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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604778A: Positioning Systems Development (SPACE)							
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	0.000	9.396	0.000	0.000	0.000	0.000	0.000	0.000	0.000	40.100	49.496
168: NAVSTAR GPS EQUIP	0.000	9.396	0.000	0.000	0.000	0.000	0.000	0.000	0.000	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)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	0.000	9.446	0.000	0.000	0.000
Current President's Budget	0.000	9.396	0.000	0.000	0.000
Total Adjustments	0.000	-0.050	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 1	0.000	-0.050	0.000	0.000	0.000

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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
168: <i>NAVSTAR GPS EQUIP</i>	0.000	9.396	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification <p>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.</p>											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Program #1 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 <i>FY 2009 Accomplishments:</i> FY 2009 <i>FY 2010 Plans:</i> FY 2010 <i>FY 2011 Base Plans:</i> FY 2011 Base							0.000	9.152	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
FY 2011 OCO Plans: FY 2011 OCO											
Program #2 SBIR/STTR FY 2009 Accomplishments: FY 2009 FY 2010 Plans: FY 2010 FY 2011 Base Plans: FY 2011 Base FY 2011 OCO Plans: FY 2011 OCO						0.000	0.244	0.000	0.000	0.000	
Accomplishments/Planned Programs Subtotals						0.000	9.396	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
• Ord. #1: K47800, Other Procurement, Army, NAVSTAR GPS	94.231	125.991	32.193	13.500	45.693	15.122	29.959	27.929	9.924	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											

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for transition to technology development phase. Solicit for competitive contract through technology development phase for down select for engineering & manufacturing development phase.		
<u>E. Performance Metrics</u> 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 2011 Army											DATE: February 2010			
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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	
C2 CONOPS DevelopmentDevelopment	C	TBD Location could not be determined.	0.000	1.046		0.000		0.000		0.000	Continuing	Continuing	0	
Performance Specification Development/Draft CDD KPP/RFP	C	Penn State ARL State College, PA	0.000	0.850		0.000		0.000		0.000	Continuing	Continuing	0	
Interface ICD Development	C	CERDEC Aberdeen Proving Ground, MD	0.000	0.850		0.000		0.000		0.000	Continuing	Continuing	0	
Integration Analysis/ ICD Capture	C	Rockwell Collins Cedar Rapids, IA	0.000	1.200		0.000		0.000		0.000	Continuing	Continuing	0	
Subtotal			0.000	3.946		0.000		0.000		0.000			0.000	
Remarks														
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	
Analysis of Alternatives Support	C	Battle Command Battle Lab Ft. Gordon, GA	0.000	0.600		0.000		0.000		0.000	Continuing	Continuing	0	
	C	ARINC	0.000	0.400		0.000		0.000		0.000	Continuing	Continuing	0	

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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
Acquisition Plan Development		Annapolis, MD											
Acquisition Document Development	C	ARINC Annapolis, MD	0.000	1.500		0.000		0.000		0.000	Continuing	Continuing	0
Supportability Strategy	C	CECOM/LRC Location could not be determined.	0.000	0.000		0.000		0.000		0.000	Continuing	Continuing	0
Subtotal			0.000	2.500		0.000		0.000		0.000			0.000
Remarks													
Test and Evaluation (\$ 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
Regression / Delta / CONOPS Testing	C	EPG Ft. Huachuca, AZ	0.000	1.400		0.000		0.000		0.000	Continuing	Continuing	0
Technology Readiness Assessment	C	CERDEC Aberdeen Proving Ground, MD	0.000	0.800		0.000		0.000		0.000	Continuing	Continuing	0
Subtotal			0.000	2.200		0.000		0.000		0.000			0.000
Remarks													

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Management Services (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <tr> <th colspan="4"></th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th colspan="3"></th> </tr> <tr> <th>Cost Category Item</th> <th>Contract Method & Type</th> <th>Performing Activity & Location</th> <th>Total Prior Years Cost</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Cost To Complete</th> <th>Total Cost</th> <th>Target Value of Contract</th> </tr> <tr> <td>PMO Support</td> <td>C</td> <td>PM GPS Aberdeen Proving Ground, MD</td> <td align="right">0.000</td> <td align="right">0.800</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td>Continuing</td> <td>Continuing</td> <td align="right">0</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td> <td align="right">0.000</td> <td align="right">0.800</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td></td> <td align="right">0.000</td> </tr> </table>																		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	PMO Support	C	PM GPS Aberdeen Proving Ground, MD	0.000	0.800		0.000		0.000		0.000	Continuing	Continuing	0	Subtotal			0.000	0.800		0.000		0.000		0.000			0.000
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total																																																											
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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army																								DATE: February 2010																																																																																																																																																				
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	FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015																																																																																																																																																			
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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army			DATE: February 2010	
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Schedule Details				
	Start		End	
Event	Quarter	Year	Quarter	Year
Materiel Development Decision (MDD)	2	2010	2	2010
Materiel Solution Analysis (MSA) Phase	2	2010	2	2011
TAGR System Milestone (MS) A	2	2011	2	2011

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