

UNCLASSIFIED

PE NUMBER: 0305165F
 PE TITLE: NAVSTAR GPS (Space)

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305165F NAVSTAR GPS (Space)
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	110.224	90.711	52.039	0.000	0.000	0.000	0.000	0.000	0.000	2,033.521
3030 NAVSTAR GPS (Space & Control)	110.224	90.711	52.039	0.000	0.000	0.000	0.000	0.000	0.000	2,033.521

(U) A. Mission Description and Budget Item Justification

This Program Element (PE) funds Research and Development (R&D) for the Navstar Global Positioning System (GPS) Space and Control segments for GPS Block II satellites. It includes, but not limited to: satellite development, training simulators, Integrated Logistics Support (ILS) products, ground control segment development, procurement, and operation; sustaining engineering; space and ground segments upgrades; and R&D efforts to support GPS Block II system deployment including efforts to provide anti-jam capability through increased Military(M)-Code signal power.

GPS Block IIR-M are modernized Block IIR vehicles and include a 2nd civil signal (L2C) and M-code. GPS Block IIF satellites are being developed to include a third civil signal (L5).

Operational Control Segment (OCS) will deliver control segment capabilities to support Block IIF satellites as well as the existing constellation of Block IIA/IIR/IIR-M satellites. The full capabilities inherent in the modernized Block IIR-M and IIF satellites will be provided in increment 1 of the Next Generation GPS Control Segment (OCX) which is funded in Program Element 0603421F (FY08), 0603427F and 0603423F (FY09), and 0305265F (FY10-15).

This program is in Budget Activity 7 - Operational Systems Development because it supports operational systems.

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	119.089	91.277	56.335
(U) Current PBR/President's Budget	110.224	90.711	52.039
(U) Total Adjustments	-8.865	-0.566	
(U) Congressional Program Reductions		-0.247	
Congressional Rescissions		-0.319	
Congressional Increases			
Reprogrammings	-3.600		
SBIR/STTR Transfer	-5.265		

(U) Significant Program Changes:

-3.600M in FY08 for higher Air Force priorities; -\$0.566 in FY09 for Congressional General Reductions. -\$4.296M in FY10 for higher DoD priorities.

Exhibit R-2a, RDT&E Project Justification

DATE
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BUDGET ACTIVITY 07 Operational System Development							PE NUMBER AND TITLE 0305165F NAVSTAR GPS (Space)		PROJECT NUMBER AND TITLE 3030 NAVSTAR GPS (Space & Control)		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total	
3030 NAVSTAR GPS (Space & Control)	110.224	90.711	52.039	0.000	0.000	0.000	0.000	0.000	0.000	2,033.521	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0			

(U) A. Mission Description and Budget Item Justification

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This program is in Budget Activity 7 - Operational Systems Development because it supports operational systems.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Continue spectrum/frequency management and program operations	14.008	29.135	9.150
(U) Continue IIF satellite development	5.200	0.000	0.000
(U) Continue Operational Control Segment (OCS) development/modernization	88.038	52.595	38.519
(U) Continue System Engineering & Integration (SE&I)	2.978	8.981	4.370
(U) Total Cost	110.224	90.711	52.039

(U) C. Other Program Funding Summary (\$ in Millions)

	<u>FY 2008</u> <u>Actual</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>FY 2012</u> <u>Estimate</u>	<u>FY 2013</u> <u>Estimate</u>	<u>FY 2014</u> <u>Estimate</u>	<u>FY 2015</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) Other APPN										
(U) Operations and Maintenance:										
PE 0305165F, BA-01; SAG 11M,13D	66.994	82.124	95.532							
(U) Missile Procurement: PE 0305165F; BA-05; P-22, 23	237.825	109.868	53.140							

Exhibit R-2a, RDT&E Project Justification	DATE May 2009
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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305165F NAVSTAR GPS (Space)	PROJECT NUMBER AND TITLE 3030 NAVSTAR GPS (Space & Control)
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(U) **C. Other Program Funding Summary (\$ in Millions)**

(U) Other Procurement: PE

0305165F, BP 83, WSC

836790, P-70; WSC 836740,	11.098	25.038	7.592
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P-71; BP 86, WSC 86190A,

P-62

(U) **D. Acquisition Strategy**

GPS OCS upgrade was competitively awarded to a single contractor (Lockheed Martin) in July 1995. Block IIF satellite and IIF ground systems development contract was competitively awarded to a single contractor (Boeing) in April 1996. The Single Prime Initiative (SPI) consolidated these efforts and was added to the Boeing IIF contract (with Lockheed Martin as a subcontractor) on 1 Oct 1999. GPS Modernization efforts for the Block IIR were awarded sole source to Lockheed Martin under a new contract in August 2000. Modernization efforts for Block IIF were added to the existing contract with Boeing as Engineering Change Proposals (ECPs).

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305165F NAVSTAR GPS (Space)	PROJECT NUMBER AND TITLE 3030 NAVSTAR GPS (Space & Control)
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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
OCS Development & IIF Modernization (F0470196C0025)	FPAF/CPA F/CPFF	Boeing, Seal Beach, CA	1,273.561	83.995	Jan-08	49.560	Nov-08	38.519	Nov-09	Continuing	TBD	1,944.179
IIF Development (F047019C0025)	FPAF/CPA F/CPFF	Boeing, Seal Beach, CA	71.072	5.200	Jan-08	0.000		0.000		0.000	76.272	77.600
Control Segment Support	MIPR/PO	Various Gov't agencies	10.883	8.251	Jan-08	20.357	Nov-08	5.766	Nov-09	Continuing	TBD	TBD
Completed GPS Development Efforts	Various	Various	165.983	0.000		0.000		0.000		0.000	165.983	
Subtotal Product Development			1,521.499	97.446		69.917		44.285		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u>												
System Engineering/Support	Various	FFRDC (Aerospace/Mitre), SETA	61.564	2.978	Jan-08	8.981	Nov-08	4.370	Nov-09	Continuing	TBD	TBD
Completed GPS Support Efforts	Various	Various	46.480	0.000		0.000		0.000		0.000	46.480	
Subtotal Support			108.044	2.978		8.981		4.370		Continuing	TBD	TBD
Remarks:												
(U) <u>Test & Evaluation</u>												
Completed GPS T&E Efforts	Various	Various	4.588	0.000		0.000		0.000		0.000	4.588	
Subtotal Test & Evaluation			4.588	0.000		0.000		0.000		0.000	4.588	0.000
Remarks:												
(U) <u>Management</u>												
Management Support	Various SETA & FFRDCs	FFRDC (Aerospace) & SETA	28.659	9.800	Jan-08	11.813	Nov-08	3.384	Nov-09	Continuing	TBD	TBD
Subtotal Management			28.659	9.800		11.813		3.384		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			1,662.790	110.224		90.711		52.039		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

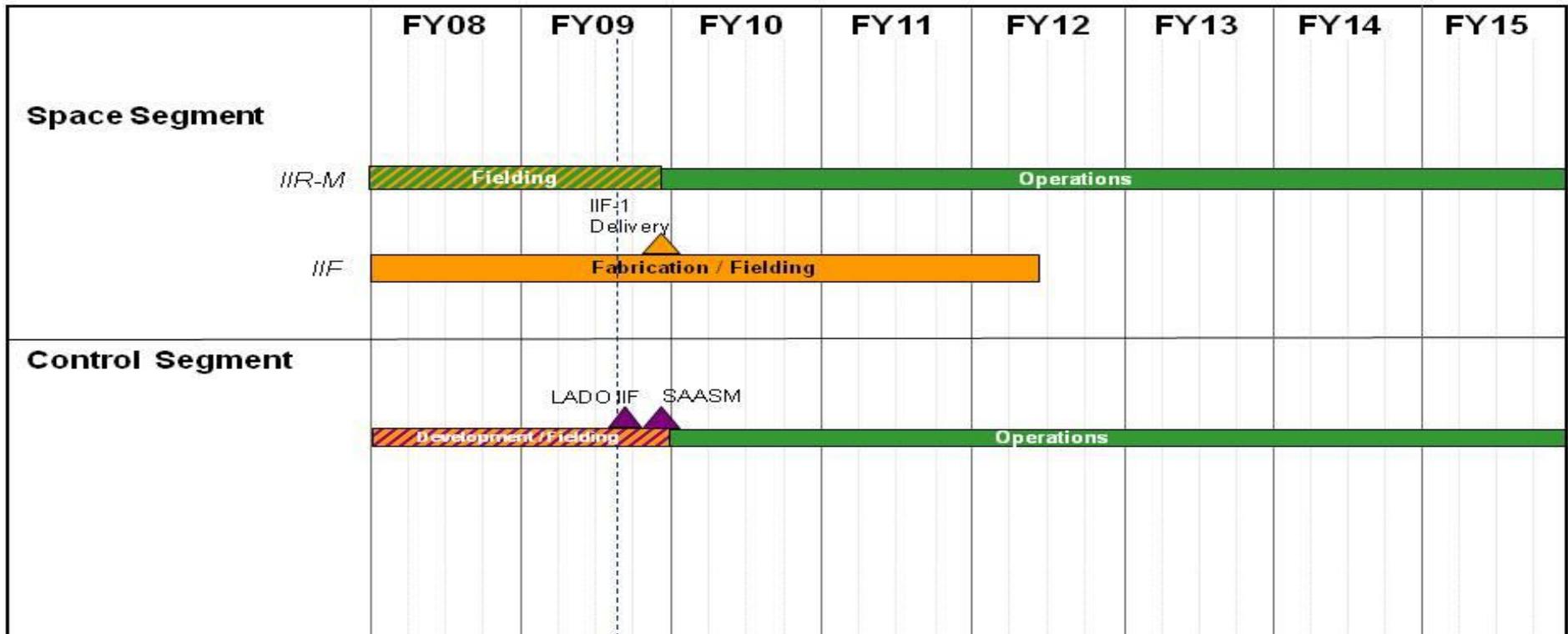
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BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0305165F NAVSTAR GPS (Space)

PROJECT NUMBER AND TITLE
3030 NAVSTAR GPS (Space & Control)



LADO: Launch Anomaly & Disposal Ops SAASM: Selective Availability & Anti-Spoofing Module

Exhibit R-4a, RDT&E Schedule Detail	DATE May 2009
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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) <u>Schedule Profile</u>			
(U) Selective Availability Anti-Spoofing Module (SAASM) system test complete	3Q		
(U) GPS Block IIF development complete	4Q		
(U) Launch, Anomaly and Disposal Operations (LADO) release 2 complete		2Q	
(U) SAASM capability complete		4Q	
(U) Certification for SAASM Multi-Service Operational Test & Evaluation (MOT&E)			2Q