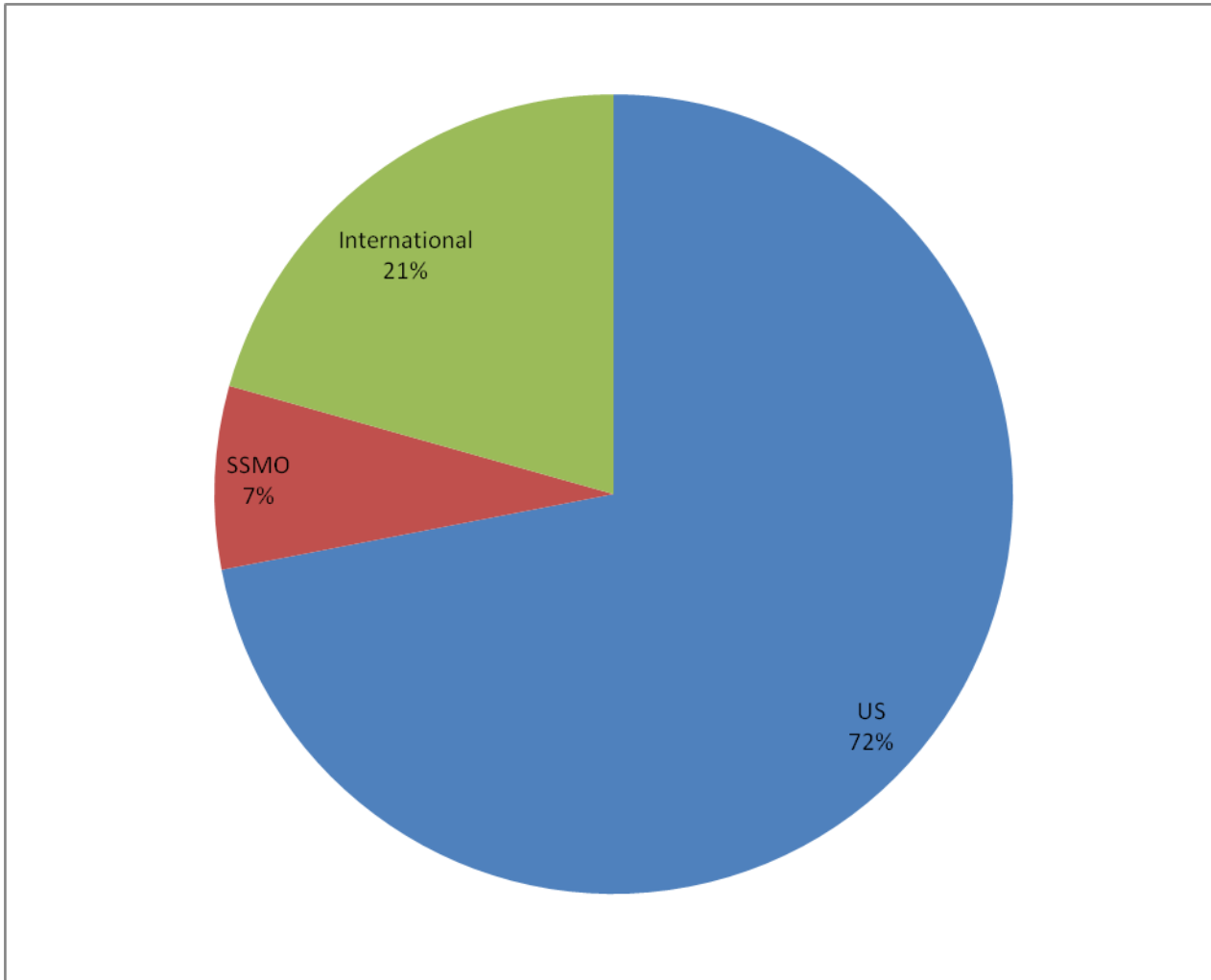


Cycle 1 Selected Targets



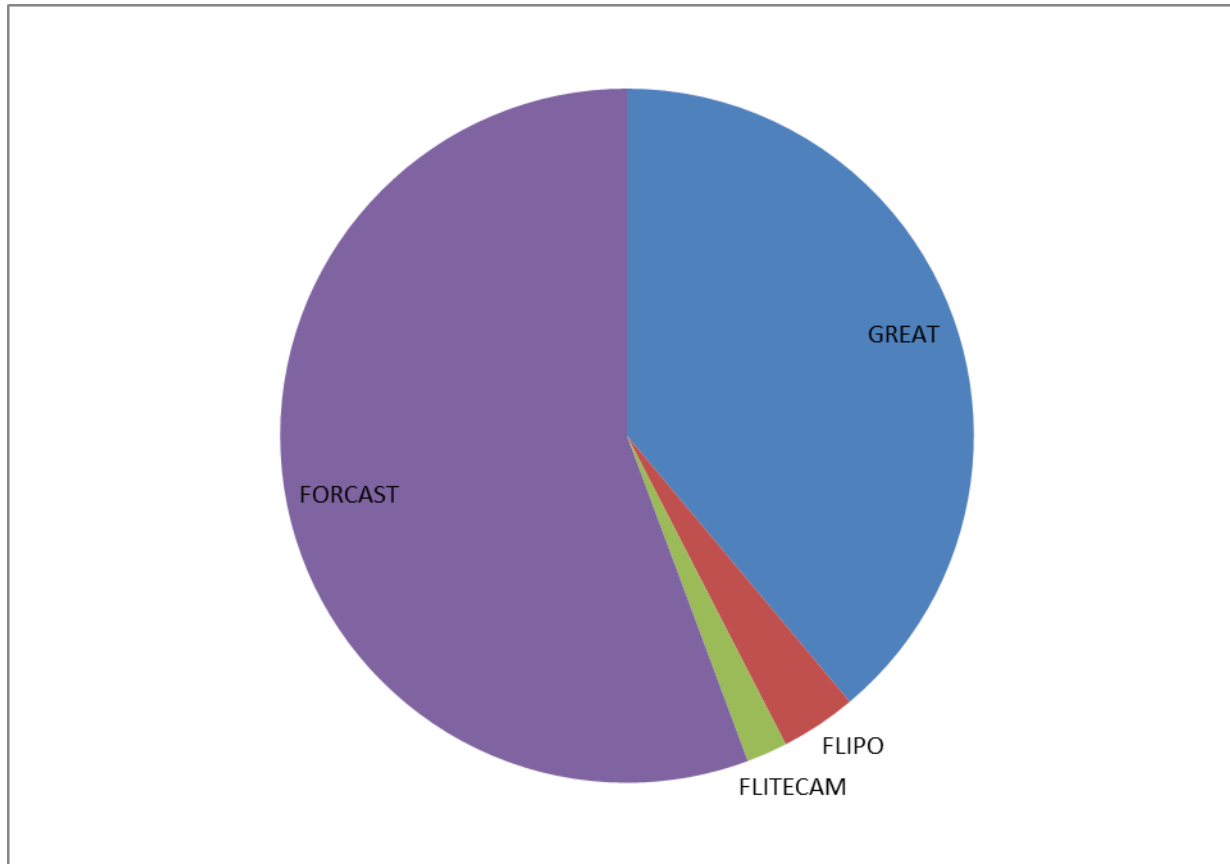


Distribution of Awarded Hours – US Queue





Instrument Distribution for Combined Program





Cycle 1 Progress to Date



Campaign	Instrument	Start Date	Flights Planned	Flights Executed	Comments
OC1B	FORCAST	6/13	3	2.5	Return to Base (RTB) on one flight
OC1C	GREAT	7/13	9	9	New Zealand Deployment
OC1D	FORCAST	9/13	5	4.3	Instrument and MCCA outages
OC1E					Campaign dropped during replan
OC1F	FORCAST	10/13	9	0.5	Government shutdown cost 8 flights. Remaining flight had FPI and power problems
OC1G	GREAT	11/13	8	2.5	RTB & Insulation fasteners grounded aircraft
OC1H	FORCAST	11/13	2		Possible recovery of some lost FORCAST observations using FLITECAM slot





Significant Changes in Cycle 1 Science



- FLITECAM cryogenic problems have forced cancellation of General Investigator observations
 - Limited test observations on exoplanet were not successful due to instrument problems
 - Commissioning of FLITECAM will be reintegrated into the 2015 schedule
- Government shutdown caused loss of most of campaign OC1F
 - Roughly 60% of total FORCAST program is unobserved
- Cancellation of 5 GREAT flights due to insulation problems
 - Roughly 30% of the total GREAT program is unobserved





Recommendation for Partial Recovery



- Currently the Cycle 2 formally begins in January 2014, with observations beginning on Feb. 4, 2014
- Recommend slipping the start of Cycle 2 to the last week of February 2014, with the cycle extending to the end of February 2015.
- In the time that opens up, schedule a GREAT and FORCAST campaign to make up as much of the high priority Cycle 1 science as possible
- SMO also recommends that future Cycles use the March to March annual calendar for observing cycles.





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