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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0603423F: <i>Global Positioning System III - Operational Control Segment</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	288.402	-	-	-	-	-	-	-	-	Continuing	Continuing
64A021: <i>GPS III OCX</i>	288.402	-	-	-	-	-	-	-	-	Continuing	Continuing

Note

Totals include funding for PRCP Program Number, 292, GPS IIIA

The program funding includes reductions for overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$6.464M in FY12.

FY12-16 funding has been transferred to this PE from PE 0305265F. It is in BPAC 67A021.

A. Mission Description and Budget Item Justification

The Global Positioning System (GPS) is a space based Position, Navigation and Time (PNT) distribution system. This Program Element (PE) funds the Research and Development (R&D) for the next generation GPS control segment (OCX). This includes, but is not limited to, advanced concept development, systems engineering and analysis, modernized control segment development, training simulators, Integrated Logistics Support (ILS) products, and developmental test resources. The OCX acquisition was established to 1) fly legacy and GPS III satellites, 2) incorporate situational awareness to support Navwar and signal monitoring, and 3) enable mission capability upgrades to support warfighter Effects-Based Approach to Operations (EBAO).

Funds will support engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, 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. Additionally, funds will ensure a disciplined Capability Insertion Program (CIP) plan to meet Joint Requirements Oversight Council (JROC) approved required capabilities. Funds will support science and technology, technology development and systems development efforts.

This program element is Budget Activity 4. OCX is in the Technology Development Phase.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force				DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE				
3600: Research, Development, Test & Evaluation, Air Force		PE 0603423F: Global Positioning System III - Operational Control Segment				
BA 4: Advanced Component Development & Prototypes (ACD&P)						
B. Program Change Summary (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget		292.000	-	-	-	-
Current President's Budget		288.402	-	-	-	-
Total Adjustments		-3.598	-	-	-	-
• Congressional General Reductions			-			
• Congressional Directed Reductions			-			
• Congressional Rescissions		-3.598	-			
• Congressional Adds			-			
• Congressional Directed Transfers			-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0603423F: Global Positioning System III - Operational Control Segment				PROJECT 64A021: GPS III OCX			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
64A021: GPS III OCX	288.402	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
Note Totals include funding for PRCP Program Number, 292, GPS IIIA. In FY11, OCX funding is combined under the GPS III PE, 0305265F, and resides in a separate project (67A020) from the Space Vehicle development funding. FY12-16 funding is in this PE (0603423F) however under BPAC 67A021.											
A. Mission Description and Budget Item Justification The Global Positioning System (GPS) is a space based Position, Navigation and Time (PNT) distribution system. This Program Element (PE) funds the Research and Development (R&D) for the next generation GPS control segment (OCX). This includes, but is not limited to, advanced concept development, systems engineering and analysis, modernized control segment development, training simulators, Integrated Logistics Support (ILS) products, and developmental test resources. The OCX acquisition was established to 1) fly legacy and GPS III satellites, 2) incorporate situational awareness to support Navwar and signal monitoring, and 3) enable mission capability upgrades to support warfighter Effects-Based Approach to Operations (EBAO). Funds will support engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, 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. Additionally, funds will ensure a disciplined Capability Insertion Program (CIP) plan to meet Joint Requirements Oversight Council (JROC) approved required capabilities. Funds will support science and technology, technology development and systems development efforts. This program element is Budget Activity 4. OCX is in the Technology Development Phase.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: OCX							288.402	-	-	-	-
Description: Development of the next generation GPS control segment.											
FY 2010 Accomplishments:											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force							DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>			R-1 ITEM NOMENCLATURE PE 0603423F: <i>Global Positioning System III - Operational Control Segment</i>				PROJECT 64A021: <i>GPS III OCX</i>				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Complete OCX Block 1-2 Phase A development, source selection and contract award. Continue System Engineering & Integration (SE&I), technical and program support. FY 2011 Plans: NA FY 2012 Base Plans: FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals							288.402	-	-	-	-
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• RDT&E: AF PE 0305265F, GPS III Space Segment	410.469	446.304	460.297	0.000	460.297	316.328	217.458	247.201	227.330	Continuing	Continuing
• RDT&E (1): AF PE 0305265F, OCX	0.000	381.867	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• MPAF PE 0305265F: GPS III Space Segment	0.000	122.490	515.337	0.000	515.337	515.408	529.623	555.924	626.121	Continuing	Continuing
• OPAF PE 0305265F: OCX	0.000	0.000	0.000	0.000	0.000	0.000	11.431	12.656	13.385	Continuing	Continuing
D. Acquisition Strategy											
The Air Force is pursuing a "Block" approach to the next generation GPS control segment (OCX) to rapidly respond to warfighter capability requirements. The Block acquisition strategy approach follows the "Back to Basics" space program acquisition philosophy which focuses on mitigating cost and schedule risk through a lower risk incremental delivery of mature technologies. This approach focuses on mission success and on-time delivery.											
E. 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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603423F: Global Positioning System III - Operational Control Segment	PROJECT 64A021: GPS III OCX
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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Phase A OCX Development (Northrop Grumman)	C/CPFF	Northrop Grumman:Carson, CA	91.683	-		-		-		-	0.000	91.683	0.000
Phase A OCX Development (Raytheon)	C/CPFF	Raytheon:Aurora, CO	91.683	-		-		-		-	0.000	91.683	0.000
Phase B OCX Block 1 & 2 Development	C/CPAF	Raytheon:Aurora, CO	214.847	-		-		-		-	Continuing	Continuing	TBD
SE&I	C/CPAF	SAIC:Huntington Beach, CA	17.315	-		-		-		-	Continuing	Continuing	TBD
Modernization/SE & Technical Support	Various	Various:Various,	53.622	-		-		-		-	Continuing	Continuing	TBD
Subtotal			469.150	-		-		-		-			

Remarks
FY12-16 OCX funding transferred from PE 0305265F to 0603423F - in BPAC 67A021. FY11 OCX funding resides in PE 0305265F.

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Wing Support	Various	Various:Various,	89.943	-		-		-		-	Continuing	Continuing	TBD
FFRDC	Various	Aerospace:El Segundo, CA	19.010	-		-		-		-	0.000	19.010	0.000
Subtotal			108.953	-		-		-		-			

Remarks
FY11 funding in PE 0305265F. FY12-FY16 funding in PE 0603423F, BPAC 67A021.

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				R-1 ITEM NOMENCLATURE PE 0603423F: <i>Global Positioning System III - Operational Control Segment</i>				PROJECT 64A021: <i>GPS III OCX</i>					

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	578.103	-		-		-		-			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force	PE 0603423F: Global Positioning System III -	64A021: GPS III OCX
BA 4: Advanced Component Development & Prototypes (ACD&P)	Operational Control Segment	

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603423F: <i>Global Positioning System III - Operational Control Segment</i>	PROJECT 64A021: <i>GPS III OCX</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
OCX Block 1-2 Contract Award	2	2010	2	2010

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