SOFIA Cycle 1 Proposal Solicitation

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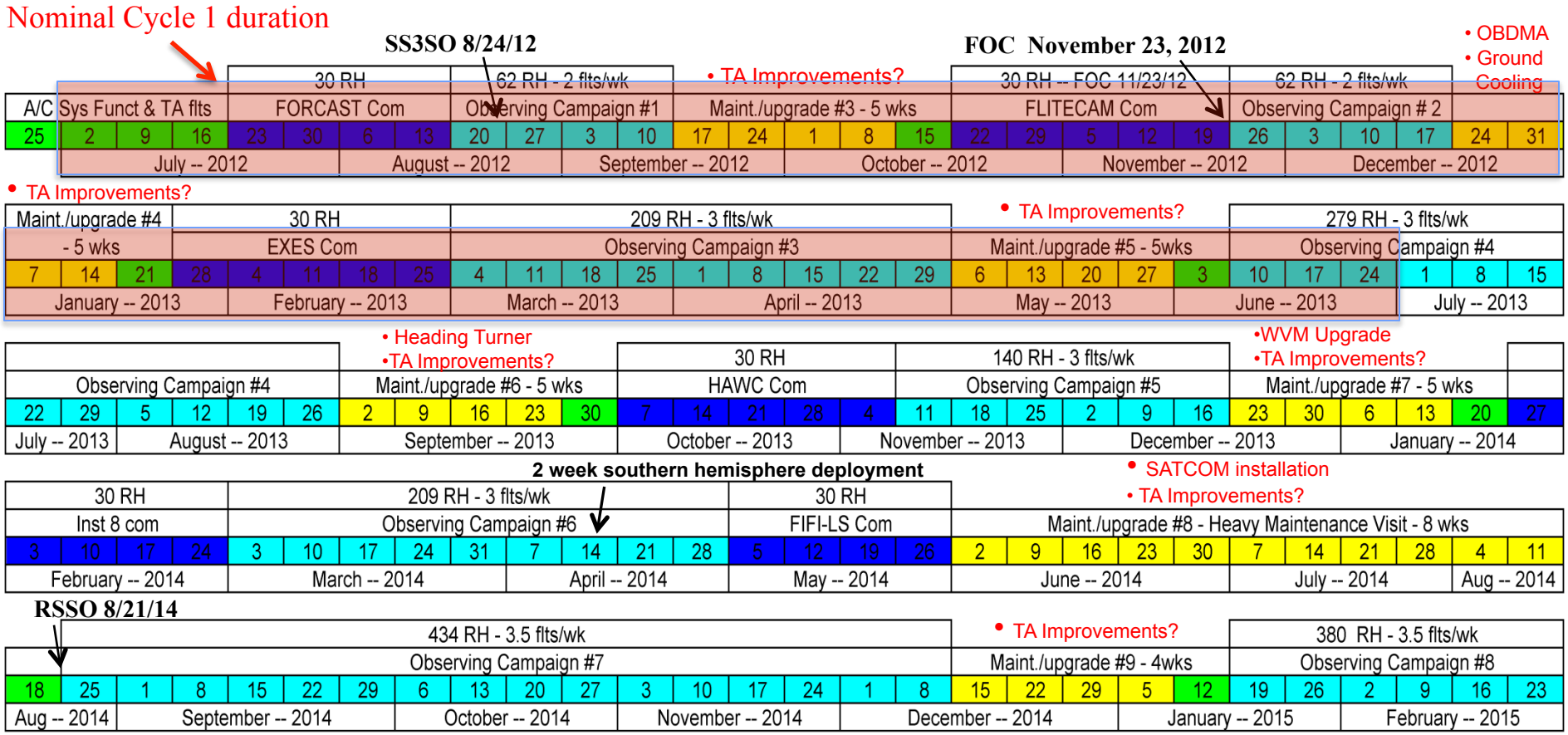
SUG meeting March 12

Cycle 1 Assumptions and Background

Cycle 1 "Boundary Conditions"

- Cycle 1 will be open to world astronomical community
- Period offered: July 2012- August 2013 in four observing campaigns
- Intermixed with observatory development and instrument commissioning
- Southern hemisphere deployment is being considered
  - Depends on ranking and urgency of targets and available funding
- Approximately 200 hours of time will be offered in the US call and approximately 40 hours will be offered in the German call
  - Why "only" 200 hours?

Notional Medium-Range Plan



The above "Lego™ chart" represent the best available knowledge in late 2011 and has since been superseded

- Observing Flights
- Instrument Commissioning
- Platform Flights
- Aircraft maintenance / Observatory upgrade

Available Observing Campaign Research Hours

Campaign	Weeks	Flights/Week	Flight Opportunities	Instrument Changes
1	4	2	8	-2
2	4	2	8	-2
3	9	3	27	-5
4	8	3	24	-4
			Net Flights	54
			Available Hours	418.5

Assumptions:

1)Campaigns with a given instrument last 2 weeks.

2)An instrument change costs 1 flight. We will work to schedule weekend changes, in which case the "lost" flights become contingency.

3)There are 7.75 Research Hours per flight.

US Research Hours Calculation

Element	Hours	Rationale
Available Total Research Hours	418.5	LEGO 9/29/2011 and Scheduling meeting 11/4/2011
DD Time	-29.3	7% of Science Time Specified by JSPP-2
Commissioning Hours	93	3 Instruments x 4 flights x 7.75 hours per flight
Net Research Hours Subject to 80:20 Split	482.2	
US Research Hours	385.8	80% of Net Research Hours

Research Hours Adjustments

Element	Hours	Rationale
US Research Hours	358.8	
Commissioning Hours	-93.0	4 Flights each, FORCAST, FLIGHTCAM, EXES
GTO Time for Instruments	-54.0	½ of Total Guaranteed Time in Cycle 1 and ½ in Cycle 2
General Hours	**238.7**	
Calibration Hours	-37.0	General Hours / Hours per flight * 1.2 hrs per flight
Hours Available for Proposal Call	**201.8**	

Cycle 1 Proposal Solicitation & Selection Time Line

US queue:

Call for Proposals Released Nov. 2011
Final version of CfP released Dec. 13, 2011
Proposal deadline Jan. 27, 2012
Technical Review March, 2012
Peer Review April 4-6

German queue:

Call for Proposals Released Dec. 2011
Final version of CfP released Feb. 10, 2012
Proposal deadline March 2, 2012
Peer Review April 16-17

Directors' Review	April 23-27
Announce Selections	April 30
Phase 2	May, 2012
Cycle starts (nominally)	July 1, 2012

But...

- The current schedule has Cycle 1 beginning, not in July, but "no sooner than September"
- Exact end of "Down time" still uncertain
- Several months of Cycle 1 therefore "not available"
  - We want to keep the proposal deadline
    - Late January fits in with other NASA projects and the winter AAS
    - Get the community used to a fixed SOFIA proposal deadline
  - So; stick with July-June cycle
    - Option to carry over accepted July-September targets to Cycle 2
    - The Cycle 2 available time will be somewhat smaller for this RA range

Tools and Issues

Proposal Tools & Documentation – all updated for Cy 1

Exposure estimation tools

- DCS provides exposure time calculators for FORCAST and FLITECAM imaging through SITE
- DSI provides an exposure time calculator for GREAT
- Exposure time calculator for FLITECAM grism mode was developed by Bill Vacca at the SMO
- L Keller provided algorithms and instructions for FORCAST grism exposure estimates

Documentation

- Web site, CfP, Observer's Handbook
  - GREAT Observation Planning Guide (GOPG)

Support

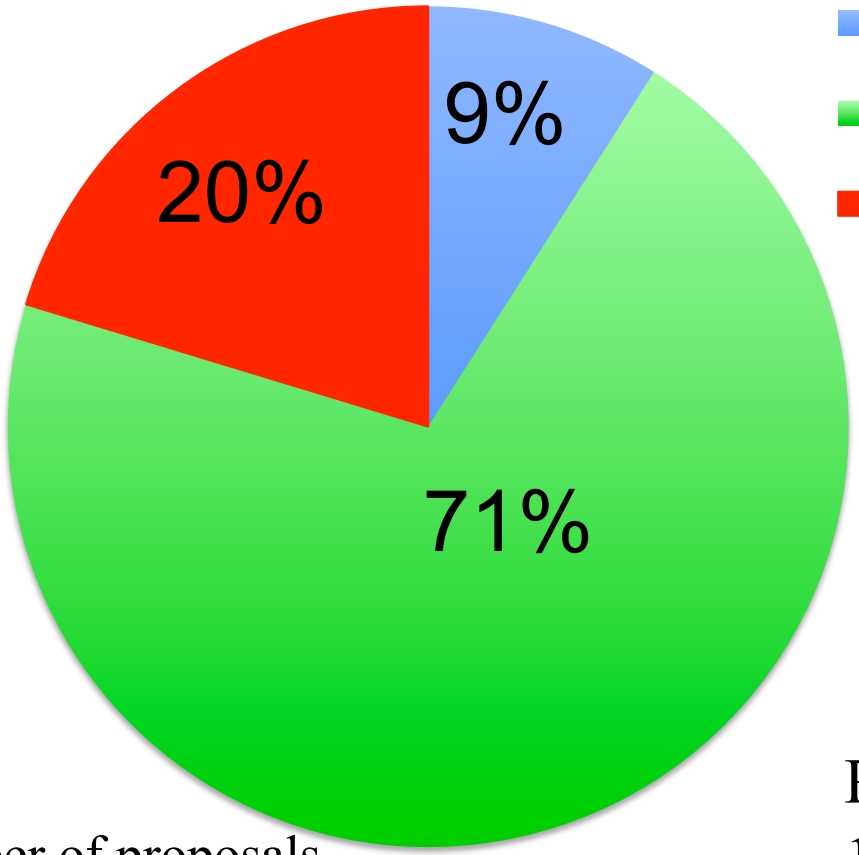
- Active and responsive user support, including Help Desk and FAQs, primarily provided by Ravi Sankrit and Andrew Helton

Issues

- Multiple locations and platforms for different tools
  - Situation is due to resource constraints
  - Will be remedied with all calculators included in SITE
- Overhead calculations for GREAT was unclear (US site and DSI tool inconsistent)
  - We will recalculate the required times for ALL GREAT proposals in a consistent way, before passing to the TACs
  - Proposers will not be penalized for following either version
- DCS issues (non-ASCII characters etc. See Shuping pres.)
- Minor errors in Observers' Handbook
  - Early ones corrected in delta releases
  - Help desk explained and clarified minor remaining ones
- Definitions of "nominal", "low" and "very low" water vapor in SPT unclear
  - Resolved by answers via the help desk
- Definition of "Map Area" for FORCAST and FLITECAM imaging
  - Resolved by answers via the help desk
- LOS rotation speed for target not well documented
  - Better plots and descriptions will be developed for Cy 2
  - If feasible a tool will be developed

Cycle 1 Proposal Statistics

Proposal Origin (Cy 1 US queue)

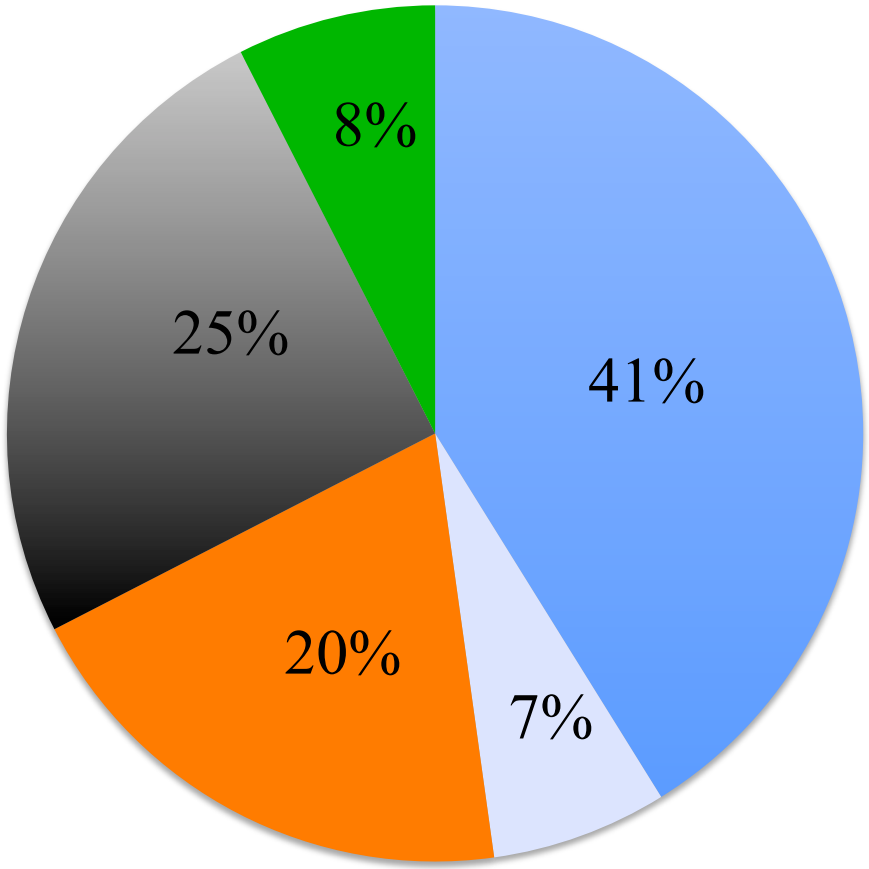


By number of proposals

Total # of unique, valid, proposals received:
133 (US queue) +
39 (German queue)

Proposals received from:
10 countries on
4 continents (US queue only)

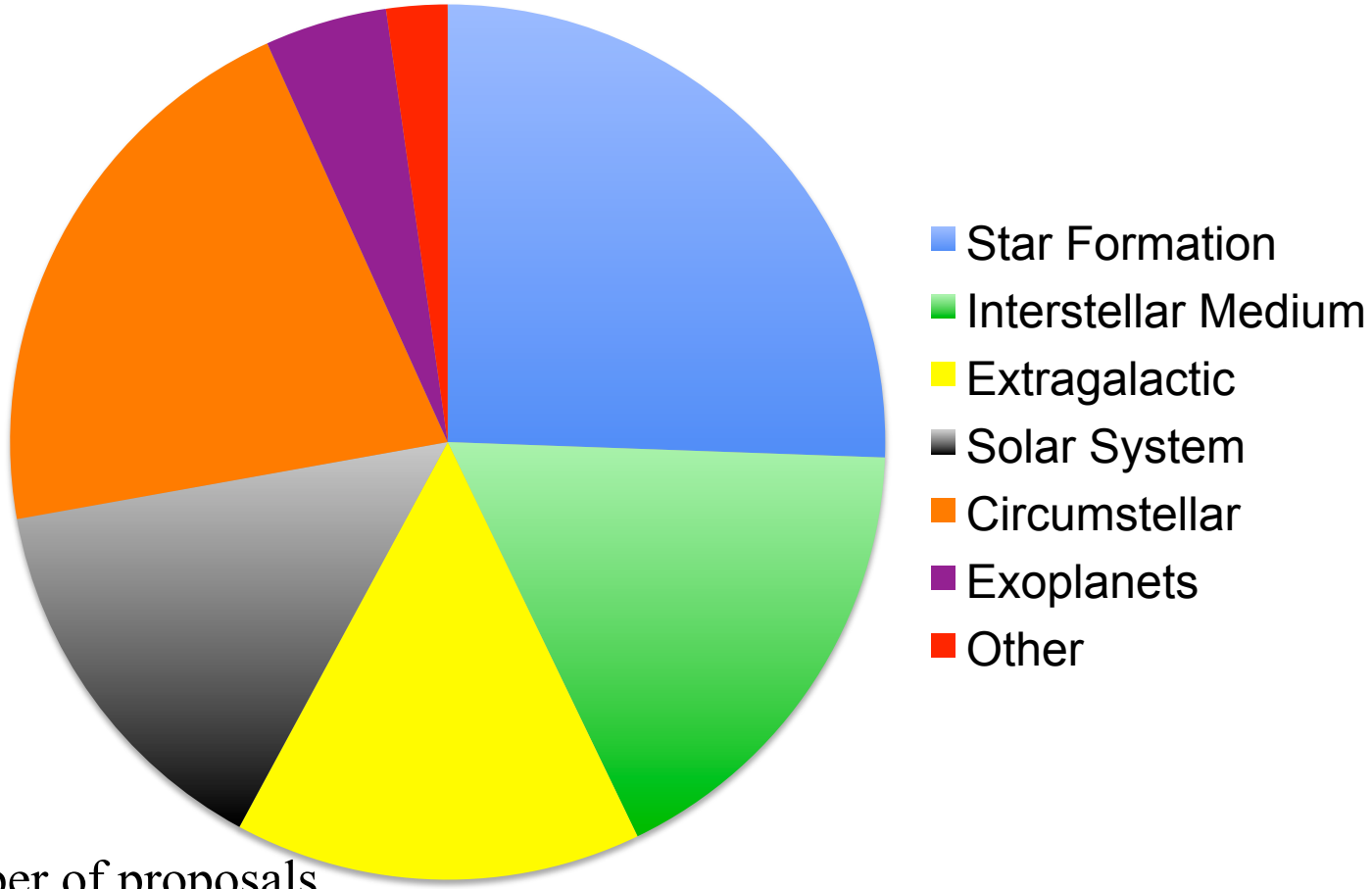
Time requests (Cy 1, US queue)



6 ToO programs
22 Time critical programs
(some with multiple targets)

Total requested time (US queue): 1207^{h} standard, 86^{h} survey (all FORCAST)
OSR=6.0 (“standard” mode only)

Proposals by Category (US queue)



By number of proposals

These are NOT the TAC panels – B-G's categories only