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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 2002
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BUDGET ACTIVITY 04 - Demonstration and Validation	PE NUMBER AND TITLE 0603421F GLOBAL POSITIONING SYSTEM	PROJECT 4993
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COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4993 GPS BLOCK III	0	76,960	100,217	183,767	186,960	211,877	203,641	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

Note: In FY02, PE 0603421F efforts were transferred from PE 0305165F.

NAVSTAR Global Positioning System (GPS) is a space-based radio positioning, navigation, and time (PNT) distribution system. This Program Element (PE) funds the Research and Development (R&D) for GPS Block III. This includes, but is not limited to, advanced concept development, systems engineering and analysis, satellite systems development, the study of augmentation systems with the potential of hosting the GPS PNT system on multi-mission service satellites [such as the Global Multi-Mission Service Platform (GMSP)], control systems development, user equipment interfaces, training simulators, Integrated Logistics Support (ILS) products, and developmental test resources.

Funds will support engineering studies and analyses, architectural engineering studies, trade studies, systems engineering, development, test and evaluation efforts, and mission operations in support of upgrades and product improvements for military and civil applications necessary to support efforts to protect U.S. military and allies' use of GPS.

GPS Modernization Stewardship funds efforts which are of a national scale, joint civil-military in nature, and benefit two or more agencies.

(U) FY 2001 (\$ in Thousands)

(U) \$0 No Activity--Work performed in PE 0305165F

(U) \$0 Total

UNCLASSIFIED

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(U) <u>A. Mission Description Continued</u>					
(U) <u>FY 2002 (\$ in Thousands)</u>					
(U) \$4,700	GPS Modernization Stewardship				
(U) \$3,691	JPO Support for GPS III/Modernization				
(U) \$68,569	GPS III/Modernization Development				
(U) \$76,960	Total				
(U) <u>FY 2003 (\$ in Thousands)</u>					
(U) \$4,600	GPS Modernization Stewardship				
(U) \$4,121	JPO Support for GPS III/Modernization				
(U) \$91,496	GPS III/Modernization Development				
(U) \$100,217	Total				
(U) <u>B. Budget Activity Justification</u>					
This program is Budget Activity 4 - Concept & Technology Development because it is a pre-milestone B effort					
(U) <u>C. Program Change Summary (\$ in Thousands)</u>					
		<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U) Previous President's Budget		0	78,358	100,575	TBD
(U) Appropriated Value		0	78,358		
(U) Adjustments to Appropriated Value					
a. Congressional/General Reductions			-1,398		
b. Small Business Innovative Research					
c. Omnibus or Other Above Threshold Reprogram					
d. Below Threshold Reprogram					
e. Rescissions					
(U) Adjustments to Budget Years Since FY 2002 PBR				-358	
(U) Current Budget Submit/FY 2003 PBR		0	76,960	100,217	TBD
(U) <u>Significant Program Changes:</u>					
Project 4993		Page 2 of 6 Pages	Exhibit R-2 (PE 0603421F)		

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(U) D. Other Program Funding Summary (\$ in Thousands)									
	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E	0	0	0	0	0	0	0	0	0
(U) Related RDT&E:									
(U) PE 0305165F NAVSTAR GPS (Space & Ground)	241,163	178,655	324,098	174,163	99,415	106,183	80,093	Continuing	TBD
(U) PE 0305164F NAVSTAR GPS (User Equip)	60,330	52,541	86,799	60,981	61,595	64,415	70,062	Continuing	
(U) Other APPN None									
(U) E. Acquisition Strategy									
<p>In Nov 00, GPS III awarded one-year contracts to Boeing and Lockheed Martin for \$16M each. Both companies completed the System Architecture and Requirements Definition (SA/RD) studies to survey GPS user needs, develop feasible concepts to address those needs, and provide lifecycle cost estimates associated with achieving various levels of needs satisfaction. Efforts accomplished prior to FY02 are included in PE 0305165F. During FY01, changes were initiated in DoD space acquisition process and GPS III was selected as the pathfinder for the new process. As a result, the next phase is termed Pre-Acquisition (pre-Milestone B, similar to Component Advanced Development) and will follow a successful Key Decision Point B (KDP-B) in FY02 prior to a KDP-C (similar to a combined Milestone A/B) Review in FY04. The GPS JPO plans to release an RFP to conduct a 'Full and Open Competition' with award to two qualified bidders. The subsequent competition, after KDP-C, will award a single Acquisition & Operations contract that includes production options. There will be an Under Secretary of the Air Force (USecAF) review prior to exercising any production options on this contract. The GPS JPO is actively exploring options to accelerate the anti-jam capabilities provided by higher power PNT signals. Additionally, if approved, the GPS III may plan to host the GPS PNT system on multi-mission satellites [such as the Global Multi-Mission Service Platform (GMSP)].</p>									
(U) F. Schedule Profile									
				<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	

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(U) <u>F. Schedule Profile Continued</u>												
		<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
(U) SA/RD Contract Completion					*							
(U) GPS III Defense Space Acquisition Board (DSAB)						X						
(U) Pre-Acquisition Contract Awards							X					
(U) System Requirements Review										X		
(U) System Design Review												X
* = Completed Event, X = Scheduled Event												
Project 4993			Page 4 of 6 Pages			Exhibit R-2 (PE 0603421F)						

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
BUDGET ACTIVITY 04 - Demonstration and Validation					PE NUMBER AND TITLE 0603421F GLOBAL POSITIONING SYSTEM			PROJECT 4993		
(U) A. Project Cost Breakdown (\$ in Thousands)										
						<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>		
(U)	GPS III/Modernization Development					0	68,569	91,496		
(U)	JPO Support for GPS III/ Modernization					0	3,691	4,121		
(U)	GPS Modernization Stewardship					0	4,700	4,600		
(U)	Total					0	76,960	100,217		
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
<u>Contractor or</u>	<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
TBD	CPAF	Jun 02			0	0	15,389	32,136	Continuing	TBD
TBD	CPAF	Jun 02	N/A		0	0	15,389	32,136	Continuing	TBD
GPS III/Modernization	Various				0	0	37,791	27,224	Continuing	TBD
System Engineering & Technical Support										
<u>Support and Management Organizations</u>										
JPO Support for GPS III /	Various				0	0	3,691	4,121	Continuing	TBD
Modernization										
GPS Modernization	Various		N/A	N/A	0	0	4,700	4,600	Continuing	TBD
Stewardship										
<u>Test and Evaluation Organizations</u>										

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		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
						<u>Program</u>
<u>Subtotals</u>						
Subtotal Product Development		0	0	68,569	91,496	TBD
Subtotal Support and Management		0	0	8,391	8,721	TBD
Subtotal Test and Evaluation						
Total Project		0	0	76,960	100,217	TBD