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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2000	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207412F Theater Air Control Systems				PROJECT 67485L	
COST (\$ in Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
67485L Theater Air Control System Imp (TACSI)	402	6,432	19,873	27,206	27,185	30,440	48,455	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0
<p>(U) <u>A. Mission Description</u> Ground Theater Air Control System (GTACS): GTACS provides battle management resources and a Command and Control (C2) air operations picture through which the Expeditionary Aerospace Forces Joint Forces Air Component Commander and theater level commanders control assigned forces accomplishing assigned missions. GTACS elements execute battle management, force allocation, control of airborne assets (counter air, aerial refueling, interdiction, close air support, reconnaissance, airlift, special operations missions and others), surveillance, early warning, identification, and theater missile defense. The GTACS mission is to deploy a rapid reaction, self-sustaining if necessary, radar/data link capability into a deployed theater of operations. This support is provided to worldwide operations ranging from military operations other than war and peacetime contingencies, to projecting decisive force into a major regional conflict to support a strategic war. GTACS consists of a family of radar/communication/electronics components largely designed in the 1970/80s and is becoming logistically unsupportable. Without modernizing, GTACS will be unable to provide an accurate and reliable integrated air picture or conduct C2 theater operations in the future. Specifically, these upgrades will provide an open Defense Information Infrastructure Common Operating Environment (DII-COE) compliant architecture, reduce a large forward deployment/airlift requirement and move a large part of aerospace battle execution activities to the rear. Theater Air defense (TAD) Missile Tracking System (MTS)(formerly referred to as Expert Missile Tracker (EMT)) will provide the Combat Air Forces (CAF) with tactical capability to detect, track, predict launch and impact points, and classify tactical ballistic missiles (TBMs) by type. A fully modernized GTACS will evolve into the Battle Control System. The BCS is a theater asset that supports the Joint Force Commander (JFC)/Joint Force Air Component Commander (JFACC) requirement for theater battle management by performing the following core competencies: Theater Air Defense (TAD) (including Joint Theater Missile Defense (JTMD) and Time Critical Targeting (TCT), C2 Data Link Management, Surveillance, Combat Identification and Air Battle Management. Fully modernized RCCs will provide minimally manned remote control sensor capability with increased reliability and improved sensitivity and target detection range. Due to manpower and equipment drawdowns and part obsolescence, there is an immediate requirement to implement modernization changes between FY00 and FY05. GTACS to meet current and future mission taskings must be pre-positioned to transition into the next generation of battle management communications, hardware, and software. The GTACS program provides interoperability among numerous elements of the CAF that encompass Navy, Marine Corps, Army, and allied coalition C2 assets.</p>									
<p>(U) <u>FY 1999 (\$ in Thousands)</u></p>									
(U) \$60	Developed/fielded interoperability upgrades to Modular Control Equipment (MCE) Pre-planned Product Improvement (P3I) systems								
(U) \$342	Program support, test, and other miscellaneous efforts								
(U) \$402	Total								
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<p>(U) <u>A. Mission Description Continued</u></p> <p>(U) <u>FY 2000 (\$ in Thousands)</u></p> <p>(U) \$192 Concept Definition/Development for Evolutionary Upgrades to the GTACS System</p> <p>(U) \$240 Continue program support (i.e. travel, supplies, miscellaneous)</p> <p>(U) \$6,000 Initiate Development of TAD MTS Upgrade for the Radar Sensors (includes TAD MTS SPO Support)</p> <p>(U) \$6,432 Total</p> <p>(U) <u>FY 2001 (\$ in Thousands)</u></p> <p>(U) \$4,593 Program Office Support to include Systems Engineering (Operational Safety, Suitability, and Effectiveness), Advanced Planning, Program Control, Travel, Supplies, Equipment and Miscellaneous</p> <p>(U) \$5,300 Continue development of TAD MTS Upgrade for the Radar Sensors (Includes dedicated TAD MTS SPO Support)</p> <p>(U) \$9,980 Continue Development of Evolutionary Upgrades to the GTACS (i.e. BCC/RCC Architecture)</p> <p>(U) \$19,873 Total</p> <p>(U) <u>B. Budget Activity Justification</u></p> <p>The program is in Budget Activity 7 because GTACS is a fielded, operational system. Program will begin major modifications/upgrades in FY00.</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%; text-align: center;"><u>FY 1999</u></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>Total Cost</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 2000 PBR)</td> <td style="text-align: center;">427</td> <td style="text-align: center;">467</td> <td style="text-align: center;">19,873</td> <td style="text-align: center;">TBD</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">431</td> <td style="text-align: center;">467</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;">-3</td> <td></td> <td></td> <td></td> </tr> <tr> <td> b. Small Business Innovative Research</td> <td style="text-align: center;">-4</td> <td></td> <td></td> <td></td> </tr> <tr> <td> c. Omnibus or Other Above Threshold Reprogram</td> <td></td> <td style="text-align: center;">-35</td> <td></td> <td></td> </tr> <tr> <td> d. Below Threshold Reprogram</td> <td style="text-align: center;">-19</td> <td></td> <td></td> <td></td> </tr> <tr> <td> e. Rescissions</td> <td style="text-align: center;">-3</td> <td></td> <td></td> <td></td> </tr> <tr> <td> f. Other</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 2000 PBR</td> <td></td> <td style="text-align: center;">6,000</td> <td></td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2001 PBR</td> <td style="text-align: center;">402</td> <td style="text-align: center;">6,432</td> <td style="text-align: center;">19,873</td> <td style="text-align: center;">TBD</td> </tr> </tbody> </table>				<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total Cost</u>	(U) Previous President's Budget (FY 2000 PBR)	427	467	19,873	TBD	(U) Appropriated Value	431	467			(U) Adjustments to Appropriated Value					a. Congressional/General Reductions	-3				b. Small Business Innovative Research	-4				c. Omnibus or Other Above Threshold Reprogram		-35			d. Below Threshold Reprogram	-19				e. Rescissions	-3				f. Other					(U) Adjustments to Budget Years Since FY 2000 PBR		6,000			(U) Current Budget Submit/FY 2001 PBR	402	6,432	19,873	TBD
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BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207412F Theater Air Control Systems				PROJECT 67485L		
(U) C. Program Change Summary (\$ in Thousands) Continued										
(U) Significant Program Changes:										
FY2000 includes \$6.0M of Congressional Reprogramming from OPAF to RDT&E for TAD MTS. FY2001 funding increased to continue TAD MTS development and to begin modernization (BCC/RCC). Funding of Program Office Support shifts from Production (3080) to RDT&E (3600) in conjunction with development of evolutionary upgrades to BCC/RCC architecture.										
(U) D. Other Program Funding Summary (\$ in Thousands)										
	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>Cost to</u>	<u>Total Cost</u>	
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>		
(U) Other APPN										
(U) Other Procurement Air Force, WSC 833040, Theater Air Control System Improvement	14,961	15,040	2,048	5,092	18,189	20,078	24,934	Continuing	TBD	
(U) Other Procurement Air Force, WSC 838010, Comm Electronic Mods	1,932	4,072	790	788	592				TBD	
(U) Other Procurement Air Force, WSC 86190A, Initial Spares	3,314	1,521	1,260	1,065	421	385	88	Continuing	TBD	
(U) E. Acquisition Strategy										
Primary emphasis on this program shifts in FY00 from sustainment to modernization. ESC is analyzing potential acquisition approaches which will enhance interoperability and reduce total ownership costs. The intent is to reduce risk through the use of Commercial-Off-The-Shelf /Government-Off-The-Shelf (COTS/GOTS) and non-developmental hardware items to the fullest extent possible via an evolutionary acquisition approach(es).										
(U) F. Schedule Profile										
			<u>FY 1999</u>			<u>FY 2000</u>			<u>FY 2001</u>	
			1	2	3	4	1	2	3	4
(U) GTACS - TAD MTS								X		
(U) GTACS Modernization - BCC/RCC									X	
* Denotes completed event										
x Denotes planned event										
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2000			
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0207412F Theater Air Control Systems				PROJECT 67485L		
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>										
						<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>
(U)	Developed/fielded interoperability upgrades to Modular Control Equipment (MCE) Pre-planned Product Improvement (P3I) systems					60				
(U)	Program Support (i.e. travel, supplies, and miscellaneous)					342		240		
(U)	Program Office Support to include Systems Engineering (Operational Safety, Suitability, and Effectiveness), Advanced Planning, Program Control, Travel, Supplies, Equipment and Miscellaneous									4,593
(U)	Concept Definition/Development for Evolutionary Upgrades to the GTACS							192		
(U)	Development of TAD MTS Upgrade for the Radar Sensors (includes dedicated TAD MTS SPO Support)							6,000		5,300
(U)	Development of Evolutionary Upgrades to GTACS (i.e. BCC/RCC Architecture)									9,980
(U)	Total					402		6,432		19,873
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>										
(U) <u>Performing Organizations:</u>										
<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 1999</u>	<u>Budget FY 1999</u>	<u>Budget FY 2000</u>	<u>Budget FY 2001</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>										
Contractor TBD - TAD MTS	TBD	3QFY00	N/A	N/A			6,000	5,300		11,300
Contractor TBD -BCC/RCC	TBD	2QFY01	N/A	N/A				9,980	Continuing	TBD
Various Contractors MCE P3I	Various	Various	N/A	N/A		60			Continuing	TBD
<u>Support and Management Organizations</u>										
Miscellaneous program support (travel, supplies, etc.)	Various	Various	N/A	N/A		342	240			582
Program Office Support - includes ITSP/Mitre, etc.	Various	Various	N/A	N/A				4,593	Continuing	TBD
Various - Concept definition/development for	Various	Various	N/A	N/A			192			192
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<p>(U) Performing Organizations Continued: <u>Support and Management Organizations</u> evolutionary upgrades to GTACS <u>Test and Evaluation Organizations</u> GFP/GFE: None</p>																																																																																																																																				
<p>(U) Government Furnished Property:</p> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><u>Item</u> <u>Description</u></th> <th style="text-align: left;"><u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u></th> <th style="text-align: left;"><u>Award or</u> <u>Obligation</u> <u>Date</u></th> <th style="text-align: left;"><u>Delivery</u> <u>Date</u></th> <th style="text-align: right;"><u>Total Prior</u> <u>to FY 1999</u></th> <th style="text-align: right;"><u>Budget</u> <u>FY 1999</u></th> <th style="text-align: right;"><u>Budget</u> <u>FY 2000</u></th> <th style="text-align: right;"><u>Budget</u> <u>FY 2001</u></th> <th style="text-align: right;"><u>Budget to</u> <u>Complete</u></th> <th style="text-align: right;"><u>Total</u> <u>Program</u></th> </tr> </thead> <tbody> <tr> <td colspan="9"><u>Product Development Property</u></td> </tr> <tr> <td colspan="9">None</td> </tr> <tr> <td colspan="9"><u>Support and Management Property</u></td> </tr> <tr> <td colspan="9">None</td> </tr> <tr> <td colspan="9"><u>Test and Evaluation Property</u></td> </tr> <tr> <td colspan="9">None</td> </tr> <tr> <td colspan="4"></td> <th style="text-align: right;"><u>Total Prior</u></th> <th style="text-align: right;"><u>Budget</u></th> <th style="text-align: right;"><u>Budget</u></th> <th style="text-align: right;"><u>Budget</u></th> <th style="text-align: right;"><u>Budget to</u></th> <th style="text-align: right;"><u>Total</u></th> </tr> <tr> <td colspan="4"><u>Subtotals</u></td> <th style="text-align: right;"><u>to FY 1999</u></th> <th style="text-align: right;"><u>FY 1999</u></th> <th style="text-align: right;"><u>FY 2000</u></th> <th style="text-align: right;"><u>FY 2001</u></th> <th style="text-align: right;"><u>Complete</u></th> <th style="text-align: right;"><u>Program</u></th> </tr> <tr> <td colspan="4">Subtotal Product Development</td> <td></td> <td style="text-align: right;">60</td> <td style="text-align: right;">6,000</td> <td style="text-align: right;">15,280</td> <td style="text-align: right;">TBD</td> <td style="text-align: right;">TBD</td> </tr> <tr> <td colspan="4">Subtotal Support and Management</td> <td></td> <td style="text-align: right;">342</td> <td style="text-align: right;">432</td> <td style="text-align: right;">4,593</td> <td style="text-align: right;">TBD</td> <td style="text-align: right;">TBD</td> </tr> <tr> <td colspan="4">Subtotal Test and Evaluation</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4">Total Project</td> <td></td> <td style="text-align: right;">402</td> <td style="text-align: right;">6,432</td> <td style="text-align: right;">19,873</td> <td style="text-align: right;">TBD</td> <td style="text-align: right;">TBD</td> </tr> </tbody> </table>									<u>Item</u> <u>Description</u>	<u>Contract</u> <u>Method/Type</u> <u>or Funding</u> <u>Vehicle</u>	<u>Award or</u> <u>Obligation</u> <u>Date</u>	<u>Delivery</u> <u>Date</u>	<u>Total Prior</u> <u>to FY 1999</u>	<u>Budget</u> <u>FY 1999</u>	<u>Budget</u> <u>FY 2000</u>	<u>Budget</u> <u>FY 2001</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</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 1999</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Complete</u>	<u>Program</u>	Subtotal Product Development					60	6,000	15,280	TBD	TBD	Subtotal Support and Management					342	432	4,593	TBD	TBD	Subtotal Test and Evaluation										Total Project					402	6,432	19,873	TBD	TBD
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