

Instrument Issues and Future Suite of Instruments

Harold Yorke

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FORCAST $19\mu\text{m}$, $37\mu\text{m}$; Herschel $70\mu\text{m}$; Spitzer $3\mu\text{m}$
USRA | NASA | SOFIA | Spitzer | Herschel

W51



November 4, 2019

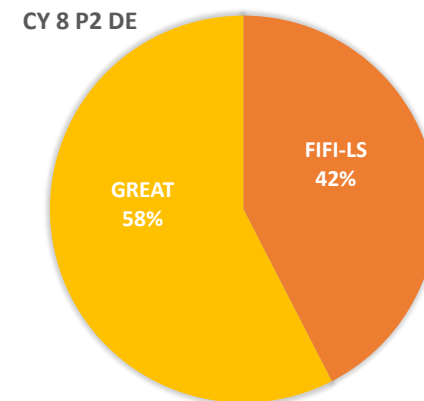
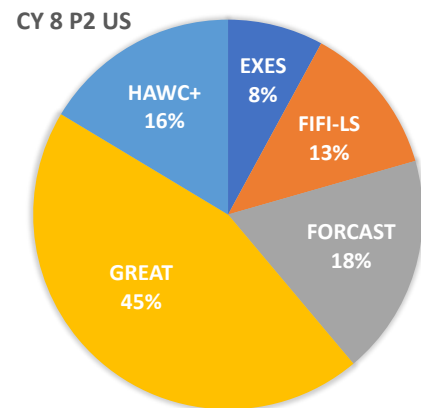
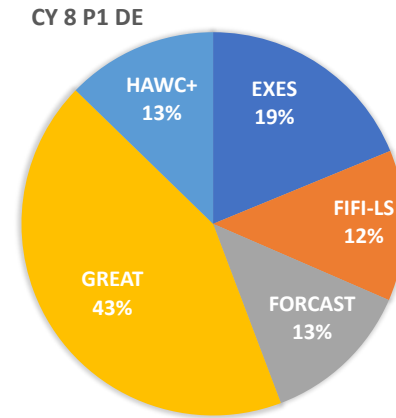
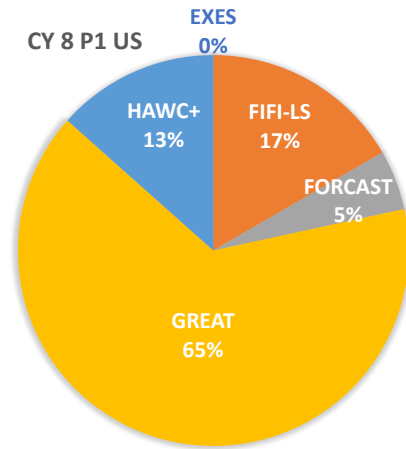
NASA/SOFIA/Lim and
De Buizer et al. and
Sloan Digital Sky Survey

Instrument Status

- All current SOFIA Instruments (EXES, FIFI-LS, FORCAST, FPI+ GREAT & HAWC+) are operational
- Formal decommissioning of FLITECAM is complete
- HIRMES development is under review by NASA
- FY 20 NASA/SMO budgets may require the number of operating instruments be cut

Cycle 8 Proposal Pressure

- GO proposal priority 1 & 2 (pre selection) requested by time



Science Productivity

Publications per observing hours by instrument:

SI	First offered	#Papers	Flights	GI+GTO hours	tax hours	Hours/Paper	Poisson unc.
GREAT	Cy 1	69.75	103.5	881.4		12.6	1.5
FORCAST	Cy 1	54	94.5	719.8		13.3	1.8
EXES	Cy 3	15	26	246.3		16.4	4.2
HIPO	Cy 1	2.3	3	20.9	17.5	16.7	11.0
HAWC+	Cy 5*	8	24	296.2		37.0	13.1
FLITECAM	Cy 1	2	14	68.7	17.5	43.1	30.5
FPI+	Cy 4	0.2	0	2.1	8	50.7	113.3
FIFI-LS	Cy 3	6.75	46	416.9		61.8	23.8

* Commissioning finished and some science taken at end of Cy 4

GI+GTO hours = sum of durations of all legs attributed to GO or GTO observations

Papers = number of refereed publications based on SOFIA science data

Tax hours = Approximate additional number of flight hours charged to engineering/ferry (for occultations)

Instruments Offered and Upgrades

- The SMO Director can choose to not offer any given instrument in a Cycle (and/or to not select any programs)
- Formal retirement and decommissioning of instruments is the responsibility of NASA (Director of Astrophysics)
 - Initiated by the SOFIA Instrument Decommissioning Advisory Group (SIDAG)
- The SMO Director can propose to upgrade FSI instruments without a formal call/competition
 - New HAWC+ arrays are under discussion with requests for cost estimates from GSFC
- PSI instrument upgrades are under the control of the instrument PI