



**Gamma-ray
Large Area Space
Telescope**



GLAST LAT PROJECT

Cost & Schedule Information
for the
GLAST LAT PDR/Baseline Review
January 8-11, 2001

4.1.2 System Engineering
Subsystem Manager – T. Thurston

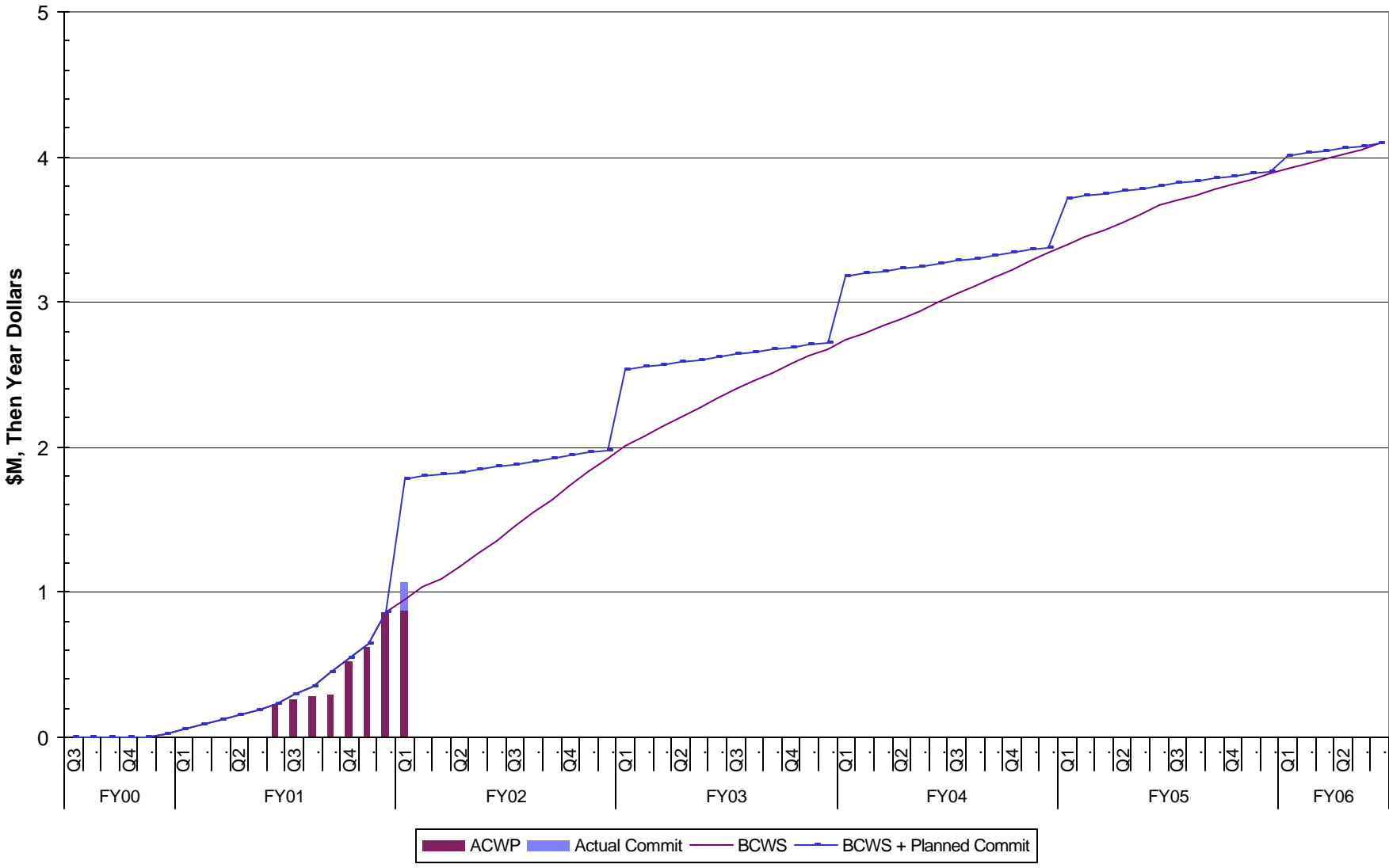


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Large Area Space
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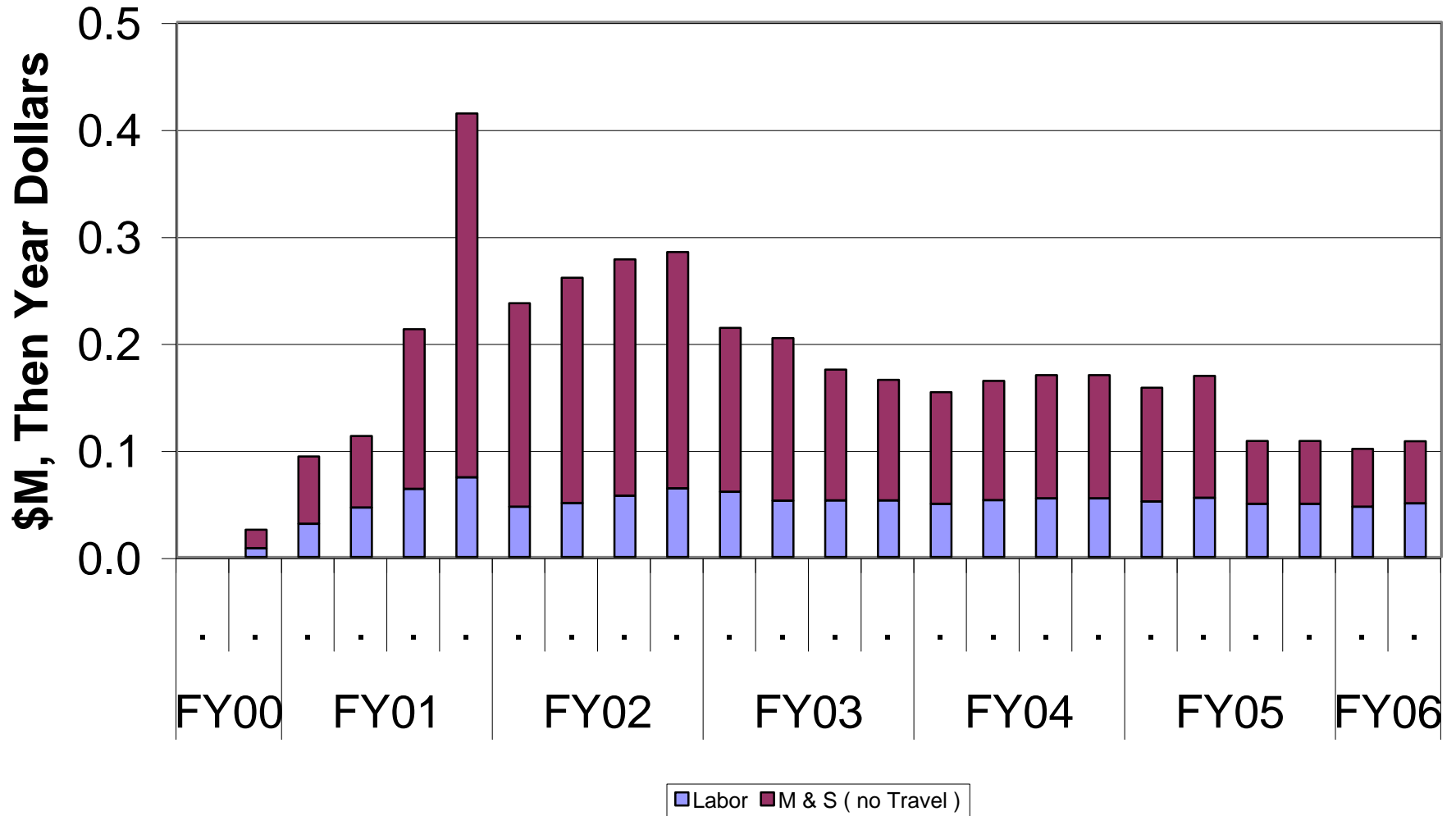


Cost & Commitment Profile

4.1.2 System Engineering Costs and Commitments



4.1.2 System Engineering Cost Type





**Gamma-ray
Large Area Space
Telescope**



Cost Detail @ Work Package Level

| | | | | | | | | | | | |
|-----------|----------|--------------|---|--|--|--|--|--|--|--|--|
| Program: | 1001 | Description: | GLAST LAT Project | | | | | | | | |
| Run Date: | 12/12/01 | Status Date: | 10/31/01 | | | | | | | | |
| Approval: | | | Program Manager Functional Manager Cost Account Manager | | | | | | | | |

| CAPW[4] | OBS | CPN[1] | WP | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | Cumulative |
|--|-------------|----------------|---------|------|------|------|------|------|------|------|------------|
| 4.1.2.1 REQUIREMENTS MANAGEMENT & DESIGN INTEGRATION | | | | | | | | | | | |
| DL SU-SLAC | | | | | | | | | | | |
| 2600011 4.1.2.1 Req'ts Mgmt & Design Integration | | | | | | | | | | | |
| | | CPN[1] Totals: | PLANNED | 17 | 523 | 660 | 466 | 446 | 353 | 127 | 2,593 |
| | | | BUD+COM | 17 | 523 | 699 | 463 | 443 | 340 | 108 | 2,593 |
| | OBS Totals: | | PLANNED | 17 | 523 | 660 | 466 | 446 | 353 | 127 | 2,593 |
| | | | BUD+COM | 17 | 523 | 699 | 463 | 443 | 340 | 108 | 2,593 |
| CAPW[4] Totals: | | | PLANNED | 17 | 523 | 660 | 466 | 446 | 353 | 127 | 2,593 |
| | | | BUD+COM | 17 | 523 | 699 | 463 | 443 | 340 | 108 | 2,593 |
| 4.1.2.3 SYSTEM ANALYSIS | | | | | | | | | | | |
| DL SU-SLAC | | | | | | | | | | | |
| 2600013 4.1.2.3 System Analysis | | | | | | | | | | | |
| | | CPN[1] Totals: | PLANNED | 0 | 36 | 97 | 43 | 0 | 0 | 0 | 175 |
| | | | BUD+COM | 0 | 36 | 107 | 33 | 0 | 0 | 0 | 175 |
| | OBS Totals: | | PLANNED | 0 | 36 | 97 | 43 | 0 | 0 | 0 | 175 |
| | | | BUD+COM | 0 | 36 | 107 | 33 | 0 | 0 | 0 | 175 |
| CAPW[4] Totals: | | | PLANNED | 0 | 36 | 97 | 43 | 0 | 0 | 0 | 175 |
| | | | BUD+COM | 0 | 36 | 107 | 33 | 0 | 0 | 0 | 175 |
| 4.1.2.4 QUALIFICATION & TRACKING | | | | | | | | | | | |
| DL SU-SLAC | | | | | | | | | | | |
| 2600014 4.1.2.4 Qualification & Tracking | | | | | | | | | | | |
| | | CPN[1] Totals: | PLANNED | 0 | 0 | 32 | 31 | 23 | 24 | 12 | 122 |
| | | | BUD+COM | 0 | 0 | 32 | 31 | 23 | 24 | 12 | 122 |
| | OBS Totals: | | PLANNED | 0 | 0 | 32 | 31 | 23 | 24 | 12 | 122 |
| | | | BUD+COM | 0 | 0 | 32 | 31 | 23 | 24 | 12 | 122 |
| CAPW[4] Totals: | | | PLANNED | 0 | 0 | 32 | 31 | 23 | 24 | 12 | 122 |
| | | | BUD+COM | 0 | 0 | 32 | 31 | 23 | 24 | 12 | 122 |
| 4.1.2.5 RISK & RELIABILITY ANALYSIS | | | | | | | | | | | |
| DL SU-SLAC | | | | | | | | | | | |
| 2600173 4.1.2.5 Risk & Reliability Analysis | | | | | | | | | | | |
| | | CPN[1] Totals: | PLANNED | 0 | 36 | 107 | 76 | 56 | 28 | 0 | 301 |
| | | | BUD+COM | 0 | 36 | 117 | 71 | 55 | 23 | 0 | 302 |
| | OBS Totals: | | PLANNED | 0 | 36 | 107 | 76 | 56 | 28 | 0 | 301 |
| | | | BUD+COM | 0 | 36 | 117 | 71 | 55 | 23 | 0 | 302 |
| CAPW[4] Totals: | | | PLANNED | 0 | 36 | 107 | 76 | 56 | 28 | 0 | 301 |
| | | | BUD+COM | 0 | 36 | 117 | 71 | 55 | 23 | 0 | 302 |
| 4.1.2.6 CONFIGURATION MGMT & DOCUMENT / DATA LIBRARY | | | | | | | | | | | |
| DL SU-SLAC | | | | | | | | | | | |
| 2600174 4.1.2.6 Configuration Mgmt & Doc./Data Library | | | | | | | | | | | |
| | | CPN[1] Totals: | PLANNED | 0 | 78 | 76 | 50 | 37 | 38 | 19 | 298 |
| | | | BUD+COM | 0 | 78 | 78 | 48 | 37 | 38 | 19 | 298 |
| | OBS Totals: | | PLANNED | 0 | 78 | 76 | 50 | 37 | 38 | 19 | 298 |
| | | | BUD+COM | 0 | 78 | 78 | 48 | 37 | 38 | 19 | 298 |
| CAPW[4] Totals: | | | PLANNED | 0 | 78 | 76 | 50 | 37 | 38 | 19 | 298 |
| | | | BUD+COM | 0 | 78 | 78 | 48 | 37 | 38 | 19 | 298 |
| 4.1.2.7 MANAGEMENT & PLANNING | | | | | | | | | | | |
| DL SU-SLAC | | | | | | | | | | | |
| 2600175 4.1.2.7 Management & Planning | | | | | | | | | | | |
| | | CPN[1] Totals: | PLANNED | 8 | 162 | 89 | 93 | 97 | 101 | 51 | 602 |
| | | | BUD+COM | 8 | 162 | 89 | 93 | 97 | 101 | 51 | 602 |
| | OBS Totals: | | PLANNED | 8 | 162 | 89 | 93 | 97 | 101 | 51 | 602 |
| | | | BUD+COM | 8 | 162 | 89 | 93 | 97 | 101 | 51 | 602 |
| CAPW[4] Totals: | | | PLANNED | 8 | 162 | 89 | 93 | 97 | 101 | 51 | 602 |
| | | | BUD+COM | 8 | 162 | 89 | 93 | 97 | 101 | 51 | 602 |



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Work Package Planning (Resource Loaded Schedule @ Work Package Level)

| Act ID | Activity Description | Dur | Start | Finish | PMT | Budgeted Cost | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 |
|---|----------------------|-------|-----------|----------|-----|---------------|------------|------|------|------|------|------------|
| | | | | | | | | | | | | |
| 2 4.1.2 SYSTEM ENGINEERING | | | | | | | | | | | | |
| Subtotal | | 1,377 | 09/01/00A | 03/31/06 | | 4,091,660.66 | | | | | | 4,091.6 |
| 21 4.1.2.1 REQ'TS MANAGEMENT & DESIGN INTEGRATION | | | | | | | | | | | | |
| Subtotal | | 1,377 | 09/01/00A | 03/31/06 | | 2,592,814.61 | | | | | | 2,592.8 |
| DL SU-SLAC | | | | | | | | | | | | |
| Subtotal | | 1,377 | 09/01/00A | 03/31/06 | | 2,592,814.61 | | | | | | 2,592.8 |
| + 2600011 4.1.2.1 Req'ts Mgmt & Design Integration | | | | | | | | | | | | |
| | | 1,377 | 09/01/00A | 03/31/06 | | 2,592,814.61 | | | | | | 2,592.8 |
| 23 4.1.2.3 SYSTEM ANALYSIS | | | | | | | | | | | | |
| Subtotal | | 429 | 06/01/01A | 02/28/03 | | 175,371.44 | | | | | | 75,371.44 |
| DL SU-SLAC | | | | | | | | | | | | |
| Subtotal | | 429 | 06/01/01A | 02/28/03 | | 175,371.44 | | | | | | 75,371.44 |
| + 2600013 4.1.2.3 System Analysis | | | | | | | | | | | | |
| | | 429 | 06/01/01A | 02/28/03 | | 175,371.44 | | | | | | 75,371.44 |
| 24 4.1.2.4 QUALIFICATION & TRACKING | | | | | | | | | | | | |
| Subtotal | | 1,031 | 02/01/02 | 03/31/06 | A | 121,929.93 | 121,929.93 | | | | | |
| DL SU-SLAC | | | | | | | | | | | | |
| Subtotal | | 1,031 | 02/01/02 | 03/31/06 | A | 121,929.93 | 121,929.93 | | | | | |
| + 2600014 4.1.2.4 Qualification & Tracking | | | | | | | | | | | | |
| | | 1,031 | 02/01/02 | 03/31/06 | A | 121,929.93 | 121,929.93 | | | | | |
| 25 4.1.2.5 RISK & RELIABILITY ANALYSIS | | | | | | | | | | | | |
| Subtotal | | 946 | 06/01/01A | 03/31/05 | | 301,495.38 | | | | | | 301,495.38 |
| DL SU-SLAC | | | | | | | | | | | | |
| Subtotal | | 946 | 06/01/01A | 03/31/05 | | 301,495.38 | | | | | | 301,495.38 |
| + 2600173 4.1.2.5 Risk & Reliability Analysis | | | | | | | | | | | | |
| | | 946 | 06/01/01A | 03/31/05 | | 301,495.38 | | | | | | 301,495.38 |
| 26 4.1.2.6 CONFIGURATION MGMT & DOC / DATA LIBRARY | | | | | | | | | | | | |
| Subtotal | | 1,335 | 11/01/00A | 03/31/06 | | 298,293.64 | | | | | | 298,293.64 |

| Act ID | Activity Description | Dur | Start | Finish | PMT | Budgeted Cost | | | | | | |
|---|----------------------|-------|-----------|----------|-----|---------------|------|------|------|------|------|------------|
| | | | | | | | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 |
| DL SU-SLAC | | | | | | | | | | | | |
| Subtotal | | 1,335 | 11/01/00A | 03/31/06 | | 298,293.64 | | | | | | 298,293.64 |
| + 2600174 4.1.2.6 Configuration Mgmt & Doc./Data Library | | | | | | | | | | | | |
| | | 1,335 | 11/01/00A | 03/31/06 | | 298,293.64 | | | | | | 298,293.64 |
| 27 4.1.2.7 MANAGEMENT & PLANNING | | | | | | | | | | | | |
| Subtotal | | 1,377 | 09/01/00A | 03/31/06 | A | 601,755.66 | | | | | | 601,755.66 |
| DL SU-SLAC | | | | | | | | | | | | |
| Subtotal | | 1,377 | 09/01/00A | 03/31/06 | A | 601,755.66 | | | | | | 601,755.66 |
| + 2600175 4.1.2.7 Management & Planning | | | | | | | | | | | | |
| | | 1,377 | 09/01/00A | 03/31/06 | A | 601,755.66 | | | | | | 601,755.66 |



**Gamma-ray
Large Area Space
Telescope**



Subsystem Milestones



**Gamma-ray
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Critical Activities with Total Float Less Than 80 Days



**Gamma-ray
Large Area Space
Telescope**



FTEs

| | | |
|-----------------------|-----------------------------------|--|
| Program: 1001 | Description: GLAST LAT Project | Approval: Program Manager Functional Manager Cost Account Manager |
| Run Date: 12/13/01 | Status Date: 10/31/01 | |

| CAPW[3] | OBS[3] | | START | FY00 | FY01 | FY02 | FY03 | FY04 | FY05 | FY06 | Cumulative |
|-----------------|--------------------|---------|-------|------|------|------|------|------|------|------|------------|
| 4.1.2 | SYSTEM ENGINEERING | | | | | | | | | | |
| | DL SU-SLAC | | | | | | | | | | |
| | FY_FTE | PLANNED | 0.0 | 0.0 | 1.4 | 1.8 | 1.7 | 1.6 | 1.5 | 0.7 | 8.8 |
| CAPW[3] Totals: | | PLANNED | 0.0 | 0.0 | 1.4 | 1.8 | 1.7 | 1.6 | 1.5 | 0.7 | 8.8 |