

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

BUDGET ACTIVITY

**04 - Advanced Component Development and Prototypes
(ACD&P)**

PE NUMBER AND TITLE

0603421F GLOBAL POSITIONING SYSTEM

PROJECT

4993

COST (\$ in Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
4993	GPS BLOCK III	62,998	55,580	0	40,674	180,513	291,634	779,847	792,797	Continuing	TBD
Quantity of RDT&E Articles		0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

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 Space and Control Segments. 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, control segment 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, system 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 2002 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program
 (U) \$4,700 Continued GPS Modernization Stewardship
 (U) \$3,691 Continued Program Support for GPS III/Modernization
 (U) \$54,607 Continued GPS III/Modernization Development
 (U) \$62,998 Total

(U) **FY 2003 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program
 (U) \$4,600 Continue GPS Modernization Stewardship
 (U) \$4,121 Continue Program Support for GPS III/Modernization
 (U) \$46,859 Continue GPS III/Modernization Development

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(U) **A. Mission Description Continued**(U) **FY 2003 (\$ in Thousands) Continued**

(U) \$55,580 Total

(U) **FY 2004 (\$ in Thousands)**

(U) \$0 Accomplishments/Planned Program

(U) \$0 No activity

(U) \$0 Total

(U) **B. Budget Activity Justification**

This program is Budget Activity 4 - Advanced Component Development and Prototypes because it is a Key Decision Point (KDP) B effort

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	76,960	100,217	183,767	TBD
(U) Appropriated Value	78,358	60,217		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-1,705	-637		
b. Small Business Innovative Research	-3,634			
c. Omnibus or Other Above Threshold Reprogram		-4,000		
d. Below Threshold Reprogram	-10,021			
e. Rescissions				
(U) Adjustments to Budget Years Since FY 2003 PBR			-183,767	
(U) Current Budget Submit/FY 2004 PBR	62,998	55,580	0	TBD

(U) **Significant Program Changes:**

The GPS III program has been restructured to focus on supporting an FY12 first launch.

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(U) <u>D. Other Program Funding Summary (\$ in Thousands)</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>FY 2008</u>	<u>FY 2009</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>Estimate</u>	<u>Complete</u>	
(U) AF RDT&E										
(U) PE 0305165F NAVSTAR GPS (Space & Ground)	183,569	285,415	146,468	129,933	107,134	84,752	43,677	39,696	Continuing	TBD
(U) Other APPN										
(U) Operations and Maintenance (PE 0305165F, BA 1 - Operating Forces, SAG 13D)	44,312	57,956	53,205	63,639	66,373	77,103	80,289	83,956	Continuing	TBD
(U) Missile Procurement (PE 0305165F, BA 5-Space and Other Support, P-19, 20)	161,948	226,336	258,852	334,878	342,189	266,243	131,960	82,145	Continuing	TBD
(U) Other Procurement (PE 0305165F, BP 83-Electronics and Telecommunications Equipment, WSC 6790, P-62 and WSC 6730; BP 86 - Spares & Repair Parts WSC 190A, P-106)	10,345	13,403	12,589	13,344	13,583	12,046	10,316	22,715	Continuing	TBD
(U) Related R,D,T&E										
(U) PE 0305164F, GPS User Equipment										
(U) PE 0305913F, Nuclear Detonation System (NDS)										
<div style="display: flex; justify-content: space-between;"> Project 4993 Page 3 of 6 Pages Exhibit R-2 (PE 0603421F) </div>										

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(U) **E. Acquisition Strategy**

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-KDP-B, similar to Component Advanced Development) followed by a successful Key Decision Point B (KDP-B) not earlier than FY05. The GPS JPO will release an RFP following KDP-B to conduct a Full and Open Competition. The scope of this competitive award will be determined during 2QFY03 reviews with USecAF. Program options to reduce cycle time and to support an ILC in FY12 are being developed.

(U) **F. Schedule Profile**

FY 2002

FY 2003

FY 2004

1	2	3	4	1	2	3	4	1	2	3	4
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*

(U) SA/RD Contract Completion (original effort)

(U) Concept Defn & Risk Reduction Studies Complete (initial work)

*

(U) USecAF Program Review

X

(U) Note: No program events planned in FY04

* = Completed Event, X = Scheduled Event

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003																																																																																																															
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		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
<u>Subtotals</u>						<u>Total</u>
Subtotal Product Development		0	54,607	46,859	0	TBD
Subtotal Support and Management		0	8,391	8,721	0	TBD
Subtotal Test and Evaluation						
Total Project		0	62,998	55,580	0	TBD

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