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

DATE

June 2001

BUDGET ACTIVITY

07 - Operational System Development

PE NUMBER AND TITLE

0207412F Modular Control System

PROJECT

485L

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
485L Theater Air Control System Imp (TACSI)	6,205	19,691	7,047	6,730	4,777	20,029	4,972	5,067	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**

The Control and Reporting Center (CRC), formerly known as the Ground Theater Air Control System (GTACS), also referred to under PE Title Modular Control System (MCS), is a low density/high demand rapidly deployable ground Command and control (Cs) asset for the Joint Task Force/Joint Forces Air Component Commander. The CRC is the senior C2 element providing connectivity and interoperability among elements of the Theater Air Control System (TACS) to include United States Air Force, Navy, Marine Corps, Army and allied/coalition assets. A modernization plan to fulfill Expeditionary Aerospace Force (EAF) requirements was programmed to start in FY01. Funding was obtained by realigning existing dollars and 'trading' manpower for RDT&E and procurement dollars. Modernization depended on 'reusing' software development under the Region/Sector Air Operations Center Modernization (R/SAOC) Program, which was terminated in Oct 99. The manpower originally 'traded' induced unacceptable operational risks and was 'brought back' with program dollars in the FY02 POM. These two actions drove the CRC/CRE Program back into its earlier sustainment mode while providing minimal upgrade improvements in smaller steps. To fulfill the modernization requirement to support EAF taskings, the CRC Program is exploring the opportunity to leverage off an acquisition strategy entitled Common Battle Management Software (CBMS) for utilization by several C2 platforms to further advance C2 concepts supporting future aerospace operations. Conducting acquisition activities to include, but not limited to requirements analysis, modeling and simulation, risk reduction, acquisition planning, enterprise integration, prototype development (i.e., radio/radar/data link remoting), and continued development of Theater Air Defense (TAD) Missile Tracking System (MTS) EMD.

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

(U) \$425	Continue Concept Definition/Development for Evolutionary Upgrades to the CRC
(U) \$339	Continue program support (i.e. travel, supplies, miscellaneous)
(U) \$5,441	Initiate Development of TAD MTS Upgrade for the Radar Sensors (includes TAD MTS direct mission Support)
(U) \$6,205	Total

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BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

07 - Operational System Development**0207412F Modular Control System****485L**(U) **A. Mission Description Continued**(U) **FY 2001 (\$ in Thousands)**

(U) \$9,067 Continue Concept Definition/Development of Evolutionary Upgrades to the CRC (to include, but not limited to, advanced planning, MCE Upgrades, BCS open architecture, enhanced radio/radar/data link remoting, misc.) (includes Evolutionary Upgrades direct mission support)

(U) \$927 Continue Program Support (i.e., travel, supplies, equipment, miscellaneous)

(U) \$9,069 Continue Development of TAD MTS Upgrade for the Radar Sensors (includes TAD MTS direct mission support)

(U) \$628 Continue Systems Engineering

(U) \$19,691 Total

The following net transactions are not reflected in the FY01 program total: BTR=-826K and SBIR=-700K. These transactions are not reflected in other sections of the R-docs where an FY01 total is shown.

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

(U) \$3,895 Continue Concept Definition/Development of Evolutionary Upgrades to the CRC (to include, but not limited to, advanced planning, MCE Upgrades, BCS open architecture, enhanced radio/radar/data link remoting, misc.) (includes Evolutionary Upgrades direct mission support)

(U) \$503 Continue Program Support (i.e., travel, supplies, equipment, miscellaneous)

(U) \$2,272 Continue development of TAD MTS Upgrade for the Radar Sensors (Includes TAD MTS direct mission Support)

(U) \$377 Continue Systems Engineering

(U) \$7,047 Total

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

The program is in Budget Activity 7 because CRC is a fielded, operational system.

(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)	467	19,873	27,206	TBD
(U) Appropriated Value	6,467	19,873		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research	-194			
c. Omnibus or Other Above Threshold Reprogram				

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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207412F Modular Control System			PROJECT 485L				
(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			-43							
	e. Rescissions			-25	-182						
(U)	Adjustments to Budget Years Since FY 2001 PBR					-20,159					
(U)	Current Budget Submit/FY 2002 PBR			6,205	19,691	7,047		TBD			
(U) <u>Significant Program Changes:</u>											
1. Funding of Program Office Support in FY01 shifts from Production (3080) to RDT&E (3600) in conjunction with development of evolutionary upgrades to CRC/CRE architecture. FY02 and out reductions resulted from realignment of funding from RDT&E/OPAF to OPAF & manpower buyback. 2. FY00 reduction of 17K due to cancelled year bill for the EMT Program being paid with FY00 dollars											
(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)	Other APPN										
(U)	Other Procurement Air Force, WSC 833040, Theater Air Control System Improvement	15,710	2,034	0	3,289	22,350	27,134	44,928	45,379	Continuing	TBD
(U)	Other Procurement Air Force, WSC 838010, Comm Electronic Mods	1,021	745	788	592						TBD
(U)	Other Procurement Air Force, WSC 86190A, Initial Spares	1,521	1,260	1,065	421	385	88			Continuing	TBD
(U) <u>E. Acquisition Strategy</u>											
Primary emphasis on this program continues to be sustainment, while more modest steps toward upgrade/improvement will be initiated in FY01 and out as outlined below.											
Concept Definition/Development of Evolutionary Upgrades Strategies:											
1. In FY00, funding was used to perform an environmental assessment and independent study. The principle portion of the Radio Remoting effort (to include design, prototype and SVA productization) was funded in FY01 with the remaining effort (test and evaluation) to be funded in FY02. This strategy satisfies both an upgrade and											
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(U) **E. Acquisition Strategy Continued**

an improvement, which allows for rapid insertion of technology and accommodates enhanced capability necessary to meet critical EAF requirements (reduces forward deployed footprint, keeping personnel out of harms way.) This capability ensures connectivity with Forward C2 platforms and fighters.

2. The CRC Program is exploring the opportunity to leverage off an acquisition strategy entitled Common Battle Management Software (CBMS) for utilization by several C2 platforms to further advance C2 concepts supporting future aerospace operations. This strategy improves warfighting capabilities, better utilizes Low Density/High Demand (LD/HD) crews and reduces operational costs by enabling C2ISR data fusion and forwarding.

(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
				*				X			
					*			X			

(U) CRC - TAD MTS

(U) Evolutionary Upgrades to the CRC

* Denotes completed event

x Denotes 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		
07 - Operational System Development				0207412F Modular Control System					485L		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
						FY 2000		FY 2001		FY 2002	
(U)	Program Support (i.e. travel, supplies, and miscellaneous)						339		927	503	
(U)	Systems Engineering						0		628	377	
(U)	Concept Definition/Development for Evolutionary Upgrades to the CRC (includes BCS open systems, enhanced radio/radar remoting, misc.)(includes dedication Evolutionary Upgrades SPO Support)						425		9,067	3,895	
(U)	Development of TAD MTS Upgrade for the Radar Sensors (includes dedicated TAD MTS SPO Support)						5,441		9,069	2,272	
(U)	Total						6,205		19,691	7,047	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<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>											
Contractor Northrop Grumman, Baltimore - TAD MTS		FFP	1QFY01	N/A	N/A		5,441	9,069	2,272	Continuing	TBD
Rome Labs & NAWCAD - Concept Definition/Development of Evolutionary Upgrades		FFP	1QFY01	N/A	N/A		425	9,067	3,895	Continuing	TBD
<u>Support and Management Organizations</u>											
Miscellaneous program support (travel, supplies, etc.)		Various	Various	N/A	N/A		339	927	503	Continuing	TBD
Systems Engineering.		Various	Various	N/A	N/A		0	628	377	Continuing	TBD
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE June 2001	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207412F Modular Control System			PROJECT 485L	
(U) <u>Performing Organizations Continued:</u>								
<u>Test and Evaluation Organizations</u>								
GFP/GFE:	None							
(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								
<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>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>
								<u>Program</u>
Subtotal Product Development					5,866	18,136	6,167	TBD
Subtotal Support and Management					339	1,555	880	TBD
Subtotal Test and Evaluation								
Total Project					6,205	19,691	7,047	TBD
								TBD

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