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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604778A: <i>Positioning Systems Development (SPACE)</i>
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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	7.275	-	-	-	-	-	-	-	-	Continuing	Continuing
168: NAVSTAR GPS EQUIP	7.275	-	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Navstar Global Positioning System (Navstar GPS) is a passive, space-based, radio positioning and navigation system providing precise, three dimensional position, navigation, velocity and timing information to warfighters. The Navstar GPS program is designated as a DoD Space Program and the United States Air Force (USAF) is the executive agent. The Joint Program Office develops GPS User Equipment (PE 35164F) with direct Army management and participation. NAVSTAR GPS is composed of three segments: Space, Control, and User Equipment. Project 168 provides for initial and sustained participation in the research and development of Army unique requirements that enhance the Position Navigation capabilities of Army weapons systems and platforms. These funds are used to identify/support the means to increase the functionality and performance of GPS receivers in response to the latest enemy threats to GPS.

The Defense Advanced GPS Receiver has been designated a Horizontal Technology Integration (HTI) program and provides essential capabilities to numerous weapon systems and platforms.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	9.396	-	-	-	-
Current President's Budget	7.275	-	-	-	-
Total Adjustments	-2.121	-	-	-	-
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-2.121	-			
• SBIR/STTR Transfer	-	-			

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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
168: <i>NAVSTAR GPS EQUIP</i>	7.275	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Navstar Global Positioning System (Navstar GPS) is a passive, space-based, radio positioning and navigation system providing precise, three dimensional position, navigation, velocity and timing information to warfighters. The Navstar GPS program is designated as a DoD Space Program and the United States Air Force (USAF) is the executive agent. The Joint Program Office develops GPS User Equipment (PE 35164F) with direct Army management and participation. NAVSTAR GPS is composed of three segments: Space, Control, and User Equipment. Project 168 provides for initial and sustained participation in the research and development of Army unique requirements that enhance the Position Navigation capabilities of Army weapons systems and platforms. These funds are used to identify/support the means to increase the functionality and performance of GPS receivers in response to the latest enemy threats to GPS.

GPS Receivers have been designated a Horizontal Technology Integration (HTI) program and provide essential capabilities to numerous weapon systems and platforms.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: GPS Regional(TAGR) Articles: Description: Funding is provided for the following effort FY 2010 Accomplishments: Transition of a classified capability of the Tactical Assured - GPS Regional(TAGR) system to augment GPS receivers ability to overcome enemy threats. Complete all required tasks for transition to Milestone A approval	7.031 0	-	-
Title: SBIR/STTR Articles: Description: Funding is provided for the following effort FY 2010 Accomplishments: Small Business Innovative Research/Small Business Technology Transfer Program	0.244 0	-	-
Accomplishments/Planned Programs Subtotals	7.275	-	-

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• K47800: <i>Other Procurement, Army, NAVSTAR GPS</i>	145.991	45.693	29.568		29.568		23.682	2.548	1.824	Continuing	Continuing

D. Acquisition Strategy

Transition commercial technology investments and Communication and Electronics Research, Development, and Engineering Center (CERDEC) classified program initiatives to improve and enhance functionality of GPS receivers to include unique Army requirements for GPS receivers in overcoming current enemy threats to GPS. Complete all required tasks for transition to technology development phase. Solicit for competitive contract through technology development phase for down select for engineering & manufacturing development phase.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT					
2040: Research, Development, Test & Evaluation, Army				PE 0604778A: Positioning Systems Development (SPACE)				168: NAVSTAR GPS EQUIP					
BA 5: Development & Demonstration (SDD)													
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
PMO Support	Various	PM GPS:Ft. Monmouth, NJ	-	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			-	-		-		-		-			
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
C2 CONOPS Development	TBD	TBD:TBD	-	-		-		-		-	Continuing	Continuing	Continuing
Performance Specification Development/Draft CDD KPP/ RFP	MIPR	Penn State ARL:ARL	-	-		-		-		-	Continuing	Continuing	Continuing
Interface ICD Development	MIPR	CERDEC:APG	-	-		-		-		-	Continuing	Continuing	Continuing
Integration Analysis/ ICD Capture	TBD	Rockwell Collins:TBD	-	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			-	-		-		-		-			
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
Analysis of Alternatives Support	MIPR	Battle Command Battle Lab:TRADOC	-	-		-		-		-	Continuing	Continuing	Continuing
Acquisition Plan Development	Various	ARINC:ARINC	-	-		-		-		-	Continuing	Continuing	Continuing
Acquisition Document Development	Various	ARINC:ARINC	-	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			-	-		-		-		-			

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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
Regression / Delta / CONOPS Testing	MIPR	EPG:EPG	-	-		-		-		-	Continuing	Continuing	Continuing
Technology Readiness Assessment	MIPR	CERDEC:APG	-	-		-		-		-	Continuing	Continuing	Continuing
Subtotal			-	-		-		-		-			

	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	-	-	-	-	-			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army			DATE: February 2011		
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Materiel Development Decision (MDD)																												
Materiel Solution Analysis (MSA) Phase																												
TAGR System Milestone (MS) A																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

2040: *Research, Development, Test & Evaluation, Army*
BA 5: *Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604778A: *Positioning Systems*
Development (SPACE)

PROJECT

168: *NAVSTAR GPS EQUIP*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Materiel Development Decision (MDD)	3	2010	3	2010
Materiel Solution Analysis (MSA) Phase	4	2010	3	2011
TAGR System Milestone (MS) A	4	2011	4	2011

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