

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604604F Submunitions			PROJECT 3166	
(U) <u>C. Program Change Summary (\$ in Thousands) Continued</u>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	
d. Below Threshold Reprogram								
e. Rescissions				-30	-10			
(U) Adjustments to Budget Years Since FY 2001 PBR						27		
(U) Current Budget Submit/FY 2002 PBR				7,470	4,732	4,809	TBD	
(U) <u>Significant Program Changes:</u>								
No significant change.								
(U) <u>D. Other Program Funding Summary (\$ in Thousands)</u>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</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>Estimate</u>	<u>Estimate</u>
(U) Not Applicable.								
(U) <u>E. Acquisition Strategy</u>								
Funds are executed organically in support of test and evaluation activities including studies, analyses, flight tests, model building and simulation. There are several small contracts supporting the program office.								
(U) <u>F. Schedule Profile</u>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>		
				1	2	3	4	1
				2	3	4	1	2
				3	4	1	2	3
				4				
(U) Project 3166, Joint Smart Munition Test and Evaluation Program (Project Chicken Little) does not execute in accordance with established acquisition milestones. Chicken Little is a continuing test effort (target/warhead evaluation/analysis, signature tests, captive carry flight tests, are ongoing throughout the year and continue through the FYDP). This project is also funded by the Army and other Services on a case by case basis. The type of activities is given in Section A but the timing, duration and level of effort is decided at the semi-annual Steering Committee meetings.								

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001				
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT		
05 - Engineering and Manufacturing Development					0604604F Submunitions				3166		
(U) A. Project Cost Breakdown (\$ in Thousands)											
					FY 2000		FY 2001		FY 2002		
(U)	Program Support				1,108		500		528		
(U)	Target Support				468		700		800		
(U)	Warhead Range Operations				313		349		327		
(U)	Captive Flight Tests				510		973		1,064		
(U)	Database Support (MILES)				270		213		225		
(U)	Vulnerability/Effectiveness Analysis				622		604		708		
(U)	Warhead Evaluation				332		300		300		
(U)	Target Signature Tests				570		239		196		
(U)	Models and Simulation Tools				415		854		661		
(U)	Develop and Install Imaging Infrared Instrumentation				2,862		0		0		
(U)	Total				7,470		4,732		4,809		
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
<u>Contractor or Government</u>		<u>Contract Method/Type</u>	<u>Award or Obligation</u>	<u>Performing Activity</u>	<u>Project Office</u>	<u>Total Prior to FY 2000</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget to Complete</u>	<u>Total Program</u>
<u>Performing Activity</u>		<u>or Funding Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>						
<u>Product Development Organizations</u>											
USArmy (Msl Command)		TBD	Mar 00	6,000	6,000	0	2,862	0	0	3,000	5,862
<u>Support and Management Organizations</u>											
Sverdrup		C/CPIF	Jun 96	N/A	N/A	9,091	1,317	1,301	1,524	Continuing	TBD
ANSTEC		C/FFP	Apr 96	N/A	N/A	1,227	201	262	275	Continuing	TBD
46 OG/OGML		N/A	Annual	N/A	N/A	5,355	783	909	550	Continuing	TBD
<u>Test and Evaluation Organizations</u>											
46 OG/OGML			Annual	N/A	N/A	67,238	2,307	2,260	2,460	Continuing	TBD
Project 3166											
Page 4 of 5 Pages											
Exhibit R-3 (PE 0604604F)											

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT	
05 - Engineering and Manufacturing Development				0604604F Submunitions					3166	
(U) <u>Government Furnished Property:</u>										
	<u>Contract</u>									
	<u>Method/Type</u>	<u>Award or</u>								
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>	
<u>Product Development Property</u>										
Not Applicable	N/A	N/A	N/A	0	0	0		0		0
<u>Support and Management Property</u>										
Not Applicable	N/A	N/A	N/A	0	0	0		0		0
<u>Test and Evaluation Property</u>										
Not Applicable	N/A	N/A	N/A	0	0	0		0		0
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>	
Subtotal Product Development				0	2,862	0	0	3,000		5,862
Subtotal Support and Management				15,673	2,301	2,472	2,349	TBD		TBD
Subtotal Test and Evaluation				67,238	2,307	2,260	2,460	TBD		TBD
Total Project				82,911	7,470	4,732	4,809	TBD		TBD

Project 3166

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Exhibit R-3 (PE 0604604F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604617F Agile Combat Support					
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
Total Program Element (PE) Cost	0	3,383	6,674	6,333	6,436	6,545	6,525	7,103	Continuing	TBD
2895 CE Readiness	0	3,383	5,370	5,641	5,760	5,877	6,243	6,815	Continuing	TBD
4910 Aeromedical Readiness	0	0	1,304	692	676	668	282	288	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

The FY03-FY07 budget numbers do not reflect DoD's strategic review results.

(U) **A. Mission Description**
 This Program Element (PE) provides capabilities to rapidly deploy, defend and sustain airfield operations and command and control activities to ensure readiness. In addition, this PE provides tactical, strategic aeromedical evacuation systems, automated information systems, and medical treatment equipment to meet unique Air Force medical readiness and operational requirements. These activities are prerequisites to establishing air superiority. Development of the Agile Combat Support (ACS) systems provides beddown for aircraft, support equipment, and forces at both main operating bases and contingency operating locations, which may have only a runway and a water source. They also offer crucial utilities, runway stabilization and repair, explosive ordnance disposal (EOD), aeromedical evacuation and treatment equipment, and security and reconnaissance capabilities to support aircraft deployment, launch, recovery and regeneration. Lighter-weight, rapidly deployable equipment has become essential in supporting numerous global contingencies such as DESERT SHIELD/DESERT STORM, Provide Comfort, Restore Hope, and Joint Endeavor for security, base defense, relief efforts, and special operations throughout the world. Specific ACS capabilities being developed include: power generation and distribution systems to reduce airlift; deployable medical grade oxygen generation systems; a family of deployable shelters to be used as aircraft hangars, maintenance facilities, heavy equipment storage, C4I operations, medical and personnel shelters; systems to repair runway damage; and Joint Service (Army-led) test, evaluation and acquisition of protective systems and equipment to be used by Air Force EOD technicians for reconnaissance and mine clearing missions.

(U) **B. Budget Activity Justification**
 The Agile Combat Support program is in RDT&E budget activity 5 - Engineering and Manufacturing Development (EMD) because it supports development, testing and evaluation of materials and equipment for contingency basing, detection and handling of explosive ordnance, and tactical shelters.

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

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604617F Agile Combat Support(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	946	668	0	TBD
(U) Appropriated Value	0	3,414		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions		-24		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions		-7		
(U) Adjustments to Budget Years Since FY 2001 PBR			6,674	
(U) Current Budget Submit/FY 2002 PBR	0	3,383	6,674	TBD

(U) **Significant Program Changes:**

Funding: FY00 funding eliminated. Funds in PE64708F merged into PE 64617 in FY01; Funds in PE 64703F and RDT&E funds in PE28031F merged into PE64617F in FY02. This meets the intent of House action to eliminate smaller PEs and provide a more cohesive, manageable Agile Combat Support program.

The following net transactions are not reflected in the FY01 program total: BTR = -1,188K; SBIR = -120K.

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604617F Agile Combat Support

PROJECT

2895

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
2895 CE Readiness	0	3,383	5,370	5,641	5,760	5,877	6,243	6,815	Continuing	TBD

The Air Force consolidated three Civil Engineer (CE) readiness R&D programs (PE64617F - Agile Combat Support; PE64708F - Civil, Fire, Environmental, Shelters; and the RDT&E portion of PE28031F - War Reserve Material) under PE 64617F, Project 2895. PE 64708F consolidation is effective FY01. PE 28031F RDT&E consolidation is effective FY02. This will meet the intent of the House action to eliminate smaller PEs and provide a more cohesive, manageable CE Readiness modernization effort.

The FY03-FY07 budget numbers do not reflect DoD's strategic review results.

(U) **A. Mission Description**

This Program Element (PE) provides capabilities to rapidly deploy, defend and sustain airfield operations and command and control activities to ensure readiness. These activities are prerequisites to establishing air superiority. Development of the Agile Combat Support (ACS) systems provides beddown for aircraft, support equipment, and forces at both main operating bases and contingency operating locations, which may have only a runway and a water source. They also offer crucial utilities, runway stabilization and repair, explosive ordnance disposal (EOD), and security and reconnaissance capabilities to support aircraft deployment, launch, recovery and regeneration. Lighter-weight, rapidly deployable equipment has become essential in supporting numerous global contingencies such as DESERT SHIELD/DESERT STORM, Provide Comfort, Restore Hope, and Joint Endeavor for security, base defense, relief efforts, and special operations throughout the world. Specific ACS capabilities being developed include: power generation and distribution systems to reduce airlift; a family of deployable shelters to be used as aircraft hangars, maintenance facilities, heavy equipment storage, C4I operations, medical and personnel shelters; systems to repair runway damage; and Joint Service (Army-led) test, evaluation and acquisition of protective systems and equipment to be used by Air Force EOD technicians for reconnaissance and mine clearing missions.

(U) **FY 2000 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$531 Complete EMD for All-purpose Remote Transport System (ARTS) FY99-01 attachments to locate, analyze, and render safe unexploded ordnance and terrorist bombs.

(U) \$1,685 Continue courseware development for Multimedia Training Systems (MTS) courseware for aircraft familiarization, hazardous material, confined space rescue, emergency medical technician, and force protection programs.

(U) \$210 Continue Commercial Technology Exploitation (CTE) for low cost civil engineering-related equipment.

(U) \$185 Complete development of composite tactical shelter and methods to evaluate shelter performance.

Project 2895

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Exhibit R-2A (PE 0604617F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE June 2001																																													
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604617F Agile Combat Support			PROJECT 2895																																													
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2001 (\$ in Thousands) Continued</u></p> <p>(U) \$292 Continue other technical support.</p> <p>(U) \$480 Initiate System Development and Demonstration (SDD) (replaces EMD) for the ARTS Alternate Control System to provide crucial backup control capability for the ARTS.</p> <p>(U) \$3,383 Total</p> <p>The following net transactions are not reflected in the FY01 program total: BTR = -1,188K; SBIR = -120K. These transactions are not reflected in other sections of the R-Docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$735 Continue SDD for the ARTS Alternate Control System.</p> <p>(U) \$1,020 Initiate SDD for ARTS Manipulator Arms.</p> <p>(U) \$260 Complete EMD for Deployable Power Generation and Distribution System (DPGDS).</p> <p>(U) \$120 Initiate EMD for Lightweight Matting for runways and contingency aircraft parking.</p> <p>(U) \$1,690 Continue EMD for Multimedia Training Systems (MTS)</p> <p>(U) \$680 Continue EMD for Commercial Technology Exploitation (CTE)</p> <p>(U) \$865 Continue Other Technical Support</p> <p>(U) \$5,370 Total</p> <p>(U) <u>B. Project Change Summary</u></p> <p>Activities formerly funded in PE 64708F are now funded in this project.</p> <p>(U) <u>C. Other Program Funding Summary (\$ in Thousands)</u></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> <th><u>FY 2003</u></th> <th><u>FY 2004</u></th> <th><u>FY 2005</u></th> <th><u>FY 2006</u></th> <th><u>FY 2007</u></th> <th><u>Cost to</u></th> <th><u>Total Cost</u></th> </tr> <tr> <th></th> <th><u>Actual</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Estimate</u></th> <th><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) Other Procurement, AF, PE 28031F, Other Base and Maintenance Support, Mobility Equipment (WSC 845420)</td> <td>46,455</td> <td>50,021</td> <td>27,421</td> <td>26,809</td> <td>20,148</td> <td>19,348</td> <td></td> <td></td> <td>Continuing</td> <td>TBD</td> </tr> <tr> <td>(U) Other Procurement, AF, PE</td> <td>4,378</td> <td>1,838</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td></td> <td>0</td> <td>TBD</td> </tr> </tbody> </table>										<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) Other Procurement, AF, PE 28031F, Other Base and Maintenance Support, Mobility Equipment (WSC 845420)	46,455	50,021	27,421	26,809	20,148	19,348			Continuing	TBD	(U) Other Procurement, AF, PE	4,378	1,838	0	0	0	0			0	TBD
	<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) Other Procurement, AF, PE 28031F, Other Base and Maintenance Support, Mobility Equipment (WSC 845420)	46,455	50,021	27,421	26,809	20,148	19,348			Continuing	TBD																																										
(U) Other Procurement, AF, PE	4,378	1,838	0	0	0	0			0	TBD																																										
Project 2895				Page 4 of 12 Pages			Exhibit R-2A (PE 0604617F)																																													

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE June 2001			
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604617F Agile Combat Support			PROJECT 2895			
(U) C. Other Program Funding Summary (\$ in Thousands)										
	<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>	
28028F, Other Base and Maintenance Support, Air Base Operability (WSC 845100)										
(U) D. Acquisition Strategy Many of the projects funded in this PE employ a streamlined acquisition approach, instead of traditional EMD. Whenever practical, commercial items are tested and evaluated as candidates for solutions to user needs. This normally involves characterization, verification and qualification testing to ensure off-the-shelf equipment is properly adapted for military purposes. The Bare Base Systems Readiness Board evaluates laboratory and commercial technologies with application for modernization of Bare Base assets, such as deployable shelters, power, waste treatment and airfield support systems. With board approval, the SPO initiates EMD and production funding is realigned from current product lines to support modernization of assets. Initiation of EMD includes all 6.4 activities leading up to contract award and subsequent test and evaluation culminating in a Milestone III production decision.										
(U) E. Schedule Profile										
		<u>FY 2000</u>			<u>FY 2001</u>			<u>FY 2002</u>		
	1	2	3	4	1	2	3	4	1	2
(U) ALL-PURPOSE REMOTE TRANSPORT SYSTEM II										
(U) Award FY00 Production Option (Production Funds)				*						
(U) Complete test of FY01 ARTS tools									X	
(U) ARTS ALTERNATE CONTROL SYSTEM										
(U) Prepare RFP									X	
(U) Milestone B Decision									X	
(U) Initiate OT&E										X
(U) ARTS MANIPULATOR ARMS										
(U) Prepare RFP									X	
(U) Milestone B Decision									X	
(U) Initiate OT&E										X
(U) DEPLOYABLE POWER GENERATION AND DISTRIBUTION										

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BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604617F Agile Combat Support					PROJECT 2895		
(U) <u>E. Schedule Profile Continued</u>												
		<u>FY 2000</u>				<u>FY 2001</u>				<u>FY 2002</u>		
	1	2	3	4	1	2	3	4	1	2	3	4
SYSTEM												
(U) Complete System Requirements and Fix Verifications from OT&E									X			
(U) Milestone B Decision										X		
(U) DEPLOYABLE LIGHTWEIGHT MATTING												
(U) Prepare RFP										X		
(U) Milestone B Decision											X	
(U) Initiate OT&E												X
(U) MULTIMEDIA TRAINING SYSTEMS (MTS)												
(U) Complete FY01 Priority List								X				
(U) Complete FY02 Priority List												X
(U) COMMERCIAL TECHNOLOGY EXPLOITATION (CTE)												
(U) Complete FY01 AFOTEC Evaluation								X				
(U) Complete FY02 AFOTEC Evaluation												X
(U) TACTICAL SHELTERS												
(U) Complete development									X			

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001	
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604617F Agile Combat Support				2895	
(U) A. Project Cost Breakdown (\$ in Thousands)										
					FY 2000		FY 2001		FY 2002	
(U)	Contracts				0		1,895		2,475	
(U)	Administrative and &Analytic Support (A&AS)				0		696		1,360	
(U)	Other Government Agencies				0		500		565	
(U)	Materials/Equipment				0		0		105	
(U)	Other Technical Support				0		292		865	
(U)	Total				0		3,383		5,370	
(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>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		
<u>Product Development Organizations</u>										
ARTS/Attachments		A&AS		Feb 98		2,800		2,800		
ARTS Alternate Control		FFP		Dec 01		1,600		1,600		
ARTS Manipulator Arms		FFP		Mar 02		1,933		1,933		
Deployable Power Generation and Distribution System		FFP		Apr 98		2,238		2,238		
Lightweight Matting		FFP		Feb 03		1,673		1,673		
Multimedia Training Systems (MTS)		FFP		Cont		14,500		14,500		
Commercial Technology Exploitation (CTE)		FFP		Cont		N/A		N/A		
Tactical Shelters		AF Form 616		N/A		N/A		N/A		
Other Technical Support		Misc		Misc		N/A		N/A		
<u>Support and Management Organizations</u>										
None.										
Project 2895										
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
										June 2001
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT
05 - Engineering and Manufacturing Development					0604617F Agile Combat Support					2895
(U) <u>Performing Organizations Continued:</u>										
<u>Test and Evaluation Organizations</u>										
Various	Various	Various	N/A	N/A	0	0	0	0	Continuing	TBD
(U) <u>Government Furnished Property:</u>										
	<u>Contract</u>									
	<u>Method/Type</u>	<u>Award or</u>								
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>										
None										
<u>Support and Management Property</u>										
None										
<u>Test and Evaluation Property</u>										
None										
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>					<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
*										
Subtotal Product Development					5,689	0	3,383	5,370	TBD	TBD
Subtotal Support and Management										
Subtotal Test and Evaluation					0	0	0	0	TBD	TBD
Total Project					5,689	0	3,383	5,370	TBD	TBD
* Basket Program Element with 20+ years of projects, prior years breakout not available.										

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604617F Agile Combat Support

PROJECT

4910

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
4910 Aeromedical Readiness	0	0	1,304	692	676	668	282	288	Continuing	TBD

This BPAC was created when funds in PE64703, Aeromedical Systems Development, were consolidated into PE 64617 per House Appropriations Committee guidance.

FY03-FY07 budget numbers do not reflect DoD's strategic review results.

(U) **A. Mission Description**

This program provides tactical and strategic aeromedical evacuation systems, automated information systems, and medical treatment equipment to meet unique Air Force medical readiness and operational requirements

(U) **FY 2000 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2002 (\$ in Thousands)**

(U) \$340 Deployable Oxygen System (DOS) - Next generation Portable Liquid Oxygen (NPTLOX) prototypes development; conduct test and evaluation. Continue market research and acquisition strategy development for gas and liquid generator systems.

(U) \$10 Theater Medical Information Program - Air Force (TMIP-AF) - OT&E preparation, technology refresh, and requirements analysis.

(U) \$20 Spinal Cord Injury Transport System (SCITS) - Travel support for production phase of program.

(U) \$5 Chemically Hardened Air Transportable Hospital/Chemical-Biological Hardened Air Management Plant (CHATH/CHAMP) - Provide technical support for production.

(U) \$200 Aeromedical Systems Analysis - Conduct foundational studies and analyses, requirements analyses, and product demonstrations to meet operational needs, and define acquisition strategies and baselines for potential system solutions to Air Force Medical Service materiel needs. Current projects include, but are not limited to, Patient Support Pallets (PSP), Collective Protected Expeditionary Medical Support (CP EMEDS), Latrine, Airborne Command and Control - Information for Global Reach, and Telemedicine.

(U) \$562 Provide Technical Engineering and Management Support to Aeromedical programs.

Project 4910

Page 9 of 12 Pages

Exhibit R-2A (PE 0604617F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604617F Agile Combat Support

PROJECT

4910(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands) Continued**

(U) \$167 Provide support for the Human Systems Center, System Program Office. Begin transition from research and explore potential technologies for future EMD efforts.

(U) \$1,304 Total

(U) **B. Project Change Summary**

Program costs changed due to the following reasons:

- DOS program costs increased to support test and evaluation for the NPTLOX System.
- SCITS funding required for travel support during the production phase of the program.
- Human Systems Center, System Program Office Technical Engineering and Management Support task transferred to Aeromedical Systems Analysis program.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2000</u> <u>Actual</u>	<u>FY 2001</u> <u>Estimate</u>	<u>FY 2002</u> <u>Estimate</u>	<u>FY 2003</u> <u>Estimate</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) AF RDT&E										
(U) Other APPN	14,257	17,025	15,435	13,899	14,279	14,581	15,200	15,504	Continuing	TBD
APPN is 3080 OPAF - PE 28038										

(U) **D. Acquisition Strategy**

All major projects are awarded under full and open competition.

(U) **E. 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) DEPLOYABLE OXYGEN SYSTEM												
(U) -FDA Approval										X		
(U) -Conduct Test and Evaluation											X	
(U) SPINAL CORD INJURY TRANSPORT SYS												
(U) -Complete Production											X	

Project 4910

Page 10 of 12 Pages

Exhibit R-2A (PE 0604617F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE June 2001		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604617F Agile Combat Support				4910	
(U) A. Project Cost Breakdown (\$ in Thousands)										
					FY 2000		FY 2001		FY 2002	
(U) Engineering and Manufacturing Development									210	
(U) Development/Operational Test and Evaluation									265	
(U) Contractor Engineering Support									562	
(U) Miscellaneous (System Program Office Operations)									167	
(U) Mission Support/Supplies									100	
(U) Total									1,304	
(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>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2000</u>
								<u>Budget</u>		<u>Budget</u>
								<u>FY 2000</u>		<u>FY 2001</u>
								<u>FY 2002</u>		<u>Budget to</u>
								<u>Complete</u>		<u>Total</u>
<u>Product Development Organizations</u>										
DOS		FFP		Apr 01		2,770		2,770		0
New Business		Various		Various						17,477
SCITS		CPIF		Jul 98		3,009		3,009		20
CHATH/CHAMP		CPFF		Aug 95		3,859		3,859		3,609
TMIP/AF		Various		Various		4,278		4,278		1,758
<u>Support and Management Organizations</u>										
TEAMS		Delivery Order		Various						3,061
SPO Operations		Various		Various						3,767
<u>Test and Evaluation Organizations</u>										
Other										140
										265
										Continuing
										TBD

Project 4910

Page 11 of 12 Pages

Exhibit R-3 (PE 0604617F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT	
05 - Engineering and Manufacturing Development				0604617F Agile Combat Support					4910	
(U) <u>Government Furnished Property:</u>										
	<u>Contract</u>									
	<u>Method/Type</u>	<u>Award or</u>								
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>	
<u>Product Development Property</u>										
None.										
<u>Support and Management Property</u>										
None.										
<u>Test and Evaluation Property</u>										
None.										
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>	
Subtotal Product Development				22,844			310	TBD	TBD	
Subtotal Support and Management				6,828			729	TBD	TBD	
Subtotal Test and Evaluation				140			265	TBD	TBD	
Total Project				29,812			1,304	TBD	TBD	

Project 4910

Page 12 of 12 Pages

Exhibit R-3 (PE 0604617F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604618F Joint Direct Attack Munition					PROJECT 3890	
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
3890 Joint Direct Attack Munitions	11,304	11,055	27,956	0	0	0	0	0	0	355,515
Quantity of RDT&E Articles	8	0	88	0	0	0	0	0	0	605
<p>*Quantity of RDT&E Articles reflect assets by delivery year and cannot be reconciled to the dollar amounts (incremental funding) shown in any one year.</p> <p>(U) <u>A. Mission Description</u> Operation DESERT STORM confirmed the need for, and Operation ALLIED FORCE confirmed the utility of a more accurate weapon delivery capability in adverse weather conditions from medium/high altitudes. Failure to satisfy this requirement will allow the enemy to continue to take advantage of the sanctuary of weather and/or prevent US air power from prosecuting a conflict on its terms. The Joint Direct Attack Munition (JDAM) is a joint Air Force and Navy munitions program to correct these shortfalls, with the Air Force as the executive service. JDAM will upgrade the existing inventory of general purpose bombs (Mk-84, BLU-109, Mk-83/BLU-110 and Mk-82/BLU-111) by integrating them with a guidance kit consisting of a Global Position System aided Inertial Navigation System (INS/GPS). JDAM will provide an accurate (13 meters) adverse weather capability. JDAM threshold aircraft are B-52H, F-22, AV-8B and F/A-18C/D. JDAM objective aircraft are B-2, B-1B, F-16, F-15E, and other aircraft. JDAM development was a two-phased Engineering and Manufacturing Development (EMD) effort. EMD Phase I emphasized competitive design and manufacturing processes. This phase completed 10 Oct 95. EMD Phase II emphasized full scale hardware build and flight test to verify system performance and supported OT&E. EMD Phase II ended Dec 00. A development effort to integrate the JDAM guidance kits on the Mk-82 began in September 2000. JDAM Low Rate Initial Production (LRIP) began in FY97 and Full Rate Production (Mk-84 and BLU-109) began in FY01. A redesign effort for the Joint Programmable Fuze (JPF) began Mar 01 to improve high altitude bomber capability. This fuze is a multi-function unitary fuze developed for JDAM and other conventional inventory weapons. JDAM is an Air Force Acquisition Category (ACAT) 1D program.</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$6,119 Completed development and restriction-free tail assembly for Mk-84 and BLU-109. Completed Mk-83 development activities. Fabricated hardware for F-22 Integration. Performed consolidation of multiple flight software packages as a result of parallel integration on F/A-18 C/D, B-52, B-1, F-16 and B-2. Continued development effort to integrate JDAM guidance kits on the MK-82, including any support equipment or fuze modifications.</p> <p>(U) \$4,994 Provided test support for completion of operational test activities, flight software consolidation and conducted JPF wind tunnel testing. Conducted risk definition study to integrate Mk-82 JDAM on the B-1 and B-2.</p> <p>(U) \$191 Provided support and management tasks to coordinate the program activities of the prime contractor and various test and aircraft organizations.</p> <p>(U) \$11,304 Total</p>										
<div style="display: flex; justify-content: space-between;"> Project 3890 Page 1 of 6 Pages Exhibit R-2 (PE 0604618F) </div>										

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE June 2001																																																			
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development		PE NUMBER AND TITLE 0604618F Joint Direct Attack Munition																																																			
		PROJECT 3890																																																			
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands) Continued</u> Note: Does not reflect \$4.0M reprogrammed for JPF redesign effort.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$3,751 Continued development effort for Mk-82 JDAM. Completed consolidation and test of flight software. Supported F-22 integration analysis and testing.</p> <p>(U) \$6,459 Provided flight test support for Mk-82 flight software consolidation. Supported F-22 integration testing.</p> <p>(U) \$845 Provided support and management tasks to coordinate the program activities of the prime contractor and various test and aircraft organizations.</p> <p>(U) \$11,055 Total</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$10,552 Complete development effort for Mk-82 JDAM and JPF redesign.</p> <p>(U) \$11,960 Perform captive carry and DT flight testing on Mk-82 JDAM and perform JPF testing.</p> <p>(U) \$1,744 Provide support and management tasks to coordinate the program activities of the prime contractor and various test and aircraft organizations.</p> <p>(U) \$3,700 Continued development of fuzing hardware for high altitude bomber operations.</p> <p>(U) \$27,956 Total</p> <p>(U) <u>B. Budget Activity Justification</u> This program is funded in Budget Activity 5, EMD, due to its focus on devising an affordable design and manufacturing process.</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 20%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2001 PBR)</td> <td style="text-align: center;">6,299</td> <td style="text-align: center;">1,157</td> <td style="text-align: center;">1,564</td> <td style="text-align: center;">314,220</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">6,299</td> <td style="text-align: center;">1,157</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td></td> <td style="text-align: center;">-78</td> <td></td> <td style="text-align: center;">-78</td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: center;">-27</td> <td style="text-align: center;">-24</td> <td></td> <td style="text-align: center;">-51</td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2001 PBR</td> <td style="text-align: center;">5,032</td> <td style="text-align: center;">10,000</td> <td style="text-align: center;">26,392</td> <td style="text-align: center;">41,424</td> </tr> </tbody> </table>					<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2001 PBR)	6,299	1,157	1,564	314,220	(U) Appropriated Value	6,299	1,157			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions		-78		-78	b. Small Business Innovative Research					c. Omnibus or Other Above Threshold Reprogram					d. Below Threshold Reprogram					e. Rescissions	-27	-24		-51	(U) Adjustments to Budget Years Since FY 2001 PBR	5,032	10,000	26,392	41,424
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>																																																	
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Project 3890		Exhibit R-2 (PE 0604618F)																																																			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604618F Joint Direct Attack Munition					PROJECT 3890	
(U) <u>C. Program Change Summary (\$ in Thousands) Continued</u>											
					<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>		<u>Total Cost</u>
(U)	Current Budget Submit/FY 2002 PBR				11,304		11,055		27,956		355,515
(U) <u>Significant Program Changes:</u>											
FY00: Numbers do not reflect \$4M reprogrammed for the redesign JPF effort.											
FY01: \$10M Congressional add to begin JDAM Mk-82 development effort											
FY02: \$14M AF Budget request to complete JDAM Mk-82 development effort; \$8.6M to redesign Joint Programmable Fuze (JPF); \$3.7M for continued development of fuzing hardware.											
(U) <u>D. Other Program Funding Summary (\$ in Thousands)</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>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)	(U) Procurement of Ammunition, Air Force, P-1 Line Item JDAM (PE 27583F)	189,222	214,870	187,110	187,836	192,460	192,868	100,622			1,406,735
(U)	(U) Seek Eagle (PE 27590F)	0	0	147	302	145	0	0	105	0	699
(U) <u>E. Acquisition Strategy</u>											
The contract for the JDAM Mk-82 effort is Cost Plus Award Fee. The JPF effort is a fixed price incentive fee (FPI) contract. Procurement Lots 1-5 have been awarded and Lots 6-11 have a Production Price Commitment Curve agreement.											
(U) <u>F. Schedule Profile</u>											
					<u>FY 2000</u>			<u>FY 2001</u>			<u>FY 2002</u>
					1	2	3	4	1	2	3
(U)	Milestone III (2000 lb)									*	
(U)	Milestone III (1000 lb)										X
(U)	MK-84 Development and Operational Test (DT/OT) Finish										
(U)	MK-84 Initial Operational Test & Eval (IOT&E) Finish										
(U)	BLU-109 IOT&E Finish										
(U)	MK-83 DT Flight Tests Finish										
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> Project 3890 Page 3 of 6 Pages Exhibit R-2 (PE 0604618F) </div>											

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE June 2001																																																																																					
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<u>FY 2000</u>				<u>FY 2001</u>				<u>FY 2002</u>																																																																																							
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE June 2001		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604618F Joint Direct Attack Munition				3890	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>	
(U)	Primary Hardware Development				6,119		3,751		14,252	
(U)	Test & Evaluation				4,994		6,459		11,960	
(U)	Engineering & Prog Mgt Support				191		845		1,744	
(U)	Total				11,304		11,055		27,956	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<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>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2000</u>
<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Total</u>
<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>		<u>Complete</u>		<u>Program</u>		
<u>Product Development Organizations</u>										
Prime Contractors Boeing (St Louis, MO)		C/CPAF		Oct-95		201,575		201,575		184,603
FY94/95 Only										6,119
Dayron (JPF)		FPIF		Dec-01		3,450		3,450		3,751
Conceptual Studies		Various		Various		N/A		N/A		7,102
Fuze Development		TBD		TBD		3,700		3,700		0
<u>Support and Management Organizations</u>										
Engineering Spt.		CPAF		Oct 96		13,698		13,168		12,558
TAMS Contractor		CPAF		Oct 96		5,216		5,046		0
Program Office		Various		Various		N/A		N/A		310
<u>Test and Evaluation Organizations</u>										
Aircraft SPO/PMA Supt.		Various		Various		N/A		N/A		830
Flight Testing		Various		Various		N/A		N/A		0
Ground Testing		Various		Various		N/A		N/A		0
JPF Wind Tunnel Testing		TBD		TBD		N/A		N/A		280
GFE		Various		Various		N/A		N/A		434
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE	
							June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT	
05 - Engineering and Manufacturing Development				0604618F Joint Direct Attack Munition			3890	
(U) Performing Organizations Continued:								
Note: FY00 funding does not reflect \$4.0M for JPF redesign								
(U) Government Furnished Property:								
<div><div>Contract</div><div>Method/Type</div><div>Award or</div><div>Delivery</div><div>Total Prior</div><div>Budget</div><div>Budget</div><div>Budget</div><div>Budget to</div><div>Total</div></div>								
<div><div>Item</div><div>or Funding</div><div>Obligation</div><div>Delivery</div><div>Total Prior</div><div>Budget</div><div>Budget</div><div>Budget</div><div>Budget to</div><div>Total</div></div>								
<div><div>Description</div><div>Vehicle</div><div>Date</div><div>Date</div><div>to FY 2000</div><div>FY 2000</div><div>FY 2001</div><div>FY 2002</div><div>Complete</div><div>Program</div></div>								
Product Development Property								
Not Applicable								
Support and Management Property								
Test and Evaluation Property								
<div><div></div><div>Total Prior</div><div>Budget</div><div>Budget</div><div>Budget</div><div>Budget to</div><div>Total</div></div>								
<div><div>Subtotals</div><div>to FY 2000</div><div>FY 2000</div><div>FY 2001</div><div>FY 2002</div><div>Complete</div><div>Program</div></div>								
Subtotal Product Development207,0316,1193,75114,2520231,153								
Subtotal Support and Management34,2911918451,744037,071								
Subtotal Test and Evaluation63,8784,9946,45911,960087,291								
Total Project305,20011,30411,05527,9560355,515								

Project 3890

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Exhibit R-3 (PE 0604618F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604703F Aeromedical Systems Development					PROJECT 2866	
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	
2866 Aeromedical/Casualty Care Systems Dev	5,297	5,874	0	0	0	0	0	0	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0	
<p>This PE has been consolidated into PE64617, BPAC 654910 effective FY02 The FY03-FY07 budget numbers do not reflect DoD's strategic review results.</p> <p>(U) <u>A. Mission Description</u> The Program Element provides tactical, strategic aeromedical evacuation systems, automated information systems, and medical treatment equipment to meet unique Air Force medical readiness and operational requirements.</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$1,178 Spinal Cord Injury Transport System (SCITS) - Completed DT&E, conducted OT&E, and continued EMD.</p> <p>(U) \$6 Chemically Hardened Air Transportable Hospital/Chemical-Biological Hardened Air Management Plant (CHATH/CHAMP) - Provided technical support for production.</p> <p>(U) \$1,789 Theater Medical Information Program - Air Force (TMIP- AF) - Awarded EMD integration contract to design and develop a prototype, and conducted development and operational tests for the AF-TMIP Global AIS infrastructure, including communications and security upgrades. Integrated TMIP Program Management Office (PMO), an ACAT I program, software delivery and conducted OT&E in conjunction with the TMIP-PMO.</p> <p>(U) \$539 Deployable Oxygen System (DOS) -Conducted risk analysis and completed market analysis in preparation for RFP release in FY01.</p> <p>(U) \$635 Aeromedical Systems Analysis - Conducted foundational studies and analyses, requirements analyses, and product demonstrations to meet operational needs, and define acquisition strategies and baselines for potential system solutions to Air Force Medical Service materiel needs.</p> <p>(U) \$1,150 Provided support for the Human Systems Center, System Program Office, and Technical Engineering and Management Support contractor.</p> <p>(U) \$5,297 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$300 SCITS - Complete OT&E, EMD and support production.</p> <p>(U) \$119 TMIP-AF - Support HQ USAF/SGXR and Air Force Medical Logistics Office (AFMLO) to execute medical information infrastructure deployment per user fielding plan. Integrate and test pre-planned product improvements relative to block releases of the DoD-Level system.</p> <p>(U) \$2,249 DOS - Next generation Portable Liquid Oxygen (NPTLOX) System product improvement program begins; design & development.</p>											
Project 2866			Page 1 of 6 Pages					Exhibit R-2 (PE 0604703F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE June 2001																																													
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604703F Aeromedical Systems Development	PROJECT 2866																																													
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2001 (\$ in Thousands) Continued</u></p> <p>(U) \$10 CHATH/CHAMP - Provides technical support for production</p> <p>(U) \$1,845 Aeromedical Systems Analysis - Conduct foundational studies and analyses, requirements analyses, and product demonstrations to meet operational needs, and define acquisition strategies and baselines for potential system solutions to Air Force Medical Service materiel needs. Current projects include, but are not limited to, Patient Support Pallets (PSP), Collective Protected Expeditionary Medical Support (CP EMEDS), Latrine, and Telemedicine.</p> <p>(U) \$1,080 Provide Technical Engineering and Management Support to Aeromedical programs.</p> <p>(U) \$271 Provide support for the Human Systems Center, System Program Office.</p> <p>(U) \$5,874 Total</p> <p>The following net transactions are not reflected in the FY01 program total: BTR = -331K; SBIR = -200K. These transactions are not reflected in other sections of the R-Docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity</p> <p>(U) \$0 Total</p> <p>(U) <u>B. Budget Activity Justification</u></p> <p>This program is in budget activity 5 - Engineering and Manufacturing Development because it supports development of systems for treatment, evacuation, and prediction of wartime casualties in a conventional or non-conventional warfare environment.</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 55%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 15%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2001 PBR)</td> <td style="text-align: center;">7,027</td> <td style="text-align: center;">5,929</td> <td style="text-align: center;">2,040</td> <td style="text-align: center;">TBD</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">7,135</td> <td style="text-align: center;">5,929</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td style="text-align: center;">-423</td> <td style="text-align: center;">-42</td> <td></td> <td></td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td style="text-align: center;">-204</td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td style="text-align: center;">-1,183</td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: center;">-28</td> <td style="text-align: center;">-13</td> <td></td> <td></td> </tr> </tbody> </table>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2001 PBR)	7,027	5,929	2,040	TBD	(U) Appropriated Value	7,135	5,929			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-423	-42			b. Small Business Innovative Research	-204				c. Omnibus or Other Above Threshold Reprogram					d. Below Threshold Reprogram	-1,183				e. Rescissions	-28	-13		
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE June 2001																																																																																																																																																																																													
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FY 2001 funds reflected throughout this documentation do not reflect the following reductions: SBIR = -200K; BTR = -331K. FY 2002 funds were transferred to the Agile Combat Support program, PE 64617F, Project 4910.</p> <p>(U) <u>D. Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> <th style="text-align: center;"><u>FY 2003</u></th> <th style="text-align: center;"><u>FY 2004</u></th> <th style="text-align: center;"><u>FY 2005</u></th> <th style="text-align: center;"><u>FY 2006</u></th> <th style="text-align: center;"><u>FY 2007</u></th> <th style="text-align: center;"><u>Cost to</u></th> <th style="text-align: center;"><u>Total Cost</u></th> </tr> <tr> <th></th> <th style="text-align: center;"><u>Actual</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) Other Procurement, AF, PE 28038F, Other Base and Maintenance Support, Medical/Dental Equipment</td> <td style="text-align: right;">14,257</td> <td style="text-align: right;">17,025</td> <td style="text-align: right;">15,435</td> <td style="text-align: right;">13,899</td> <td style="text-align: right;">14,279</td> <td style="text-align: right;">14,581</td> <td style="text-align: right;">15,200</td> <td style="text-align: right;">15,504</td> <td style="text-align: center;">Continuing</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table> <p>(U) <u>E. Acquisition Strategy</u> All major projects within this Program Element are awarded under full and open competition.</p> <p>(U) <u>F. Schedule Profile</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="3" style="text-align: center;"><u>FY 2000</u></th> <th colspan="3" style="text-align: center;"><u>FY 2001</u></th> <th colspan="3" style="text-align: center;"><u>FY 2002</u></th> </tr> <tr> <th></th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> </tr> </thead> <tbody> <tr> <td>(U) SPINAL CORD INJURY TRANSPORT SYS</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) -Begin OT&E</td> <td></td><td></td><td></td><td></td><td style="text-align: center;">*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) -Begin Production</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td> </tr> <tr> <td>(U) DEPLOYABLE OXYGEN SYSTEM (DOS)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) -RFP Release</td> <td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">*</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) -Contract Award/Begin EMD</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td style="text-align: center;">*</td><td></td><td></td><td></td> </tr> <tr> <td>(U) TMIP-AF</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) -Award Global Design EMD contract</td> <td></td><td style="text-align: center;">*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>(U) -Initiate System Level OT&E</td> <td></td><td></td><td></td><td style="text-align: center;">*</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>										<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Adjustments to Budget Years Since FY 2001 PBR			-2,040		(U) Current Budget Submit/FY 2002 PBR	5,297	5,874	0	TBD		<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) Other Procurement, AF, PE 28038F, Other Base and Maintenance Support, Medical/Dental Equipment	14,257	17,025	15,435	13,899	14,279	14,581	15,200	15,504	Continuing	TBD		<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) SPINAL CORD INJURY TRANSPORT SYS													(U) -Begin OT&E					*								(U) -Begin Production									X				(U) DEPLOYABLE OXYGEN SYSTEM (DOS)													(U) -RFP Release						*							(U) -Contract Award/Begin EMD									*				(U) TMIP-AF													(U) -Award Global Design EMD contract		*											(U) -Initiate System Level OT&E				*								
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
05 - Engineering and Manufacturing Development					0604703F Aeromedical Systems Development			2866		
(U)	<u>A. Project Cost Breakdown (\$ in Thousands)</u>									
						<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>		
(U)	Engineering and Manufacturing Development					3,185	4,073			
(U)	Development/Operational Test and Evaluation					978	200			
(U)	Contractor Engineering Support					778	1,080			
(U)	Miscellaneous (System Program Office Operations)					202	271			
(U)	Mission Support/Supplies					154	250			
(U)	Total					5,297	5,874			
(U)	<u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>									
(U)	<u>Performing Organizations:</u>									
	<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>Total</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	CHATH/CHAMP Phase	CPFF	Aug 95	3,853	3,853	3,609	0	10		0
	II-ERDEC									
	SCITS	CPIF	Jul 98	2,768	2,800	400	100	100		0
	DOS (formally AHOS)	TBD	TBD	TBD	TBD	0	813	2,249		Continuing
	TMIP-AF	Various	Various	4,278	4,278	1,758	1,530	119		0
	New Business-	Various	Various			17,477	642	1,845		Continuing
	Mission Support	Various	Various			532				Continuing
	<u>Support and Management Organizations</u>									
	TEAMS-OpTech, McDonald	Delivery Order	Various			3,061	778	1,080		Continuing
	Tech, MTC									
	SPO Operations	Various	Various			3,767	356	271		Continuing
	<u>Test and Evaluation Organizations</u>									
	Aberdeen Prov. Grnd					2	0	0		Continuing
	Other					138	1,078	200		Continuing
Project 2866										
Page 5 of 6 Pages										
Exhibit R-3 (PE 0604703F)										

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604703F Aeromedical Systems Development			PROJECT 2866		
(U) <u>Government Furnished Property:</u>									
	<u>Contract</u>								
	<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>									
None									
<u>Support and Management Property</u>									
None									
<u>Test and Evaluation Property</u>									
None									
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				23,776	3,085	4,323		TBD	TBD
Subtotal Support and Management				6,828	1,134	1,351		TBD	TBD
Subtotal Test and Evaluation				140	1,078	200		TBD	TBD
Total Project				30,744	5,297	5,874		TBD	TBD

Project 2866

Page 6 of 6 Pages

Exhibit R-3 (PE 0604703F)

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

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604706F Life Support Systems

PROJECT

412A

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
412A Life Support Systems	11,113	26,215	4,586	1,244	301	292	3,378	3,451	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	Continuing	TBD

Note: The FY03-FY07 budget numbers do not reflect DoD's strategic review results.

(U) **A. Mission Description**

This program provides for Engineering and Manufacturing Development (EMD) of life support equipment and subsystems to satisfy operational command requirements for improved life support equipment. There are six main projects in this PE. (1) The Advanced Concept Ejection Seat (ACES) II Cooperative Modification Program (CMP) develops modifications for ACES II to accommodate light/heavy weight aircrew members and high speed ejection. (2) The Inflatable Restraint (IR) project leverages inflatable bag technology to improve ejection safety. (3) The Advanced Technology Anti-Gravity Suit (ATAGS) replaces the current G-suit, enabling aircrew members to endure the high G-forces of modern aircraft. (4) The Aircrew Laser Eye Protection (ALEP) project will provide aircrews with eye protection against a variety of laser devices which could cause a permanent loss of vision. (5) The Fixed Aircrew Standardized Seat (FASS) Program seeks to evaluate and standardize seat systems and subsystems in non-ejection seat aircraft. (6) The Joint Ejection Seat Program (JESP) will improve aircrew safety by the developing systems or system components which reduce or eliminate performance compromises of current escape systems. This PE also provides for the continuing development of life support items and subsystems such as the following: flight helmets, oxygen breathing equipment for aviators, survival radios, night vision devices, active/passive noise reduction devices, aircraft seating, and parachutes. Program management support includes tasks to assess deficiencies of currently fielded equipment, provide for the transition of new technology into EMD, and to support all current life support projects.

(U) **FY 2000 (\$ in Thousands)**

(U) \$3,000	Congressional Add for Continuation of EMD for Ejection Seat IR
(U) \$2,500	Congressional Add for Life Support Systems; Used to Continue EMD of ATAGS (\$1.4M) and Begin Fixed Aircrew Seat Standardization Study (\$1.1M)
(U) \$1,500	Continued ALEP EMD
(U) \$3,208	Continued ACES II CMP EMD
(U) \$905	Program Management/Technical Support/Travel/Test & Evaluation Support
(U) \$11,113	Total

Project 412A

Page 1 of 7 Pages

Exhibit R-2 (PE 0604706F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE June 2001																																																														
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604706F Life Support Systems		PROJECT 412A																																																													
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$10,250</td> <td>Congressional Add for Joint Ejection Seat Program Development Contract</td> </tr> <tr> <td>(U) \$4,000</td> <td>Congressional Add for ACES II Ejection Seat Digital Sequencer and Aircrew Accommodations</td> </tr> <tr> <td>(U) \$3,700</td> <td>Congressional Add for Fixed Aircrew Standardized Seats</td> </tr> <tr> <td>(U) \$2,150</td> <td>Continue Aircrew Laser Eye Protection EMD</td> </tr> <tr> <td>(U) \$3,313</td> <td>Complete ACES II Cooperative Modification Program EMD</td> </tr> <tr> <td>(U) \$504</td> <td>Complete ATAGS EMD and Production Support Costs</td> </tr> <tr> <td>(U) \$1,000</td> <td>Continue development of other Life Support items and subsystems</td> </tr> <tr> <td>(U) \$1,298</td> <td>Program Management/Technical Support/Travel/Test & Evaluation Support.</td> </tr> <tr> <td>(U) \$26,215</td> <td>Total</td> </tr> </table> <p>Note: The following net transactions are not reflected in the FY01 program total: BTR= +522K; SBIR= -889K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$3,877</td> <td>Continue ALEP EMD</td> </tr> <tr> <td>(U) \$609</td> <td>Program Management/Technical Support/Travel/Test & Evaluation support</td> </tr> <tr> <td>(U) \$100</td> <td>Continue development of other Life Support items and subsystems</td> </tr> <tr> <td>(U) \$4,586</td> <td>Total</td> </tr> </table> <p>(U) <u>B. Budget Activity Justification</u></p> <p>Program is in Budget Activity 5 because several projects are in Acquisition Phase II, EMD</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 55%;"></th> <th style="width: 15%; text-align: center;"><u>FY 2000</u></th> <th style="width: 15%; text-align: center;"><u>FY 2001</u></th> <th style="width: 15%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2001 PBR)</td> <td style="text-align: center;">11,473</td> <td style="text-align: center;">14,758</td> <td style="text-align: center;">14,121</td> <td></td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">11,473</td> <td style="text-align: center;">26,458</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Congressional/General Reductions</td> <td style="text-align: center;">-97</td> <td style="text-align: center;">-185</td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. Small Business Innovative Research</td> <td style="text-align: center;">-218</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				(U) \$10,250	Congressional Add for Joint Ejection Seat Program Development Contract	(U) \$4,000	Congressional Add for ACES II Ejection Seat Digital Sequencer and Aircrew Accommodations	(U) \$3,700	Congressional Add for Fixed Aircrew Standardized Seats	(U) \$2,150	Continue Aircrew Laser Eye Protection EMD	(U) \$3,313	Complete ACES II Cooperative Modification Program EMD	(U) \$504	Complete ATAGS EMD and Production Support Costs	(U) \$1,000	Continue development of other Life Support items and subsystems	(U) \$1,298	Program Management/Technical Support/Travel/Test & Evaluation Support.	(U) \$26,215	Total	(U) \$3,877	Continue ALEP EMD	(U) \$609	Program Management/Technical Support/Travel/Test & Evaluation support	(U) \$100	Continue development of other Life Support items and subsystems	(U) \$4,586	Total		<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2001 PBR)	11,473	14,758	14,121		(U) Appropriated Value	11,473	26,458			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-97	-185			b. Small Business Innovative Research	-218				c. Omnibus or Other Above Threshold Reprogram				
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Project 412A		Page 2 of 7 Pages																																																														
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE June 2001			
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604706F Life Support Systems			PROJECT 412A			
(U) C. Program Change Summary (\$ in Thousands) Continued										
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>						
d. Below Threshold Reprogram										
e. Rescissions	-45	-58								
(U) Adjustments to Budget Years Since FY 2001 PBR			-9,535							
(U) Current Budget Submit/FY 2002 PBR	11,113	26,215	4,586	TBD						
(U) Significant Program Changes:										
FY 2000 Congressional Add: \$3.0M for EMD of Ejection Seat Inflatable Restraints; \$2.5M for Life Support Systems										
FY 2001 Congressional Add: \$10.25M for JESP; \$4.0M for ACES II CMP; and \$3.7M for Fixed Aircrew Standardized Seats										
FY 2002 New Start Slip -\$5.0M; IBRC Reduction -\$4.5M; CGR -\$62K; Non Pay Purchase Inflation +\$27K										
(U) D. Other Program Funding Summary (\$ in Thousands)										
	<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) Item Less Than \$5M (Safety Equipment) PE 0702833F:		555							0	555
Advanced Technology										
Anti-G Suit (ATAGS)										
(U) Item Less Than \$5M (Safety Equipment) PE 0702833F:	2,400	1,200	2,800	4,520	3,920	1,400			0	16,240
Aircrew Laser Eye Protection (ALEP)										
FY00 Congressional Add for Laser Eye Protection (\$2.4M)										
(U) E. Acquisition Strategy										
Acquisition strategy is carried out at the project level. (1) Advanced Concept Ejection Seat (ACES) II Cooperative Modification Program is a joint project between the US and Japan where the US is responsible for improved seat stability and Japan is responsible for improved limb restraints and accommodations for lightweight aircrew. The US contracts are Sole Source with the Enhanced Drogue Chute and seat modifications engineered by Boeing/MDA through a Cost Plus Fixed Fee Contract. The Engineering and Manufacturing Development (EMD) effort is to be performed by Boeing through a Cost Plus Fixed Fee contract and Cost Plus Incentive Fee Contract. (2) The acquisition strategy for the Inflatable Restraint Program is a Cost Plus Incentive Fee for early-EMD. (3) The ATAGS project consists of a Sole Source contract with Mustang on a Cost Plus Fixed Fee contract to conduct Development Testing and Evaluation (DT&E) Support for the baseline ATAGS (F-22 ATAGS complete).										
Project 412A			Page 3 of 7 Pages				Exhibit R-2 (PE 0604706F)			

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<p>(U) <u>E. Acquisition Strategy Continued</u> (4) The ALEP acquisition strategy consists of a full and open PDRR contract to two contractors as well as a full and open EMD contract with two contractors with a downselect to one contractor for production. (5) The Fixed Aircrew Standardized Seat EMD effort will be an engineering services contract. (6) The acquisition strategy for the Joint Ejection Seat Program (JESP) will be two Cost Plus Fixed Fee development contracts with FY01 funding divided according to contractor needs.</p>																																																																																																																																																																																																																																																																																														
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Schedule Profile</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th colspan="4" style="text-align: center; border-bottom: 1px solid black;">FY 2000</th> <th></th> <th colspan="4" style="text-align: center; border-bottom: 1px solid black;">FY 2001</th> <th></th> <th colspan="4" style="text-align: center; border-bottom: 1px solid black;">FY 2002</th> </tr> <tr> <th></th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> <th style="text-align: center;">1</th> <th style="text-align: center;">2</th> <th style="text-align: center;">3</th> <th style="text-align: center;">4</th> </tr> </thead> <tbody> <tr> <td>(U) ACES II Complete Detail Design</td> <td style="text-align: center;">*</td> <td></td> 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(U) ACES II Digital Sequencer Qual Start							*																																																																																																																																																																																																																																																																																							
(U) ACES II Structural Improvement Task							*																																																																																																																																																																																																																																																																																							
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Project 412A

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Exhibit R-2 (PE 0604706F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE		June 2001	
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT	
05 - Engineering and Manufacturing Development					0604706F Life Support Systems					412A	
(U) A. Project Cost Breakdown (\$ in Thousands)											
					FY 2000		FY 2001		FY 2002		
(U) Contracts					7,179		20,686		3,750		
(U) Technical Engineering Support					2,136		1,566		519		
(U) Travel					141		232		50		
(U) Government Testing					893		3,227		200		
(U) Program Management/Technical Support and Misc.					764		504		67		
(U) Total					11,113		26,215		4,586		
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
Contractor or Government		Contract Method/Type	Award or Obligation	Performing Activity	Project Office	Total Prior to FY 2000	Budget FY 2000	Budget FY 2001	Budget FY 2002	Budget to Complete	Total Program
Performing Activity		or Funding Vehicle	Date	EAC	EAC						
Product Development Organizations											
UPCO-Inflatable Rest		SS/CPAF	Aug 99	2,053	2,053	2,157	0	0	0	Continuing	TBD
Entran Devices-ACES II		FFP	Sep 99	39	39	39	0	0	0	Continuing	TBD
Boeing-ACES II Struc Def		SS/CPFF	Dec 99	200	200	0	0	0	0	Continuing	TBD
ATA Sensors-ACES II		FFP	Mar 00	31	31	0	0	0	0	Continuing	TBD
Gemini Elect Co-ACES II		FFP	May 99	9	9	9	0	0	0	Continuing	TBD
Denton, Inc-ACES II		FFP	Sep 99	47	47	47	0	0	0	Continuing	TBD
First Tech Sys-ACES II		FFP	Oct 99	393	393	193	0	0	0	Continuing	TBD
Boeing-ACES II --Study		SS/CPFF	Aug 99	237	237	37	0	0	0	Continuing	TBD
Pioneer Aerospace-ACES II		FFP	Jan 99	9	9	9	0	0	0	Continuing	TBD
EME Corp-ACES II		FFP	Mar 00	244	244	0	205	0	0	Continuing	TBD
ITT-NVS		C/CPIF	18 Jan 93	14,081	14,081	14,081	0	0	0	Continuing	TBD
KRUG-ATAGS		SS/FFP	7 July 97	424	424	424	0	0	0	Continuing	TBD
Mustang-ATAGS		SS/FFP	Sep 97	499	499	499	630	310	0	Continuing	TBD
ALEP - (AL/Navy)		C/CPFF	Jun 97	4,552	4,552	4,552	0	0	0	Continuing	TBD
Project 412A					Page 5 of 7 Pages				Exhibit R-3 (PE 0604706F)		

Project 412A

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Exhibit R-3 (PE 0604706F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
										June 2001
BUDGET ACTIVITY				PE NUMBER AND TITLE						PROJECT
05 - Engineering and Manufacturing Development				0604706F Life Support Systems						412A
(U) <u>Performing Organizations Continued:</u>										
<u>Product Development Organizations</u>										
MDA-Enhanced Drogue	SS/CPFF	Jun 97	1,130	1,130	1,130	0	0	0	Continuing	TBD
MDA-ACES II Seats	SS/FFP	Sept 97	150	150	150	0	0	0	Continuing	TBD
SRL-ATAGS DT&E Support	SS/CPFF	Dec 97	150	150	150	0	0	0	Continuing	TBD
Boeing-ACES II Pre-EMD	SS/CPFF	Feb 98	250	250	250	0	0	0	Continuing	TBD
Brooks AFB, Supply	Supply Reqt	Feb 98	311	311	301	0	0	0	Continuing	TBD
Contax	SS/FFP	Apr 98	11	11	11	0	0	0	Continuing	TBD
Boeing-ACES II EMD	SS/CPIF	Dec 98	5,004	5,004	0	2,555	1,008	0	Continuing	TBD
Boeing-ACES II EMD	SS/CPFF	Jun 00				412	422	0	Continuing	TBD
(Structural)										
BFG-UpCO through Hill AFB	TBD	Jan 01					3,000	0	Continuing	TBD
(ACES II)										
Pax River	AF 185	Aug 99	147	147	0	0	0	0	Continuing	TBD
Holloman AFB	AF 185	Nov 99	5	5	0	0	0	0	Continuing	TBD
ALEP PDRR	CPFF	Sep 00	TBD	3,551	0	1,116	2,762	0	Continuing	TBD
ALEP EMD	TBD	TBD	TBD	4,252	0	0		3,750	Continuing	TBD
Fixed Seats	TBD				0	900	2,518	0	Continuing	TBD
Inflatable Restraints Early	C/CPIF	Sep 00	3,000	3,000	0	2,143	0	0	Continuing	TBD
EMD										
Life Support Systems, TBD	TBD	TBD	2,500	2,500	0	0	0	0	Continuing	TBD
JESP										
							10,100	0	Continuing	TBD
<u>Support and Management Organizations</u>										
Program Management Support			5,601	5,601	2,878	234	1,336	67	Continuing	TBD
Travel			1,273	1,273	581	141	279	50	Continuing	TBD
Tech Engr. & Acq			6,941	6,941	3,058	2,040	1,540	519	Continuing	TBD

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604706F Life Support Systems				412A	
(U) <u>Performing Organizations Continued:</u>									
<u>Test and Evaluation Organizations</u>									
Edwards Test Facility	AF 185	100	100	0	0	0	0	Continuing	TBD
ALEP Testing Agency	TBD				325	0	200	Continuing	TBD
Fixed Seats Testing Agency	TBD					921			921
AFOTEC				82				Continuing	TBD
46th Test Wing				85				Continuing	TBD
AFFTC	Proj	3,146	3,146	3,146	0	0	0	Continuing	TBD
	Ord-Various								
AL/CF	Various	179	179	179	0	0	0	Continuing	TBD
Navy Testing for Inflatable					173			Continuing	TBD
Holloman	Various	2,864	2,864	164	174	2,019	0	Continuing	TBD
AFRL (incl. Ejection Seat Effort)	Various	4,951	4,951	1,337	65	0	0	Continuing	TBD
(U) <u>Government Furnished Property:</u>									
	<u>Contract</u>								
	<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
<u>Product Development Property</u>									
ALEP		TBD			12	0	0	0	6
<u>Support and Management Property</u>									
<u>Test and Evaluation Property</u>									
					<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>					<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
Subtotal Product Development					24,051	7,961	20,120	3,750	TBD
Subtotal Support and Management					6,517	2,415	3,155	636	TBD
Subtotal Test and Evaluation					4,993	737	2,940	200	TBD
Total Project					35,561	11,113	26,215	4,586	TBD

Project 412A

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Exhibit R-3 (PE 0604706F)

Project 412A

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Exhibit R-3 (PE 0604706F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604708F Civil, Fire, Environmental, Shelter					
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
Total Program Element (PE) Cost	2,595	0	0	0	0	0	0	0	Continuing	TBD
2505 Aircraft Firefighting Suppression And Rescue	2,416	0	0	0	0	0	0	0	Continuing	TBD
2674 Tactical Shelters	179	0	0	0	0	0	0	0	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

The Air Force is in the process of consolidating three small dollar Civil Engineer (CE) readiness R&D programs (PE64617f - Agile Combat Support; PE64708f - Civil , Fire, Environmental, Shelters; and the 3600 portion of PE28031f - War Reserve Material) under PE 64617. This will meet the intent of the House action to eliminate smaller PEs and provide a more cohesive, manageable CE Readiness modernization effort.

(U) **A. Mission Description**

This program funds the development, testing and evaluation of materials, equipment and procedures in the following areas:

(1) Aircraft Fire Fighting, Suppression and Rescue and Civil Engineer (CE) Readiness/Force Protection (FP). CE readiness is supported by multimedia training systems for Fire Fighting, CE Readiness/FP, including Explosive Ordnance Disposal (EOD) by developing interactive training scenarios which simulate hazardous situations, allows both training and testing of response capabilities, and complements field training while reducing time, cost and direct exposure to hazards. Develops, tests and evaluates new concepts and technology applications for fire fighting, suppression and rescue and CE Readiness/FP to improve rapid deployment capabilities in support of bare base/Air Expeditionary Forces (AEF), contingency operating areas and main operating bases.

(2) Tactical Shelters is the USAF portion of a tri-service effort to develop standardized, low maintenance, highly survivable shelters and shelter accessories that are easily mobilized and compatible with air, sea and land transport systems. These products will effectively support high mobility aircraft support, command and control, communications, medical, and data processing units for the tactical and strategic forces. These shelters also optimize the latest enhancements of force protection technology.

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Exhibit R-2 (PE 0604708F)

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

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604708F Civil, Fire, Environmental, Shelter(U) **B. Budget Activity Justification**

This program is in budget activity five, Engineering and Manufacturing Development, because it takes emerging technologies and concepts and develops them for Air Force use.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	2,768	2,824		
(U) Appropriated Value	2,719	0		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-2	0		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram	-94			
d. Below Threshold Reprogram				
e. Rescissions	-28			
(U) Adjustments to Budget Years Since FY 2001 PBR		0		
(U) Current Budget Submit/FY 2002 PBR	2,595	0		TBD
(U) <u>Significant Program Changes:</u>				
HAC moved FY01 funds to PE64617.				

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604708F Civil, Fire, Environmental, Shelter

PROJECT

2505

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
2505 Aircraft Firefighting Suppression And Rescue	2,416	0	0	0	0	0	0	0	Continuing	TBD

(U) **A. Mission Description**

Aircraft Fire Fighting, Suppression and Rescue and Civil Engineer (CE) Readiness/Force Protection (FP). CE readiness is supported by multimedia training systems for Fire Fighting, CE Readiness/FP, including(Explosive Ordnance Disposal (EOD) by developing interactive training scenarios which simulate hazardous situations, allows both training and testing of response capabilities, and complements field training while reducing time, cost and direct exposure to hazards. Develops, tests and evaluates new concepts and technology applications for fire fighting, suppression and rescueand CE Readiness/FP to improve rapid deployment capabilities in support of bare base/Air Expeditionary Force (AEF), contingency operating areas and main operating bases.

(U) **FY 2000 (\$ in Thousands)**

(U) \$2,106 Continued courseware development of CE/MTS.
 (U) \$160 Continued commercial technology exploitation.
 (U) \$150 Other technical support.
 (U) \$2,416 Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$0 No Activity; funding incorporated into PE64617F
 (U) \$0 Total

(U) **FY 2002 (\$ in Thousands)**

(U) \$0 No Activity
 (U) \$0 Total

(U) **B. Project Change Summary**

Program consolidated under PE 64617 effective FY01.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<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) N/A

Project 2505

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Exhibit R-2A (PE 0604708F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604708F Civil, Fire, Environmental, Shelter

PROJECT

2505

(U) **D. Acquisition Strategy**

Multimedia courseware materials and commercial technology items will continue to be developed, tested, modified and readied for production and procurement by field units. Commercial technology exploitation provides extremely low cost, yet high value suitability testing of low dollar commercial equipment with potential for military application. Items are proposed each year by field units and published test reports provide recommendations about whether or not to procure items.

(U) **E. 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) CE Multimedia Training Systems												
(U) Complete HAZMAT Technician			*									
(U) Complete Emerg Response to Terrorism		*										
(U) Complete T.O. 00105E-9	*											
(U) Complete 4 HAZMAT Courses												
(U) Complete CRAF for 737/757/777 Aircraft												
(U) Fire Commercial Technology												
(U) Complete Mobile Fire Training System			*									
(U) Complete AIM Safety Detectors			*									
(U) Complete Help Mate Telephone System		*										
(U) Complete FD On-Scene	*											
* = Completed Milestone												
X = Planned Milestone												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
05 - Engineering and Manufacturing Development					0604708F Civil, Fire, Environmental, Shelter			2505		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>	
(U)	Contracts				1,083					
(U)	A&AS Support				200					
(U)	Other Government Agencies				883					
(U)	Materials/Equipment				100					
(U)	Other Technical Support				150					
(U)	Total				2,416					
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
	<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 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	Multimedia Training Sys	Mult	Cont	14,500	14,500	2,597	2,118			Continuing
	Fire Commercial Technology	Mult	Cont	1,500	1,500	250	160			Continuing
	Exploitation									
	<u>Support and Management Organizations</u>									
	Various			1,950	1,950	442	150			Continuing
	<u>Test and Evaluation Organizations</u>									
	Various			750	750	70	0			0
(U) <u>Government Furnished Property:</u>										
		<u>Contract</u>								
		<u>Method/Type</u>	<u>Award or</u>							
	<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
	<u>Product Development Property</u>									
	None									
Project 2505										

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)				DATE June 2001			
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT		
05 - Engineering and Manufacturing Development		0604708F Civil, Fire, Environmental, Shelter			2505		
(U) <u>Government Furnished Property Continued:</u>							
<u>Support and Management Property</u>							
None							
<u>Test and Evaluation Property</u>							
None							
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development		2,847	2,278			TBD	TBD
Subtotal Support and Management		442	150			TBD	TBD
Subtotal Test and Evaluation		70	0			0	70
Total Project		3,359	2,428			TBD	TBD

Project 2505

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Exhibit R-3 (PE 0604708F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604708F Civil, Fire, Environmental, Shelter

PROJECT

2674

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
2674 Tactical Shelters	179	0	0	0	0	0	0	0	Continuing	TBD

(U) **A. Mission Description**

Provides reliable, cost effective tactical shelters required to ensure the success of Air Force missions, provides Air Force membership in the DOD Tactical Shelter Program, and provides technology insertion for shelter development.

(U) **FY 2000 (\$ in Thousands)**

- (U) \$66 Continued research, development and acquisition of composite tactical shelter.
- (U) \$102 Established capability to evaluate shelter design and performance and perform shelter integration analysis.
- (U) \$11 Provided direct feedback and ensure Air Force requirements are identified to JOCOTAS and ASTM.
- (U) \$179 Total

(U) **FY 2001 (\$ in Thousands)**

- (U) \$0 No Activity
- (U) \$0 Total

(U) **FY 2002 (\$ in Thousands)**

- (U) \$0 No Activity
- (U) \$0 Total

(U) **B. Project Change Summary**

Project consolidated under PE 64617 effective FY01

(U) **C. Other Program Funding Summary (\$ in Thousands)**

<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) N/A

(U) **D. Acquisition Strategy**

Tactical shelters development will continue to support Initial Deployable Kitchen (IDK) Program

Project 2674

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001																																																																																																																																																											
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT																																																																																																																																																											
05 - Engineering and Manufacturing Development				0604708F Civil, Fire, Environmental, Shelter			2674																																																																																																																																																											
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Project 2674				Page 9 of 10 Pages			Exhibit R-3 (PE 0604708F)																																																																																																																																																											

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE	
							June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT	
05 - Engineering and Manufacturing Development				0604708F Civil, Fire, Environmental, Shelter			2674	
(U) <u>Government Furnished Property Continued:</u>								
	<u>Contract</u>							
	<u>Method/Type</u>	<u>Award or</u>						
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
<u>Product Development Property</u>								
None								
<u>Support and Management Property</u>								
None								
<u>Test and Evaluation Property</u>								
None								
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
Subtotal Product Development					179			TBD
Subtotal Support and Management					0			0
Subtotal Test and Evaluation					0			0
Total Project					179			TBD

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

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604727F Joint Standoff Weapons Systems

PROJECT

1000

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
1000 Joint Standoff Weapons Systems	9,621	1,485	0	0	0	0	0	0	0	194,413
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

The Joint Standoff Weapon (JSOW) is a joint USAF/USN program with the USN as the lead service. JSOW is a Global Position System aided Inertial Navigation System (GPS/INS) precision glide weapon with a stealthy, kinematically efficient airframe. JSOW provides all-weather launch/leave standoff capability to attack a variety of targets from outside enemy defenses. JSOW uses a common vehicle (truck) to deliver three different payloads. JSOW/A uses 145 BLU-97 Combined Effects Munitions for soft and area targets, JSOW/B uses 6 BLU-108 submunitions for attacking massed /mobile land-combat vehicles, and JSOW/C has a unitary BROACH warhead for harder/point targets (AF is not buying JSOW/C). The AF accepted its first JSOW in Nov 99. The F-16 (Block 50) is the threshold AF aircraft. JSOW will also be integrated on the B-1B, B-2, B-52, F-16C/D Blocks 40 and 30, F-15E, and JSF. The B-2 and F-16 are now JSOW capable. The B-52 and F-15E will be JSOW capable in FY02. JSOW/A is in Full Rate Production (FRP) and JSOW/B is in Low Rate Initial Production (LRIP). Both are purchased concurrently on the same JSOW contract. AF has over 100 JSOW in inventory. The current program is based on an USN buy of 13,000 (8,800 As, 1,200 Bs, 3,000 Cs) and an AF buy of 6,114 (3,000 As / 3,114 Bs). FY01 is the last year for JSOW AF RDT&E funds.

This program also includes the development of the JSOW Common Munitions Built-in Test Reprogramming Equipment (CMBRE) and software. The JSOW mission planning module and Precision Guided Munition Planning System (PGMPS) continues to be developed with the Air Force Mission Planning Support System (AFMSS) Aircraft/Weapons/Electronics (AWE) development. Through FY01, efforts include aircraft integration and JSOW/B BLU-108P3I testing.

JSOW AGM-154A&B are ACAT IC programs; AGM-154C (Navy only) is ACAT 1D.

(U) **FY 2000 (\$ in Thousands)**

- (U) \$4,581 Completed design-to-cost initiatives; continue JSOW software improvements/upgrades; continue development/testing of AFMSS module for B-1B, F-15E, and F-16; AF-unique SAASM integration/mission planning.
- (U) \$1,500 Completed F-16 OFP Smart Rack development.
- (U) \$2,396 Completed engineering support, program office support, and other government support. Complete B-52 integration.
- (U) \$1,144 Continued AGM-154B tests, including P3I Improved BLU-108 (IBLU) test, F-16 DT/OT, and production verification flight tests.

Project 1000

Page 1 of 6 Pages

Exhibit R-2 (PE 0604727F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE June 2001																																																		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604727F Joint Standoff Weapons Systems	PROJECT 1000																																																		
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands) Continued</u></p> <p>(U) \$9,621 Total</p> <p>NOTE: The following net transaction is not reflected in the FY00 program total: Recissions = -274K. This transaction is not reflected in other sections of the R-docs where an FY00 total is shown.</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$1,000 Complete JSOW software improvements/upgrades; complete development/testing of AFMSS module for B-1B, F-15E, and F-16</p> <p>(U) \$485 Complete AGM-154B tests, including P3I Improved BLU-108 (IBLU) test, F-16 DT/OT and flight tests</p> <p>(U) \$1,485 Total</p> <p>NOTE: The following net transaction is not reflected in the FY01 program total: BTR=-18K and SBIR = -53K. This transaction is not reflected in other sections of the R-docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$0 No Activity</p> <p>(U) \$0 Total</p> <p>(U) <u>B. Budget Activity Justification</u></p> <p>The RDT&E program element is in Budget Activity 5, EMD, because it supports the development of Air Force JSOW and BRU-57 and associated software, flight testing, and other developmental efforts.</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 20%; text-align: center;"><u>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2001 PBR)</td> <td style="text-align: center;">10,150</td> <td style="text-align: center;">1,498</td> <td></td> <td style="text-align: center;">194,416</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">10,307</td> <td style="text-align: center;">1,498</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> a. Congressional/General Reductions</td> <td style="text-align: center;">-513</td> <td style="text-align: center;">-10</td> <td></td> <td></td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td style="text-align: center;">-69</td> <td></td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: center;">-104</td> <td style="text-align: center;">-3</td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2001 PBR</td> <td></td> <td></td> <td></td> <td style="text-align: center;">-3</td> </tr> </tbody> </table> <p>Project 1000</p>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2001 PBR)	10,150	1,498		194,416	(U) Appropriated Value	10,307	1,498			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-513	-10			b. Small Business Innovative Research					c. Omnibus or Other Above Threshold Reprogram	-69				d. Below Threshold Reprogram					e. Rescissions	-104	-3			(U) Adjustments to Budget Years Since FY 2001 PBR				-3
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>																																																
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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development**0604727F Joint Standoff Weapons Systems****1000**(U) **C. Program Change Summary (\$ in Thousands) Continued**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Current Budget Submit/FY 2002 PBR	9,621	1,485		194,413

(U) **Significant Program Changes:**

No significant changes.

(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<u>FY 2000</u> <u>Actual</u>	<u>FY 2001</u> <u>Estimate</u>	<u>FY 2002</u> <u>Estimate</u>	<u>FY 2003</u> <u>Estimate</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) Missile Procurement, AF P-1 Line Item 5, JSOW										
(U) JSOW	36,794	82,654	53,609	77,347	132,027	180,636	196,669	186,328	1,012,822	1,958,886
(U) SEEK EAGLE	1,150	0	1,032	0	1,010	0	1,013	0	0	4,205

(U) **E. Acquisition Strategy**

JSOW awarded a joint service contract to Raytheon for EMD. A Cost Plus Incentive Fee (CPIF) contract was awarded for AGM-154A Low Rate Initial Production (LRIP) I. For AGM-154A LRIP II, a Fixed Price Incentive Fee (FPIF) contract was awarded. Both LRIP contracts were conducted in a sole source environment. A sole source AGM-154A Full Rate Production (FRP) and AGM-154B LRIP contract (FFP) was awarded on Dec 98. A sole source AGM-154A FRP contract (FFP) was awarded on Dec 99. No FRP contract was awarded in FY01 due to JSOW control section problems. The control section problem has also caused a delay in AGM-154B MOT&E and Milestone III.

(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) Acquisition Milestones												
(U) BRU-57 Production Contract Award (Lot 3)								*				
(U) AGM 154A/B Production Contract Awards				*							X	
(U) T&E Milestones												
(U) AGM-154B DT/OT												
(U) AGM-154B MOT&E (1QFY03)			*									
(U) AGM-154B Milestone III/FRP (3QFY03)												

Project 1000

Page 3 of 6 Pages

Exhibit R-2 (PE 0604727F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE June 2001			
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT		
05 - Engineering and Manufacturing Development					0604727F Joint Standoff Weapons Systems				1000		
(U) A. Project Cost Breakdown (\$ in Thousands)											
					FY 2000		FY 2001		FY 2002		
(U)	Major Contracts				4,581		1,000		0		
(U)	Support Contracts				700		0		0		
(U)	Program Office Support/Other Government Support				1,563		485		0		
(U)	Test and Evaluation				2,644		0		0		
(U)	BRU-57				133		0		0		
(U)	Total				9,621		1,485		0		
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)											
(U) Performing Organizations:											
<u>Contractor or Government</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 2000</u>	
<u>Performing Activity</u>		<u>or Funding Vehicle</u>		<u>Obligation Date</u>		<u>Activity EAC</u>		<u>Office EAC</u>		<u>Total Program</u>	
<u>Product Development Organizations</u>											
Raytheon Sys. Co.		SS/CPIF		Jun 95		134,330		134,330		128,729	
Lockheed		FP/CPIF		Feb 95		16,750		16,750		15,250	
EDO/M Tech		FP/CPIF		Oct 95		7,447		7,447		7,447	
<u>Support and Management Organizations</u>											
China Lake NWC		MIPR				N/A		N/A		5,225	
AAC/YH & Other						N/A		N/A		15,294	
<u>Test and Evaluation Organizations</u>											
AAC, Eglin AFB		REO				N/A		N/A		6,570	
BRU-57 Misc.		REO/Other				N/A		N/A		429	
(U) Government Furnished Property:											
<u>Item Description</u>		<u>Contract Method/Type or Funding Vehicle</u>		<u>Award or Obligation Date</u>		<u>Delivery Date</u>		<u>Total Prior to FY 2000</u>		<u>Budget FY 2000</u>	
								<u>Budget FY 2001</u>		<u>Budget FY 2002</u>	
								<u>Budget to Complete</u>		<u>Total Program</u>	
Project 1000											
Page 5 of 6 Pages											
Exhibit R-3 (PE 0604727F)											

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001	
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT		
05 - Engineering and Manufacturing Development				0604727F Joint Standoff Weapons Systems				1000		
(U) <u>Government Furnished Property Continued:</u>										
	<u>Contract</u>									
	<u>Method/Type</u>	<u>Award or</u>								
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>	
<u>Product Development Property</u>										
Textron	FPIF	Mar 96	Various	4,363	0	0		0	4,363	
<u>Support and Management Property</u>										
<u>Test and Evaluation Property</u>										
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>	
Subtotal Product Development				155,789	6,081	1,000		0	162,870	
Subtotal Support and Management				20,519	2,263	485		0	23,267	
Subtotal Test and Evaluation				6,999	1,277	0		0	8,276	
Total Project				183,307	9,621	1,485		0	194,413	

Project 1000

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Exhibit R-3 (PE 0604727F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604735F Combat Training Ranges					PROJECT 2286	
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	
2286 Combat Training Range Equipment	11,484	16,407	25,943	19,000	21,277	21,387	20,260	20,843	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0	

FY03 - FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

Air Combat Training Systems (ACTS) provide equipment for Air Force combat training ranges to support mission training and evaluation of aircrews, as well as the operational testing of weapons systems and tactics under simulated combat conditions. This program develops the electronic, telecommunications, and instrumentation equipment/systems for the training ranges. ACTS are interoperable with Navy combat training ranges, and provide the capabilities to train aircrews in air-to-air combat, air-to-ground combat, and electronic warfare, while providing real-time monitoring and control of aircraft during large force exercises and recording events for post-mission debrief and analysis. This program develops advanced threat emitters. The Mini-Multiple Threat Emitter System (MUTES) Modification Program (M3P) upgrades existing equipment to satisfy Air Force Electronic Warfare training requirements. The required M3P modifications will enable Mini-MUTES to incorporate the latest, most lethal advanced surface-to-air threats. The Advanced Threat Emitter System (ATES) will be developed to provide a comprehensive suite of threat signals to aircrews during simulated penetrations of hostile airspace for surveillance and bombing runs, for aircrew tactics and electronic combat training. ATES will complement existing threat simulators deployed on test and training ranges by emulating signals which simulate the most advanced air defense and threat radars. ATES has potential Joint applicability. This program element also funds aircraft/pod interfaces, software interoperability among service ranges and development and integration of the Range Security Initiative (RSI) (formerly known as Advanced Message Oriented Data Security Module - AMODSM) for range/aircraft data links-specifically the Nellis Air Combat Training System (NACTS) which supports Red Flag, Green Flag and USAF Fighter Weapons School training. The Navy led Joint Tactical Combat Training System (JTCTS) development contract was stopped in FY01. The JTCTS program is undergoing acquisition restructure in FY01 and FY02. The Air Force will participate in the restructure to include Air Force unique requirements in the program.

Target System Development PE 64258F was consolidated into this PE starting in FY02. Aerial Targets are used to determine air-to-air weapons systems accuracy and reliability by developing improved aerial target systems for Air Force weapons system test and evaluation. It develops full-scale and subscale aerial targets, and target control systems. Specialized target payload subsystems are developed for requirements such as: missile scoring, electronic and infrared (IR) countermeasures, radar, and IR signature augmentation, and chaff and flare dispensing.

Project 2286
Page 1 of 7 Pages
Exhibit R-2 (PE 0604735F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE June 2001
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604735F Combat Training Ranges	PROJECT 2286
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$2,297 Continued CTR basic operating support, and system acquisition and engineering support for range and threat systems</p> <p>(U) \$620 Continued interoperability improvements with existing Air Force and Navy ranges to include software, upgrades, and weapons simulation development</p> <p>(U) \$2,856 Developed and integrate Range Security Initiative (RSI) for the NACTS Range, and develop RSI design concept for the Tyndall Range Expansion (TRE).</p> <p>(U) \$4,647 Continued Mini-(MUTES) Multiple Threat Emitter System Modification Program (M3P)</p> <p>(U) \$964 Continued development of aircraft interfaces with aircraft/Pod integration for range applications with aircraft program office</p> <p>(U) \$100 Continued Range Instrumentation Technical Support (RITS) efforts. This is a name-change from the ACTS Software Sustainment Evaluation and Test (ASSET) effort.</p> <p>(U) \$11,484 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$3,720 Continued development of the RSI for NACTS/TRE</p> <p>(U) \$2,858 Continued CTR basic operating support, and system acquisition and engineering support for range and threat systems</p> <p>(U) \$492 Continued interoperability improvements with existing Air Force and Navy ranges to include software, upgrades, and weapons simulation development</p> <p>(U) \$2,543 Continued development of aircraft interfaces with aircraft/Pod integration for range applications with aircraft program office</p> <p>(U) \$6,649 Continued Mini-(MUTES) Multiple Threat Emitter System Modification Program (M3P)</p> <p>(U) \$145 Continued Range Instrumentation Technical Support efforts</p> <p>(U) \$16,407 Total</p> <p>The following net transactions are not reflected in the FY01 program total: BTR - \$78K, and SBIR -\$561K. These transactions are not reflected in other sections of the R-Docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$1,847 Continue development of aircraft interfaces with aircraft/Pod integration for range applications with aircraft program office</p> <p>(U) \$14,506 Begin Advanced Threat Emitter System development.</p> <p>(U) \$2,700 Continue interoperability improvements with existing Air Force and Navy ranges to include software, upgrades, and weapons simulation development</p> <p>(U) \$2,700 Continue JTCTS efforts for program restructure to include acquisition strategy development and initial testing</p>		
Project 2286	Page 2 of 7 Pages	Exhibit R-2 (PE 0604735F)

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

DATE

June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development

0604735F Combat Training Ranges

2286

(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands) Continued**

(U) \$192 Continue Aerial Target basic operating support and system acquisition and engineering support. (Moved from PE 64258F.)

(U) \$145 Continue Range Instrumentation Technical Support efforts

(U) \$3,853 Continue CTR basic operating support, and system acquisition and engineering support for range and threat systems

(U) \$25,943 Total

(U) **B. Budget Activity Justification**

This program is in budget activity 5 - Engineering and Manufacturing Development because the Combat Training Ranges (CTR) Program directly contributes to the effectiveness and survivability of US combat forces by developing range instrumentation and training systems to increase the effectiveness of the training spectrum from individual aircrew skill training to large-scale exercises.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	11,828	12,559	13,124	TBD
(U) Appropriated Value	12,020	16,559		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-112	-116		
b. Small Business Innovative Research	-343			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	-34			
e. Rescissions	-47	-36		
(U) Adjustments to Budget Years Since FY 2001 PBR			12,819	
(U) Current Budget Submit/FY 2002 PBR	11,484	16,407	25,943	TBD

(U) **Significant Program Changes:**

FY00 includes \$5.8M Congressional Plus-Up to fund M3P disconnects and to begin development for Range Security Initiative for NACTS.

FY01 includes \$4.0M Congressional Plus-Up to continue development for Range Security Initiative for NACTS.

FY02 includes Advanced Threat Emitter System (ATES) development new start effort

Project 2286

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Exhibit R-2 (PE 0604735F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE June 2001			
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604735F Combat Training Ranges					PROJECT 2286			
(U) D. Other Program Funding Summary (\$ in Thousands)													
		<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)	PE27429F: Appn: Other Procurement, AF (OPAF) Program Title: Combat Training Ranges	44,345	46,233	36,685	16,578	23,828	23,854	24,803	23,071	Continuing	TBD		
(U)	Initial Spares	2,055	3,772	785	786	803	820	837	856	Continuing	TBD		
(U)	Total OPAF	46,400	50,005	37,470	17,364	24,631	24,674	25,640	23,927	Continuing	TBD		
(U)	PE27429F: Appn: Aircraft Procurement, AF(APAF), Program Title: Combat Training Ranges	16,736	17,941	13,171	10,230	10,918	9,463	10,864	13,278	Continuing	TBD		
(U)	Initial Spares	265	1,244	1,379	1,406	1,441	1,477	1,509	1,542	Continuing	TBD		
(U)	Total APAF	17,001	19,185	14,550	11,636	12,359	10,940	12,374	14,820	Continuing	TBD		
(U)	PE35116F: Appn: Aircraft Procurement, AF (APAF), Program title: Aerial Targets	30,029	32,614	36,884	37,441	47,150	39,421	40,238	41,090	Continuing	TBD		
(U)	Initial Spares	885	605	101	833	1,009	505	505	506	Continuing	TBD		
(U)	Total APAF	30,914	33,219	36,985	38,274	48,159	39,926	40,743	41,596	Continuing	TBD		
(U) E. Acquisition Strategy													
The acquisition strategy is competitive, with cost plus contracts.													
(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)	Nellis Air Combat Training System (NACTS)												
(U)	NACTS Range Security Initiative (RSI) Contract Award									*			
(U)	Mini-Mutes Multiple Threat Emitter (M3P) Development												
(U)	Field Testing									X			
Project 2286		Page 4 of 7 Pages								Exhibit R-2 (PE 0604735F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)											DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604735F Combat Training Ranges					PROJECT 2286		
(U) <u>F. Schedule Profile Continued</u>												
		<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)	Production Decision									X		
(U)	IOC										X	
(U)	Advanced Threat Emitter System (ATES) Development											
(U)	Development Contract Award										X	
(U)	Joint Service Range Software Interoperability											
(U)	Joint Service AMRAAM 5.1 Software Upgrade and Installation									X		
(U)	Joint Service Tracking Instrumentation Subsystem Emulator (TISM)									*		
(U)	Joint Tactical Combat Training System (JTCTS)											
(U)	Tech Eval Report Complete									*		
(U)	JTCTS Recovery Review Report									*		
(U)	JTCTS Trade Studies & Acquisition Strategy Development									X		
(U)	Contract Award										X	
(U)	RITS Facility											
(U)	ADDS 4.1E AF/Navy Integration										*	
(U)	DDS Upgrade Air National Guard (ANG)										*	
(U)	Annual Software Maintenance & Support									*		X
(U)	* = Completed event											
(U)	X = Planned event											

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT		
05 - Engineering and Manufacturing Development					0604735F Combat Training Ranges				2286		
(U) A. Project Cost Breakdown (\$ in Thousands)											
					FY 2000		FY 2001		FY 2002		
(U)	Aircraft Interface Development				964		2,543		1,847		
(U)	Mini-Mutes Modification Program (M3P)				4,647		6,649		0		
(U)	Advanced Threat Emitter System (ATES) Development				0		0		14,506		
(U)	Joint Service Interoperability Improvements				620		492		2,700		
(U)	JTCTS Trade Studies and Acquisition Strategy Development				0		0		2,700		
(U)	Range Instrumentation Technical Support (RITS)				100		145		145		
(U)	Combat Training Ranges Program Office Support				2,297		2,858		3,853		
(U)	Aerial Target Program Office Support				0				192		
(U)	NACTS Range Security Initiative (RSI) Development				2,856		3,720		0		
(U)	Total				11,484		16,407		25,943		
(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>Performing</u>		<u>or Funding</u>									
<u>Activity</u>		<u>Obligation</u>		<u>Performing</u>		<u>Project</u>		<u>Office</u>			
		<u>Date</u>		<u>Activity</u>		<u>Office</u>		<u>Total Prior</u>			
				<u>EAC</u>		<u>EAC</u>		<u>to FY 2000</u>			
								<u>Budget</u>			
								<u>FY 2000</u>			
								<u>FY 2001</u>			
								<u>FY 2002</u>			
								<u>Budget to</u>			
								<u>Complete</u>			
								<u>Total</u>			
								<u>Program</u>			
Product Development Organizations											
	Cubic Defense (NACTS)	C/CPAF/FFP	Mar 95			31,149	2,856	3,720	0	0	37,725
	Raytheon (JTCTS)	Navy Contr	Mar 95			2,500	0	0	0	0	2,500
	TBD (JTCTS)	Navy Contr	TBD			0	0	0	2,000	Continuing	TBD
	Sverdrup (RITS)	CPAF	Oct 00			2,385	100	145	145	Continuing	TBD
	Harris Corp (M3P)	CPFF	May 98			380	4,647	6,649	0	0	11,676
	TBD (Advanced Threat	TBD	TBD			0	0	0	14,506	Continuing	TBD
	Emitter System) (ATES)										
	Joint Interoperability	Navy Contract	Mar 97			3,429	620	492	2,700	Continuing	TBD
	Aircraft Interface	Through	Jun 96			1,035	964	2,543	1,847	Continuing	TBD
	MOAs with										
Project 2286				Page 6 of 7 Pages				Exhibit R-3 (PE 0604735F)			

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		
							June 2001		
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604735F Combat Training Ranges				2286	
(U) <u>Performing Organizations Continued:</u>									
<u>Product Development Organizations</u>									
ALCs &									
Aircraft SPO									
Contractors									
<u>Support and Management Organizations</u>									
OO/ALC/LH, Hill AFB, UT	Various			0	110	100	210	Continuing	TBD
AAC/WRR, Eglin AFB, FL	Various			8,576	2,027	2,758	3,643	Continuing	TBD
AAC/WRA, Eglin AFB, FL	Various			0	160	0	192	Continuing	TBD
NAWC, China Lake, CA	Various			113	0	0	0	Continuing	TBD
<u>Test and Evaluation Organizations</u>									
AAC/WRR,Eglin AFB, FL	Various			1,405	0	0	700	Continuing	TBD
46 Test Wing, Eglin AFB, FL	Various			640	0	0	0	Continuing	TBD
(U) <u>Government Furnished Property:</u>									
<u>Contract</u>									
<u>Method/Type</u>									
<u>Award or</u>									
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Property</u>									
<u>Support and Management Property</u>									
<u>Test and Evaluation Property</u>									
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				40,878	9,187	13,549	21,198	TBD	TBD
Subtotal Support and Management				8,689	2,297	2,858	4,045	TBD	TBD
Subtotal Test and Evaluation				2,045	0	0	700	TBD	TBD
Total Project				51,612	11,484	16,407	25,943	TBD	TBD
Project 2286									
Page 7 of 7 Pages									
Exhibit R-3 (PE 0604735F)									

Project 2286

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Exhibit R-3 (PE 0604735F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications					
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
Total Program Element (PE) Cost	5,871	7,941	224	243	261	280	285	291	Continuing	TBD
2523 Product Lines	169	213	224	243	261	280	285	291	Continuing	TBD
2524 Reuse and Component Support	5,702	7,728	0	0	0	0	0	0	0	13,455
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0
<p>FY03-FY07 budget numbers do not reflect the DoD strategic review results.</p> <p>(U) <u>A. Mission Description</u> The goal of this program is to dramatically reduce the development time, costs, and risks associated with the acquisition and development of warfighting command and control (C2) systems by using families of pre-defined product lines to enhance common application use and reuse. Project 2523 minimizes development cost and time by using pre-defined product line architectures, supporting Defense Information Infrastructure Common Operating Environment (DII COE) acceptance testing to insure compliance and interoperability, and tested, reusable software components from mature programs. The use of common product line designs during development can improve software quality and reliability while reducing fielding times and overall life cycle costs. Project 2524, Reuse and Component Support (RCS) identifies, tests, and provides reusable software components and products to the IC2A program. The RCS project developed a software reuse strategy for the DoD; and is developing a National Product Line Asset Center (NPLACE) Software Reuse Repository (a Congressional special interest item) to manage a command center product line based on primarily commercial off-the-shelf (COTS) products. The IC2A program has determined that over 80% of the functionality of any command center software is common to all command centers. For programs using product line concepts, average savings of 56% in development costs and 66% in development time can be realized.</p> <p>(U) <u>B. Budget Activity Justification</u> This program is in budget activity 5 - Engineering and Manufacturing Development, due to the nature of the effort.</p>										

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

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604740F Integrated Command & Control
Applications(U) C. Program Change Summary (\$ in Thousands)

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	6,055	214	233	TBD
(U) Appropriated Value	6,096	8,014		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research	-183			
c. Omnibus or Other Above Threshold Reprogram	-8			
d. Below Threshold Reprogram	-10			
e. Rescissions	-24	-73		
(U) Adjustments to Budget Years Since FY 2001 PBR			-9	TBD
(U) Current Budget Submit/FY 2002 PBR	5,871	7,941	224	TBD

(U) Significant Program Changes:

Congress added \$5.9 million in FY00 for Asset Software Reuse Program (\$2.8 million), National Product Line Asset Center (NPLACE)(\$2.6 million), and Air Force Product Line Engineering (\$0.5 million).

Congress added \$7.8 million in FY01 for Reuse and Component Support.

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)									DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications				PROJECT 2523	
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
2523 Product Lines	169	213	224	243	261	280	285	291	Continuing	TBD
FY03-FY07 budget numbers do not reflect the DoD strategic review results. BPAC 2523 does not reflect PA01-144, 27 Apr 01, in the amount of \$101,171 for FY 2001.										
(U) <u>A. Mission Description</u> The Product Lines Project forms a vital component of the Integrated Command and Control Applications (IC2A) program by providing pre-defined product line architectures with tested, reusable software components to build Command and Control (C2) systems. Using rapid prototyping techniques, a Product Line contractor can quickly tailor a product line to the warfighter's needs and deliver an integrated, combat-ready system. All product lines and components are based on Defense Information Infrastructure Common Operating Environment (DII COE) principles to ensure compliance and interoperability; make maximum use of open system architectures, industry standards, Commercial Off-the Shelf (COTS) products, and government furnished equipment; and incorporate multilevel security (MLS) features. This effort minimizes development risks by reusing proven software components from mature programs and by continuously testing new products and technologies against the product line designs to ensure integration and interoperability. The Product Line contractors develop and maintain the product line infrastructure in a collaborative, synergistic environment using validated, mature software engineering processes to help ensure the quality of the designs and components. Proven product line designs and tested software components reduce development costs, risks, and time for the user. New technologies, capabilities, and incremental developments are assessed and integrated into the designs as part of the product line development process to minimize any impact to the user.										
(U) <u>FY 2000 (\$ in Thousands)</u> (U) \$169 Qualify components for product lines. (U) \$169 Total										
(U) <u>FY 2001 (\$ in Thousands)</u> (U) \$213 Qualify components for product lines. (U) \$213 Total										
(U) <u>FY 2002 (\$ in Thousands)</u> (U) \$224 Quality components for product lines. (U) \$224 Total										
(U) <u>B. Project Change Summary</u>										
<div style="display: flex; justify-content: space-between;"> Project 2523 Page 3 of 10 Pages Exhibit R-2A (PE 0604740F) </div>										

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604740F Integrated Command & Control
Applications

PROJECT

2523

(U) C. Other Program Funding Summary (\$ in Thousands)

	<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) Not applicable

(U) D. Acquisition Strategy

All major contracts within this Program Element were awarded after full and open competition.

(U) E. 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) Product Line Component Qualification (Ongoing)	*	*	*	*	X	X	X	X				

* - Completed Event

X - Planned Event

This is a support and management level of effort program. All activities are ongoing.

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001																																																																																																																																																																																
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604740F Integrated Command & Control Applications			PROJECT 2523																																																																																																																																																																															
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE June 2001	
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
05 - Engineering and Manufacturing Development		0604740F Integrated Command & Control Applications			2523	
(U) <u>Government Furnished Property Continued:</u>						
<u>Support and Management Property</u>						
<u>Test and Evaluation Property</u>						
<u>Subtotals</u>	<u>Total Prior to FY 2000</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</u>	<u>Budget FY 2002</u>	<u>Budget to Complete</u>	<u>Total Program</u>
Subtotal Product Development	1,533	0	0	0	TBD	TBD
Subtotal Support and Management	874	169	213	224	0	1,480
Subtotal Test and Evaluation						
Total Project	2,407	169	213	224	TBD	TBD

Project 2523

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Exhibit R-3 (PE 0604740F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604740F Integrated Command & Control
Applications

PROJECT

2524

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
2524 Reuse and Component Support	5,702	7,728	0	0	0	0	0	0	0	13,455

FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

The Reuse and Component Support Project identifies, tests, and provides reusable software components and products for use by Air Force and Department of Defense program offices. Software reuse requires industry involvement for technology development and knowledge of direct and indirect impact to DoD missions in order to provide a skillful technical transition to fully state-of-the-art warfare utilization. Reuse and Component architecture structuring builds on the Air Force technical architecture and provides those pre-defined Product Line architectures with tested, reusable software components from mature programs. A software reuse strategy for DoD was developed as part of this effort. Efforts are continuing with development of a Product Line Asset Center Software Reuse Repository to manage a command center product line based primarily on commercial off-the-shelf (COTS) products through the National Product Line Asset Center (NPLACE) contract vehicle. NPLACE functions include the application of standards compliance testing to ensure greatest interoperability among C2 systems.

(U) **FY 2000 (\$ in Thousands)**

(U) \$2,722 Asset Software Reuse Program (ASSET)
 (U) \$2,530 National Product Line Asset Center (NPLACE)
 (U) \$450 Air Force Product Line Engineering
 (U) \$5,702 Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$4,760 ASSET
 (U) \$1,973 NPLACE
 (U) \$995 AF Product Line Engineering
 (U) \$7,728 Total

The following net transaction is not reflected in the FY01 program total: SBIR=277K. This transaction is not reflected in other sections of the R-DOCS where an FY01 total is shown.

Project 2524

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Exhibit R-2A (PE 0604740F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604740F Integrated Command & Control
Applications

PROJECT

2524

(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **B. Project Change Summary**

Congress added \$5.9 million in FY00 for Asset Software Reuse Program (\$2.8 million), National Product Line Asset Center (NPLACE)(\$2.6 million), and Air Force Product Line Engineering (\$0.5 million).

Congress added \$7.8 in FY01 for Reuse and Component Support.

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<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) Not applicable

(U) **D. Acquisition Strategy**

Not applicable.

(U) **E. 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) Not applicable.

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Not applicable.								
Support and Management Property								
Test and Evaluation Property								
				Total Prior	Budget	Budget	Budget	Budget to
Subtotals				to FY 2000	FY 2000	FY 2001	FY 2002	Complete
Total Program								
Not applicable.								
Subtotal Product Development				0	5,254	7,086	0	0
Subtotal Support and Management					456	642		
Subtotal Test and Evaluation								
Total Project				0	5,710	7,728	0	0
								13,438

Project 2524

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Exhibit R-3 (PE 0604740F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604750F Intelligence Equipment					PROJECT 2053	
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	
2053 National Air Intel Center	830	4,754	1,323	1,347	1,375	1,403	1,433	1,463	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0	
FY03-FY07 budget numbers do not reflect the DoD strategic review results.											
<p>(U) <u>A. Mission Description</u> Intelligence Equipment (IE) provides continuing development and upgrades of threat analysis capabilities of the National Air Intelligence Center (NAIC) and Air Force Information Warfare Center (AFIWC). Both organizations are tasked with providing detailed foreign technology intelligence information to a variety of DOD and non-DOD customers. In the past few years, customers' requirements have been more sophisticated, dictating more detailed and timely intelligence not only in the technology regime but also in the economic, world crisis, and political arenas. IE provides NAIC and AFIWC with the tools necessary to produce timely intelligence of foreign weapon systems and develops the tools to model and assess foreign airborne and aerospace systems. This is the only AF program developing new, or upgraded analysis, modeling and simulation tools focused on intelligence production in support of AF developmental and operational functions. IE directs the engineering and development of specialized hardware and software to conduct Information Operations (IO) with systems which process, integrate, display, and distribute intelligence data/ information for HQ ACC, the Air Intelligence Agency (AIA) -- primarily their NAIC and AFIWC subordinates.</p>											
(U) <u>FY 2000 (\$ in Thousands)</u>											
(U) \$316	Completed Comm Network Modeling Tool-Upgrade (TEL-SCOPE)										
(U) \$151	Continued Adv Infrared Countermeasures Systems Assessment Model (AIRSAM) Update										
(U) \$226	Continued Radio Frequency Weapons Modeling Improvements (HEIMDAL v 2.0+)										
(U) \$67	Initiated High Speed Propulsion Modeling (Phase 1: Pulsed-Detonation Engine Model)										
(U) \$70	Initiated Missile System (Phase 1: DIODE Objectives Model [DOM])										
(U) \$830	Total										
(U) <u>FY 2001 (\$ in Thousands)</u>											
(U) \$283	Complete Advanced Infrared Countermeasures Systems Assessment Model (AIRSAM) Update										
(U) \$183	Complete Radio Frequency Weapons Modeling Improvements (HEIMDAL v 2.0+)										
(U) \$193	Continue High Speed Engine Propulsion Modeling (Phase 1: Pulsed-Detonation Engine Model)										
(U) \$313	Continue Missile System (Phase 1: DIODE Objectives Model [DOM])										
(U) \$71	Initiate/Complete Missile System (Phase 2: MiTAS)										
<div style="display: flex; justify-content: space-between; margin-top: 20px;"> Project 2053 Page 1 of 7 Pages Exhibit R-2 (PE 0604750F) </div>											

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

DATE

June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development

0604750F Intelligence Equipment

2053

(U) **A. Mission Description Continued**(U) **FY 2001 (\$ in Thousands) Continued**

- (U) \$335 Initiate Standard Visualization Solution (SVS) - IVIEW 2000 Upgrade/JView
- (U) \$3,376 Initiate/Complete Radio Frequency Weapon Threat Assessment (RFWA Program) (Congressional Plus-up)
- (U) \$4,754 Total

The following net transactions are not reflected in the FY01 program total: BTR=+0 K , ATR=+0 K, and SBIR=-40 K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.

(U) **FY 2002 (\$ in Thousands)**

- (U) \$39 Complete High Speed Engine Propulsion Modeling Tools (Phase 1: Pulsed Detonation Engine Model)
- (U) \$239 Initiate High Speed Engine Propulsion Modeling Tools (Phase 2: Air Turbo-Ramjet Engine Model)
- (U) \$239 Initiate High Speed Engine Propulsion Modeling Tools (Phase 3: Turbo-Ramjet Engine Model)
- (U) \$229 Complete Missile System (Phase 1: DIODE Objectives Model [DOM])
- (U) \$115 Continue Standard Visualization Solution (SVS) - IVIEW 2000 Upgrade/JView
- (U) \$214 Initiate Missile System Upgrades (Phase 3: CRMPS [Computer Requirements Model for Payload Study])
- (U) \$214 Initiate Missile System Upgrades (Phase 4: BRACE [Ballistic Reentry Vehicle Accuracy Estimate])
- (U) \$34 Initiate Advanced Analysis Capabilities (AAC) - Integrated Avionics Support (IAS)
- (U) \$1,323 Total

(U) **B. Budget Activity Justification**

This effort is Budget Activity 5, Engineering & Manufacturing Development, because the program develops and inserts new technology into existing systems and models to keep existing systems current.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	1,336	1,298	1,315	TBD
(U) Appropriated Value	1,345	4,798		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research	-41			
c. Omnibus or Other Above Threshold Reprogram	-368			

Project 2053

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Exhibit R-2 (PE 0604750F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)							DATE June 2001				
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development				PE NUMBER AND TITLE 0604750F Intelligence Equipment			PROJECT 2053				
(U) <u>C. Program Change Summary (\$ in Thousands) Continued</u>											
				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>				
	d. Below Threshold Reprogram			-101							
	e. Rescissions			-5	-44						
(U)	Adjustments to Budget Years Since FY 2001 PBR					8					
(U)	Current Budget Submit/FY 2002 PBR			830	4,754	1,323	TBD				
(U) <u>Significant Program Changes:</u>											
FY2000 database update will reflect an additional -\$6K BTR.											
(U) <u>D. Other Program Funding Summary (\$ in Thousands)</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>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)	Not Applicable										
(U) <u>E. Acquisition Strategy</u>											
All major contracts within this Program Element were awarded after full and open competition.											
(U) <u>F. Schedule Profile</u>											
				<u>FY 2000</u>			<u>FY 2001</u>			<u>FY 2002</u>	
				1	2	3	4	1	2	3	4
(U)	Completed Communication Network Modeling Tool Upgrade (TEL-SCOPE)						*				
(U)	Complete Advanced IRCM Systems Assessment Model (AIRSAM) Update								X		
(U)	Complete Radio Frequency Weapons Modeling Improvements (HEIMDALL-2+)								X		
(U)	Begin High Speed Propulsion / Pulsed-Detonation Engine Model (Phase 1)				*						X
(U)	Begin High Speed Propulsion / Air-Turbo Ramjet Engine Model (Phase 2)									X	
Project 2053				Page 3 of 7 Pages				Exhibit R-2 (PE 0604750F)			

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604750F Intelligence Equipment					PROJECT 2053		
(U) F. Schedule Profile Continued												
		<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)	Begin High Speed Propulsion / Turbo-Ramjet Engine Model (Phase 3)										X	
(U)	Begin Missile System / Phase 1: DIODE Objectives Model (DOM)										X	
(U)	Begin/Complete Missile System / Phase 2: MiTAS										X	
(U)	Begin IVIEW 2000 Upgrade/JView Standard Visualization Solution (SVS)										X	
(U)	Begin Advanced Analysis Capabilities (AAC) - Integrated Avionics Supt										X	
(U)	Begin Radio Frequency Weapon Threat Assessment (RFWA)										X	
(U)	Begin Missile System /Phase 3: CRMPS										X	
(U)	Begin Missile System/Phase 4: BRACE										X	
Note: * denotes completed event, X denotes planned event.												

Project 2053
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Exhibit R-2 (PE 0604750F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001			
BUDGET ACTIVITY					PE NUMBER AND TITLE			PROJECT		
05 - Engineering and Manufacturing Development					0604750F Intelligence Equipment			2053		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
					<u>FY 2000</u>			<u>FY 2001</u>		
								<u>FY 2002</u>		
(U) Tel-Scope (Communication Network Modeling Tool)					316					
(U) Adv IRCM Systems Assessment Model (AIRSAM) Update					151			283		
(U) Radio Frequency Weapon Modeling Improvements (HEIMDALL 2+)					226			183		
(U) High Speed Propulsion / P1: Pulsed Detonation Engine Model					67			193		
(U) High Speed Propulsion / P2: Air Turbo Rocket Engine Model										
(U) High Speed Propulsion / P3: Turbo-Ramjet Engine Model										
(U) Missile System / Phase 1: DIODE Objectives Model (DOM)					70			313		
(U) Missile System / Phase 2: MiTAS								71		
(U) Missile System / Phase 3: CRMPS										
(U) Missile System/ Phase 4: BRACE										
(U) IVIEW 2000 Upgrade / JView - Standard Visualization Solution								335		
(U) Terrorist RF Weapon Threat Assessment								3,376		
(U) Adv Analysis Capability: Integrated Avionics Support Model										
(U) Total					830			4,754		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<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>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
Planning Research	CPFF	31 Jul 98	N/A	N/A	221	316			Continuing	TBD
Corp(PRC)/Litton 95-C-0048										
(Tel-Scope)										
Sterling Software, Inc	CPFF	Sep 99	N/A	N/A	130	151	283		Continuing	TBD
98-D-0318/06 (AIRSAM)										
Applied Sciences Laboratory	CPFF	17 Jul 97	N/A	N/A		226	183			409

Project 2053

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Exhibit R-3 (PE 0604750F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		
							June 2001		
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604750F Intelligence Equipment				2053	
(U) <u>Performing Organizations Continued:</u>									
<u>Product Development Organizations</u>									
97-C-0036/01(RF Weapons)									
Applied Sciences Laboratory		CPFF	26 May 99	N/A	N/A		3,376		3,376
97-C-0036/02 (RF Weapons)									
Calspan Veridian Corporation		CPFF	31 Jul 98	N/A	N/A	70	313	229	612
99-DC-0050 (DOM)									
Sterling Software, Inc		CPFF	12 Feb 99	N/A	N/A	67	193	39	299
98-D-0318/02 (HSP-P-DE)									
TBD - Phase 2: High Speed		TBD	TBD	N/A	N/A			239	239
Propulsion (ATR)									
TBD - Phase 3: High Speed		TBD	TBD	N/A	N/A			239	239
Propulsion (T-R)									
TBD - Missile System / Phase		CPFF		N/A	N/A		71		71
2: MiTAS									
TBD - Missile System / Phase		TBD	TBD	N/A	N/A			214	214
3: CRMPS									
TBD - Missile System/ Phase		TBD	TBD	N/A	N/A			214	214
4: BRACE									
TBD - IVIEW 2000		CPFF	TBD	N/A	N/A		335	115	450
Upgrade/JView SVS									
TBD - Adv Analysis				N/A	N/A			34	34
Capability: Integrated									
Avionics Support Model									
TBD - Laser Weapons								800	800
Simulation & Analysis									
(LODUR)									
<u>Support and Management Organizations</u>									
N/A									
Project 2053									
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Exhibit R-3 (PE 0604750F)									

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		June 2001		
BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT		
05 - Engineering and Manufacturing Development				0604750F Intelligence Equipment					2053		
(U) <u>Performing Organizations Continued:</u>											
<u>Test and Evaluation Organizations</u>											
N/A											
(U) <u>Government Furnished Property:</u>											
<u>Contract</u>											
<u>Method/Type</u>											
<u>Award or</u>											
<u>Obligation</u>											
<u>Delivery</u>											
<u>Total Prior</u>											
<u>Budget</u>											
<u>Budget</u>											
<u>Budget</u>											
<u>Budget to</u>											
<u>Complete</u>											
<u>Total</u>											
<u>Program</u>											
<u>Item</u>											
<u>Description</u>											
<u>Vehicle</u>											
<u>Date</u>											
<u>Date</u>											
<u>Product Development Property</u>											
N/A											
<u>Support and Management Property</u>											
N/A											
<u>Test and Evaluation Property</u>											
N/A											
<u>Subtotals</u>											
<u>Subtotal Product Development</u>											
<u>Subtotal Support and Management</u>											
<u>Subtotal Test and Evaluation</u>											
<u>Total Project</u>											
351											
830											
4,754											
1,323											
TBD											
TBD											
351											
830											
4,754											
1,323											
TBD											
TBD											

Project 2053

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Exhibit R-3 (PE 0604750F)

Project 2053

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Exhibit R-3 (PE 0604750F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001	
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604754F Tactical Data Link Integration					
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
Total Program Element (PE) Cost	11,687	8,665	17,648	23,967	24,139	24,342	24,608	24,831	Continuing	TBD
4749 Link 16 System Integration	11,075	8,065	8,595	8,866	9,023	9,211	9,462	9,668	Continuing	TBD
4992 Family of Interoperable Operational Pictures (FIOP)	0	0	9,053	15,101	15,116	15,131	15,146	15,163	Continuing	TBD
P771 JTIDS	612	600	0	0	0	0	0	0	0	0
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

Note: FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

Joint Tactical Information Distribution System (JTIDS) is a secure, jam-resistant, high-capacity data link for use in a tactical combat environment. The follow on system is the Multifunction Information Distribution System (MIDS) for which the Navy is the Executive Service. Both JTIDS and MIDS broadcast Link 16 (a.k.a., Tactical Digital Information Link J (TADIL J)) messages, free text, imagery and voice. [Note: Link 16 is the new tactical data link which provides technical and operational improvements to existing tactical data link capabilities.] They provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. Both terminals are used by the Air Force, Army, Navy, and Marine Corps Theater Command and Control (C2) elements, weapons platforms, and sensors.

The number of Air Force platforms hosting Link-16 (either JTIDS or MIDS) is expanding, from C2 aircraft (E-3, E-8, etc.) into the fighter, bomber, sensor, tanker, and other tactical fleets (F-15, F-16, F-22, RJ, ABCCC, B-1, B-2, B-52, etc.). Utilization of Link-16 in a joint environment requires the integration of terminals into these host platforms, and interoperability of Link-16 nets across all deployed joint and allied platforms. Cross-platform activities performed by the Link 16 System Integration Office (SIO) include: integration efforts encompassing hardware, software, operational, and logistics development, certification of individual Link-16 implementations to joint and allied standards, establishment of Service-wide net management procedures and operations, system wide enhancements and improvements, and test and sustainment activities. In addition, the SIO is supporting the integration of Link 16 into the Icelandic Air Defense System (IADS) and has management responsibility for the Air Force's Air Defense System Integration systems (ADSI).

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Exhibit R-2 (PE 0604754F)

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

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604754F Tactical Data Link Integration(U) **A. Mission Description Continued**

The JTIDS project office provides the user with JTIDS 2/2H terminals, as well as all of the acquisition support, technical assistance and integration necessary to operationally field, retrofit, and assist all of the platforms.

(U) **B. Budget Activity Justification**

This program is in budget activity 5 (Engineering Manufacturing and Development) because it supports development, integration solutions, fielding, operational support activities, and support of special projects.

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	8,542	8,745	8,859	
(U) Appropriated Value	8,542	8,745		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions		-61		
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram	3,179			
d. Below Threshold Reprogram				
e. Rescissions	-34	-19		
(U) Adjustments to Budget Years Since FY 2001 PBR			8,789	
(U) Current Budget Submit/FY 2002 PBR	11,687	8,665	17,648	TBD
(U) <u>Significant Program Changes:</u>				
FY02 \$9M Congressional plus-up for Family of Interoperable Operational Picture (FIOP), less general reductions				

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE			
								June 2001			
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
05 - Engineering and Manufacturing Development				0604754F Tactical Data Link Integration				4749			
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
4749	Link 16 System Integration	11,075	8,065	8,595	8,866	9,023	9,211	9,462	9,668	Continuing	TBD
<p>Note: FY03-FY07 budget numbers do not reflect the DoD strategic review results.</p> <p>(U) <u>A. Mission Description</u></p> <p>Tactical Data Links (TDL) are used in a combat environment to exchange information such as messages, data, radar tracks, target information, platform status, imagery, and command assignments. TDLs provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. TDLs are used by the Air Force, Army, Navy, and Marine Corps theater Command and Control (C2) elements, weapons platforms, and sensors. TDLs include but are not limited to: Link-16, Link-11, Situational Awareness Data Link (SADL), Variable Message Format (VMF), Enhanced Position Location Reporting System (EPLRS), and Common Data link (CDL).</p> <p>The number of Air Force platforms hosting Link-16 is expanding, from C2 aircraft (E-3, E-8, etc.) into the fighter, bomber, sensor, tanker, airlift and other tactical fleets (F-15, F-16, F-22, RJ, ABCCC, B-1, B-2, B-52, etc.). Utilization of TDLs in a joint environment requires the integration of terminals into these host platforms and interoperability of TDL networks across all deployed joint and allied platforms. Cross-platform activities performed by the Tactical Data Links System Program Office (SPO) (formerly the Link-16 SPO) includes: integration efforts encompassing hardware, software, operational, and logistics development, certification of individual TDL implementations to joint and allied standards, establishment of Service-wide net management procedures and operations, system wide enhancements and improvements, and test and sustainment activities. In addition, the SPO is supporting the integration of TDL (specifically Link-16) into the Icelandic Air Defense System (IADS) and has management responsibility for the Air Force's Air Defense System Integrator (ADSI)</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$4,816 CONTINUE LINK-16 INTEGRATION: Efforts associated with hardware and software integration of Link 16 terminals into Air Force platforms. -- (U) On-going Engineering Integration Support to Platforms; Technical Improvements; Field Support; Technical Assistance to related tactical data link demonstration programs.</p> <p>(U) \$2,019 CONTINUE LINK-16 EMD SUPPORT: Efforts associated with fielding terminals. -- (U) Support Operations Support Working Group; Maintain Developmental Equipment; Test Support; Fielding/Non-Recurring Training; Network Support; Crypto Support; Spectrum Support; Gateway Support; Data Link Tool Support.</p> <p>(U) \$100 CONTINUED TACTICAL DATA LINK CONNECTIVITY: -- (U) Link 16/Gateway/Interfaces</p>											

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Exhibit R-2A (PE 0604754F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE June 2001
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development	PE NUMBER AND TITLE 0604754F Tactical Data Link Integration	PROJECT 4749
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands) Continued</u></p> <p> -- (U) ADSI Management.</p> <p>(U) \$150 CONTINUED SYSTEM TESTING & SUPPORT: Cross-platform Test and Evaluation and system-level testing.</p> <p>(U) \$3,990 JEFX/LINK-16 INTEGRATION: Funding provided in this PEC to support of EFX program.</p> <p>(U) \$11,075 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$5,763 CONTINUE LINK-16 INTEGRATION: Efforts associated with hardware and software integration of Link 16 terminals into Air Force platforms.</p> <p> -- (U) On-going Engineering Integration Support to Platforms; Technical Improvements; Field Support; Technical Assistance to related tactical data link demonstration programs.</p> <p>(U) \$2,052 CONTINUE LINK-16 EMD SUPPORT: Efforts associated with fielding terminals.</p> <p> -- (U) Support Operations Support Working Group; Maintain Developmental Equipment; Test Support; Fielding/Non-Recurring Training; Network Support; Crypto Support; Spectrum Support; Single Integrated Air Picture System Engineering Task Force Support, Korea Tactical Data Link Upgrade Support</p> <p>(U) \$100 CONTINUED TACTICAL DATA LINK CONNECTIVITY:</p> <p> -- (U) Link 16/other TDLs/Gateway/Interfaces. (Gateways are considered a new start in FY01 due to the increased scope of the efforts)</p> <p> -- (U) ADSI Management.</p> <p>(U) \$150 CONTINUED SYSTEM TESTING & SUPPORT: Cross-platform Test and Evaluation and system-level testing.</p> <p>(U) \$8,065 Total</p> <p>Note: The following net transactions are not reflected in the FY01 program total: SBIR = -268K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$5,838 CONTINUE LINK-16 INTEGRATION: Efforts associated with hardware and software integration of Link 16 terminals into Air Force platforms.</p> <p> -- (U) On-going Engineering Integration Support to Platforms; Technical Improvements; Field Support; Technical Assistance to related tactical data link demonstration programs.</p> <p>(U) \$2,239 CONTINUE LINK-16 EMD SUPPORT: Efforts associated with fielding terminals.</p> <p> -- (U) Support Operations Support Working Group; Maintain Developmental Equipment; Test Support; Fielding/Non-Recurring Training;</p>		
Project 4749	Page 4 of 16 Pages	Exhibit R-2A (PE 0604754F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development

0604754F Tactical Data Link Integration

4749

(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands) Continued**

Network Support: Crypto Support; Spectrum Support; Gateway Support; Data link Tool Support.

(U) \$279 CONTINUED TACTICAL DATA LINK CONNECTIVITY:

-- (U) Link 16/other TDLs/Gateways/Interfaces.

-- (U) ADSI Management.

(U) \$239 CONTINUED SYSTEM TESTING & SUPPORT: Cross-platform Test and Evaluation and system-level testing.

(U) \$8,595 Total

(U) **B. Project Change Summary**

None

(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<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) AF RDT&E										
(U) Other APPN	3,662	3,790	7,895	6,291	8,185	8,111	8,389	8,560		
OPAF, RDT&E,N, O&M										

(U) **D. Acquisition Strategy**

The Air Force Tactical Data Link System Program Office (SPO) provides for common development of integration and interoperability across all Air Force platforms and ensures that Link 16 is procured and maintained as a joint, end-to-end, command and control system. Host platforms program and budget for JTIDS or MIDS (Fighter Data Link (FDL) and Low Volume Terminal (LVT) derivatives) production terminals and for installation into operational units.

(U) **E. 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) Contract Milestones												
(U) - FDL Full Rate Production Award				*								
(U) - MIDS LVT - F-16 Production Award					*							
(U) Host Platform Integration Start												
(U) - F-15E (thru FY01)									X			

Project 4749

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)										DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604754F Tactical Data Link Integration					PROJECT 4749		
(U) <u>E. Schedule Profile Continued</u>												
		<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)	- F-15C/D Installation/Training (thru FY01)							X				
(U)	- F-16 (thru FY04)											
(U)	- Compass Call (thru FY02)											X
(U)	- Airborne Laser (ABL) (thru 1st Qtr FY03)											
(U)	- B-2 EMD											X
(U)	Command and Control Platforms											
(U)	- AWACS Link 16 Qual Complete											*
(U)	Complete Baseline Integration											
(U)	- MCE (P3I)											
(U)	-- Installation Start											
(U)	-- Installation Complete											*
(U)	-IADS installation start											X
* Denotes completed events												
X Denotes planned events												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE			
								June 2001			
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT		
05 - Engineering and Manufacturing Development					0604754F Tactical Data Link Integration				4749		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>		
(U)	Link-16 Integration				4,816		5,763		5,838		
(U)	EMD Activities				2,019		2,052		2,239		
(U)	Tactical Data Link Connectivity				100		100		279		
(U)	System Testing & Support				150		150		239		
(U)	JEFX Funding				3,990		0		0		
(U)	Total				11,075		8,065		8,595		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<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>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2000</u>	
<u>Product Development Organizations</u>											
Data Link Solutions		MIPR		TBD		114		600		624	
<u>Support and Management Organizations</u>											
ESC		Various		Various		521		315		325	
CONTRACTOR SUPPORT		FPLOE		Various		1,076		3,205		2,913	
MITRE		FPLOE		Various		4,165		6,805		4,053	
<u>Test and Evaluation Organizations</u>											
EGLIN AFB		PO/616		Various		852		150		150	
					<u>Total Prior</u>		<u>Budget</u>		<u>Budget</u>		
					<u>to FY 2000</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>Budget</u>
<u>Subtotals</u>									<u>FY 2002</u>		<u>Budget to</u>
											<u>Complete</u>
											<u>Total</u>
Subtotal Product Development					114		600		624		TBD
Subtotal Support and Management					5,762		10,325		7,291		TBD
Subtotal Test and Evaluation					852		150		150		TBD
Total Project					6,728		11,075		8,065		TBD
Project 4749											
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Exhibit R-3 (PE 0604754F)											

Project 4749

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604754F Tactical Data Link Integration

PROJECT

4992

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
4992 Family of Interoperable Operational Pictures (FIOP)	0	0	9,053	15,101	15,116	15,131	15,146	15,163	Continuing	TBD

Note: FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

This funding will be used to continue development of the Family of Interoperable Operational Pictures (FIOP) architecture and be appropriately apportioned for the purpose of identifying and eliminating interoperability gaps and unnecessary duplications derived from the FIOP implementation strategy. When complete, the FIOP effort will allow all Services and Agency systems to exchange data to improve the coherence and consistency across systems that support Joint and Coalition operations.

(U) **FY 2000 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2001 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2002 (\$ in Thousands)**

- (U) \$1,250 SUPPORT FIOP EFFORTS: Provide management and technical oversight to all phases of FIOP
 --(U) On-going support for all FIOP related activities, CONOP development, requirements review, implementation review, working group support, web site maintenance.
- (U) \$1,700 FIOP JOINT OPERATIONAL CONCEPT DEVELOPMENT: Efforts associated with determining Joint Operational concepts.
 -- (U) Generate joint operational requirements (joint architecture) including information needs to accomplish specific execution task (CAS, TCT, Ground Maneuver, humanitarian relief, etc.)
- (U) \$1,850 FIOP REQUIREMENTS DOCUMENTATION, REVIEW, ASSESSMENT AND TRAINING: Provide required documentation and training to support documentation review activities.
 --(U) Requirements group to perform cross-service/cross system documentation review and assessment efforts to identify gaps and/or duplication in efforts; identification of new requirements
- (U) \$4,253 FIOP IMPLEMENTATION STRATEGY EFFORTS: Efforts provide forward thinking for strategic development and resolution of interoperable operation issues.

Project 4992

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

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PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development

0604754F Tactical Data Link Integration

4992

(U) **A. Mission Description Continued**(U) **FY 2002 (\$ in Thousands) Continued**

-- (U) On-going engineering support to develop a methodology through which validated gaps in capabilities can be resolved. This methodology facilitates the development of courses of action and initiation of synchronization plans to provide DOTMLPF solution for legacy systems. To facilitate traceability of operational requirements and ensure that future systems are 'born joint', adjustment/modification to requirements documents (i.e. CRDs, ORDs, MNSs); and, as necessary, POM inputs, will be provided.

(U) \$9,053 Total

(U) **B. Project Change Summary**(U) **C. Other Program Funding Summary (\$ in Thousands)**

	<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) AF RDT&E

(U) Other APPN

(U) **D. Acquisition Strategy**

Using products produced by FIOP, provides courses of action/alternatives that will support an all-source picture of the battlespace containing actionable, decision-quality, information to the warfighter through a fusion of existing databases.

(U) **E. 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) FIOP PROGRAM MANAGEMENT

(U) JOINT OPERATIONAL CONCEPT DEVELOPMENT

(U) CONTINUED FIOP REQUIREMENTS DOCUMENTATION, REVIEW, ASSESSMENT AND TNG

(U) CONTINUED FIOP IMPLEMENTATION STRATEGY EFFORTS

Project 4992

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Exhibit R-2A (PE 0604754F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE		June 2001		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
05 - Engineering and Manufacturing Development					0604754F Tactical Data Link Integration					4992		
(U) A. Project Cost Breakdown (\$ in Thousands)												
					FY 2000		FY 2001		FY 2002			
(U) FIOP PROGRAM MANAGEMENT									1,250			
(U) JOINT OPERATIONAL CONCEPT DEVELOPMENT									1,700			
(U) CONTINUED FIOP REQUIREMENTS DOCUMENTATION, REVIEW, ASSESSMENT AND TRAINING									1,850			
(U) CONTINUED FIOP IMPLEMENTATION STRATEGY EFFORTS									4,253			
(U) Total									9,053			
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)												
(U) Performing Organizations:												
Contractor or Government		Contract Method/Type		Award or Obligation		Performing Activity		Project Office		Total		
Performing Activity		or Funding Vehicle		Date		EAC		EAC		Program		
Product Development Organizations												
Support and Management Organizations												
ESC		Various		Various				905		Continuing TBD		
CONTRACTOR SUPPORT		FPLOE		Various				1,810		Continuing TBD		
MITRE		FPLOE		Various				6,338		Continuing TBD		
Test and Evaluation Organizations												
					Total Prior to FY 2000		Budget FY 2000		Budget FY 2001		Budget FY 2002	
									Budget to Complete		Total Program	
Subtotals												
Subtotal Product Development												
Subtotal Support and Management									9,053		TBD TBD	
Subtotal Test and Evaluation												
Total Project									9,053		TBD TBD	

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)									DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604754F Tactical Data Link Integration					PROJECT P771	
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	
P771 JTIDS	612	600	0	0	0	0	0	0	0	465,113	
<p>Note: FY03-FY07 budget numbers do not reflect the DoD strategic review results.</p> <p>(U) <u>A. Mission Description</u></p> <p>Joint Tactical Information Distribution System (JTIDS) is a secure, jam-resistant, high-capacity data link for use in a tactical combat environment. The follow on system is the Multifunction Information Distribution System (MIDS) run by the Navy. Both JTIDS and MIDS broadcast Link 16 (a.k.a., Tactical Digital Information Link J (TADIL J)) messages, free text, imagery and voice. They provide interoperability, local and global connectivity, and situational awareness to the user when operating under rapidly changing operational conditions. Both are used by the Air Force, Army, Navy, and Marine Corps Theater Command and Control (C2) elements, weapons platforms, and sensors.</p> <p>The JTIDS Program Office provides the user with JTIDS 2/2H terminals, as well as all of the acquisition support, technical assistance and integration necessary to operationally field, retrofit, and assist all of the platforms.</p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$449 CONTINUE ACQUISITION SUPPORT</p> <ul style="list-style-type: none"> -- (U) Write, execute and administer contracts for multiple platforms -- (U) Command and Control Terminal Acquisition Support -- (U) Ongoing technical and programmatic support for JTIDS users <p>(U) \$115 CONTINUE TECHNICAL SUPPORT</p> <ul style="list-style-type: none"> -- (U) Technical Improvements <ul style="list-style-type: none"> -- Technical support to AF platforms for the purpose of integrating and executing product improvements -- Technology Updates (e.g., advanced hardware and software) <p>(U) \$48 CONTINUE DIMINISHING MANUFACTURING RESOURCES</p> <ul style="list-style-type: none"> -- (U) Identify problem electrical parts, assess impacts, develop, and implement resolution plans <p>(U) \$612 Total</p>											
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June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604754F Tactical Data Link Integration

PROJECT

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(U) A. Mission Description Continued(U) FY 2001 (\$ in Thousands)

(U) \$392 CONTINUE ACQUISITION SUPPORT

- (U) Write, execute and administer contracts for multiple platforms
- (U) Command and Control Terminal Acquisition Support
- (U) Ongoing technical and programmatic support for JTIDS users

(U) \$162 CONTINUE TECHNICAL SUPPORT

- (U) Technical Improvements
 - Technical support to AF platforms for the purpose of integrating and executing product improvements
 - Technology Updates (e.g., advanced hardware and software)

(U) \$46 CONTINUE DIMINISHING MANUFACTURING RESOURCES

- (U) Identify problem electrical parts, assess impacts, develop, and implement resolution plans

(U) \$600 Total

(U) FY 2002 (\$ in Thousands)

(U) \$0 No Activity

(U) \$0 Total

(U) B. Project Change Summary(U) C. Other Program Funding Summary (\$ in Thousands)

	<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) AF RDT&E										
(U) Other APPN										
(U) Other Proc AF, PE 0204738F, Theater Battle Management Core System (TBMCS)	0	0	0	0	0	0	0	0	0	0
(U) Other Proc AF, 0305208F, Intel Ops Ground Syst.	0	0	0	0	0	0	0	0	0	0

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE

June 2001

BUDGET ACTIVITY

05 - Engineering and Manufacturing Development

PE NUMBER AND TITLE

0604754F Tactical Data Link Integration

PROJECT

P771**(U) C. Other Program Funding Summary (\$ in Thousands)**

	<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) Other Proc AF, 46 OSS, Eglin AFB	351	5	0	0	0	0			0	356
(U) Other Proc AF, PE 0207581F Joint Surveillance Target Attack Radar System (JSTARS)	7	0	0	0	0	0				7
(U) Other Proc AF, Warner Robins Air Logistics Center	0	0	0	0	0	0				0
(U) Other Proc AF, PE 06072300 Ground Theater Air Control System (GTACS)	1,330	0	0	0	0	0				1,330
(U) Other Proc AF, PE 0604226F, B-1	2,400	60	0	0	0	0				2,460

* Other Program Funding reflects procurement of JTIDS hardware only. There are other USAF programs (F-15, F-16) that are budgeted to procure MIDS terminals in the FY00-FY06 timeframe.

(U) D. Acquisition Strategy

The JTIDS program office continues to manage the acquisition for the JTIDS Class 2/2H terminals for the Air Force, Navy, and Marine Corps. The Program Office has extended the ordering period for procurement of terminals in order to meet platform requirements. Funding for JTIDS terminal procurement will continue to wind down as the next generation Multifunctional Information Distribution System (MIDS) terminal becomes available. The period of performance to procure terminals is 30 September 2001, at that point terminal procurements are complete.

(U) E. Schedule ProfileFY 2000FY 2001FY 2002

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June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development

0604754F Tactical Data Link Integration

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(U) E. Schedule Profile Continued

	<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) New Software Releases (Yearly event)		*				X						
(U) - FRP-2 Contract Extension		*						X				
(U) Terminal Orders												
(U) - Joint STARS						X						
(U) - GTACS			*									
(U) - B-1				*								
(U) -Eglin AFB, 46 OSS				*								
(U) Terminal Deliveries												
(U) - TBMCS				*	X							
(U) - Intel Ops Ground System				*								
(U) - Joint STARS											X	
(U) - Warner Robins ALC		*										
(U) - GTACS									X			
(U) - B-1										X		
(U) -Eglin AFB, 46 OSS										X		

X denotes planned event

* denotes completed event

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE June 2001		
BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development					0604754F Tactical Data Link Integration				P771	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
							<u>FY 2000</u>	<u>FY 2001</u>		<u>FY 2002</u>
(U)	Acquisition Support						449	392		
(U)	Technical Support						115	162		
(U)	Diminishing Manufacturing Resources						48	46		
(U)	Total						612	600		
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<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>Total</u>
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
<u>Product Development Organizations</u>										
GEC-MARCONI	FFP	DEC 85	230,727	230,727	230,727				0	230,727
LOCKHEED	FFP	JUN 93	6,761	6,761	6,761				0	6,761
GEC-MARCONI	FFP	JUN 93	1,123	1,123	850	90	0		0	940
CACD	FFP	JUN 93	1,616	1,616	1,072	256	401		0	1,729
MCAIR	CPFF	MAR 94	2,434	2,434	2,434				0	2,434
RADC	PO/616	Various	3,067	3,067	3,067				0	3,067
WR-ALC	PO/616	Various	2,966	2,966	2,966				0	2,966
NADEP	MIPR	Various	1,030	1,030	1,030				0	1,030
ACSI	FFP	SEP 94	492	492	492				0	492
VIASAT, INC.	FFP	Various	815	815	815				0	815
AF Platforms	PO/616	Various	169	169	169				0	169
NORTHROP GR	FFP	AUG 97	500	500	500				0	500
ROCKWELL	FFP	Various	2,080	2,080	2,080				0	2,080
HUGHES	FFP	Various	133	133	133				0	133
DRC	FFP	MAY 97	213	213	213				0	213
MIDSCO, Inc	MIPR	Various	4,251	4,251	4,251				0	4,251
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE	June 2001
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT	
05 - Engineering and Manufacturing Development				0604754F Tactical Data Link Integration				P771	
(U) <u>Performing Organizations Continued:</u>									
<u>Product Development Organizations</u>									
MOTOROLA INC	FFP	Various	1,800	1,800	1,800			0	1,800
ALLIED SIGNAL	CPFF	Various	75	75	75			0	75
MCDONNEL DG	FFP	Various	2,582	2,582	2,582			0	2,582
BOEING	FFP	Various	869	869	869			0	869
<u>Support and Management Organizations</u>									
ESC	Various	Various	21,875	21,875	21,973	127	149	0	22,249
CONTRACTOR SUPPORT	Various	Various	42,863	42,863	42,749	78	50	0	42,877
MITRE	FPLOE	Various	134,023	134,023	134,023	61	0	0	134,084
<u>Test and Evaluation Organizations</u>									
MT HOME AFB	PO/616	Various	416	416	416			0	416
EGLIN AFB	PO/616	Various	1,969	1,969	1,854	0	0	0	1,854
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>
<u>Subtotals</u>				<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>	<u>Program</u>
Subtotal Product Development				262,886	346	401		0	263,633
Subtotal Support and Management				198,745	266	199		0	199,210
Subtotal Test and Evaluation				2,270	0	0		0	2,270
Total Project				463,901	612	600		0	465,113

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

DATE

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BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development**0604762F Common Low Observable Verification Sys 4683**

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
4683 Common Low Observable Verification System	9,704	11,515	6,713	0	0	0	0	0	0	32,586
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**

Common Low Observable Verification System (CLOVerS) is intended as an easily deployable flightline system to evaluate surface anomalies on low observable (stealth) aircraft. It will allow maintenance personnel to determine if a repair is needed, or if the repair performed was successful in restoring the low observable characteristic of the aircraft. CLOVerS is intended for use with the B-2, F-117, F-22, as well as future aircraft such as the Joint Strike Fighter. Key capabilities required include the ability to detect, locate, and resolve small surface defects, reduced measurement time (compared to existing verification methods), operation under less restrictive security measures, and a small deployment footprint.

(U) **FY 2000 (\$ in Thousands)**

(U) \$9,578 Continue Development Contract
 (U) \$126 Program Office Support
 (U) \$9,704 Total

The following net transactions are not reflected in the FY00 program total: BTR=-26K.

(U) **FY 2001 (\$ in Thousands)**

(U) \$11,208 Continue Development Contract
 (U) \$96 Continue Development Contract Award Fee
 (U) \$211 Program Office Support
 (U) \$11,515 Total

The following net transactions are not reflected in the FY01 program total: BTR=-2072K and SBIR=-420K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.

Project 4683

Page 1 of 5 Pages

Exhibit R-2 (PE 0604762F)

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

DATE

June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development**0604762F Common Low Observable Verification Sys 4683**(U) **A. Mission Description Continued**(U) FY 2002 (\$ in Thousands)

(U) \$6,468	Complete Development Contract
(U) \$48	Complete Development Contract Award Fee
(U) \$197	Program Office Support
(U) \$6,713	Total

(U) **B. Budget Activity Justification**

This program is in budget activity 5 - Engineering and Manufacturing Development, Research Category 6.4 because this program develops the Common Low Observable Verification System (CLOVerS).

(U) **C. Program Change Summary (\$ in Thousands)**

	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>
(U) Previous President's Budget (FY 2001 PBR)	5,818	11,621	2,078	24,041
(U) Appropriated Value	5,893	11,621		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-36	-81		
b. Small Business Innovative Research	-168			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	4,038			
e. Rescissions	-23	-25		
(U) Adjustments to Budget Years Since FY 2001 PBR			4,635	8,545
(U) Current Budget Submit/FY 2002 PBR	9,704	11,515	6,713	32,586

(U) **Significant Program Changes:**

FY00 \$4.1M was transferred to PE64762F from other Air Force programs.

\$4.6M reprogrammed from FY02 production funds (PE27145F) to complete developmental efforts.

Project 4683

Page 2 of 5 Pages

Exhibit R-2 (PE 0604762F)

UNCLASSIFIED

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

DATE

June 2001

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

05 - Engineering and Manufacturing Development

0604762F Common Low Observable Verification Sys 4683

(U) **D. Other Program Funding Summary (\$ in Thousands)**

	<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) PE27145F:Appn: Aircraft	0	0	11	4,783	705	0	0	0	0	5,499
Procurement, AF (APAF)										
Budget Activity: Aircraft										
(A/C) Procurement/Common										
Support Equipment, Program										
Title: Common Low										
Observable Test Equipment										

(U) **E. Acquisition Strategy**

The contract was awarded using full and open competition. Engineering and Manufacturing Development (EMD) contract type is Cost Plus Award Fee.

(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) Test Van Final Review				*								
(U) Test Van Deployment				*								
(U) Baseline Software Development								X				
(U) Conduct B-2 Initial Integration Testing								X				
(U) Develop Platform Specific Software									X			
(U) Develop Advanced Diagnostics										X		
(U) Hardware Design Review											X	
(U) DT&E											X	
(U) OT&E												X
(U) LRIP Production - FY03												
(U) System Deliveries Begin (FY03)												

* = Completed event
X = Planned event

Project 4683

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Exhibit R-2 (PE 0604762F)

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001																																																																																																																																											
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE June 2001	
BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT
05 - Engineering and Manufacturing Development		0604762F Common Low Observable Verification Sys				4683
		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
		<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Program</u>
<u>Subtotals</u>					<u>Budget to</u>	
					<u>Complete</u>	
Subtotal Product Development		3,093	9,578	11,304	6,516	30,491
Subtotal Support and Management		1,561	126	211	197	2,095
Subtotal Test and Evaluation						
Total Project		4,654	9,704	11,515	6,713	32,586

Project 4683

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Exhibit R-3 (PE 0604762F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE June 2001		
BUDGET ACTIVITY 05 - Engineering and Manufacturing Development					PE NUMBER AND TITLE 0604779F Tactical Data Link Interoperability					PROJECT 2189	
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	
2189 JINTACCS	5,080	5,771	5,677	5,748	5,846	5,968	6,124	31,531	Continuing	TBD	
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0	

Note: FY03-FY07 budget numbers do not reflect the DoD strategic review results.

(U) **A. Mission Description**
 The Joint Interoperability of Tactical Command and Control Systems (JINTACCS) Program is a Joint Staff directed program that provides the sole Air Force (AF) activity responsible for ensuring the interoperability of AF Tactical Data Links (TDLs) [including, but not limited to Tactical Digital Information Links (TADILs) and Variable Message Formats (VMF)] and United States Message Text Format (USMTF) systems with the associated Joint and allied/coalition systems. The requirements for the program are delineated in DoDD 4630.5, DoDD 4630.8, CJCSI 6212.01B, and AFI 33-108. The program ensures platform/system interoperability through the development and management of the joint/combined architecture, tactical information exchange requirements (IERs), interface definitions and protocols, platform/system implementations, employment concepts, and operating procedures. This includes the coordination of all TDL and USMTF message standards configuration management, platform/system interoperability assessments and interoperability certification testing. Air Force platforms/systems participating in, and affected by, this program include: Airborne Warning and Control System (AWACS); Airborne Battlefield Command and Control Center (ABCCC); Modular Control Element (MCE); Air Operations Center (AOC); Joint Surveillance Target Attack Radar System (JSTARS); F-15 A/B/C/D/E; F-16 B30/40/50; F-22; A/OA-10; Joint Strike Fighter (JSF); Airborne Laser (ABL); B-1; B-2; B-52; F-117; RC-135; Regional/Sector Air Operations Center (RAOC/SAOC), Command & Control Information Processing System (C2IPS); Space Based Infrared System (SBIRS); Iceland Air Defense System (IADS); Air Support Operations Center (ASOC); and Tactical Air Control Parties (TACPs), Theater Battle Management Corps System (TBMCS), Contingency Automated Theater Automated Planning System (CTAPS), Combat Intelligence System (CIS), Air Defense System Integrator (ADSI), Distributed Common Ground System (DCGS), North American Aerospace Defense Command (NORAD)/United States Space Command (USSPACECOM) Warfighting Support System (N/UWSS), Region/Sector Air Operations Center (R/SAOC) AWACS Digital Information Link, and Global Command and Control System (GCCS)-Air Force (GCSS-AF). The Air Force JINTACCS program supports the Assistant Secretary of Defense (ASD) directive on harmonization of US and NATO messages (e.g., ATO and ACO).

(U) **FY 2000 (\$ in Thousands)**
 (U) \$1,190 Continue Interoperability Certification Testing
 - Specific platforms are determined based on initial Link 16 message implementation, software upgrade, and system modification schedules
 (U) \$1,322 Continue US Message Text Formats Management
 (U) \$2,568 Continue Tactical Data Link Management and Architecture Development

Project 2189

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)		DATE
		June 2001
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
05 - Engineering and Manufacturing Development	0604779F Tactical Data Link Interoperability	2189
<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands) Continued</u></p> <ul style="list-style-type: none"> - Support multiple multi TADIL & VMF meetings and working groups - Consultations regarding implementation and interoperability with the F-16 - Consultations regarding software updates and interoperability with the F-15C, E-3, E-8, ABL <p>(U) \$5,080 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$437 Continue Interoperability Certification Testing</p> <ul style="list-style-type: none"> - Specific platforms for FY01 will be determined based on initial Link 16 message implementation, software upgrade, and system modification schedules. <p>(U) \$1,866 Continue US Message Text Formats Management</p> <p>(U) \$3,468 Continue Tactical Data Link Management and Architecture Development</p> <ul style="list-style-type: none"> - Support multi TADIL & VMF meetings and working groups - Consultations regarding implementation and interoperability with the F-16 - Consultations regarding software updates and interoperability with the F-15C, E-3, E-8, ABCCC, CRC/CRE <p>(U) \$5,771 Total</p> <p>Note: The following net transactions are not reflected in the FY01 program total: SBIR = -178K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.</p> <p>(U) <u>FY 2002 (\$ in Thousands)</u></p> <p>(U) \$646 Continue Interoperability Certification Testing. Specific platforms for FY 02 will be determined based on Link 16 message implementation, software upgrade, and system modification</p> <p>(U) \$1,711 Continue US Message Text Formats Management and Updates</p> <ul style="list-style-type: none"> - Support Joint, Allied/Coalition meetings and working groups - Support technology maturation for joint standards and DoD policy <p>(U) \$3,320 Continue Tactical Data Link Management and Architecture Development.</p> <ul style="list-style-type: none"> - Support multi TADIL and VMF meetings and working groups - Consultations regarding implementation and interoperability with the F-16, B-52, B-1, B-2, F-117 - Consultations regarding software updates and interoperability with the F-15C, E-3, E-8, ABCCC, CRC/CRE, TULIP <p>(U) \$5,677 Total</p> <p>Project 2189</p>		

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<p>(U) <u>B. Budget Activity Justification</u> This program is in budget activity 5 - Engineering and Manufacturing Development, because it is designed to improve the interoperability of Tactical Command and Control (C2) Systems used in support of joint operations.</p> <p>(U) <u>C. 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Other Program Funding Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> <th style="width: 10%; text-align: center;"><u>FY 2003</u></th> <th style="width: 10%; text-align: center;"><u>FY 2004</u></th> <th style="width: 10%; text-align: center;"><u>FY 2005</u></th> <th style="width: 10%; text-align: center;"><u>FY 2006</u></th> <th style="width: 10%; text-align: center;"><u>FY 2007</u></th> <th style="width: 10%; text-align: center;"><u>Cost to</u></th> <th style="width: 10%; text-align: center;"><u>Total Cost</u></th> </tr> <tr> <th></th> <th style="text-align: center;"><u>Actual</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Estimate</u></th> <th style="text-align: center;"><u>Complete</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>(U) AF RDT&E</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Other APPN</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Not Applicable</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>(U) <u>E. Acquisition Strategy</u> As the Air Force lead agent for a jointly directed program, JINTACCS provides level of effort technical support for increasing interoperability of AF programs through message text and data link standards implementation.</p> <p>(U) <u>F. Schedule Profile</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 10%; text-align: center;"><u>FY 2000</u></th> <th style="width: 10%; text-align: center;"><u>FY 2001</u></th> <th style="width: 10%; text-align: center;"><u>FY 2002</u></th> </tr> </thead> <tbody> <tr> <td>Project 2189</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>									<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2001 PBR)	5,798	5,825	5,889	TBD	(U) Appropriated Value	5,798	5,825			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions					b. Small Business Innovative Research					c. Omnibus or Other Above Threshold Reprogram	-695				d. Below Threshold Reprogram					e. Rescissions	-23	-54			(U) Adjustments to Budget Years Since FY 2001 PBR			-212		(U) Current Budget Submit/FY 2002 PBR	5,080	5,771	5,677	TBD		<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) AF RDT&E											(U) Other APPN											Not Applicable												<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	Project 2189			
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UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)											DATE June 2001					
BUDGET ACTIVITY					PE NUMBER AND TITLE							PROJECT				
05 - Engineering and Manufacturing Development					0604779F Tactical Data Link Interoperability							2189				
(U) <u>F. Schedule Profile Continued</u>																
					<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) F-16 - Complete OFP M-3 baseline Implementation/Interoperability					*											
(U) E-8 - Complete ASU Spiral 1 Implementation/Interoperability									*							
(U) AOC - Complete baseline Implementation/Interoperability							*									
(U) F-15C - Interoperability consultation for Software upgrades.					*				*				X			
(U) F-16 - Interoperability consultation for Software upgrades.						*		*		*		X		X		X
(U) E-3 - Interoperability consultation for Software upgrades.						*		*		*		X		X		X
(U) E-8 - Interoperability consultation for Software upgrades.							*		*						X	
(U) ABCCC - Interoperability consultation for Software upgrades.								*				X				X
(U) CRC/CRE - Interoperability consultation for Software upgrades.						*			*				X			
(U) AOC - Interoperability consultation for Software upgrades.								*				X				X
(U) F-15E - Interoperability consultation for Software upgrades.							*		*				X		X	
(U) ABL - Interoperability consultation for Software upgrades.									*				X			
(U) B-1 - Interoperability consultation for Software upgrades.													X			
(U) B-2 - Interoperability consultation for Software upgrades.					*	*	*	*	*	*			X		X	
(U) B-52 - Interoperability consultation for Software upgrades.									*				X			
(U) F-22 - Interoperability consultation for Software upgrades.									*				X			
(U) F-117 - Interoperability consultation for Software upgrades.									*				X			
(U) Joint StrikeFighter (JSF) - Interoperability consultation for Software										*				X		
(U) R/SAOC - Interoperability consultation for Software upgrades.										*		X		X		X
(U) IADS - Interoperability consultation for Software upgrades.										*		X		X		X
(U) TACP/ASOC - Interoperability consultation for Software upgrades.								*	*	*		X		X		X
(U) Interoperability Certification Testing																
(U) (Passed Joint and CAF Interoperability)																
(U) - MCE P3I																
(U) CAF																
									*				X			
(U) Joint					*				*						X	
(U) - JSTARS																
Project 2189					Page 4 of 7 Pages					Exhibit R-2 (PE 0604779F)						

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE June 2001						
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT						
05 - Engineering and Manufacturing Development					0604779F Tactical Data Link Interoperability					2189						
(U) <u>F. Schedule Profile Continued</u>																
					<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)	CAF				*				*				X		X	X
(U)	Joint					*				*			X		X	
(U)	- E-3 AWACS															
(U)	CAF						*						X			
(U)	Joint							*						X	X	
(U)	- F-15C								*							
(U)	CAF								*							
(U)	Joint											X				
(U)	- F-15E															
(U)	CAF				*				*				X			
(U)	Joint					*									X	
(U)	- IADS															
(U)	CAF						*			*					X	
(U)	Joint				*				*				X			
(U)	- ABCCC															
(U)	CAF									*						
(U)	Joint													X		
(U)	- RADIL															
(U)	CAF															X
(U)	Joint													X		
(U)	- ABL															
(U)	CAF															X
(U)	Joint															
(U)	- F-16															
(U)	CAF												X		X	
(U)	Joint															
(U)	- TACP															

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)										DATE June 2001		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
05 - Engineering and Manufacturing Development					0604779F Tactical Data Link Interoperability					2189		
(U) F. Schedule Profile Continued												
					<u>FY 2000</u>				<u>FY 2001</u>			
					1	2	3	4	1	2	3	4
(U)	CAF										X	
(U)	Joint											X
(U)	- ADSI											
(U)	Joint									*		
(U)	OPFAC INSTALL/INTEGRATION											
(U)	- F-15E Complete											
* Denotes completed event												
X Denotes planned event												
Project 2189					Page 6 of 7 Pages					Exhibit R-2 (PE 0604779F)		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE
										June 2001
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT
05 - Engineering and Manufacturing Development					0604779F Tactical Data Link Interoperability					2189
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
						<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>
(U)	Interoperability Certification Testing					1,190		437		646
(U)	US Message Text Formats Management					1,322		1,866		1,711
(U)	Tactical Data Links Management					2,568		3,468		3,320
(U)	Total					5,080		5,771		5,677
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<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>Activity</u>		<u>Vehicle</u>		<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>
<u>Complete</u>										<u>Total</u>
<u>Program</u>										
<u>Product Development Organizations</u>										
<u>Support and Management Organizations</u>										
	MITRE	CPAF	OCT 72				35,228	2,199	3,062	3,013
	B3H	CPFF	MAY 97				2,494	1,355	1,937	1,919
	COMPTEK	CPAF	OCT 92				3,728	0	0	
	HTI	CPAF	OCT 94				1,300	0	0	0
	Prog Office	Various	Various				243	335	335	335
	AF Participating Test Unit	PO/616	OCT 97				1,242	1,191	437	410
	(PTU)									
<u>Test and Evaluation Organizations</u>										
						<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
						<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
										<u>Total</u>
										<u>Program</u>
<u>Subtotals</u>										
Subtotal Product Development										
Subtotal Support and Management										
Subtotal Test and Evaluation										
Total Project										
						44,235	5,080	5,771	5,677	TBD
										TBD
										TBD
						44,235	5,080	5,771	5,677	TBD
										TBD
Project 2189										
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Exhibit R-3 (PE 0604779F)										