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Exhibit R-2, RDT&E Budget Item 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 0604858F: *Technology Transition Program.*

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	9.275	12.260	2.773	-	2.773	-	-	-	-	Continuing	Continuing
645350: <i>Transition Prioritization</i>	9.275	12.260	2.773	-	2.773	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Technology Transition Program (TTP) provides funding to mature and demonstrate technologies to enable or accelerate their transition to legacy or acquisition programs of record. It addresses the gap that exists between when a technology is first demonstrated and when it can be successfully acquired as an operational capability. TTP bridges that gap by funding promising system and subsystem concepts for technology integration and demonstration to continue beyond the laboratory. It allows acquisition program managers (the developers and providers) and warfighters (the end users) to integrate, prototype, and demonstrate candidate technologies and assess them in an operational environment. As a result, the warfighters can assess the capability first-hand and accurately fund the follow-on acquisition program during the next budgeting cycle. TTP includes research and development funds for the following transition activities: (1) prototyping of promising, high-priority concepts and technologies in an operational environment to lower acquisition risk by raising the technology readiness level; (2) performing pre-acquisition systems engineering to facilitate transition from a demonstration program into acquisition programs of record; (3) assessing interface requirements of candidate concepts, technologies, and demonstration projects to better understand true engineering costs resulting from insertion of new technologies into the Air Force architecture; and (4) capturing data through information technology tools and databases to help formulate strategies and gather proposals for development that have the potential to perform Department of Defense (DoD) missions. This effort is in Budget Activity 4, Advanced Component Development and Prototypes, since it involves system specific efforts that help expedite technology transition from the laboratory to operational use.

B. Program Change Summary (\$ in Millions)

	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	9.611	12.260	2.782	-	2.782
Current President's Budget	9.275	12.260	2.773	-	2.773
Total Adjustments	-0.336	-	-0.009	-	-0.009
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-0.040	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.296	-			
• Other Adjustments	-	-	-0.009	-	-0.009

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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 0604858F: Technology Transition Program.				PROJECT 645350: Transition Prioritization				
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	
645350: Transition Prioritization	9.275	12.260	2.773	-	2.773	-	-	-	-	Continuing	Continuing	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0			
A. Mission Description and Budget Item Justification												
The Technology Transition Program (TTP) provides funding to mature and demonstrate technologies to enable or accelerate their transition to legacy or acquisition programs of record. It addresses the gap that exists between when a technology is first demonstrated and when it can be successfully acquired as an operational capability. TTP bridges that gap by funding promising system and subsystem concepts for technology integration and demonstration to continue beyond the laboratory. It allows acquisition program managers (the developers and providers) and warfighters (the end users) to integrate, prototype, and demonstrate candidate technologies and assess them in an operational environment. As a result, the warfighters can assess the capability first-hand and accurately fund the follow-on acquisition program during the next budgeting cycle. TTP includes research and development funds for the following transition activities: (1) prototyping of promising, high-priority concepts and technologies in an operational environment to lower acquisition risk by raising the technology readiness level; (2) performing pre-acquisition systems engineering to facilitate transition from a demonstration program into acquisition programs of record; (3) assessing interface requirements of candidate concepts, technologies, and demonstration projects to better understand true engineering costs resulting from insertion of new technologies into the Air Force architecture; and (4) capturing data through information technology tools and databases to help formulate strategies and gather proposals for development that have the potential to perform Department of Defense (DoD) missions. This effort is in Budget Activity 4, Advanced Component Development and Prototypes, since it involves system specific efforts that help expedite technology transition from the laboratory to operational use.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Major Thrust 1.								9.275	12.260	2.773	-	2.773
Description: Technology transition project execution to facilitate long-term acquisition planning and budget development.												
FY 2010 Accomplishments: Demonstrate and transition an advanced optical self-protection system for protection of aircraft from guided projectiles; a multi-intelligence correlation, visualization, and analysis software tool for rapid integration of multi-source data into a scalable analysis environment supporting combat zone command and control facilities; a no or low collateral damage counter-electronics capability; a satellite communications capability for simultaneous multiple satellite links and advanced antenna control; a command and control facility decision support software tool to aid the planning of Intelligence, Surveillance and Reconnaissance (ISR) support to operations, including dynamic tasking and re-tasking capabilities for emerging operational requirements; and an integrated performance, readiness, test, and training assessment system combining live and simulated												

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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 0604858F: <i>Technology Transition Program.</i>	PROJECT 645350: <i>Transition Prioritization</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>aircraft, ground assets, and command and control nodes, allowing operations beyond the limited geographical boundaries of physical training ranges in accordance with the capabilities of modern weapon systems.</p> <p><i>FY 2011 Plans:</i> Demonstrate and transition technologies supporting persistent wide area air and maritime surveillance to enable defense against threats in the interior of and in the approaches to North America. Funds will also complete supporting the demonstration and transition of an advanced optical self-protection system for protection of aircraft from guided projectiles; a multi-intelligence correlation, visualization and analysis software tool for rapid integration of multi-source data into a scalable analysis environment supporting combat zone command and control facilities; a no or low collateral damage counter-electronics capability; a satellite communications capability for simultaneous multiple satellite links and advanced antenna control; and an integrated performance, readiness, test, and training assessment system combining live and simulated aircraft, ground assets, and command and control nodes, allowing operations beyond the limited geographical boundaries of physical training ranges in accordance with the capabilities of modern weapon systems.</p> <p><i>FY 2012 Base Plans:</i> Complete the demonstration and transition of technologies supporting persistent wide area air and maritime surveillance to enable defense against threats in the interior of and in the approaches to North America.</p> <p><i>FY 2012 OCO Plans:</i></p>					
Accomplishments/Planned Programs Subtotals	9.275	12.260	2.773	-	2.773

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>
• Activity Not Provided: <i>Title Not Provided</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing

D. Acquisition Strategy										
<p>TTP enables a more effective and prioritized transition of technologies to the warfighter. It allows more accurate cost estimating and more comprehensive systems integration to occur through the use of prototypes and user assessments until the sponsoring MAJCOM can incorporate the technology into their subsequent budget submission. The AF, through appropriate program offices, will manage the acquisition and development process for the integration and fielding of SAE-approved TTP projects. Each project will have a complete acquisition plan defined and approved as a criterion for subsequent funding.</p>										

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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 0604858F: <i>Technology Transition Program.</i>	PROJECT 645350: <i>Transition Prioritization</i>

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				R-1 ITEM NOMENCLATURE				PROJECT					
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)				PE 0604858F: Technology Transition Program.				645350: Transition Prioritization					
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
Analyst Support Architecture project	SS/Various	Northrop Grumman Space & Mission Systems Corp:Aurora, CO	0.959	-		-		-		-	Continuing	Continuing	TBD
Analyst Support Architecture project licenses	C/FFP	Objectivity, Inc.:Sunnyvale, CA	0.166	-		-		-		-	Continuing	Continuing	TBD
Geodesic Dome Phased Array Antenna project	C/CPFF	Ball Aerospace & Technologies Corp:Boulder, CO	2.240	0.400	Oct 2010	-		-		-	Continuing	Continuing	TBD
ISR Strategy to Task Assessment of Kill chain Effectiveness project	C/Various	Intelligence Software Solutions:Colorado Springs, CO	0.386	-		-		-		-	Continuing	Continuing	TBD
Affordable Laser Infrared countermeasure Survivable System project	C/TBD	Lockheed Martin MS2:Akron, OH	1.680	-		-		-		-	Continuing	Continuing	TBD
Nellis Performance Assessment and Readiness Test and Training System (NPARTTS) project development	C/CPFF	The Boeing Company:St Louis, MO	1.000	-		-		-		-	Continuing	Continuing	TBD
NPARTTS project technology development	C/CPFF	L3 Communications:Mesa, AZ	0.597	-		-		-		-	Continuing	Continuing	TBD
Various	Various	Various:Various,	2.247	11.860		2.773		-		2.773	Continuing	Continuing	TBD
Subtotal			9.275	12.260		2.773		-		2.773			
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
Subtotal			-	-		-		-		-	0.000	0.000	0.000

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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 0604858F: <i>Technology Transition Program.</i>				PROJECT 645350: <i>Transition Prioritization</i>					

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

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			9.275	12.260		2.773		-		2.773			

Remarks TBD

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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 BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0604858F: Technology Transition Program.	645350: Transition Prioritization

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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 0604858F: <i>Technology Transition Program.</i>	PROJECT 645350: <i>Transition Prioritization</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY10 Project Funding Award	3	2010	3	2010
FY10 Project Progress Review	2	2011	2	2011
FY11 Project Funding Award	2	2011	2	2011
FY11 Project Progress Review	4	2011	2	2012
FY12 Project Funding Award	2	2012	2	2012
FY12 Project Progress Review	4	2012	2	2013

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