



**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.E Balloon Flight
Subsystem Manager – D. Thompson

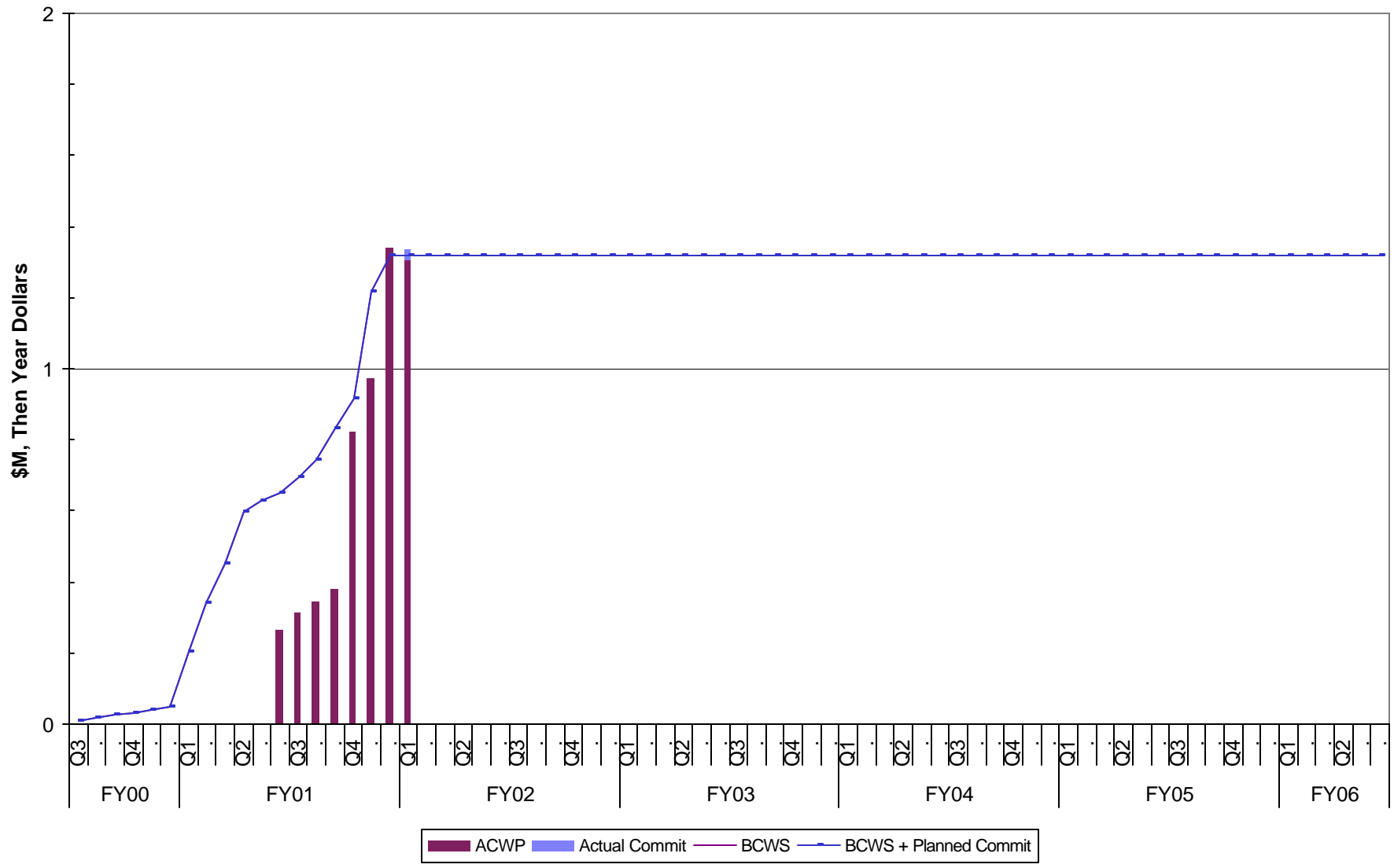


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Cost & Commitment Profile

4.1.E Suborbital Flight Test Costs and Commitments





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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.E SUBORBITAL FLIGHT TEST											
DG GSFC											
GE 4.1.E Balloon Flight GSFC											
		CPN[1] Totals:	PLANNED	0	186	0	0	0	0	0	186
			BUD+COM	0	186	0	0	0	0	0	186
G41E 4.1.E Suborbital Flight Test GSFC											
		CPN[1] Totals:	PLANNED	0	188	0	0	0	0	0	188
			BUD+COM	0	188	0	0	0	0	0	188
	OBS Totals:		PLANNED	0	374	0	0	0	0	0	374
			BUD+COM	0	374	0	0	0	0	0	374
DN NRL											
NE 4.1.E Balloon Flight NRL											
		CPN[1] Totals:	PLANNED	0	143	0	0	0	0	0	143
			BUD+COM	0	143	0	0	0	0	0	143
	OBS Totals:		PLANNED	0	143	0	0	0	0	0	143
			BUD+COM	0	143	0	0	0	0	0	143
DU UCSC											
UE 4.1.E Balloon Flight UCSC											
		CPN[1] Totals:	PLANNED	0	0	0	0	0	0	0	0
			BUD+COM	0	0	0	0	0	0	0	0
	OBS Totals:		PLANNED	0	0	0	0	0	0	0	0
			BUD+COM	0	0	0	0	0	0	0	0
CAPW[4] Totals:				PLANNED	0	517	0	0	0	0	517
				BUD+COM	0	517	0	0	0	0	517
4.1.E.1 SCIENCE											
DH SU-HEPL											
2WCA116 4.1.E.1 Science											
		CPN[1] Totals:	PLANNED	0	116	0	0	0	0	0	116
			BUD+COM	0	116	0	0	0	0	0	116
	OBS Totals:		PLANNED	0	116	0	0	0	0	0	116
			BUD+COM	0	116	0	0	0	0	0	116
CAPW[4] Totals:				PLANNED	0	116	0	0	0	0	116
				BUD+COM	0	116	0	0	0	0	116
4.1.E.3 CALORIMETER											
DN NRL											
GLE3 4.1.E.3 Calorimeter											
		CPN[1] Totals:	PLANNED	0	207	0	0	0	0	0	207
			BUD+COM	0	207	0	0	0	0	0	207
	OBS Totals:		PLANNED	0	207	0	0	0	0	0	207
			BUD+COM	0	207	0	0	0	0	0	207
CAPW[4] Totals:				PLANNED	0	207	0	0	0	0	207
				BUD+COM	0	207	0	0	0	0	207
4.1.E.6 ELECTRONICS HARDWARE											
DH SU-HEPL											
2WCA146 4.1.E.6 Balloon Flight Engineering											
		CPN[1] Totals:	PLANNED	49	150	0	0	0	0	0	199
			BUD+COM	49	150	0	0	0	0	0	199
	OBS Totals:		PLANNED	49	150	0	0	0	0	0	199
			BUD+COM	49	150	0	0	0	0	0	199
CAPW[4] Totals:				PLANNED	49	150	0	0	0	0	199
				BUD+COM	49	150	0	0	0	0	199
4.1.E.7 BALLOON INTERFACE UNIT											
DN NRL											
GLE7 4.1.E.7 Balloon Interface Unit Fabrication											
		CPN[1] Totals:	PLANNED	0	137	0	0	0	0	0	137
			BUD+COM	0	137	0	0	0	0	0	137
	OBS Totals:		PLANNED	0	137	0	0	0	0	0	137
			BUD+COM	0	137	0	0	0	0	0	137
CAPW[4] Totals:				PLANNED	0	137	0	0	0	0	137
				BUD+COM	0	137	0	0	0	0	137

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

CAPW[4]	OBS	CPN[1]	WP		FY00	FY01	FY02	FY03	FY04	FY05	FY06	Cumulative
4.1.E.9 EGSE & INSTRUMENT OPERATIONS												
DH SU-HEPL												
2WCA145 4.1.E.9 EGSE & Operations												
		CPN[1] Totals:		PLANNED	0	55	0	0	0	0	0	55
				BUD+COM	0	55	0	0	0	0	0	55
	OBS Totals:			PLANNED	0	55	0	0	0	0	0	55
				BUD+COM	0	55	0	0	0	0	0	55
CAPW[4] Totals:				PLANNED	0	55	0	0	0	0	0	55
				BUD+COM	0	55	0	0	0	0	0	55
4.1.E.C INTERGRATION & TEST												
DH SU-HEPL												
2WCA148 4.1.E.C Integration and Test												
		CPN[1] Totals:		PLANNED	0	90	0	0	0	0	0	90
				BUD+COM	0	90	0	0	0	0	0	90
	OBS Totals:			PLANNED	0	90	0	0	0	0	0	90
				BUD+COM	0	90	0	0	0	0	0	90
CAPW[4] Totals:				PLANNED	0	90	0	0	0	0	0	90
				BUD+COM	0	90	0	0	0	0	0	90



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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
E 4.1.E SUBORBITAL FLIGHT TEST												
Subtotal		364	04/10/00A	09/21/01A		1,320,825.48	1,320,825.48					
E1 4.1.E.1 SCIENCE												
Subtotal		241	10/03/00A	09/21/01A	A	116,390.24	116,390.24					
DH SU-HEPL												
Subtotal		241	10/03/00A	09/21/01A	A	116,390.24	116,390.24					
+ 2WCA116 4.1.E.1 Science												
		241	10/03/00A	09/21/01A	A	116,390.24	116,390.24					
DU UCSC												
Subtotal		241*	10/03/00A	09/21/01A	A	0.00	0.00					
+ UE 4.1.E Balloon Flight UCSC												
		241*	10/03/00A	09/21/01A	A	0.00	0.00					
E2 4.1.E.2 TRACKER												
Subtotal		67*	10/03/00A	01/16/01A	E	0.00	0.00					
DU UCSC												
Subtotal		67*	10/03/00A	01/16/01A	E	0.00	0.00					
+ UE 4.1.E Balloon Flight UCSC												
		67*	10/03/00A	01/16/01A	E	0.00	0.00					
E3 4.1.E.3 CALORIMETER												
Subtotal		67*	10/03/00A	01/16/01A	E	206,801.58	206,801.58					
DN NRL												
Subtotal		67*	10/03/00A	01/16/01A	E	206,801.58	206,801.58					
+ GLE3 4.1.E.3 Calorimeter												
		67*	10/03/00A	01/16/01A	E	206,801.58	206,801.58					
E4 4.1.E.4 ANTICOINCIDENCE DETECTOR												
Subtotal		68*	10/03/00A	01/17/01A	E	75,360.00	75,360.00					
DG GSFC												
Subtotal		68*	10/03/00A	01/17/01A	E	75,360.00	75,360.00					

Act ID	Activity Description	Dur	Start	Finish	PMT	Budgeted Cost	FY01	FY02	FY03	FY04	FY05	FY06	
+ G41E 4.1.E Suborbital Flight Test GSFC													
		68*	10/03/00A	01/17/01A	E	75,360.00	■	75,360.00					
E6 4.1.E.6 ELECTRONICS HARDWARE													
Subtotal		201	04/10/00A	01/31/01A	E	199,126.78	■	199,126.78					
DH SU-HEPL													
Subtotal		201	04/10/00A	01/31/01A	E	199,126.78	■	199,126.78					
+ 2WCA146 4.1.E.6 Balloon Flight Engineering													
		201	04/10/00A	01/31/01A	E	199,126.78	■	199,126.78					
E7 4.1.E.7 BALLOON INTERFACE UNIT													
Subtotal		169*	10/02/00A	06/08/01A	E	136,889.18	■	136,889.18					
DN NRL													
Subtotal		169*	10/02/00A	06/08/01A	E	136,889.18	■	136,889.18					
+ GLE7 4.1.E.7 Balloon Interface Unit Fabrication													
		169*	10/02/00A	06/08/01A	E	136,889.18	■	136,889.18					
E9 4.1.E.9 EGSE & INSTRUMENT OPERATIONS													
Subtotal		206*	10/02/00A	08/01/01A	A	55,000.83	■	55,000.83					
DH SU-HEPL													
Subtotal		206*	10/02/00A	08/01/01A	A	55,000.83	■	55,000.83					
+ 2WCA145 4.1.E.9 EGSE & Operations													
		206*	10/02/00A	08/01/01A	A	55,000.83	■	55,000.83					
EA 4.1.E.A GONDOLA													
Subtotal		89*	10/02/00A	02/14/01A	E	44,917.20	■	44,917.20					
DG GSFC													
Subtotal		89*	10/02/00A	02/14/01A	E	44,917.20	■	44,917.20					
+ G41E 4.1.E Suborbital Flight Test GSFC													
		89*	10/02/00A	02/14/01A	E	44,917.20	■	44,917.20					
EC 4.1.E.C INTERGRATION & TEST													
Subtotal		78	04/23/01A	08/10/01A	E	486,339.67	■	486,339.67					

Act ID	Activity Description	Dur	Start	Finish	PMT	Budgeted Cost	FY01	FY02	FY03	FY04	FY05	FY06
DG GSFC												
Subtotal		78	04/23/01A	08/10/01A	E	254,026.20	254,026.20					
+ G41E 4.1.E Suborbital Flight Test GSFC												
		78*	04/23/01A	08/10/01A	E	68,026.20	68,026.20					
+ GE 4.1.E Balloon Flight GSFC												
		6	08/04/01A	08/10/01A	E	186,000.00	186,000.00					
DH SU-HEPL												
Subtotal		78*	04/23/01A	08/10/01A	E	89,770.93	89,770.93					
+ 2WCA148 4.1.E.C Integration and Test												
		78*	04/23/01A	08/10/01A	E	89,770.93	89,770.93					
DN NRL												
Subtotal		78*	04/23/01A	08/10/01A	E	142,542.54	142,542.54					
+ NE 4.1.E Balloon Flight NRL												
		78*	04/23/01A	08/10/01A	E	142,542.54	142,542.54					
DU UCSC												
Subtotal		78*	04/23/01A	08/10/01A	E	0.00	0.00					
+ UE 4.1.E Balloon Flight UCSC												
		78*	04/23/01A	08/10/01A	E	0.00	0.00					



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Subsystem Milestones

Act ID	Activity Description	Start	Finish	FY00	FY01	FY02	FY03	FY04	FY05	FY06	
4.1.E SUBORBITAL FLIGHT TEST											
ES00000000	Start Balloon Program		10/02/00A	▼							
ES00001940	Order Mating Connectors		10/20/00A	▼							
ES00000020	Baseline Balloon Flight Plan		11/02/00A	▼							
ES00000250	Determine BFEM Tracker configuration		11/07/00A	▼							
ES00000650	CAL Pre-ship Review		01/10/01A	▼							
ES00000270	TKR Pre-ship Review		01/11/01A	▼							
ES00000970	ACD Pre-ship Review		01/11/01A	▼							
ES00002320	EGSE Release 1		01/18/01A	▼							
ES00002090	FSW Release 1		01/19/01A	▼							
ES00001410	DAQ Pre-Integration Review		01/31/01A	▼							
ES00001730	XGT Development Complete		02/23/01A	▼							
ES00002350	EGSE Release 2		02/26/01A	▼							
ES00000930	Receive new scintillators		04/16/01A	▼							
ES00002580	All BFEM Subsystems Arrive		04/20/01A	▼							
ES00002660	Pre-ship Review		05/14/01A	▼							
ES00001490	BIU Pre-ship Review		06/06/01A	▼							
ES00002150	FSW Release 2		06/20/01A	▼							
ES00002720	Tower Arrives at GSFC		06/28/01A	▼							
ES00002370	EGSE Release 3		07/20/01A	▼							
ES00002180	FSW Release 3		07/30/01A	▼							
ES00002770	Pack & Ship to NSBF		07/31/01A	▼							
ES00002790	Shipment Arrives at NSBF		07/31/01A	▼							
ES00002390	Final EGSE Release		08/01/01A	▼							
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Act ID	Activity Description	Start	Finish	Fiscal Year																		
				FY00	FY01	FY02	FY03	FY04	FY05	FY06												
ES00002210	Final FSW Release		08/02/01A																			
ES00002815	Launch Readiness Review		08/03/01A																			
ES00002910	Deliver Preliminary Report		09/21/01A																			
ES00000235	Deliver Preliminary Report		09/28/01A																			



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Critical Activities with Total Float Less Than 80 Days



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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.E SUBORBITAL FLIGHT TEST											
DG GSFC											
	FY_FTE	PLANNED	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0
DH SU-HEPL											
	FY_FTE	PLANNED	0.0	0.3	3.0	0.0	0.0	0.0	0.0	0.0	3.3
DN NRL											
	FY_FTE	PLANNED	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	2.5
DU UCSC											
	FY_FTE	PLANNED	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.5
CAPW[3] Totals:											
		PLANNED	0.0	0.3	9.0	0.0	0.0	0.0	0.0	0.0	9.3