Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0305165F: NAVSTAR Global Positioning System (Space and Control Segments)

BA 7: Operational Systems Development

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	16.820	14.335	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
673030: NAVSTAR GPS (Space & Control)	-	16.820	14.335	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

MDAP/MAIS Code(s): 166

Note

No FY2014 funding requested. In FY2013, Navstar GPS (Space & Control) Project 673030 is complete.

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 is not limited to: training simulators, Integrated Logistics Support (ILS) products, ground control segment development, 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. The Operational Control Segment (OCS) delivers control segment capabilities to support Block IIF satellites as well as the existing constellation of Block IIA/IIR/IIR-M satellites.

Funding provides development of upgrades to integrate the Selective Availability Anti-Spoofing Module (SAASM) mission planning system (SMPS) and implement the new STRATCOM/SAASM operations concept. FY13 is the final year of funding.

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

PE 0305165F: NAVSTAR Global Positioning System (Space and Contr... Air Force

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^{*} FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

	Justification:	PB 2014 Air	Force						DATE: A	pril 2013	
APPROPRIATION/BUDGET ACTI 3600: Research, Development, Tes BA 7: Operational Systems Develo	st & Evaluation,	Air Force			EM NOMEN 05165F: <i>NA</i>	_	al Positionin	g System	(Space and	Control Segr	ments)
B. Program Change Summary (\$	in Millions)		FY 20	12 F	Y 2013	FY 2014	Base	FY 2014	4 OCO	FY 2014 T	<u> Fotal</u>
Previous President's Budge	•		17.7	'04	14.335	(0.000		_	0	.000
Current President's Budget			16.8		14.335		0.000		_		.000
Total Adjustments	-0.8		0.000		0.000		-		.000		
Congressional Ge	eneral Reductio	ns		_	0.000						
Congressional Di	rected Reduction	ons		_	0.000						
Congressional Re	escissions		0.0	000	0.000						
Congressional Act				_	0.000						
Congressional Di		s		-	0.000						
Reprogrammings			0.0	000	0.000						
SBIR/STTR Trans			-0.2	240	0.000						
 Other Adjustment 	ts		-0.6	644	0.000	(0.000		-	0	.000
C. Accomplishments/Planned Pr	ograms (\$ in N	Millions)							FY 2012	FY 2013	FY 2014
	•										
Title: OCS Description: Development of GPS	S Block II Opera	itional Contr	ol Svstem (C	OCS).					16.820	14.335	0.000
Title: OCS Description: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrace FY 2013 Plans:	•		, ,	,					16.820	14.335	0.00
Description: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad	des and System	ı Engineerin	g & Integration	on (SE&I). on (SE&I).							
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans:	des and System	ı Engineerin	g & Integration	on (SE&I). on (SE&I).	nplishments	s/Planned P	rograms Sເ	ıbtotals	16.820	14.335	
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans:	des and System	n Engineering	g & Integration	on (SE&I). on (SE&I). Accol		s/Planned P	rograms Sı	ıbtotals		14.335	0.00
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Sumr	des and System es and System mary (\$ in Millio	Engineering	g & Integration & Integration FY 2014	on (SE&I). on (SE&I). Accor	FY 2014				16.820	14.335 Cost To	0.00
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Sumr Line Item	des and System es and System mary (\$ in Million FY 2012	Engineering Engineering ons) FY 2013	g & Integration & Integration FY 2014 Base	on (SE&I). on (SE&I). Accol	FY 2014 Total	FY 2015	FY 2016	FY 201	16.820 7 FY 2018	14.335 Cost To Complete	0.00
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Summ Line Item MPAF: BA05: Line Item #	des and System es and System mary (\$ in Millio	Engineering	g & Integration & Integration FY 2014	on (SE&I). on (SE&I). Accor	FY 2014				16.820 7 FY 2018	14.335 Cost To Complete	0.00
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Summ Line Item MPAF: BA05: Line Item # MGPS00: Global Positioning	des and System es and System mary (\$ in Million FY 2012	Engineering Engineering ons) FY 2013	g & Integration & Integration FY 2014 Base	on (SE&I). on (SE&I). Accor	FY 2014 Total	FY 2015	FY 2016	FY 201	16.820 7 FY 2018	14.335 Cost To Complete	0.00
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Summ Line Item MPAF: BA05: Line Item # MGPS00: Global Positioning (Space)	des and System es and System mary (\$ in Million FY 2012 107.689	Engineering Engineering ons) FY 2013 58.147	g & Integration Example 1 & Integration FY 2014 Base 55.997	on (SE&I). on (SE&I). Accor	FY 2014 Total 55.997	FY 2015 20.262	FY 2016 8.642	FY 201 0.00	16.820 7 FY 2018 0 0.000	Cost To Complete 0.000	0.00 Total Cos 3,883.80
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Summ Line Item MPAF: BA05: Line Item # MGPS00: Global Positioning (Space) OPAF: BA03: Line Item #	des and System es and System mary (\$ in Million FY 2012	Engineering Engineering ons) FY 2013	g & Integration & Integration FY 2014 Base	on (SE&I). on (SE&I). Accor	FY 2014 Total	FY 2015	FY 2016	FY 201	16.820 7 FY 2018 0 0.000	Cost To Complete 0.000	0.00 Total Cos 3,883.80
Pescription: Development of GPS FY 2012 Accomplishments: Continued ground segment upgrad FY 2013 Plans: Complete ground segment upgrad D. Other Program Funding Summ Line Item • MPAF: BA05: Line Item # MGPS00: Global Positioning (Space)	des and System es and System mary (\$ in Million FY 2012 107.689	Engineering Engineering ons) FY 2013 58.147	g & Integration Example 1 & Integration FY 2014 Base 55.997	on (SE&I). on (SE&I). Accor	FY 2014 Total 55.997	FY 2015 20.262	FY 2016 8.642	FY 201 0.00	7 FY 2018 0 0.000	14.335 Cost To Complete 0.000 0.000	0.00 Total Cos 3,883.80

PE 0305165F: NAVSTAR Global Positioning System (Space and Contr... Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE**

3600: Research, Development, Test & Evaluation, Air Force PE 0305165F: NAVSTAR Global Positioning System (Space and Control Segments)

BA 7: Operational Systems Development

D. Other Program Funding Summary (\$ in Millions)

FY 2014 FY 2014 FY 2014 Cost To

Line Item FY 2013 FY 2018 Complete Total Cost FY 2012 Base OCO FY 2015 FY 2016 FY 2017 Total

Remarks

E. 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 in 2002 as Engineering Change Proposals (ECPs).

F. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

UNCLASSIFIED PE 0305165F: NAVSTAR Global Positioning System (Space and Contr... Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PROJECT

PE 0305165F: NAVSTAR Global Positioning 673030: NAVSTAR GPS (Space & Control)

DATE: April 2013

System (Space and Control Segments)

Product Development (\$ in Millions)			FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contrac
OCS Development & IIF Modernization	C/Various	Boeing:Seal Beach, CA	-	3.982	Nov 2011	0.000		0.000		-		0.000	0.000	3.982	
IIF Development	C/Various	Boeing:Seal Beach, CA	-	0.000		0.000		0.000		-		0.000	0.000	0.000	
Control Segment Support	MIPR	Various:Various,	-	3.783	Nov 2011	0.000		0.000		-		0.000	0.000	3.783	
Completed GPS Development Efforts	Various	Various:Various,	-	0.000		0.000		0.000		-		0.000	0.000	0.000	
OCS Prime Contract	C/Various	Boeing:Seal Beach, CA	-	0.000		10.405	Nov 2012	0.000		-		0.000	0.000	10.405	
		Subtotal	0.000	7.765		10.405		0.000		0.000		0.000	0.000	18.170	
Support (\$ in Million	ıs)			FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
System Engineering/ Support	C/CPAF	Various:Various,	-	0.333	Nov 2011	0.000		0.000		-		0.000	0.000	0.333	
FFRDC	Various	Aerospace:El Segundo, CA	-	0.764	Nov 2011	0.000		0.000		-		0.000	0.000	0.764	
Directorate Support	Various	Various:Various,	-	0.000		0.143	Nov 2012	0.000		-		0.000	0.000	0.143	
		Subtotal	0.000	1.097		0.143		0.000		0.000		0.000	0.000	1.240	
		Test and Evaluation (\$ in Millions)			FY 2012		FY 2013		FY 2014 Base						
Test and Evaluation	(\$ in Milli	ons)		FY 2	2012	FY 2	2013			FY 2		FY 2014 Total			

Cost Category Item & Type **Activity & Location** Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract Completed GPS T&E 0.000 Various Various:Various 0.000 0.000 0.000 0.000 0.000 Efforts Integrated System Test PO 3.635 Jan 2012 0.000 0.000 0.000 0.000 3.635 Various: Various. (IST) 0.000 0.000 0.000 0.000 Subtotal 0.000 3.635 0.000 3.635

PE 0305165F: NAVSTAR Global Positioning System (Space and Contr... Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force

PE 0305165F: NAVSTAR Global Positioning 673030: NAVSTAR GPS (Space & Control)

BA 7: Operational Systems Development

System (Space and Control Segments)

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration (PMA)	Various	Various:,	-	4.323	Nov 2011	3.787	Nov 2012	0.000		-		0.000	0.000	8.110	
		Subtotal	0.000	4.323		3.787		0.000		0.000		0.000	0.000	8.110	
			All Prior Years	FY 2	2012	FY:	2013	FY 2 Ba	2014 ise	FY 2		FY 2014 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	0.000	16.820		14.335		0.000		0.000		0.000	0.000	31.155	

Remarks

PE 0305165F: NAVSTAR Global Positioning System (Space and Contr... Air Force

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Exhibit R-4. RDT&E Schedule Profile: PB 2014 Air Force DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

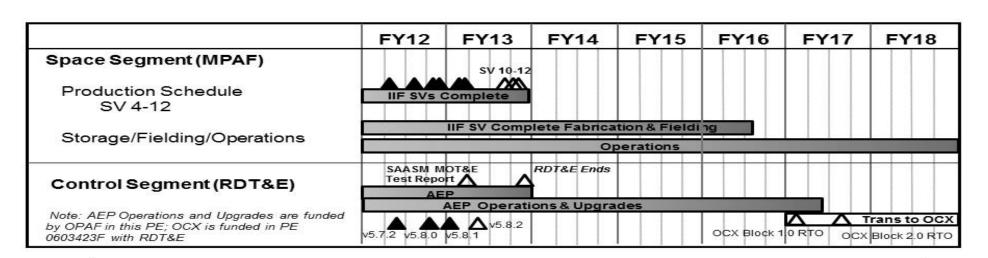
3600: Research, Development, Test & Evaluation, Air Force

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE PROJECT

PE 0305165F: NAVSTAR Global Positioning 673030: NAVSTAR GPS (Space & Control)

System (Space and Control Segments)



AEP - Architecture Evolution Plan MOT&E - Multi-Service Operational Test & Evaluation OCX - Next Generation Operational Control System RDT&E - Research, Development, Test and Evaluation RTO - Ready to Transition to Operations SAASM - Selective Availability Anti-Spoofing Module SV - Space Vehicle

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0305165F: NAVSTAR Global Positioning 673030: NAVSTAR GPS (Space & Control)

BA 7: Operational Systems Development System (Space and Control Segments)

Schedule Details

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
Critical Ops Modifications	1	2012	2	2013	
Certification for SAASM Multi-Service Operational Test & Evaluation (MOT&E)	1	2013	1	2013	

PE 0305165F: NAVSTAR Global Positioning System (Space and Contr... Air Force

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