

<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>									DATE <b>June 2001</b>	
BUDGET ACTIVITY <b>04 - Demonstration and Validation</b>					PE NUMBER AND TITLE <b>0603617F Command Control and Communication Applications</b>					
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	5,175	7,756	0	0	0	0	0	0	0	75,272
2314 Tactical Air Surveillance	444	444	0	0	0	0	0	0	0	8,989
2317 Tactical Air Information Production & Distribution	1,524	3,068	0	0	0	0	0	0	0	18,501
2321 Tactical Battle Information Management	2,989	4,023	0	0	0	0	0	0	0	45,054
3804 Tactical Air Forces Systems Integration	218	221	0	0	0	0	0	0	0	2,728
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0
<p>(U) <b><u>A. Mission Description</u></b>            This program is designed to rapidly transition development efforts in the science and technology base directly to warfighting commands. Projects are directly responsive to operational requirements for improved battle management, communications, theater missile defense (TMD), and surveillance capability. This program takes advantage of advanced information technology developments throughout the Services and industry as well as off-the-shelf technology. The program develops, integrates and supports fielding of joint mission critical software applications to the Theater Battle Management Core Systems (TBMCS) and the Air Force Global Command and Control System (GCCS). The program develops, integrates and validates information distribution and assurance technologies in the areas of enterprise network management and control, defensive information warfare, and communications connectivity required for modernization and improvement of the Air Force Global Grid.</p> <p>(U) <b><u>B. Budget Activity Justification</u></b>            This program is in Budget Activity 4, Demonstration and Validation, because its products are primarily advanced development models, rapid prototype efforts, and software developed through evolutionary spiral development acquisition methods.</p>										

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## BUDGET ACTIVITY

**04 - Demonstration and Validation**

## PE NUMBER AND TITLE

**0603617F Command Control and Communication 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)	7,833	7,828	7,936	
(U) Appropriated Value	7,833	7,828		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research	-235			
c. Omnibus or Other Above Threshold Reprogram	-1,539			
d. Below Threshold Reprogram	-853			
e. Rescissions	-31	-72		
(U) Adjustments to Budget Years Since FY 2001 PBR			-7,936	
(U) Current Budget Submit/FY 2002 PBR	5,175	7,756	0	75,272
(U) <u>Significant Program Changes:</u>				
Program terminated in FY02.				

FY2000 database update will reflect an additional -34K BTR.

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PROJECT

2314

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
2314 Tactical Air Surveillance	444	444	0	0	0	0	0	0	0	8,989

(U) **A. Mission Description**

Develops and demonstrates advanced aerospace surveillance technology in support of next generation sensors and sensor signal processing. Investigates non-radar and/or adjunct radar sensors to address the Combat Air Forces (CAF) surveillance, detection, tracking and identification requirements not satisfied by an active radar.

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

(U) \$203 Complete Track Before Detect for TMD  
 (U) \$164 Complete GTACS Bistatic/ESM System Definition  
 (U) \$77 Initiate GTACS Bistatic/ESM ground demonstration  
 (U) \$444 Total

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

(U) \$174 Complete GTACS Bistatic/ESM ground demonstration  
 (U) \$270 Initiate/Complete GTACS Bistatic/ESM Air Target ID Breadboard  
 (U) \$444 Total

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

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

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

Not applicable

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(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) RDT&E, AF (0603789F, Project 4072)	10,851	9,788								
(U) RDT&E, AF (0207412F, Project 485L)	467	450								

(U) **D. Acquisition Strategy**

All contracts in this project are awarded in full competition and are Cost Plus Fixed Fee (CPFF) or Cost Plus Award Fee (CPAF) as appropriate for advanced development.

(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) Complete Track Before Detect for TMD				*								
(U) Complete GTACS Bistatic/ESM System Definition				*								
(U) Initiate GTACS Bistatic/ESM Ground Demo				*								
(U) Complete GTACS Bistatic/ESM Ground Demo									X			
(U) Initiate GTACS Bistatic Air Target ID Breadboard					*							
(U) Complete GTACS Bistatic Air Target ID Breadboard									X			

Note: \* represents a completed event; X represents a planned event.

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001																																																																																																																																																																
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style="text-align: right;">390</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">409</td> </tr> <tr> <td colspan="11"><u>Support and Management Organizations</u></td> </tr> <tr> <td>AF Research Lab</td> <td>In-house</td> <td>n/s</td> <td style="text-align: right;">N/A</td> <td style="text-align: right;">N/A</td> <td style="text-align: right;">6,419</td> <td style="text-align: right;">55</td> <td style="text-align: right;">54</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">6,528</td> </tr> <tr> <td>Miscellaneous</td> <td>Various</td> <td>Various</td> <td style="text-align: right;">N/A</td> <td style="text-align: right;">N/A</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> </tr> <tr> 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Lab	In-house	n/s	N/A	N/A	6,419	55	54	0	0	6,528	Miscellaneous	Various	Various	N/A	N/A	0	0	0	0	0	0	<u>Test and Evaluation Organizations</u>										
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)				DATE June 2001		
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
04 - Demonstration and Validation		0603617F Command Control and Communication Applications			2314	
		<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>Subtotals</u>						<u>Total</u>
Subtotal Product Development		1,681	389	390	0	2,460
Subtotal Support and Management		6,419	55	54	0	6,528
Subtotal Test and Evaluation						
Total Project		8,100	444	444	0	8,988

Project 2314

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Applications

PROJECT

2317

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
2317 Tactical Air Information Production & Distribution	1,524	3,068	0	0	0	0	0	0	0	18,501

(U) A. Mission Description

Integrates, demonstrates and transitions advanced information assurance and distribution technologies to acquisition organizations in support of the Integrated Command and Control System (IC2S). The goal is the creation of an assured, Global Information Grid (GIG) to support the warfighter and to support experimentation and demonstration processes (e.g. JEFX) to reduce the risk of transitioning advanced Government or commercial information technologies into military Enterprise systems. In coordinating with the strategic planning activities of AF/SC, AC2ISRC, HQ ESC, AFCA, ACC and AMC this project has been reorganized to more effectively demonstrate/validate the transition of AFRL technology into AF planned product acquisitions. The three program focus areas included in this project are: the AF Communications Enterprise Manager (ACEM), which provides capabilities for enterprise communications network management and control; the AF Enterprise Defense (AFED), which incorporates defensive information assurance capabilities; and the Enterprise Management System (EMS) that integrates the products from ACEM, AFED, and the Master Caution Panel (MCP funded under BPAC 2321) into a prototype enterprise management system, whose capabilities will be incrementally built, and shown at the Network Operations Support Center (NOSC) at Langley AFB, VA.

(U) FY 2000 (\$ in Thousands)

(U) \$66	Complete development of wideband/multiband antennas and prepare for transition to Phase 2 Airborne Communication Network (ACN) and tanker relay platforms
(U) \$360	Complete evaluation of antenna placement issues for ACN platform
(U) \$360	Complete design of wideband PA and prepare for transition to Phase 2 ACN and tanker relay platforms
(U) \$258	Continue integration of technology to improve performance of commercial Asynchronous Transfer Mode over tactical media via error correction and channel management technologies
(U) \$244	Conduct field demonstration of suitcase SATCOM and assess suitability for airborne platforms
(U) \$236	Integrate software programmable radios with On-Board System (OBS) capability into tanker relay demonstration
(U) \$1,524	Total

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

- (U) \$1,783 Install Air Force EnterpriseDefense (AFED) at AMC NOSC and AFMC NOSC for demonstration of capabilities
- (U) \$1,285 Air Force Enterprise Management (ACEM) will demo Commander's Enterprise Status tool and integrate management of reachback into ACC NOSC
- (U) \$3,068 Total

The following net transactions are not reflected in the FY01 program total: BTR = -148 K , ATR = 0 K, and SBIR -240 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) \$0 No Activity
- (U) \$0 Total

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

Project has been restructured to address the focus areas identified by AC2ISRC, specifically 'Enabling the Global Grid'. Three project programs were created to address this: AF Comprehensive Enterprise Management(ACEM), AF Enterprise Defense (AFED), and Enterprise Management System (EMS).

(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) RDT&E, AF (0602702F, Project 4519)	10,817	13,208								24,025
(U) RDT&E, AF (0603789F, Project 2335)	4,093	2,557								6,650
(U) RDT&E, AF (0603789F, Project 4216)	2,458	2,640								5,098

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Exhibit R-2A (PE 0603617F)



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(U) **D. Acquisition Strategy**

The Information Grid Division of the Air Force Research Laboratory's Information Directorate manages the acquisition of technology to be integrated via ESC's Global Grid and Defensive Information Warfare PAD's into acquisition programs such as Theater Deployable Communications (TDC) and the CITS/BITS programs. All contracts are awarded under full competition and include Cost Plus Fixed Fee (CPFF) and Cost Plus Award Fee (CPAF) as appropriate for advanced development efforts. All contracts use Evolutionary Prototyping, with heavy user participation.

(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) Airborne Comm Relay (ACR)												
(U) -- Phase I/II Demo			*									
(U) -- Multi-Band Antenna Design				*								
(U) -- Wideband Power Amplifier Design				*								
(U) AF Comp Enterprise Mgmt (ACEM)								X				
(U) --Validate Cmdr's C2 ACEM tools					*							
(U) --Show capability upgrade @ NOSC								X				
(U) --Deliver & install final ACEM version												
(U) AF Enterprise Defense (AFED)												
(U) --Install AFED Spiral-1 ACC NOSC			*									
(U) --Install AFED Spiral-2 ACC NOSC					*							
(U) --Upgrade/Install AFED Spiral-3 AMC						*						
(U) --Upgrade/Install AFED Spiral-4 AFMC								X				
(U) --Provide support to IEADS												
(U) Enterprise Management System												
(U) --Integrate Spiral-1 AFED/ACEM/MCP					*							
(U) --Integrate Spiral-2 AFED/ACEM/MCP								X				

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Project 2317					Page 10 of 20 Pages			Exhibit R-3 (PE 0603617F)																																																																																																																																																																			

## UNCLASSIFIED

RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE		
							June 2001		
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT		
04 - Demonstration and Validation				0603617F Command Control and Communication Applications			2317		
(U) Government Furnished Property Continued:									
	<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>									
Not Applicable									
<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					210	1,016	2,557		0
Subtotal Support and Management					12,153	508	511		0
Subtotal Test and Evaluation									
Total Project					12,363	1,524	3,068		0
									16,955

Project 2317

Page 11 of 20 Pages

Exhibit R-3 (PE 0603617F)

## UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE <b>June 2001</b>		
BUDGET ACTIVITY <b>04 - Demonstration and Validation</b>					PE NUMBER AND TITLE <b>0603617F Command Control and Communication Applications</b>				PROJECT <b>2321</b>	
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
2321 Tactical Battle Information Management	2,989	4,023	0	0	0	0	0	0	0	45,054
<p>(U) <b><u>A. Mission Description</u></b>            Designs and integrates improvements to system software and Command Control (C2) applications via spiral development, rapid prototyping and maximum user participation in all design activities. Current focus is the functional development of the Joint Defensive Planner (JDP), designated by the Joint Staff (J6V) Joint Standards Air Operations Software Configuration Control Board as a joint application for use by all the Services. JDP will provide the single theater air and missile defense automated system that aids Joint air defense duty officers and the Area Air Defense Commander (AADC) and staff in planning the integrated employment of Defensive Counter-Air and Active and Passive Defenses in conjunction with Offensive Counter-Air, to destroy or neutralize enemy aircraft and theater missiles. Development is compliant with the Defense Information Infrastructure (DII) Common Operating Environment (COE) for integration into Theater Battle Management Core System (TBMCS) and the Global Command and Control System (GCCS). Future efforts respond to evolving concepts advocated by the Aerospace C2 &amp; Intelligence Surveillance Reconnaissance Center (AC2ISRC). Emphasis is on Distributed Collaborative Dynamic Battle Management of Expeditionary Aerospace Forces (EAFs) in areas such as planning, execution management, retasking (mission reflow), Effects-Based-Operations (EBO), campaign assessment, atmospheric and space environmental effects on weapons and surveillance systems, and information warfare in support of Joint, Combined and Coalition Theater Air Operations.</p>										
(U) <b><u>FY 2000 (\$ in Thousands)</u></b>										
(U) \$38	Completed initial DII COE FLEX coordinated replanning (reflow) prototype for TBMCS V2.X									
(U) \$2,598	Continued Joint Defensive Planner (JDP) V2.0 software development									
(U) \$307	Initiated integration activity for coordinated strategy-to-task for offensive (FLEX), Joint Defensive Planner (JDP), and information operations, including atmospheric environment impacts Prototypes for TBMCS V2.X									
(U) \$46	Adapt Joint Defensive Planning, Air Tasking Order (FLEX) monitor and retasking for Battle Control Center									
(U) \$2,989	Total									
(U) <b><u>FY 2001 (\$ in Thousands)</u></b>										
(U) \$1,400	Complete JDP software development and integration into TBMCS V 2.X									
(U) \$490	Adapt JDP TBMCS V2.0 for GCCS-AF Integration									
(U) \$588	Initiate effects based operations for joint aerospace operations									
(U) \$993	Continue integration activity for coordinated strategy-to-task for offensive, defensive and information operations includingatmospheric environment impacts prototypes for TBMCS V2.X									
Project 2321			Page 12 of 20 Pages				Exhibit R-2A (PE 0603617F)			

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

DATE

June 2001

BUDGET ACTIVITY

**04 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603617F Command Control and Communication Applications**

PROJECT

**2321**(U) **A. Mission Description Continued**(U) **FY 2001 (\$ in Thousands) Continued**

(U) \$552 Initiate decision aids for space environment impact effects on coordinated strategy-to-task for joint air operations

(U) \$4,023 Total

The following net transactions are not reflected in the FY01 program total: BTR = -148 K , ATR = 0 K, and SBIR -240 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) \$0 No Activity

(U) \$0 Total

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

Not Applicable

(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) RDT&E, AF (0603789F, Project 2335)	4,093	2,557	5,087	0	0	0	0	0	0	11,737
(U) RDT&E, AF (0207438F, Project 4790)	23,007	20,439	18,120	0	0	0	0	0	0	61,566

(U) **D. Acquisition Strategy**

The Systems Division of the Air Force Research Laboratory's Information Directorate manages the acquisition of technology under the direct guidance of the AC2ISRC. The objective is to integrate into the Theater Battle Management Core Systems (TBMCS) through a Memorandum of Understanding (MOU) entitled 'Shared management of TBMCS Technology Development' with the TBMCS System Program Office (SPO). As nominated by the Air Staff, some applications are designed for integration into the Air Force Global Command and Control System (GCCS-AF). All contracts are awarded under full competition and include Cost Plus Fixed Fee (CPFF) and Cost Plus Award Fee (CPAF) as appropriate for advanced development efforts. All contracts use the Spiral Development Model and Evolutionary Prototyping, with heavy user participation from all the Services; and produce joint software applications, as designated by the JCS Joint Standard Air Operations Software Configuration Control Board.

Project 2321

Page 13 of 20 Pages

Exhibit R-2A (PE 0603617F)

## UNCLASSIFIED

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

DATE

June 2001

BUDGET ACTIVITY

04 - Demonstration and Validation

PE NUMBER AND TITLE

0603617F Command Control and Communication  
Applications

PROJECT

2321

(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) Replanning (reflow) prototype demo	*											
(U) Joint Defensive Planner sw development & integration - EP #2/3			*									
(U) - Functional Validation Model #1 & 2					*	*						
(U) - TBMCS V x.x integration								X				
(U) Battle Control Center Evaluations.				*								
(U) Coordinated Strategy-to-task Spiral 1				*								
(U) Coordinated Strategy-to-task Spiral 2								X				
(U) Effects Based Operations Spiral 1								X				

Note: \* represents a completed event; X represents a planned event

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001																																																																																																																																																											
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(U) Contractor Engineering Support	229	363																																																																																																																																																																
(U) Total	2,989	4,023																																																																																																																																																																
<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 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>Product Development Organizations</u>																																																																																																																																																																		
Logicon	C/CPFF	June 94	9,782	9,782	9,114	42				9,156																																																																																																																																																								
PRB Assoc.	C/CPAF	Feb 97	7,435	7,435	1,496	2,321	1,000			4,817																																																																																																																																																								
TBD						0	1,749			1,749																																																																																																																																																								
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AF Research Lab	In-house	N/A	N/A	TBD	27,423	397	915			28,735																																																																																																																																																								
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Litton/TASC						116	171			287																																																																																																																																																								
Miscellaneous	Various	Various	N/A	TBD																																																																																																																																																														
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Project 2321					Page 15 of 20 Pages			Exhibit R-3 (PE 0603617F)																																																																																																																																																										

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

DATE

June 2001

BUDGET ACTIVITY

04 - Demonstration and Validation

PE NUMBER AND TITLE

0603617F Command Control and Communication  
Applications

PROJECT

3804

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
3804 Tactical Air Forces Systems Integration	218	221	0	0	0	0	0	0	0	2,728

(U) **A. Mission Description**

Provides systems engineering and integration support to the Aerospace Command Control & Intelligence Surveillance Reconnaissance Center (AC2ISRC) development efforts. Project addresses integration and interoperability issues associated with AC2ISRC directed efforts, makes recommendations, identifies deficiencies, and establishes requirements for development efforts.

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

- (U) \$218 Initiates detailed analysis of strategy-to-task prototype tools for development and interoperability (See BPAC 64321) for technology transition within PE
- (U) \$218 Total

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

- (U) \$221 Initiates detailed analysis of Effects-Based-Operations (EBO) prototype tools for development and interoperability (see BPAC 642321) for technology transition within PE
- (U) \$221 Total

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

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

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

Not Applicable

(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										

Project 3804

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Exhibit R-2A (PE 0603617F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE <b>June 2001</b>																																																													
BUDGET ACTIVITY <b>04 - Demonstration and Validation</b>				PE NUMBER AND TITLE <b>0603617F Command Control and Communication Applications</b>			PROJECT <b>3804</b>																																																													
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p>(U) <b><u>D. Acquisition Strategy</u></b> Not Applicable</p> <p>(U) <b><u>E. Schedule Profile</u></b></p> </div> <div style="width: 55%; text-align: center;"> <table style="margin: auto;"> <thead> <tr> <th colspan="4"><u>FY 2000</u></th> <th colspan="4"><u>FY 2001</u></th> <th colspan="4"><u>FY 2002</u></th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <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)</td><td colspan="3">Evaluate Strategy-To-Task prototypes</td> <td></td><td></td><td></td><td></td> <td></td><td></td><td></td><td></td> </tr> <tr> <td>(U)</td><td colspan="3">Evaluate effects based ops prototypes</td> <td></td><td></td><td></td><td>X</td> <td></td><td></td><td></td><td></td> </tr> </tbody> </table> <p>Note: * represents a completed event; X represents a planned event.</p> </div> </div>									<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)	Evaluate Strategy-To-Task prototypes											(U)	Evaluate effects based ops prototypes						X				
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Project 3804			Page 18 of 20 Pages			Exhibit R-2A (PE 0603617F)																																																														

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001																																																																																																																																																																																												
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<p>(U) <b><u>A. Project Cost Breakdown (\$ in Thousands)</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></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>(U) Systems Engineering</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Government Engineering Support</td> <td style="text-align: center;">218</td> <td style="text-align: center;">221</td> <td style="text-align: center;">0</td> </tr> <tr> <td>(U) Contractor Engineering Support</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Total</td> <td style="text-align: center;">218</td> <td style="text-align: center;">221</td> <td style="text-align: center;">0</td> </tr> </tbody> </table> <p>(U) <b><u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u></b></p> <p>(U) <b><u>Performing Organizations:</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"><u>Contractor or Government Performing Activity</u></th> <th style="width: 10%;"><u>Contract Method/Type or Funding Vehicle</u></th> <th style="width: 10%;"><u>Award or Obligation Date</u></th> <th style="width: 10%;"><u>Performing Activity EAC</u></th> <th style="width: 10%;"><u>Project Office EAC</u></th> <th style="width: 10%;"><u>Total Prior to FY 2000</u></th> <th style="width: 10%;"><u>Budget FY 2000</u></th> <th style="width: 10%;"><u>Budget FY 2001</u></th> <th style="width: 10%;"><u>Budget FY 2002</u></th> <th style="width: 10%;"><u>Budget to Complete</u></th> <th style="width: 10%;"><u>Total Program</u></th> </tr> </thead> <tbody> <tr> <td colspan="11"><u>Product Development Organizations</u></td> </tr> <tr> <td colspan="11">N/A</td> </tr> <tr> <td colspan="11"><u>Support and Management Organizations</u></td> </tr> <tr> <td>MITRE</td> <td>SS/TO&amp;P</td> <td>Various</td> <td>N/A</td> <td>TBD</td> <td style="text-align: center;">2,138</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">2,138</td> </tr> <tr> <td>AF Research Lab/AC2ISRC</td> <td>In-house</td> <td>N/A</td> <td>N/A</td> <td>TBD</td> <td style="text-align: center;">151</td> <td style="text-align: center;">218</td> <td style="text-align: center;">221</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">590</td> </tr> <tr> <td>Miscellaneous</td> <td>Various</td> <td>Various</td> <td>N/A</td> <td>TBD</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> <tr> <td colspan="11"><u>Test and Evaluation Organizations</u></td> </tr> <tr> <td colspan="11">(U) <b><u>Government Furnished Property:</u></b></td> </tr> <tr> <td></td> <td><u>Contract Method/Type or Funding Vehicle</u></td> <td><u>Award or Obligation Date</u></td> <td><u>Delivery Date</u></td> <td></td> <td><u>Total Prior to FY 2000</u></td> <td><u>Budget FY 2000</u></td> <td><u>Budget FY 2001</u></td> <td><u>Budget FY 2002</u></td> <td><u>Budget to Complete</u></td> <td><u>Total Program</u></td> </tr> <tr> <td><u>Item Description</u></td> <td><u>Vehicle</u></td> <td><u>Date</u></td> <td><u>Date</u></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="11"><u>Product Development Property</u></td> </tr> <tr> <td colspan="11">Not Applicable</td> </tr> <tr> <td colspan="11"><u>Support and Management Property</u></td> </tr> <tr> <td colspan="11">Not Applicable</td> </tr> </tbody> </table>												<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	(U) Systems Engineering				(U) Government Engineering Support	218	221	0	(U) Contractor Engineering Support				(U) Total	218	221	0	<u>Contractor or Government Performing Activity</u>	<u>Contract Method/Type or Funding Vehicle</u>	<u>Award or Obligation Date</u>	<u>Performing Activity EAC</u>	<u>Project Office EAC</u>	<u>Total Prior to FY 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>Product Development Organizations</u>											N/A											<u>Support and Management Organizations</u>											MITRE	SS/TO&P	Various	N/A	TBD	2,138	0	0	0	0	2,138	AF Research Lab/AC2ISRC	In-house	N/A	N/A	TBD	151	218	221	0	0	590	Miscellaneous	Various	Various	N/A	TBD	0	0	0	0	0	0	<u>Test and Evaluation Organizations</u>											(U) <b><u>Government Furnished Property:</u></b>												<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>	<u>Item Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>								<u>Product Development Property</u>											Not Applicable											<u>Support and Management Property</u>											Not Applicable										
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)				DATE June 2001		
BUDGET ACTIVITY		PE NUMBER AND TITLE			PROJECT	
04 - Demonstration and Validation		0603617F Command Control and Communication Applications			3804	
(U) <u>Government Furnished Property Continued:</u>						
<u>Test and Evaluation Property</u>						
Not Applicable						
		<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>						
Subtotal Product Development						
Subtotal Support and Management		2,289	218	221	0	2,728
Subtotal Test and Evaluation						
Total Project		2,289	218	221	0	2,728

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