Astrophysics Research Programs

NASA Advisory Council
Astrophysics Subcommittee

19 October 2011

Linda Sparke
Research Program Manager
Astrophysics Division
## Statistics for ROSES competitions

**ROSES-2011**

<table>
<thead>
<tr>
<th>Element</th>
<th>Due Date</th>
<th>Notification</th>
<th>Days from due date</th>
<th>Rec'd</th>
<th>Selected</th>
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<tbody>
<tr>
<td>Roman Technology Fellowships</td>
<td>18-Nov-11</td>
<td>-30</td>
<td>21 NOIs</td>
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<tr>
<td>Swift Guest Investigator -- Cycle 8</td>
<td>28-Sep-11</td>
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<td>151</td>
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<tr>
<td>Astrophysics Theory</td>
<td>3-Jun-11</td>
<td>138</td>
<td>197</td>
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<tr>
<td>Astrophysics Data Analysis</td>
<td>20-May-11</td>
<td>29-Sep-11</td>
<td>132</td>
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<tr>
<td><strong>Elements with NEW STARTS IN FY12</strong></td>
<td></td>
<td></td>
<td>weighted mean =</td>
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**ROSES-2010**

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<tbody>
<tr>
<td>Strategic Astrophysics Technology</td>
<td>25-Mar-11</td>
<td>31-Aug-11</td>
<td>159</td>
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<tr>
<td>Astrophysics Research and Analysis</td>
<td>25-Mar-11</td>
<td>31-Aug-11</td>
<td>159</td>
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<td></td>
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<tr>
<td><strong>Elements with NEW STARTS IN FY12</strong></td>
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**ROSES-2009**

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<tbody>
<tr>
<td><strong>Elements with NEW STARTS IN FY11</strong></td>
<td></td>
<td></td>
<td>weighted mean =</td>
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</tbody>
</table>
The Research Program budget has been roughly flat since FY 2009.
NASA Astrophysics Research Program FY11

Astrophysics Research: $124M

- Balloon program office (Wallops) 22%
- Balloon & rocket payloads 19%
- Data Archives 17%
- Data Analysis Program 11%
- Theory 10%
- Detectors etc 15%
- Lab Astro 2%
- Other 4%

Research awards through ROSES: $73M

- Astrophysics Data 19%
- Cosmics 11%
- High Energy 19%
- Optical/UV 12%
- Radio/sub-mm/infrared 17%
- Origins SS 3%
- Theory 17%
- Fundamental Physics 1%
- Other 1%

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These fellowships aim to
... give early career researchers the opportunity to develop the skills to lead astrophysics flight instruments/projects and become principal investigators (PIs) of future astrophysics missions;
... develop innovative technologies that have the potential to enable major scientific breakthroughs;
... foster new talent by putting early-career instrument builders on a trajectory towards long-term positions.

Early-career (<7 years since PhD) PIs in non-tenured positions (postdoc, tenure-track, etc.) may propose a **one-year concept study** to generate detailed plans and commitments for a **4-year development effort**. Reports from concept studies are peer-reviewed to select those that will continue to development; institutional commitments to lab space and other facilities are required.

**ROSES-11**: we expect to award funding for 3-6 concept studies.
### Astrophysics Research & Analysis and Suborbital Payloads (budgets notional)

($ in thousands, does not include civil servant labor)

<table>
<thead>
<tr>
<th></th>
<th>PBR FY11</th>
<th>PBR FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
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<tbody>
<tr>
<td>Research &amp; Analysis</td>
<td>$57,881</td>
<td>$64,312</td>
<td>$82,836</td>
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<td>Lab Astrophysics</td>
<td>21,964</td>
<td>23,779</td>
<td>29,604</td>
<td>30,803</td>
<td>30,992</td>
<td>31,958</td>
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<td>Detectors, Supporting Technology</td>
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<td>4,692</td>
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<td>Theory and Computation Networks</td>
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<td>Astrophysics Data Analysis</td>
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<td>$16,957</td>
<td>$18,451</td>
<td>$18,937</td>
<td>$19,466</td>
<td>$19,832</td>
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</table>

| Large Suborbital (MO)  | 2,000    | 8,000    | 9,000  | 9,000  | 9,000  |
| R&A Suborbital payloads| 21,964   | 23,779   | 29,304 | 30,803 | 30,992 | 31,958 |
| **Total Suborbital Payloads** | **$25,779** | **$37,304** | **$39,803** | **$39,992** | **$40,958** |

This is the same chart that you saw at the February meeting

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