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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
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							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	289.702	292.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
64A021: GPS III OCX	289.702	292.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note
This exhibit reflects an Air Force request for a technical adjustment transferring FY2010 funds in BA 7 (0603423F), R-1 Line No. 112 Global Position System III to BA 4 (0603423F), R-1 Line No. 33 Global Position System III.

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 the 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.

Beginning in FY11, OCX funding is combined under the GPS III PE, 0305265F, and resides in a separate Budget Program Activity Code (BPAC) from the Space Vehicle development funding.

This program is Budget Activity 4 - Advanced Component Development and Prototypes because it is in Phase A (Concept Development).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force				DATE: February 2010	
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 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	306.502	292.000	0.000	0.000	0.000
Current President's Budget	289.702	292.000	0.000	0.000	0.000
Total Adjustments	-16.800	0.000	0.000	0.000	0.000
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-16.800	0.000	0.000	0.000	0.000
Change Summary Explanation					
-\$10.000 in FY09 for higher DoD priorities. -\$6.8M for SBIR. FY10 funds transferred from PE 0305265F.					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010															
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>															
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost												
64A021: <i>GPS III OCX</i>	289.702	292.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000												
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0														
<p>A. Mission Description and Budget Item Justification</p> <p>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 the 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).</p> <p>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.</p> <p>Beginning in FY11, OCX funding is combined under the GPS III PE, 0305265F, and resides in a separate Budget Program Activity Code (BPAC) from the Space Vehicle development funding.</p> <p>This program is Budget Activity 4 - Advanced Component Development and Prototypes because it is in Phase A (Concept Development).</p>																							
<p>B. Accomplishments/Planned Program (\$ in Millions)</p> <table border="1"> <tr> <td></td> <td>FY 2009</td> <td>FY 2010</td> <td>FY 2011 Base</td> <td>FY 2011 OCO</td> <td>FY 2011 Total</td> </tr> <tr> <td>MAJOR THRUST: Development of the next generation GPS control segment.</td> <td align="right">289.702</td> <td align="right">292.000</td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">0.000</td> </tr> </table>													FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	MAJOR THRUST: Development of the next generation GPS control segment.	289.702	292.000	0.000	0.000	0.000
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total																		
MAJOR THRUST: Development of the next generation GPS control segment.	289.702	292.000	0.000	0.000	0.000																		

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force									DATE: February 2010		
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			
B. Accomplishments/Planned Program (\$ in Millions)						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2009 Accomplishments: In FY 2009: Funds support science and technology, technology development, systems development and GPS enterprise integration efforts for Phase A Concept Development for OCX.											
FY 2010 Plans: In FY 2010: Completion of OCX Block 1-2 Phase A development, source selection and contract award, System Engineering & Integration (SE&I), technical and program support.											
FY 2011 Base Plans: In FY 2011: NA											
FY 2011 OCO Plans: In FY 2011 OCO: Not Applicable.											
Accomplishments/Planned Programs Subtotals						289.702	292.000	0.000	0.000	0.000	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE Not Provided (2078): Activity Not Provided	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
• PE 0305265F: GPS III Space Segment (RDT&E)	379.046	423.466	446.412	0.000	446.412	328.296	321.590	194.945	200.185	0.000	0.000
• PE 0305265F (1): OCX (RDT&E)	0.000	0.000	381.867	0.000	381.867	117.054	436.797	440.830	370.267	0.000	0.000
	0.000	0.000	122.490	0.000	122.490	680.879	496.942	790.366	700.931	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force										DATE: February 2010	
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>			
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0305265F (2): <i>GPS III Space Segment (MPAF)</i>											
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 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 2011 Air Force	DATE: February 2010
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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>
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Product Development (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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		0.000		0.000		0.000	0.000	91.683	0.000
Phase A OCX Development (Raytheon)	C/CPFF	Raytheon Aurora, CO	91.683	0.000		0.000		0.000		0.000	0.000	91.683	0.000
Phase B OCX Block 1 & 2 Development	C/CPIF	TBD TBD	0.000	214.847	Jan 2010	0.000		0.000		0.000	0.000	214.847	0.000
SE&I	C/CPAF	SAIC Huntington Beach, CA	4.614	12.701	Jan 2010	0.000		0.000		0.000	0.000	17.315	0.000
Modernization/SE & Technical Support	Various/ Various	Various Various	31.220	22.402	Jan 2010	0.000		0.000		0.000	0.000	53.622	0.000
Subtotal			219.200	249.950		0.000		0.000		0.000	0.000	469.150	0.000

Remarks

Funding transferred to PE 0305265F starting in FY11

Support (\$ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 Various	70.501	42.050	Jan 2010	0.000		0.000		0.000	0.000	112.551	0.000

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Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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			70.501	42.050		0.000		0.000		0.000	0.000	112.551	0.000
Remarks Funding transferred to PE 0305265F starting in FY11													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			289.701	292.000		0.000		0.000		0.000	0.000	581.701	0.000
Remarks Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

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

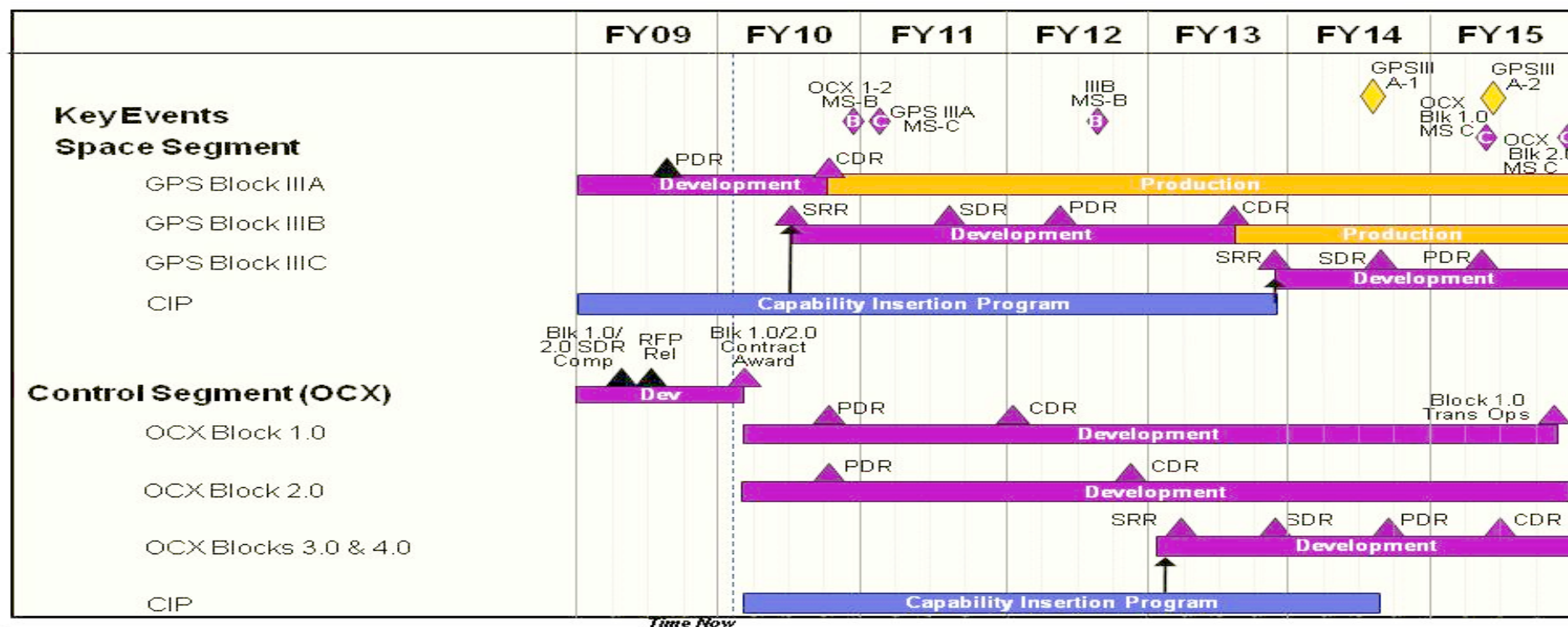
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603423F: Global Positioning System III - Operational Control Segment

PROJECT

64A021: GPS III OCX



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
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

Event	Start		End	
	Quarter	Year	Quarter	Year
Release OCX Request for Proposals (RFP)	3	2009	3	2009
OCX Block 1-2 Preliminary Design Review (PDR)	4	2010	4	2010
OCX Block 1-2 Milestone B	4	2010	4	2010

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