

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 1999
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BUDGET ACTIVITY 7 - Operational System Development	PE NUMBER AND TITLE 0305138F Inert Upper Stage (IUS)	PROJECT 4053
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COST (\$ In Thousands)	FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4053 Upper Stage Development (IUS)	10	555	0	0	0	0	0	0	0	17,425
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

(U) The Upper Stages Program provides consolidated acquisition of the Inertial Upper Stage (IUS) to support the launch of Defense Support Program (DSP) satellites. IUS is an upper stage on the Titan IV (can be modified for Shuttle) and delivers the DSP satellite to the required orbit. The RDT&E program continuously evaluates and improves upper stage reliability, cost effectiveness, and responsiveness. It supports redesign of aging equipment and spares which are no longer manufactured or available, investigation of flight anomalies, and small studies to assist in defining future upper stages. Beginning in FY00, funding is combined with the Titan Space Launch Vehicles Program (305144F).

(U) FY 1998: (\$ in thousands)

- (U) \$ 10 Studied and designed corrective actions for anomalies and obsolete items
- (U) \$ 10 Total

(U) FY 1999: (\$ in thousands)

- (U) \$ 555 Study and design corrective actions for potential anomalies and obsolete items
- (U) \$ 555 Total

(U) FY 2000: (\$ in thousands)

- (U) \$ 0 Total

(U) FY 2001: (\$ in thousands)

- (U) \$ 0 Total

(U) B. Budget Activity Justification:

This program is categorized in Budget Activity 7, Operational Systems Development, because the Inertial Upper Stage Program is in the production phase and is fully operational.

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(U) C. <u>Program Change Summary (\$ in Thousands)</u>					
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY1999 PB)	3,150	558	1,920	1,863	25,868
(U) Appropriated Value	3,337	558			
(U) Adjustments to Appropriated Value					
a. Cong Gen Reductions	-117	-3			
b. SBIR	-86				
c. Omnibus	-21				
d. Above Threshold Reprogramming	-1,800				
e. Below Threshold Reprogramming (BTR)	-1,303				
(U) Adjustments to Budget Years Since FY99 PB	0	0	-1,920	-1,863	
(U) Current Budget Submit/FY2000 PB	10	555	0	0	17,425
 (U) Significant Program Changes:					
None: With the success of the last few years of IUS flights, only a minimal amount of funding is being held in RDT&E, in order to keep this funding line open. In the event that an anomaly occurs, funding will need to be added into this program to study and correct the problem. Program Management Support activities have been transferred under the 3020 Procurement funding line. Beginning in FY00, funding is combined with the Titan Space Launch Vehicles Program (305144F).					
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(U) D. <u>Other Program Funding Summary (\$ in Thousands)</u>												
		<u>FY 1998</u>	<u>FY 1999</u>	<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>To</u>	<u>Total</u>	
										<u>Compl</u>	<u>Cost</u>	
(U) Missile Procurement, Budget Activity 5, P-23, Other Support		35,397	48,012	46,827	44,393	28,008	0	0	0	0	1,242,104	
 <u>Related RDT&E:</u>												
(U) PE 0305144F, Titan Space Launch Vehicles												
(U) PE 0102431F, Defense Support Program (DSP)												
(U) Inertial Upper Stage (IUS) program supports the NASA Space Transportation System as an upper stage used with the Space Shuttle												
 (U) E. <u>Aquisition Strategy:</u>												
Program is in final production under the fourth production contract. The components for the four remaining IUS units are procured and are in storage. The remaining procurement effort is for upper stage buildup, replacement parts, and component shelf life extension. Within the RDT&E budget for IUS, only a minimal amount is planned for the study and the design of any corrective actions needed for anomalies, if they occur, and obsolete items, if any.												
 (U) F. <u>Schedule Profile</u>												
		<u>FY 1998</u>			<u>FY 1999</u>			<u>FY 2000</u>			<u>FY 2001</u>	
(U) DoD Launches	1	2	3	4	1	2	3	4	1	2	3	4
(U) Avionics Replacement*						X		X			X	
(U) Integration, Launch Support, and Life Extension Modification*												
* Activities are continuous throughout the year.												
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 1999	
BUDGET ACTIVITY 7 - Operational System Development					PE NUMBER AND TITLE 0305138F Inert Upper Stage (IUS)					PROJECT 4053	
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U)	Avionics Obsolescence Mitigation				0	0	0	0			
(U)	Program Management Support				0	0	0	0			
(U)	Systems Engineering				10	555	0	0			
(U)	Total				10	555	0	0			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 1998</u>	<u>Budget FY 1998</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Product Development Organizations</u>											
Boeing	SS/FPI/AF	Jul 85	906,671*	942,335*	6,148	0	0	0	0	0	6,148
	SS/FPI/AF	Mar 91	151,189*	158,055*	1,991	0	0	0	0	0	1,991
	SS/CPAF/LOE	Sep 90	N/A	N/A	4,064	0	0	0	0	0	4,064
	SS/CPAF	Jun 97	N/A	N/A	N/A	10	555	0	0	0	565
United Tech Corp/Pratt & Whitney	SS/CPFF	Mar 95	N/A	N/A	855	0	0	0	0	0	855
*Amounts include funds used for IUS under previous Program Elements											
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Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
<u>Support and Management Organizations</u>											
Space and Missile Systems Center, LAAFB	N/A	N/A	N/A	N/A	3,802	0	0	0	0	0	3,802
<u>Test and Evaluation Organizations</u> Not Applicable											
Government Furnished Property: Not Applicable											
					Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	FY 2000	FY 2001	Budget to Complete	Total Program
Subtotal Product Development					13,058	10	555	0	0	0	13,623
Subtotal Support and Management					3,802	0	0	0	0	0	3,802
Subtotal Test and Evaluation					0	0	0	0	0	0	0
Total Project					16,860	10	555	0	0	0	17,425

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