

<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>0603854F Wideband MILSATCOM (Space)</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	45,570	121,661	96,670	26,670	48,623	28,077	0	0	0	561,206
2679 Global Broadcast Service (GBS) Phases 1 and 2	40,660	27,071	0	0	0	0	0	0	0	260,997
4811 Wideband Gapfiller	4,910	83,196	83,351	2,284	2,104	2,239	0	0	0	178,753
4870 Command & Control System Consolidated (CCSC)	0	11,394	13,319	24,386	46,519	25,838	0	0	0	121,456
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

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

FY 2002-2007 GBS project 642679 funding was transferred to PE 0603840F.

(U) **A. Mission Description**

Provide the DoD with high data rate (Wideband) MILSATCOM services in accordance with the Joint Requirements Oversight Council (JROC), Joint Space Management Board approved MILSATCOM Architecture (Aug 96), and the MILSATCOM Capstone Requirements Document (CRD) approved by the JROC in Oct 97.

Global Broadcast Service (GBS) will provide efficient, high data rate broadcast capability between many distributed information sources and warfighters who receive the broadcast directly on small, inexpensive user terminals. GBS Phase 1 was started in 1996 as a Continental United States (CONUS)-based testbed for requirements definition and operational concept refinement using a leased commercial space segment (satellite). Phase 2 provides near worldwide, limited capability at military frequencies hosted on three Navy Ultra High Frequency Follow-On (UFO) satellites augmented with leased service over CONUS.

The Wideband Gapfiller System (WGS) satellites will augment the DoD's Interim Wideband System, which includes the Defense Satellite Communications System (DSCS) X-band and Global Broadcast Service (GBS) Ka-band capabilities. In addition, WGS will provide a new two-way Ka-band service. The first WGS launch is scheduled for FY04, and the remaining two are scheduled for FY05.

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Exhibit R-2 (PE 0603854F)

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## BUDGET ACTIVITY

## 04 - Demonstration and Validation

## PE NUMBER AND TITLE

## 0603854F Wideband MILSATCOM (Space)

(U) **A. Mission Description Continued**

The Command and Control System-Consolidated (CCS-C) provides an integrated commercial-based command and control system for all the MILSATCOM satellite constellations.

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

(U) Funding is in Budget Activity 4, Demonstration and Validation to support:

WGS: making maximum use of commercial technology and practices by modifying commercial satellites to support unique military requirements, and

CCS-C: competitive demonstration phase

(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)	50,277	134,029	128,814	2,859,821
(U) Appropriated Value	50,344	121,029		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-67	-847		
b. Small Business Innovative Research	-338			
c. Omnibus or Other Above Threshold Reprogram	-141			
d. Below Threshold Reprogram	-4,031	-267		
e. Rescissions	-197	1,746		
(U) Adjustments to Budget Years Since FY 2001 PBR			-32,144	
(U) Current Budget Submit/FY 2002 PBR	45,570	121,661	96,670	561,206
(U) <b><u>Significant Program Changes:</u></b>				
(U) FY02-07 funding in the GBS BPAC (642679) was moved to the new GBS PE (0603840F).				

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BUDGET ACTIVITY

**04 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603854F Wideband MILSATCOM (Space)**

PROJECT

**2679**

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
2679 Global Broadcast Service (GBS) Phases 1 and 2	40,660	27,071	0	0	0	0	0	0	0	260,997

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

Beginning with FY02, this project will be documented in its own Program Element - 0603840F.

(U) **A. Mission Description**

GBS will provide DoD with efficient, high data rate connectivity to many distributed information sources and warfighters who will receive the broadcast directly on small, inexpensive user terminals in accordance with the GBS Operational Requirements Document (ORD) validated by the Joint Requirements Oversight Council in Apr 1995. Broadcast data includes digitized imagery, logistics and weather data, maps, operational orders, and video. GBS Phase 1 was a single channel leased through FY98 for initial testing and concept exploration. Phase 1 capability was extended under Phase 2 due to delay in deploying capability. GBS Phase 2 includes the ground infrastructure for broadcast management and uplink and receive equipment which work with: (1) space packages on Navy operational satellites UFO 8, 9, and 10 providing near-worldwide service, and (2) leased commercial Ku-band packages for CONUS coverage. GBS Phase 2 schedule was re-baselined by OIPT in Jul 00 (awaiting ADM).

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

(U) \$19,315	Continued System Development and Test
(U) \$3,555	Continued Initial Comm Connectivity/Interface, CONUS Transponder Lease
(U) \$7,345	Continued Phase 2 Government System Integration
(U) \$1,500	Continued Program Support
(U) \$1,673	Continued Field Survey and Integration
(U) \$3,100	Continued Navy Terminal Support
(U) \$983	Provided System Test & Evaluation Support
(U) \$3,189	Provided Joint Terminals Engineering Office (JTEO) Support
(U) \$40,660	Total

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Exhibit R-2A (PE 0603854F)

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)</b>		DATE <b>June 2001</b>																		
<b>BUDGET ACTIVITY</b> <b>04 - Demonstration and Validation</b>	<b>PE NUMBER AND TITLE</b> <b>0603854F Wideband MILSATCOM (Space)</b>	<b>PROJECT</b> <b>2679</b>																		
<p>(U) <b><u>A. Mission Description Continued</u></b></p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">(U) \$17,279</td> <td>Continue System Development and Test</td> </tr> <tr> <td>(U) \$3,589</td> <td>Continue Phase 2 Government System Integration</td> </tr> <tr> <td>(U) \$1,394</td> <td>Continue Program Support</td> </tr> <tr> <td>(U) \$1,210</td> <td>Continue Field Survey and Integration</td> </tr> <tr> <td>(U) \$2,300</td> <td>Continue Navy Terminal Support</td> </tr> <tr> <td>(U) \$1,299</td> <td>Provide System Test and Evaluation Support</td> </tr> <tr> <td>(U) \$27,071</td> <td>Total</td> </tr> </table> <p>(U) The following net transaction is not reflected in the FY01 program total: BTR=+\$1695K, and SBIR=-\$295K. 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) \$0</td> <td>Funded in PE 63840F</td> </tr> <tr> <td>(U) \$0</td> <td>Total</td> </tr> </table> <p>(U) <b><u>B. Project Change Summary</u></b></p> <p>(U) A new Program Element, PE 0603840F, has been established for this project effective with FY02. See PE63840F for FY02 and beyond.</p> <p>(U) FY01 System Development and Test includes OSD Direction to support the transition from Joint Broadcast Service to the GBS Phase 2 capability.</p> <p>(U) FY01 Navy Terminal Support reduced \$3M in response to poor execution rates.</p> <p>(U) The GBS Program has experienced several programmatic problems that resulted in a schedule breach from the Acquisition Program Baseline (APB) ground segment sechedule outlined in the Dec 00 Selected Acquisition Report (SAR). The OIPT approved a new program schedule baseline with incremental IOC's in Oct 01, and in May 01 the Joint Requirements Oversight Council approved an Operational Requirements Document (ORD) revision documenting the change from a single IOC in Dec 99 (as documented in the Dec 99 SAR) to incremental IOC's in Sep 01, Sep 02, and Sep 03 (as will be documented in the SAR). The rephasing includes moving to spiral development with system delivery in approximately 6 month increments beginning in Oct 00. Initial deployments will be to EUCom.</p>			(U) \$17,279	Continue System Development and Test	(U) \$3,589	Continue Phase 2 Government System Integration	(U) \$1,394	Continue Program Support	(U) \$1,210	Continue Field Survey and Integration	(U) \$2,300	Continue Navy Terminal Support	(U) \$1,299	Provide System Test and Evaluation Support	(U) \$27,071	Total	(U) \$0	Funded in PE 63840F	(U) \$0	Total
(U) \$17,279	Continue System Development and Test																			
(U) \$3,589	Continue Phase 2 Government System Integration																			
(U) \$1,394	Continue Program Support																			
(U) \$1,210	Continue Field Survey and Integration																			
(U) \$2,300	Continue Navy Terminal Support																			
(U) \$1,299	Provide System Test and Evaluation Support																			
(U) \$27,071	Total																			
(U) \$0	Funded in PE 63840F																			
(U) \$0	Total																			
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PROJECT

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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) Other APPN

Note: All the Services and several DoD agencies have many programs which interface with or support GBS. Examples include: Defins Information System Network (DISN), DISA Information Dissemination Management Program, ARPA Battlefield Awareness and Data Dissemination (BADD) Advanced Concept Tactical Demonstration (ACTD), ARPA-DISA Bosnia Command Control Augmentation (BC2A) Program including Joint Broadcast Service (JBS), Navy UFO Program, Army Ground Terminal Programs, Navy SATCOM Ship Terminal Program, and Air Force MILSATCOM Terminals (PE 33601): AF GBS Receive Terminals (BPAC 836780, line P-67, PE 33601, Milstar Satellite Comm Sys, Other Procurement, AF Ground Multiband Terminal (GMT) Develop, and AF Wideband Terminal (AWT) Development.

(U) **D. Acquisition Strategy**

(U) The acquisition strategy is being revised to a spiral development/incremental build approach using Integrated Product Development (IPD)/Integrated Product Team (IPT) approach.

(U) **E. Schedule Profile**FY 2000FY 2001FY 2002

	1	2	3	4	1	2	3	4	1	2	3	4
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(U) Lease Commercial Transponder

\* \* \* \*

(U) Launch UFO #10 (Nov 99)

\*

(U) Initial Operational Capability

(U) IOC 1

X

(U) IOC 2

X

(U) IOC 3 (4QFY03, PE63840F)

(U)

\* = Completed Event

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		
<b>04 - Demonstration and Validation</b>					<b>0603854F Wideband MILSATCOM (Space)</b>			<b>2679</b>		
<b>(U) A. Project Cost Breakdown (\$ in Thousands)</b>										
					<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>	
(U)	System Development and Test				19,315		17,279			
(U)	Communication Connectivity/Interface				3,555		0			
(U)	Phase 2 Government System Integration				7,345		3,589			
(U)	Program Support				1,500		1,394			
(U)	Field Survey and Integration				1,673		1,210			
(U)	Navy Terminal Support				3,100		2,300			
(U)	System Test & Evaluation Support				983		1,299			
(U)	JTEO Support				3,189		0			
(U)	Total				40,660		27,071			
<b>(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)</b>										
<b>(U) Performing Organizations:</b>										
<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>										
Raytheon Sys Co.	CPAF	18 Nov 97	N/A	N/A	104,472	19,315	17,279			141,066
Government/Various	Various	Various	N/A	N/A	52,308	14,000	5,741			72,049
<u>Support and Management Organizations</u>										
Various	Various	Various	N/A	N/A	35,598	6,362	2,752			44,712
<u>Test and Evaluation Organizations</u>										
Support for Development & Operational Test	Various	Various	N/A	N/A	888	983	1,299			3,170

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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				0603854F Wideband MILSATCOM (Space)				2679			
(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>											
TBD											
<u>Support and Management Property</u>											
TBD											
<u>Test and Evaluation Property</u>											
TBD											
				<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				156,780	33,315	23,020			213,115		
Subtotal Support and Management				35,598	6,362	2,752			44,712		
Subtotal Test and Evaluation				888	983	1,299			3,170		
Total Project				193,266	40,660	27,071			260,997		

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

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BUDGET ACTIVITY

**04 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603854F Wideband MILSATCOM (Space)**

PROJECT

**4811**

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
4811 Wideband Gapfiller	4,910	83,196	83,351	2,284	2,104	2,239	0	0	0	178,753

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

(U) **A. Mission Description**

The Wideband Gapfiller Satellites (WGS) will provide the DoD with high data rate military satellite communication (MILSATCOM) services in accordance with the Joint Space Management Board approved MILSATCOM Architecture dated Aug 96, the MILSATCOM Capstone Requirements Document approved by the Joint Requirements Oversight Council (JROC) in Oct 97, and JROC approved WGS Operational Requirements Document (May 00). This program was conceived to augment the near term 'bandwidth Gap' in Warfighter communication needs. The critical first WGS launch is scheduled for 2QFY04 with the remaining two launches scheduled in FY05.

These dual frequency Wideband Gapfiller Satellites will augment the DoD's Interim Wideband System that includes the two-way Defense Satellite Communications System X-band service and one-way Global Broadcast Service Ka-band capabilities. In addition, WGS will provide a new high capacity two-way Ka-band service.

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

(U) \$4,910 Began Pre-Engineering and Manufacturing Development (EMD)

(U) \$4,910 Total

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

(U) \$73,256 Begin EMD, including the Non-Recurring Engineering for all three satellites

(U) \$3,418 Begin Joint Terminal Engineering Office (JTEO) Support

(U) \$6,522 Begin Program Support

(U) \$83,196 Total

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

(U) \$79,572 Complete EMD, including the NRE for all three satellites

(U) \$2,246 Continue JTEO Support

(U) \$1,533 Continue Program Support

(U) \$83,351 Total

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Exhibit R-2A (PE 0603854F)



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04 - Demonstration and Validation

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0603854F Wideband MILSATCOM (Space)

PROJECT

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

No change.

(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) MPAF, PE 33600F, WGS, Line P-18, Line P-19	0	25,500	390,956	189,815	18,604	12,358	14,605	14,789	0	666,627
(U) OPAF, PE 63854F, WGS PIPs	0	0	0	16,200	32,400	0	0	0	0	48,600
(U) OPAF, PE 33600F, CCS-C AF Terminals in PE 33601F, Other Procurement, AF	0	0	5,429	5,635	8,402	2,222	0	0	0	21,688

(U) **D. Acquisition Strategy**

The WGS program will make maximum use of commercial practices and technology in its FAR Part 12, FFP acquisition. All three satellites are purchased with Procurement funds, and the Non-Recurring Engineering (NRE) is funded in RDT&E. The WGS received MS II/III approval on 6 Nov 00 and awarded a FFP contract on 2 Jan 01.

(U) **E. Schedule Profile**

	<u>FY 2000</u>			<u>FY 2001</u>			<u>FY 2002</u>		
	1	2	3	4	1	2	3	4	
(U) Pre-EMD	*				*				
(U) Defense Acquisition Board Prep	*	*	*	*					
(U) DAB - MS II/III					*				
(U) EMD/Production Contract Award						*			
(U) EMD Completion								X	
(U) 1st of 3 launches (2QFY04)									

x = planned event; \* = completed event

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BUDGET ACTIVITY					PE NUMBER AND TITLE				PROJECT	
04 - Demonstration and Validation					0603854F Wideband MILSATCOM (Space)				4811	
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
							<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	
(U)	Pre-EMD						4,910	0	0	
(U)	EMD						0	73,256	79,572	
(U)	JTEO Support						0	3,418	2,246	
(U)	Program Support						0	6,522	1,533	
(U)	Total						4,910	83,196	83,351	
(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>									
	WGS Satellite EMD	FFP	Jan 01	152,828	152,828	0	0	73,256	79,572	0
	<u>Support and Management Organizations</u>									
	JTEO	PR	Continuing	11,437	11,437	0	0	3,418	2,246	5,773
	Pre-EMD	Form 277	Dec 99	4,910	4,910	0	4,910	0	0	0
	International Studies	SS/CFFF/AF	Various	669	669	669	0	0	0	0
	Program Support	Various	Various	8,909	8,909	0	0	6,522	1,533	854
	<u>Test and Evaluation Organizations</u>									
	AFOTEC, DT&E	TBD	TBD	TBD	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>									
	TBD									
Project 4811										
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BUDGET ACTIVITY			PE NUMBER AND TITLE			PROJECT
04 - Demonstration and Validation			0603854F Wideband MILSATCOM (Space)			4811
(U) <u>Government Furnished Property Continued:</u>						
<u>Support and Management Property</u>						
TBD						
<u>Test and Evaluation Property</u>						
TBD						
			<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>
			<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>
<u>Subtotals</u>						<u>Budget to</u>
Subtotal Product Development			0	0	73,256	<u>Complete</u>
Subtotal Support and Management			669	4,910	9,940	0
Subtotal Test and Evaluation					3,779	6,627
Total Project			669	4,910	83,196	83,351
					6,627	178,753

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

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**04 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603854F Wideband MILSATCOM (Space)**

PROJECT

**4870**

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
4870 Command & Control System Consolidated (CCSC)	0	11,394	13,319	24,386	46,519	25,838	0	0	0	121,456

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

**(U) A. Mission Description**

The MILSATCOM Command and Control System-Consolidated (CCS-C) system is being acquired to provide integrated launch and on-orbit command and control (C2) functionality for MILSATCOM satellites as the current capability provided by the Air Force Satellite Control Network ( PE 0305110F) phases out according to plan. CCS-C will use modified commercial off the shelf hardware/software to control all emerging and legacy MILSATCOM systems (six different constellations) at reduced operating and maintenance costs.

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

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

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

(U) \$8,029 Begin Concept Demonstration Phase  
(U) \$3,365 Begin Program Support  
(U) \$11,394 Total

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

(U) \$953 Complete Concept Demonstration Phase  
(U) \$9,012 Begin Development of Command and Control Functionality  
(U) \$3,354 Continue Program Support  
(U) \$13,319 Total

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

(U) None.

Project 4870

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Exhibit R-2A (PE 0603854F)

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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)								DATE <b>June 2001</b>																																																																																																																																															
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT																																																																																																																																															
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<p>(U) <b><u>C. Other Program Funding Summary (\$ in Thousands)</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <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) AF RDT&amp;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>(U) AF Wideband 3080</td> <td></td> <td></td> <td>5,429</td> <td>5,635</td> <td>8,402</td> <td>2,222</td> <td>0</td> <td>0</td> <td>0</td> <td>21,688</td> </tr> <tr> <td>Procurement (CCS-C), PE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>33600F</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) <b><u>D. Acquisition Strategy</u></b>  Competitive contracts were awarded in Feb 01 to two teams to demonstrate capabilities using both RDT&amp;E and procurement line items - the concept demonstration phase. Both contain fixed price options supporting down selection to a single team in 2QFY02 to develop the final functionality - the development phase.</p> <p>(U) <b><u>E. Schedule Profile</u></b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <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></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> <th>1</th> <th>2</th> <th>3</th> <th>4</th> </tr> </thead> <tbody> <tr> <td>(U) Concept Demonstration Contract Award</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) Option to Proceed</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></td> </tr> <tr> <td>(U) Development Contract Downselect</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td></td> <td></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) AF RDT&E											(U) Other APPN											(U) AF Wideband 3080			5,429	5,635	8,402	2,222	0	0	0	21,688	Procurement (CCS-C), PE											33600F												<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) Concept Demonstration Contract Award						*							(U) Option to Proceed										X			(U) Development Contract Downselect										X		
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Project 4870				Page 13 of 14 Pages				Exhibit R-2A (PE 0603854F)																																																																																																																																															

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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				0603854F Wideband MILSATCOM (Space)					4870	
(U) A. Project Cost Breakdown (\$ in Thousands)										
							FY 2000		FY 2001	FY 2002
(U)	Concept Demonstration Phase						0		8,029	953
(U)	Development Phase						0		0	9,012
(U)	Program Support						0		3,365	3,354
(U)	Total						0		11,394	13,319
(U) B. Budget Acquisition History and Planning Information (\$ in Thousands)										
(U) Performing Organizations:										
	<u>Contractor or</u>	<u>Contract</u>								
	<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>					
	<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
	<u>Product Development Organizations</u>									
	Demonstration Contractors	FFP	Feb 01	8,982	8,982	0	0	8,029	953	0
	Development Contractor	CPAF	Feb 02	94,727	94,727	0	0	0	9,012	85,715
	<u>Support and Management Organizations</u>									
	Various		Various			0	0	3,365	3,354	11,028
	<u>Test and Evaluation Organizations</u>									
						<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
	<u>Subtotals</u>					<u>to FY 2000</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>Complete</u>
	Subtotal Product Development					0	0	8,029	9,965	85,715
	Subtotal Support and Management					0	0	3,365	3,354	11,028
	Subtotal Test and Evaluation									
	Total Project					0	0	11,394	13,319	96,743