Plans for Cycle 2 (update)

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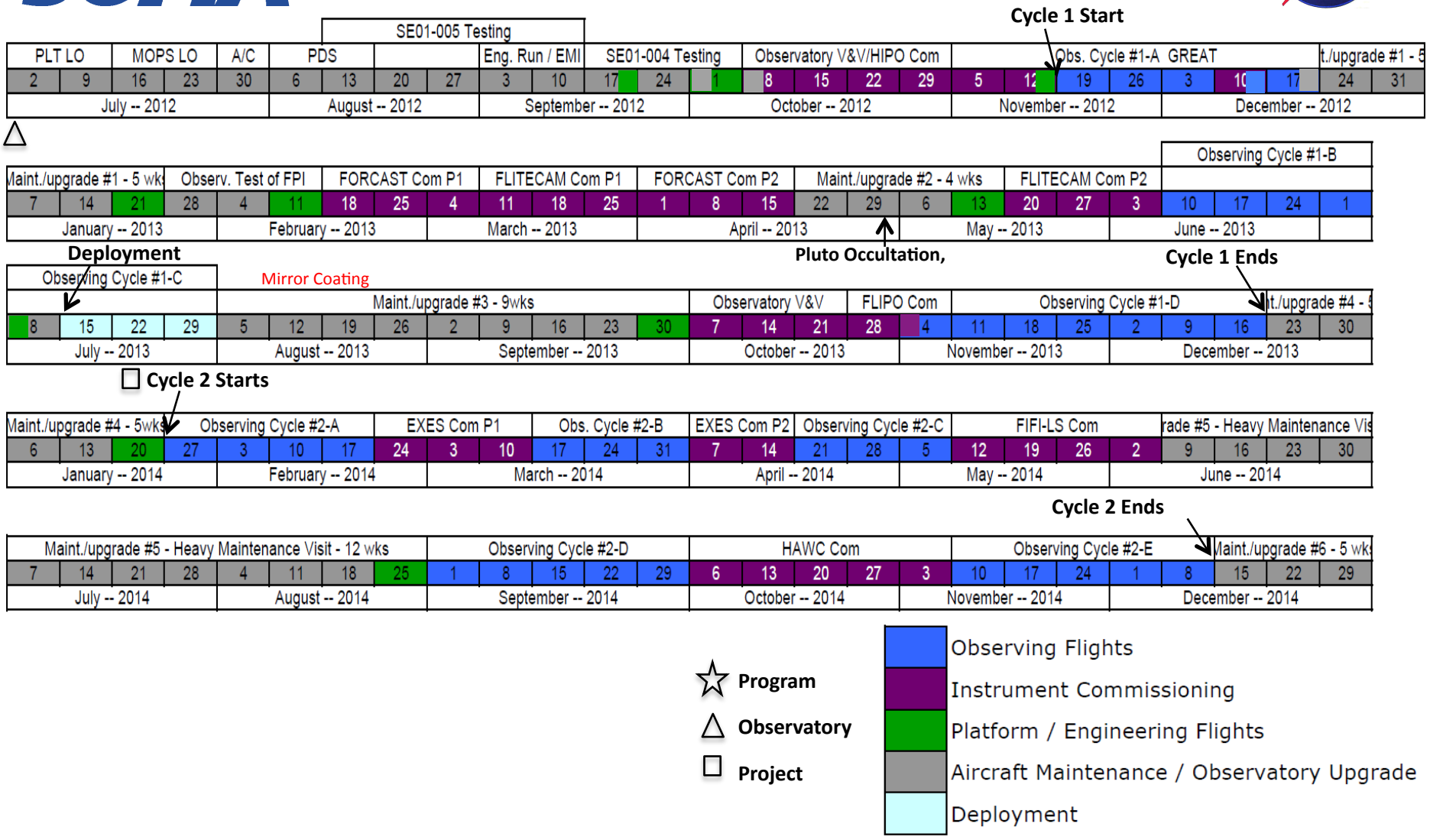
General Ideas for Cycle 2

- Disclaimer
  - *The plans for Cycle 2 are for public discussion and input, and the SUG is welcome to comment but will not have a role in formulating the Call for Proposals*
- More flights
  - Operations at 3 flights per week
  - Expect at least 50% more GI observing time
- Commissioning instruments
  - EXES, FIFI-LS expected make first flights
- Fixed proposal schedule
  - Continue coordinate US & German Calls
  - Cycle 2 due date = end of June 2013
  - Cycle 2 observing dates = Calendar Year 2014

Instrument Availability

Instrument	Wavelengths (μm)	Spectral Resolving Power λ/δλ	Commissioning Dates	Offer to GI Proposals
GREAT	60-200	10^6	Operational	BS, Cycle 1
Low mid high	156-165, 200-240 119.3-119.6, 111.9-112.3 62.9-63.1		Done Dec 2012 2013?	BS, Cycle 1 Cy1(OH),**Cycle2** **Cycle 3**
HIPO	0.3-1.1	4	Operational	Cycle 1
FORCAST	5-40	4-1200	Apr 2013	BS, Cycle 1
FLITECAM	1-5	4,900	Jun 2013	Cycle 1
EXES	5-28	2000-10^5	Apr 2014	**Cycle 2 d,e**
FIFI-LS	42-210	1300-7500	Jun 2014	**Cycle 2 e**
HAWC+	50-240	5	Early 2015	**Cycle 3**

SOFIA Integrated Master Schedule



Guiding Principles

- No Guest Investigator usage of a Facility Science Instrument mode until it is commissioned
  - Rule was "broken" for Basic Science, by design, in order to get early scientific results before the observatory construction, control software, and characterization were complete
  - For Cycle 2, we will have first flights of FIFI-LS but could not begin observing until late in the year, possibly as a PI instrument
    - Therefore, no new facility instruments will be available in Cycle 2

- Offering an instrument in a Call before its commissioning data have been reduced introduces significant shared risk between the observatory and the guest investigator
  - For Cycle 2, EXES and FIFI LS could be offered as a PI instrument in shared risk

GREAT

- Principal Investigator Instrument
- Mid-frequency channel (2.7 THz)
  - OH line (only) already was offered to guest investigators in Cycle 1
  - HD line to be tried during Cycle 1 by the PI team
    - Consider offering HD during Cycle 2
    - Consider offering the complete mid-frequncy channel in cycle 2
- High-frequency channel (4.7 THz)
  - Initial tests may occur during Cycle 1
    - Tests may occur Dec 2013
  - Performance at these frequencies not yet well known
    - Consider offering during Cycle 3? Shared risk Cycle 2

EXES

- Principal Investigator instrument
- Getting instrument into communities hands early
  - PI supports early offering
  - Cycle 2, Campaigns D,E (Sep-Dec 2014)
  - Documentation for observers by Apr 2013
- Risk of offering too soon
  - Performance of instrument in-flight unknown
  - Will we know sensitivities well enough to select credible science program?
  - Will community get such negative impression if sensitivities not achieved (or over-conservative sensitivities announced) that we lose future observers?

FIFI-LS

- Principal Investigator instrument to transition to Facility instrument
- Discussion with PI Alfred Krabbe
  - Willing to support FIFI LS guest investigators for the last campaign of Cycle 2 (Nov/Dec 2014)
    - Shared risk
    - Instrument team supports flights and data processing
  - Transition to facility instrument during Cycle 3
    - Documented as PI instrument for the Call
    - Transition occurs “behind scenes” during the Cycle
      - Main effect of transition will be who operates the flights and is repsonsible for the data processing

Questions for the SUG

- Feedback on Cycle 1 tools?
- Feedback on two-phase submission system?
- New tools for proposers in Cycle 2?

SOFIA-sponsored Science Conference

- Ames
- April 2014
  - After some results from Cycle 1 are ready
  - Before Cycle 3 due date