Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

DATE: Apr

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

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

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

**R-1 ITEM NOMENCLATURE** 

PE 0604858F: Tech Transition Program

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 <sup>#</sup>	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	2.683	37.558	13.636	-	13.636	59.741	28.479	3.000	3.054	Continuing	Continuing
645350: Transition Prioritization	-	2.683	37.558	13.636	-	13.636	59.741	28.479	3.000	3.054	Continuing	Continuing
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

<sup>&</sup>lt;sup>#</sup> FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

### 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: prototyping of promising, high-priority concepts and technologies in an operational environment to lower acquisition risk by raising the technology readiness level; performing pre-acquisition systems engineering to facilitate transition from a demonstration program into acquisition programs of record; 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 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. The program provides funding to mature adaptive turbine engine technologies for next generation propulsion systems. The program will leverage adaptive turbine engine science and technology demonstrations to develop a multi-platform common adaptive engine built around a commercially derived core. It will enable multiple high confidence engine acquisition programs through the common engine architecture, and accomplishment of early risk reduction and early competition prior to an acquisition program. TTP funding will also provide for the demonstration of systems and technology to enable increasingly responsive, resilient, and affordable architectures via development of hostable payloads, small satellites, interface standards, and government/commercial hosting opportunities. These efforts are in Budget Activity 4, Advanced Component Development and Prototypes, since they involve system specific efforts that help expedite technology transition from the laboratory to operational use.

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<sup>##</sup> The FY 2014 OCO Request will be submitted at a later date

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R-1 ITEM NOMENCLATURE

PE 0604858F: Tech Transition Program

FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
2.766	37.558	16.833	-	16.833
2.683	37.558	13.636	-	13.636
-0.083	0.000	-3.197	-	-3.197
-	0.000			
-	0.000			
0.000	0.000			
-	0.000			
-	0.000			
0.000	0.000			
-0.083	0.000			
0.000	0.000	-3.197	-	-3.197
	2.766 2.683 -0.083 - - - 0.000 - - - 0.000 -0.083	2.766 37.558 2.683 37.558 -0.083 0.000 - 0.000 - 0.000 0.000 0.000 - 0.000 0.000 0.000 0.000 - 0.000 0.000 0.000	2.766       37.558       16.833         2.683       37.558       13.636         -0.083       0.000       -3.197         -       0.000         -       0.000         -       0.000         -       0.000         0.000       0.000         0.000       0.000         -       0.000         -       0.000         -       0.000         -       0.000         -       0.000         -       0.000         -       0.000	2.766       37.558       16.833       -         2.683       37.558       13.636       -         -0.083       0.000       -3.197       -         -       0.000       -       -         0.000       0.000       -       -         -       0.000       -       -         0.000       0.000       -       -         0.000       0.000       -       -         -       0.003       0.000       -         -       0.083       0.000       -

# **Change Summary Explanation**

FY14 decrease due to higher DoD priorities.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Title: Technology Transition	2.683	0.000	0.000
Description: Technology transition project execution to facilitate long-term acquisition planning and budget development.			
FY 2012 Accomplishments: 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.			
<b>FY 2013 Plans:</b> N/A			
<b>FY 2014 Plans:</b> N/A			
Title: Propulsion Technology Transition	0.000	34.558	10.636
Description: Next generation fuel efficient military propulsion system.			
FY 2012 Accomplishments: N/A			
FY 2013 Plans:			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

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

PE 0604858F: Tech Transition Program

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

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2012	FY 2013	FY 2014
Accomplish an adaptive turbine engine prototype conceptual design. Perform engine configuration definition and component conceptual design. Complete early performance, durability, and operability assessments.			
FY 2014 Plans: Complete component risk reduction and core engine design. Continue preliminary engine design activities, as well as weapons systems integration, common core studies, and material manufacturing readiness activities.			
Title: Space Technology Transistion	0.000	3.000	3.000
Description: Responsive Resilient Space Technologies			
FY 2012 Accomplishments: N/A			
FY 2013 Plans: Pursue opportunities to mature systems and technologies which enable increasingly responsive, resilient and affordable architectures via hostable payloads, small satellites and government/commercial hosting opportunities.			
FY 2014 Plans: Pursue opportunities to mature systems and technologies which enable increasingly responsive, resilient and affordable architectures via hostable payloads, small satellites and government/commercial hosting opportunities.			
Accomplishments/Planned Programs Subtotals	2.683	37.558	13.636

## D. Other Program Funding Summary (\$ in Millions)

N/A

#### Remarks

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## E. Acquisition Strategy

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 major command can incorporate the technology into their subsequent budget submission. The Air Force, through appropriate program offices, will manage the acquisition and development process for the integration and fielding of Service Acquisition Executive approved TTP projects.

#### **F. 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.

PE 0604858F: Tech Transition Program

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DATE: April 2013 Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** 3600: Research, Development, Test & Evaluation, Air Force PE 0604858F: Tech Transition Program 645350: Transition Prioritization BA 4: Advanced Component Development & Prototypes (ACD&P) FY 2014 FY 2014 FY 2014 **Product Development (\$ in Millions)** oco FY 2012 FY 2013 Base Total Contract Target Method Performing All Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location Years Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost Propulsion Technologies C/CPFF GE and P&W:. 0.000 34.558 Oct 2012 10.636 10.636 Continuing Continuing TBD Space Technologies TBD:TBD. 0.000 3.000 3.000 3.000 Continuing Continuing **TBD** Various 2.683 Dec 2012 0.000 0.000 0.000 Continuing Continuing TBD C2 Gap Filler project Various Various: Various. 0.000 Subtotal 2.683 37.558 13.636 0.000 13.636 FY 2014 FY 2014 FY 2014 Support (\$ in Millions) oco FY 2012 FY 2013 Base Total Contract **Target** Method Performing **All Prior** Award Award Award **Cost To** Total Value of Award Activity & Location **Cost Category Item** & Type Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract 0.000 Subtotal 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Test and Evaluation (\$ in Millions) FY 2012 FY 2013 oco Base Total Contract Target Method All Prior **Cost To** Value of Performing Award Award Award Award Total **Cost Category Item** & Type **Activity & Location** Years Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract Subtotal 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 FY 2014 FY 2014 FY 2014 Management Services (\$ in Millions) FY 2012 FY 2013 oco Base Total Target Contract All Prior **Cost To** Method Performing Award Award Award Award Total Value of **Cost Category Item Activity & Location** Cost Complete & Type Years Date Cost Date Cost Date Cost Date Cost Cost Contract Subtotal 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 Target **All Prior** FY 2014 FY 2014 FY 2014 **Cost To Total** Value of FY 2012 oco Complete Contract Years FY 2013 Base Total Cost

Remarks

TBD

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**Project Cost Totals** 

0.000

2.683

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37.558

R-1 Line #53

0.000

13.636

13.636

Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

APPROPRIATION/BUDGET ACTIVITY

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

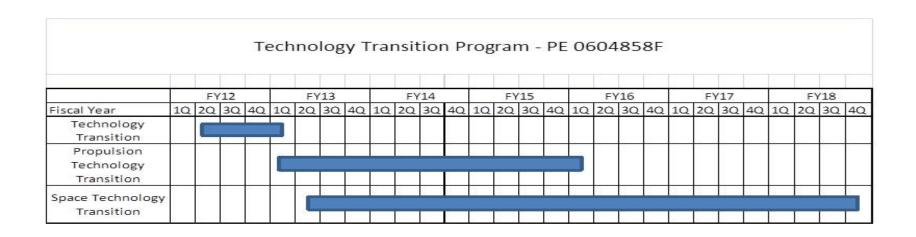
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0604858F: Tech Transition Program

**PROJECT** 

645350: Transition Prioritization



PE 0604858F: *Tech Transition Program* Air Force

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604858F: Tech Transition Program 645350: Transition Prioritization

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

# Schedule Details

	Start		End	
Events	Quarter	Year	Quarter	Year
Technology Transition	2	2012	1	2013
Propulsion Technology Transition	1	2013	1	2016
Space Technology Transition	2	2013	4	2018

PE 0604858F: Tech Transition Program

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