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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 6: RDT&E Management Support				R-1 ITEM NOMENCLATURE PE 0605864F: Space Test Program							
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	44.707	46.721	47.623	0.000	47.623	48.377	50.108	50.810	51.583	Continuing	Continuing
662617: Free-Flyer Spacecraft Missions	44.707	46.721	47.623	0.000	47.623	48.377	50.108	50.810	51.583	Continuing	Continuing
A. Mission Description and Budget Item Justification											
<p>(U) The Space Test Program (STP) conducts space test missions for the purpose of accelerating DoD space technology transformation while lowering developmental risk. The program flies an optimally selected number of DoD sponsored experiments consistent with priority, opportunity, and funding. STP missions are the most cost-effective way to flight test new space system technologies, concepts and designs, providing an inexpensive way to:</p> <ul style="list-style-type: none">- Support the space acquisition block development approach- Demonstrate and develop responsive research and development (R&D) space capabilities- Provide early operational capabilities to quickly react to new developments- Perform operational risk reduction through direct flight test of prototype components- Improve operational design by characterizing the space environment, event, or sensor physics proposed for an operational system/system upgrade- Develop, test, and acquire advanced payload support hardware for small and medium expendable launch vehicles and manned spaceflight vehicles											
<p>(U) The Deputy Secretary of Defense issued a Space Test Program Management & Funding Policy in Jul 2002, reaffirming STP as the primary provider of spaceflight for the entire DoD space research community. The policy states in part that "the STP funding level must be sufficient to provide spaceflight for DoD Space Experiments Review Board (SERB) approved experiments in a timely manner. As a goal, the Air Force funding level should provide for a Small-Launch-Vehicle-Class mission every 2 years and a Medium-Launch-Vehicle-Class mission every 4 years. This is in addition to funding required to support secondary payload and spacecraft missions on other organizations' spacecraft and launch vehicles." The Jul 2002 policy statement also reaffirms STP's role as the single manager for all DoD payloads on the Space Shuttle and the International Space Station. Air Force Space Command issued a policy in May 2004 that establishes STP as the sole gateway for all agencies requesting launch services as a piggyback payload or secondary satellite on a Combatant Command mission. STP maintains a SERB ranked list of these prospective payloads seeking assistance. There were 60 experiments approved by the SERB in 2009.</p>											
<p>(U) STP has a continually evolving mission portfolio, whereby space experiments and technology payloads are selected for spaceflight from the most recent list approved by the SERB. STP is authorized to initiate new missions from the prioritized, SERB-approved list. STP may also support non-SERB customers, both DoD and other U.S. Government, on a cost-reimbursable basis. Selection of the most appropriate spaceflight mode for a payload is dependent on optimizing the combination of SERB list priority, timing and readiness of experiments, launch opportunity, and availability of funding. STP support for these payloads includes some</p>											

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0605864F: Space Test Program			
BA 6: RDT&E Management Support					
or all of the following: mission planning and related support activities; acquisition of a dedicated satellite, launch vehicle, and/or associated integration hardware; integration onto a host satellite, launch vehicle, NASA shuttle, and/or the International Space Station; readiness reviews, launch support, and approximately one year of on-orbit operations. This flexible approach is essential in order to take advantage of 'target of opportunity' space hardware, including operational spacecraft and launch vehicles with margin, and ensures the maximum amount of DoD space research is accomplished with the resources available. STP efforts enabled the successful flight of 12 experiments in FY09 and the planned launch of 43 experiments in FY10.					
(U) STP is in Budget Activity 6, RDT&E Management Support, because it supports RDT&E satellite launches.					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	47.654	47.215	0.000	0.000	0.000
Current President's Budget	44.707	46.721	47.623	0.000	47.623
Total Adjustments	-2.947	-0.494	47.623	0.000	47.623
• 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	-2.947	-0.494	47.623	0.000	47.623
Change Summary Explanation					
FY 2009: BTR (-\$1.675M) for Minotaur IV Mission Assurance, SBIR (-1.272M)					
Note: The FY 2010 President's Budget submittal did not reflect FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner					

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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 6: <i>RDT&E Management Support</i>				R-1 ITEM NOMENCLATURE PE 0605864F: <i>Space Test Program</i>				PROJECT 662617: <i>Free-Flyer Spacecraft Missions</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
662617: <i>Free-Flyer Spacecraft Missions</i>	44.707	46.721	47.623	0.000	47.623	48.377	50.108	50.810	51.583	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) The Space Test Program (STP) conducts space test missions for the purpose of accelerating DoD space technology transformation while lowering developmental risk. The program flies an optimally selected number of DoD sponsored experiments consistent with priority, opportunity, and funding. STP missions are the most cost-effective way to flight test new space system technologies, concepts and designs, providing an inexpensive way to:

- Support the space acquisition block development approach
- Demonstrate and develop responsive research and development (R&D) space capabilities
- Provide early operational capabilities to quickly react to new developments
- Perform operational risk reduction through direct flight test of prototype components
- Improve operational design by characterizing the space environment, event, or sensor physics proposed for an operational system/system upgrade
- Develop, test, and acquire advanced payload support hardware for small and medium expendable launch vehicles and manned spaceflight vehicles

(U) The Deputy Secretary of Defense issued a Space Test Program Management & Funding Policy in Jul 2002, reaffirming STP as the primary provider of spaceflight for the entire DoD space research community. The policy states in part that "the STP funding level must be sufficient to provide spaceflight for DoD Space Experiments Review Board (SERB) approved experiments in a timely manner. As a goal, the Air Force funding level should provide for a Small-Launch-Vehicle-Class mission every 2 years and a Medium-Launch-Vehicle-Class mission every 4 years. This is in addition to funding required to support secondary payload and spacecraft missions on other organizations' spacecraft and launch vehicles." The Jul 2002 policy statement also reaffirms STP's role as the single manager for all DoD payloads on the Space Shuttle and the International Space Station. Air Force Space Command issued a policy in May 2004 that establishes STP as the sole gateway for all agencies requesting launch services as a piggyback payload or secondary satellite on a Combatant Command mission. STP maintains a SERB ranked list of these prospective payloads seeking assistance. There were 60 experiments approved by the SERB in 2009.

(U) STP has a continually evolving mission portfolio, whereby space experiments and technology payloads are selected for spaceflight from the most recent list approved by the SERB. STP is authorized to initiate new missions from the prioritized, SERB-approved list. STP may also support non-SERB customers, both DoD and other U.S. Government, on a cost-reimbursable basis. Selection of the most appropriate spaceflight mode for a payload is dependent on optimizing the combination of SERB list priority, timing and readiness of experiments, launch opportunity, and availability of funding. STP support for these payloads includes some

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or all of the following: mission planning and related support activities; acquisition of a dedicated satellite, launch vehicle, and/or associated integration hardware; integration onto a host satellite, launch vehicle, NASA shuttle, and/or the International Space Station; readiness reviews, launch support, and approximately one year of on-orbit operations. This flexible approach is essential in order to take advantage of 'target of opportunity' space hardware, including operational spacecraft and launch vehicles with margin, and ensures the maximum amount of DoD space research is accomplished with the resources available. STP efforts enabled the successful flight of 12 experiments in FY09 and the planned launch of 43 experiments in FY10.						
(U) STP is in Budget Activity 6, RDT&E Management Support, because it supports RDT&E satellite launches.						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Provide program support for piggyback/secondary, Small Launch Vehicle, Medium Launch Vehicle, and manned spaceflight missions FY 2009 Accomplishments: In FY2009: Funded effort to develop ESPA Standard Service for Medium Launch Vehicle FY 2010 Plans: In FY2010: Provide support for secondary payloads on first ESPA mission FY 2011 Base Plans: In FY2011: Provide support for secondary payloads on ESPA missions FY 2011 OCO Plans: In FY2011 OCO: N/A		1.450	1.400	1.081	0.000	1.081
MAJOR THRUST: Initiate, develop, and continue integration of payloads onto piggyback/secondary, Small Launch Vehicle, Medium Launch Vehicle, and manned spaceflight missions. FY 2009 Accomplishments: In FY2009: Funded spacecraft acquisition and SERB payload integration, payload integration for ISS pallet		28.188	21.959	27.962	0.000	27.962

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: In FY2010: Fund spacecraft acquisition, integration of payload as piggyback on spacecraft						
FY 2011 Base Plans: In FY2011: Fund spacecraft acquisition, integration of secondary payload on operational mission, secondary payload integration on small launch vehicle						
FY 2011 OCO Plans: In FY2011 OCO: N/A						
MAJOR THRUST: Initiate and continue purchase of launch vehicles and launch vehicle support for piggyback/secondary, Small Launch Vehicle, Medium Launch Vehicle, and manned spaceflight missions		8.940	17.879	12.926	0.000	12.926
FY 2009 Accomplishments: In FY2009: Funded small launch vehicle acquisition and integration of multiple secondary payloads on launch vehicle						
FY 2010 Plans: In FY2010: Fund continued small launch vehicle acquisition and launch operations						
FY 2011 Base Plans: In FY2011: Fund initiation of small launch vehicle acquisition						
FY 2011 OCO Plans: In FY2011 OCO: N/A						
MAJOR THRUST: Initiate, develop, and continue first year operations and operations planning for piggyback/secondary, Small Launch Vehicle, Medium Launch Vehicle, and manned spaceflight missions		4.629	3.983	4.154	0.000	4.154

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B. Accomplishments/Planned Program (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: In FY2009: Funded on-orbit operations and development of ground operations for up-coming spaceflight					
FY 2010 Plans: In FY2010: Fund on-orbit operations, ground operations planning and development					
FY 2011 Base Plans: In FY2011: Fund on-orbit operations, ground operations planning and development					
FY 2011 OCO Plans: In FY2011 OCO: N/A					
MAJOR THRUST: Conduct studies to explore future launch opportunities, risk reduction activities, and mission planning	1.500	1.500	1.500	0.000	1.500
FY 2009 Accomplishments: In FY2009: Conducted studies for secondary ride with operational mission launch					
FY 2010 Plans: In FY2010: Fund studies for future missions					
FY 2011 Base Plans: In FY2011: Fund studies for new small launch vehicle mission					
FY 2011 OCO Plans: In FY2011 OCO: N/A					
Accomplishments/Planned Programs Subtotals	44.707	46.721	47.623	0.000	47.623

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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 Not Provided (1927): <i>Related Procurement:</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

D. Acquisition Strategy
N/A

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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