

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2000	
BUDGET ACTIVITY 04 - Demonstration and Validation				PE NUMBER AND TITLE 0603690F Information Operations Technology				PROJECT 644856	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
644856 Information Operations Technology	0	0	991	990	989	989	988	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0

USAF has initiated action to consolidate funds from this Program Element with those in Program Element 0303140F. This consolidation is expected to be complete for the FY02 President's Budget.

(U) **A. Mission Description**
 Information Operations (IO) Technology demonstrates and validates advanced technology-based capabilities and techniques to support tactical and operational commanders' and National Command Authorities' needs for offensive and defensive IO. The projects are oriented towards specific shortfalls and deficiencies documented by major commands (MAJCOMS), unified commands, and IO agencies in mission area plans and mission need statements. The labs and program office work directly with users and battle labs to set priorities and find synergistic combinations of new technology, doctrine and training. The goal of this program is to expedite technology transition from the laboratory and industry to operational use via rapid prototyping.

The Integrated Information Operations project will investigate and develop techniques and technologies for integrated IO. It will include a series of studies designed to assess cross-functional opportunities and capabilities to address various aspects of Integrated IO. Potential focus areas include integrated attack opportunities, defense opportunities, and integration of IO planning into air operations planning. Projects efforts will be prioritized and guided by the IO Technical planning Integrated Planning Team (TPIPT) in support of the Air Force Counterinformation Mission Area Plan and the DOD IO Master Plan.

The initial study is investigating techniques and technologies for defending systems against sophisticated Information Warfare (IW) and computer network attacks that are beyond commercially available protection systems. Specific content is classified, and is available in the Panther Den (PD) Special Access Program (SAP) Report.

Later studies will investigate advanced information operations applications of emerging physics capabilities, communications capabilities, and intelligence applications to IO. Examples include exploiting emerging capabilities in directed energy, electronic sensors, and employing emerging capabilities to adversely effect information processing systems using non-kinetic weapons. Specific content is classified, and is available in the Panther Den SAP Report.

This program also funds the Panther Den program office at Hanscom AFB, MA. The Panther Den program office provides technical, program management, and security support to the programs funded by this PE, as well as PD-classified projects funded via other PEs. Details of the other PD-classified projects are contained in the Panther Den SAP report.

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(U) <u>A. Mission Description Continued</u>					
(U) <u>FY 1999 (\$ in Thousands)</u>					
(U)	\$0	No Activity			
(U)	\$0	Total			
(U) <u>FY 2000 (\$ in Thousands)</u>					
(U)	\$0	No Activity			
(U)	\$0	Total			
(U) <u>FY 2001 (\$ in Thousands)</u>					
(U)	\$350	Directed Energy Application to IW			
(U)	\$75	Advanced IO Communication Application			
(U)	\$66	Advanced Intelligence Applications to IO			
(U)	\$300	Mitre Chief Engineer Support			
(U)	\$200	Program Office and Security Structure Support			
(U)	\$991	Total			
(U) <u>B. Budget Activity Justification</u>					
This program is in Budget Activity 4 - Demonstration and Validation, because it demonstrates and validates advanced technology which enhances IO systems, capabilities and techniques.					
(U) <u>C. Program Change Summary (\$ in Thousands)</u>					
		<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>
(U)	Previous President's Budget (FY 2000 PBR)	0	491	491	TBD
(U)	Appropriated Value				
(U)	Adjustments to Appropriated Value				
	a. Congressional/General Reductions				
	b. Small Business Innovative Research				
	c. Omnibus or Other Above Threshold Reprogram				
	d. Below Threshold Reprogram				
	e. Rescissions		0		
	f. Other		0		TBD
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BUDGET ACTIVITY 04 - Demonstration and Validation				PE NUMBER AND TITLE 0603690F Information Operations Technology				PROJECT 644856		
(U) <u>C. Program Change Summary (\$ in Thousands) Continued</u>										
				<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>Total Cost</u>
(U)	Adjustments to Budget Years Since FY 2000 PBR							500		
(U)	Current Budget Submit/FY 2001 PBR					0		991		TBD
(U)	<u>Significant Program Changes:</u> In FY01, \$500K was transferred from PE 0208021F, Information Warfare Support, to support information operations development in this program element.									
(U) <u>D. Other Program Funding Summary (\$ in Thousands)</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>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>Complete</u>	
(U)	AF RDT&E									
(U)	Other APPN									
RELATED ACTIVITIES:										
PE 0603690F studies will leverage current DOD lab efforts. Studies will be deconflicted with and will complement Computer Security RDT&E and Information Warfare development efforts under PE 0303140F, Information Systems Security Program, and PE 0208021F, Information Warfare Support.										
Some aspects of this program will be protected under the PANTHER DEN Special Access Program. Data available upon request.										
(U) <u>E. Acquisition Strategy</u>										
All major contracts within this Program Element are awarded after full and open competition unless other than full and open is justified to the Designated Acquisition Commander (DAC).										
(U) <u>F. Schedule Profile</u>										
				<u>FY 1999</u>			<u>FY 2000</u>		<u>FY 2001</u>	
				1	2	3	4	1	2	3
									4	4
(U)	Sophisticated IW Defense Study Start								X	
(U)	Directed Energy Application to IW								X	
(U)	Advanced IO Communication Application									X
(U)	Advanced Intelligence Applications to IO									X
	X - Denotes planned event									
	* - Denotes completed event									
Project 644856				Page 3 of 4 Pages				Exhibit R-2 (PE 0603690F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2000				
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
04 - Demonstration and Validation				0603690F Information Operations Technology				644856			
(U) A. Project Cost Breakdown (\$ in Thousands)											
						<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>	
(U)	Directed Energy Application to IW					0		0		350	
(U)	Advanced IO Communication Application									75	
(U)	Advanced Intelligence Applications to IO									66	
(U)	Mitre Chief Engineer Support									300	
(U)	Program Office and Security Support									200	
(U)	Total					0		0		991	
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
	<u>Contractor or</u>	<u>Contract</u>									
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>						
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	
	<u>Product Development Organizations</u>										
	Contractor TBD						0		350	Continuing	TBD
	Contractor TBD								75	Continuing	TBD
	Contractor TBD								66	Continuing	TBD
	<u>Support and Management Organizations</u>										
	Electronic Systems Center								80		80
	Aegis, Inc (Security Contractor)								120		120
	Mitre (Engineering Support)								300		300
	<u>Test and Evaluation Organizations</u>										
						<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	
	<u>Subtotals</u>					<u>to FY 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Total</u>
	Subtotal Product Development							0	491	TBD	TBD
	Subtotal Support and Management								500		500
	Subtotal Test and Evaluation										
	Total Project							0	991	TBD	TBD