





# New Science Thematic Approaches: What we can introduce in Cycle 6?

3 March 2017

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#### Cycle 6 Plan



- Preliminary definition (Approved by SMO Dir, PM, PS on 2016 Dec 6)
  - -Duration: Feb 2 2018 Jan 31 2019
  - -CfP: Release May 1, 2017; Update June 5, 2017
  - -Proposal: Deadline June 20, 2017, US TAC Week of Aug 14, DE TAC [early Sept]
  - -Selection announcement October 1
  - -Offer all Generation 1 & 2 instruments, except FLITECAM and HIPO
    - FLITECAM available through DDT proposals for the duration of Cy
  - -One Southern Deployment, with 2 instruments
- MoU initial drafts
  - -Document SI availability, modes, data, other agreements
  - -GREAT: concern about funding







### What can we improve in Cycle 4/5?



- Currently, chances of getting an accepted proposal actually observed is ~70%
  - Exceptions to ~70% rule
    - 1: HAWC+ due to instrument difficulties
    - 2: upGREAT due to NZ engine issue
  - Certain areas of the sky are oversubscribed; this does not figure in the TAC scores
- Many lost flights due to airplane issues & HAWC+ issues
  - Too few opportunities to recover from lost flights
  - HAWC+ had additional (unplanned) commissioning flights
- Because of USRA contract end (February 28, 2017), getting funds to GIs was complicated







#### What went right in Cycle 4/5?



- Improved funding of Guest Investigators
  - ~\$10k per hour instead of \$3k per hour
  - \$7k up front to prepare AORs
- Added contingency flights in cycle 5 (~15% instead of 7%) to improve probability of completing observations
- Many proposals relating to extragalactic observations
  - TAC had an extragalactic panel for first time
- HAWC+ posed to perform unique observations, albeit with reduced capabilities
  - ADR holding time shorter than envisioned
  - Original sensitivity estimates were too optimistic
- Mini-deployments for special observations (e.g. Triton)







#### Preparing for Cycle 6 Call



- Continue improved funding of Guest Investigators
  - ~\$10k per hour instead of \$3k per hour
  - \$7k up front to prepare AORs
- In addition to contingency flights (~17%), rethink flight cadence to improve probability of completing observations
- Redesign New Zealand deployment strategy
- Added capabilities:
  - 4GREAT (pending agreement by GREAT PI)
    - Includes 2 new low-frequency bands, and the M channel which had not been offered in Cycle 5







## Improving Availability of SOFIA



- Use of SOFIA has to be made as straightforward as possible
- E.g. SSPOT for proposal and observation preparations
- Level 3 data delivered on a short time scale
  - 15 working days for SOFIA facility instruments with few exceptions
  - 22 working days for EXES
  - 60 working days for upGREAT
- Nevertheless, how do we attract younger observers?
  - No "SOFIA" fellows. How do we get them?
  - How do we get more graduate and undergraduate students involved in SOFIA?







# New Features of SOFIA Program



- Contingent upon USRA successful recompete for SOFIA contract
  - 1 FTE for Distinguished Visiting Scientist
    - Encourage sabbaticals (few weeks to maximum 2 years)
    - Can be divided up into partial funding for several individuals overlapping in time
    - This allows strategic focus programs
  - Limited USRA funds for students
    - Students from local Mountain View universities can work at SOFIA Science Center
- Additional funding of accepted proposals to allow students to spend time at Palmdale or NASA Ames
- Focus thematic workshops (e.g. Galactic Center)





