GLAST Large Area Telescope
Instrument Science Operations Center

ISOC Staffing and Costs

Rob Cameron
Stanford Linear Accelerator Center
ISOC Manager

rac@slac.stanford.edu
650-926-2989
Outline

- The ISOC at SLAC
- ISOC staffing
- Summary of FTEs, 2006 - 2012
- Summary of ISOC costs, 2006 - 2012
- ISOC staff and visitor office needs
- Issues and Concerns
ISOC Staffing

- ISOC SLAC staff are charged to ISOC Operations and/or ISOC Science
  - ISOC Operations tracks ops & FSW activity, LAT health and safety
    - CHS, FSW, I&T support, LAT Ops facility, ....
    - Subject to DOE cost cap
  - ISOC Science tracks science-related and science support activities in ISOC
    - Science Ops, SAS
- ISOC staff provide LAT Project support
  - Approximately 20+ people charged to ISOC are currently supporting LAT I&T activity and FSW development
  - EGSE (LATTE/LICOS), FSW, SVAC, SAS/offline processing systems
  - LAT Integration, Test and Delivery takes high priority
  - Beam test of LAT calibration unit at CERN is not an ISOC cost, but is supported by staff with ISOC duties
- Significant contributions to ISOC science software development and instrument analysis activities from outside SLAC
  - Constant continuing contributions assumed
  - Not included in SLAC FTE estimates
- Experimental Physicists in ISOC also support GLAST Physics
  - Typically 50%
- GLAST postdocs at SLAC do not charge to ISOC, but will have experiment support roles for the LAT
FTE Summary

ISOC FTEs by Group

ISOC FTEs - Ops and Science

<table>
<thead>
<tr>
<th></th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY06</th>
<th>FY07</th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTE</td>
<td>21.7</td>
<td>17.6</td>
<td>39.3</td>
<td>24.9</td>
<td>17.5</td>
<td>42.3</td>
<td>25.0</td>
<td>16.4</td>
<td>41.4</td>
<td>22.7</td>
<td>14.9</td>
<td>37.6</td>
<td>17.5</td>
<td>12.0</td>
<td>29.5</td>
<td>16.2</td>
<td>11.8</td>
<td>28.0</td>
<td>16.2</td>
<td>7.8</td>
<td>24.0</td>
</tr>
<tr>
<td>MGT/SUP</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
<td>3.0</td>
<td>0.3</td>
<td>3.3</td>
</tr>
<tr>
<td>CHS</td>
<td>6.4</td>
<td>5.0</td>
<td>7.4</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
<td>9.5</td>
<td>10.5</td>
</tr>
<tr>
<td>FSW</td>
<td>8.2</td>
<td>1.2</td>
<td>9.4</td>
<td>8.8</td>
<td>1.2</td>
<td>10.0</td>
<td>8.3</td>
<td>0.7</td>
<td>9.0</td>
<td>6.6</td>
<td>0.2</td>
<td>6.8</td>
<td>4.3</td>
<td>0.2</td>
<td>4.5</td>
<td>3.3</td>
<td>0.2</td>
<td>3.5</td>
<td>3.3</td>
<td>0.2</td>
<td>3.5</td>
</tr>
<tr>
<td>SO</td>
<td>4.2</td>
<td>4.5</td>
<td>8.7</td>
<td>3.6</td>
<td>4.6</td>
<td>8.2</td>
<td>4.2</td>
<td>4.1</td>
<td>8.2</td>
<td>4.2</td>
<td>4.1</td>
<td>8.2</td>
<td>3.2</td>
<td>1.2</td>
<td>4.3</td>
<td>2.9</td>
<td>0.9</td>
<td>3.8</td>
<td>2.9</td>
<td>0.9</td>
<td>3.8</td>
</tr>
<tr>
<td>SAS</td>
<td>0.0</td>
<td>10.7</td>
<td>10.7</td>
<td>0.0</td>
<td>10.4</td>
<td>10.4</td>
<td>0.0</td>
<td>10.4</td>
<td>10.4</td>
<td>0.0</td>
<td>10.4</td>
<td>10.4</td>
<td>0.0</td>
<td>10.4</td>
<td>10.4</td>
<td>0.0</td>
<td>10.4</td>
<td>10.4</td>
<td>0.0</td>
<td>10.4</td>
<td>10.4</td>
</tr>
</tbody>
</table>

ISOC Science
ISOC Ops
### ISOC Cost Summary

<table>
<thead>
<tr>
<th>Costs</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOC Ops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td>3,422</td>
<td>3,978</td>
<td>4,095</td>
<td>3,930</td>
<td>3,669</td>
<td>3,491</td>
<td>3,614</td>
</tr>
<tr>
<td>M&amp;S</td>
<td>1,033</td>
<td>504</td>
<td>170</td>
<td>163</td>
<td>146</td>
<td>148</td>
<td>151</td>
</tr>
<tr>
<td>Total</td>
<td>4,456</td>
<td>4,482</td>
<td>4,266</td>
<td>4,093</td>
<td>3,815</td>
<td>3,639</td>
<td>3,764</td>
</tr>
<tr>
<td>ISOC Sci</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor</td>
<td>2,931</td>
<td>3,041</td>
<td>2,980</td>
<td>2,852</td>
<td>2,952</td>
<td>3,055</td>
<td>3,162</td>
</tr>
<tr>
<td>M&amp;S</td>
<td>103</td>
<td>104</td>
<td>106</td>
<td>102</td>
<td>97</td>
<td>99</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>3,035</td>
<td>3,145</td>
<td>3,087</td>
<td>2,955</td>
<td>3,049</td>
<td>3,154</td>
<td>3,231</td>
</tr>
</tbody>
</table>

#### M&S costs
- **Initial Ops facility equip (2006):** $67k (unloaded)
  - Comps, 3 plasma screens, copier, printers, fax, projectors, ...
- Desktop and ops facility comp costs
- Ops telecom/pager needs
- Office costs
- Travel, including some LAT I&T support
  - Most travel for I&T support on LAT Project
ISOC Office Requirements

- ISOC staff offices at SLAC will primarily be in Central Lab Annex, building 84
  - Near to Operations Facility and dataflow labs
- ISOC to move into 84 after KIPAC moves to new Kavli building
  - Some staff with ISOC responsibilities will be in Kavli bldg
- Office space request submitted to SLAC management in December 2005
  - Request covered all GLAST needs in 84, not just ISOC
  - Planned in conjunction with staff relocation to Kavli to avoid double-counting
  - 62 seats + interim computer office for ISOC ops (until Ops Fac ready)
  - Approx 22 new seats needed, for planned consolidation of ISOC staff from buildings 28, 210
  - 46 offices requested, allowing 8 seats/3 offices for GLAST/ISOC visitors.
  - Guidelines: single offices for senior staff; double/multiple occupant offices for junior staff, students, visitors
  - Final office allocations for 84 still in work
Summary

- **Budget**
  - ISOC within budget cap

- **Staff**
  - Shared staff supporting LAT I&T and ISOC development
  - Gradual transition from I&T to ISOC responsibilities
  - A few open/unidentified positions
  - Several fixed term SLAC staff supporting ISOC
    - Regular positions more suitable for 5 – 10 year mission
    - Priority: Ensuring regular positions for key staff

- **Facilities**
  - Operations Facility planning underway
  - Office areas in work
    - Some split of ISOC staff between Kavli bldg and 84
    - Final visitor space still uncertain