

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

June 2001

BUDGET ACTIVITY

**06 - Management and Support**

PE NUMBER AND TITLE

**0605864F Space Test Program**

PROJECT

**2617**

COST (\$ in Thousands)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
2617 Free-Flyer Spacecraft Missions	44,769	46,050	50,523	54,663	54,247	55,881	57,018	58,229	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

FY03-FY07: This administration has not addressed FY 2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

**(U) A. Mission Description**

(U) The Space Test Program (STP) conducts space test missions for the purpose of advancing DoD space technology and enabling future US space superiority. The program flies the maximum number of DoD 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:

- Demonstrate the feasibility of new space systems and technologies
- Improve operational design by characterizing the space environment, event, or sensor physics proposed for an operational system/system upgrade
- Provide early operational capabilities to evaluate usefulness or quickly react to new developments
- Perform operational risk reduction through direct flight test of prototype components
- Develop a knowledge base from which to plan new and improved operational systems and system upgrades
- Develop and test advanced launch vehicle technologies and capabilities

(U) The Secretary of Defense issued a policy statement in November 1995 reaffirming STP's role as the primary provider of spaceflight for the entire DoD space research community. The USAF is the DoD steward, providing spaceflight for experiments with military relevance from the services as well as from BMDO, DARPA, DoE and other government organizations. Partnership opportunities with these organizations and with NATO defense organizations further reduce the cost of these space flights to the DoD and the USAF. The Air Force requires a stable funding level and the flexibility necessary to take advantage of whatever means of spaceflight is deemed to be the most cost effective for a given experiment or complement of experiments.

(U) STP has a constantly evolving mission portfolio, whereby space experiments and technology payloads are selected for spaceflight from the most recent list approved by the DoD Space Experiments Review Board (SERB). STP is authorized to initiate new missions from the prioritized, SERB-approved list. 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 or all of the following: acquisition of a dedicated satellite and launch vehicle; integration

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<p>(U) <b><u>A. Mission Description Continued</u></b>  onto a host satellite, launch booster, the shuttle or space station; funding for the launch and initial operations for approximately one year. This flexible approach is essential to take advantage of inexpensive 'target of opportunity' space hardware, including operational spacecraft, and ensures the maximum amount of DoD space research is accomplished with the limited funds available.</p> <p>(U) STP may act as the DoD's office of primary responsibility for non-SERB secondary payload access to space and excess performance margin on DoD launch vehicles, on a reimbursable basis.</p> <p>(U) <b><u>FY 2000 (\$ in Thousands)</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$7,893</td> <td>Conducted piggyback/secondary payload missions &amp; mission planning; provided technical support, mission and program support</td> </tr> <tr> <td>(U) \$2,305</td> <td>Conducted Space Shuttle payload integration, analysis, pre- and post-launch processing, and on-orbit support</td> </tr> <tr> <td>(U) \$470</td> <td>Initiated space missions (including planning and source selection activities) using experiments from the current SERB list, such as C/NOFS</td> </tr> <tr> <td>(U) \$34,101</td> <td>Continued space experiment missions from current and prior SERB lists - for example : CORIOLIS, launch MTI, operations for ARGOS, launch/operations for TSX-5 and MightySat II.1</td> </tr> <tr> <td>(U) \$44,769</td> <td>Total</td> </tr> </table> <p>(U) <b><u>FY 2001 (\$ in Thousands)</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$8,456</td> <td>Conduct piggyback/secondary payload missions &amp; mission planning; provide technical support, mission and program support</td> </tr> <tr> <td>(U) \$2,269</td> <td>Conduct Space Shuttle payload integration, analysis, pre- and post-launch processing, and on-orbit support</td> </tr> <tr> <td>(U) \$8,573</td> <td>Initiate space missions (including planning and source selection activities) using experiments from the current SERB list, such as CMEWS &amp; STP EELV</td> </tr> <tr> <td>(U) \$26,752</td> <td>Continue space experiment missions from current and prior SERB lists - for example : CORIOLIS, Kodiak Star (PICOSat), C/NOFS and operations for TSX-5 and MightySat II.1</td> </tr> <tr> <td>(U) \$46,050</td> <td>Total</td> </tr> </table> <p>The following net transactions are not reflected in the FY01 Program Total : BTR of (-\$1,531K) and SBIR of (-\$254K). These transactions are not reflected in other sections of the R-Docs where an FY01 total is shown.</p> <p>(U) <b><u>FY 2002 (\$ in Thousands)</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$8,158</td> <td>Conduct piggyback/secondary payload missions &amp; mission planning; provide technical support, mission and program support</td> </tr> <tr> <td>(U) \$3,300</td> <td>Conduct Space Shuttle payload integration, analysis, pre- and post-launch processing, and on-orbit support</td> </tr> <tr> <td>(U) \$5,414</td> <td>Initiate space missions (including planning and source selection activities) using experiments from the current SERB list e.g. STPSat-1</td> </tr> <tr> <td>(U) \$33,651</td> <td>Continue space experiment missions from current and prior SERB lists- for example: CORIOLIS, C/NOFS, CMEWS, STP-EELV and</td> </tr> </table>			(U) \$7,893	Conducted piggyback/secondary payload missions & mission planning; provided technical support, mission and program support	(U) \$2,305	Conducted Space Shuttle payload integration, analysis, pre- and post-launch processing, and on-orbit support	(U) \$470	Initiated space missions (including planning and source selection activities) using experiments from the current SERB list, such as C/NOFS	(U) \$34,101	Continued space experiment missions from current and prior SERB lists - for example : CORIOLIS, launch MTI, operations for ARGOS, launch/operations for TSX-5 and MightySat II.1	(U) \$44,769	Total	(U) \$8,456	Conduct piggyback/secondary payload missions & mission planning; provide technical support, mission and program support	(U) \$2,269	Conduct Space Shuttle payload integration, analysis, pre- and post-launch processing, and on-orbit support	(U) \$8,573	Initiate space missions (including planning and source selection activities) using experiments from the current SERB list, such as CMEWS & STP EELV	(U) \$26,752	Continue space experiment missions from current and prior SERB lists - for example : CORIOLIS, Kodiak Star (PICOSat), C/NOFS and operations for TSX-5 and MightySat II.1	(U) \$46,050	Total	(U) \$8,158	Conduct piggyback/secondary payload missions & mission planning; provide technical support, mission and program support	(U) \$3,300	Conduct Space Shuttle payload integration, analysis, pre- and post-launch processing, and on-orbit support	(U) \$5,414	Initiate space missions (including planning and source selection activities) using experiments from the current SERB list e.g. STPSat-1	(U) \$33,651	Continue space experiment missions from current and prior SERB lists- for example: CORIOLIS, C/NOFS, CMEWS, STP-EELV and
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<div style="display: flex; justify-content: space-between;"> <span>Project 2617</span> <span>Page 2 of 4 Pages</span> <span>Exhibit R-2 (PE 0605864F)</span> </div>																														

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(U) <b><u>A. Mission Description Continued</u></b>											
(U) <u>FY 2002 (\$ in Thousands) Continued</u>											
operations for Kodiak Star (PICOSat)											
(U) \$50,523 Total											
(U) <b><u>B. Budget Activity Justification</u></b>											
STP is in Budget Activity 6, RDT&E Management and Support, because it supports RDT&E satellite launches.											
(U) <b><u>C. Program Change Summary (\$ in Thousands)</u></b>											
		<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>						
(U)	Previous President's Budget (FY 2001 PBR)	50,402	46,476	50,576	TBD						
(U)	Appropriated Value	51,658	46,476								
(U)	Adjustments to Appropriated Value										
	a. Congressional/General Reductions	-484	-325								
	b. Small Business Innovative Research	-1,637									
	c. Omnibus or Other Above Threshold Reprogram	-2,875									
	d. Below Threshold Reprogram	-1,691									
	e. Rescissions	-202	-101								
(U)	Adjustments to Budget Years Since FY 2001 PBR			-53							
(U)	Current Budget Submit/FY 2002 PBR	44,769	46,050	50,523	TBD						
(U) <b><u>Significant Program Changes:</u></b>											
The STRIPE mission was cancelled during FY00 due to non-STP experiment funding limitations and the funds were used for other experimental missions on the annual SERB list (C/NOFS and Kodiak Star).											
(U) <b><u>D. Other Program Funding Summary (\$ in Thousands)</u></b>											
		<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>Cost to</u>	<u>Total Cost</u>
		<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U)	Related Procurement:										
(U)	MPAF (PE 0305953F, Evolved Expendable Launch Vehicle) (BA-5, P-28)				75,000						

Project 2617

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Exhibit R-2 (PE 0605864F)

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<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

The \$75M in FY03 funds the FY05 dedicated STP EELV flight (experiments will be selected from the SERB list).

Experiments may also be funded in other Science and Technology (S&T) PEs in Air Force, Army, Navy, DARPA, BMDO, DoE, NASA, and other programs.

(U) **E. Acquisition Strategy**

Not Required

(U) **F. Schedule Profile**

<u>FY 2000</u>				<u>FY 2001</u>				<u>FY 2002</u>			
1	2	3	4	1	2	3	4	1	2	3	4

(U) N/A