Scientific Productivity

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SOFIA Users Group #13
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Status of Guest Observer Projects

Each project dispositioned into one of these categories:

- **Published**: refereed journal article using data
- **Ongoing**: will be combined with upcoming observations
- **In preparation**: GO working on draft/plans to write
- **Incomplete**: less than half of proposed observations complete, or GO indicates cannot publish subset
- **Unpublishable**: GO or SMO believe scientific results will never be obtainable with the acquired data
Status of Guest Observer Projects

Cycles 1-4:
- Published: 40%
- In preparation: 30%
- Ongoing: 20%
- Incomplete: 10%

Cycle 5:
- No status: 20%
- In preparation: 30%
- Incomplete: 50%
Cycle 5 Incompleteness

- Cycle 5 plagued by incomplete programs
  - Aircraft issues, in particular engine issues, caused many lost flights
  - Loss of GREAT flights in NZ was worst problem
  - Instrument scientists and flight planners tried to either complete (observed >80% awarded time) or not spend time (observed <20% awarded time) on GO programs

<table>
<thead>
<tr>
<th>Observed/Awarded</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20%</td>
<td>27</td>
</tr>
<tr>
<td>20-40%</td>
<td>14</td>
</tr>
<tr>
<td>40-60%</td>
<td>11</td>
</tr>
<tr>
<td>60-80%</td>
<td>9</td>
</tr>
<tr>
<td>&gt;80%</td>
<td>28</td>
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</tbody>
</table>

- Cycle 6, mitigation:
  - Accept Priority 1+2 programs up to 75% of available time
Cumulative Refereed Scientific Publications
All Refereed Publications per year

- Archive, Theory
- Instrument
- Thesis
- GTO
- GO
- Extrapolation

Year:
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018

Publications by year
### Refereed scientific Papers per instrument

<table>
<thead>
<tr>
<th>Instrument</th>
<th>#Papers</th>
<th>Hrs/paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREAT</td>
<td>65</td>
<td>12±2</td>
</tr>
<tr>
<td>FORCAST</td>
<td>47</td>
<td>14±2</td>
</tr>
<tr>
<td>EXES</td>
<td>10</td>
<td>20±7</td>
</tr>
<tr>
<td>FIFI-LS</td>
<td>6</td>
<td>75±40</td>
</tr>
<tr>
<td>HAWC+</td>
<td>7</td>
<td>40±20</td>
</tr>
<tr>
<td>HIPO</td>
<td>2</td>
<td>9±6</td>
</tr>
<tr>
<td>FLITECAM</td>
<td>2</td>
<td>34±24</td>
</tr>
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3. Proposed addition of Archival Research Program

- SOFIA is considering adding a funded Archival Research Program
  - Hubble, Chandra have many Cycles of funded archival research
  - Specifically-SOFIA research would no longer be eligible for the NASA Astrophysics Data Analysis Program
- Synchronize Archival Call with annual Guest Observer & Legacy Calls
- Total funds being considered $500k/yr
  - 10% compared to total funding for Observers of $5M/year
- Goal is to encourage studies encompassing multiple projects
  - Classes of target
  - Multi-instrument, comprehensive studies of regions
  - Encouraging publication of “orphaned” data