

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE February 1995		
BUDGET ACTIVITY 5 - Engineering And Manufacturing Development			PE NUMBER AND TITLE 0604741A Air Def Cmd, Cntl & Intel-Engr Dev								
COST (In Thousands)	FY 1994 Actual	FY 1995 Estimate	FY 1996 Estimate	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	Cost to Complete	Total Cost	
Total Program Element (PE) Cost	17526	28136	22030	21143	15338	2044	6994	7981	Continuing	Continuing	
D126 FAAD Command and Control Engineering Development	17526	28002	21035	21143	15338	2044	6994	7981	111902	655100	
D146 Air Defense Tactical Operations Center	0	0	995	0	0	0	0	0	Continuing	Continuing	
D2JT FAAD C2 Operational Test	0	134	0	0	0	0	0	0	Continuing	Continuing	
<p>A. Mission Description and Budget Item Justification: The Forward Area Air Defense Command, Control and Intelligence (FAAD C2I) System provides critical forward area air defense automated information to support the command and control decision process at various levels of command. The mission is to collect, digitally process and disseminate target information, air threat warning, and command and control information to all FAAD weapons (AVENGER, Bradley STINGER Fighting Vehicle (BSFV), Manportable Air Defense System (MANPADS), and combined arms). Unique FAAD C2I software will provide the mission capability by integrating FAAD C2 engagement operations software using Common Hardware/Software (CHS), Standard Integrated Command Post System (SICPS), Enhanced Position Location Reporting System (EPLRS), Joint Tactical Information Distribution System (JTIDS), Single Channel Ground and Air Radio System (SINCGARS), Light and Special Division Interim Sensor (LSDIS), Global Positioning System (GPS), Airborne Warning and Control System (AWACS), Ground Based Sensor (GBS), and the Army Battle Command System (ABCS) architecture. The projects in this Program Element support research efforts in the engineering and manufacturing development phases of the acquisition strategy and are therefore correctly placed in Budget Activity 5.</p> <p>Project D126 - FAAD Command and Control Eng Dev: The Forward Air Defense Command and Control (FAAD C2) System is an automated system deployed with FAAD weapons to provide accurate and timely command, control and targeting information for the weapon systems. The system utilizes non-developmental item sensors, computers, displays and interface hardware integrated with data communication equipment. It automates mission related functions and uses the Single Channel Ground and Airborne Radio Systems (SINCGARS) for voice and the Army Data Distribution System (ADDS) for data.</p> <p>FY 1994 Program Accomplishments</p> <ul style="list-style-type: none"> Continued Block II Software Development (12786) Conducted Block II Development Test (2440) Awarded Block III Development Contract (300) ATCCS III Testing Support (2000) <p>FY 1995 Planned Program</p>											

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EXHIBIT ACTIVITY	PE NUMBER AND TITLE	
5 - Engineering And Manufacturing Development	0604741A Air Def Cmd, Cntl & Intel-Engr Dev	
<ul style="list-style-type: none"> • Conducted Block II IOTE (6808) • Continue Block III Software Development (17433) • Prepare for Milestone III Decision Review -- Heavy Division (650) • Prepare for First Unit Equipped -- Heavy Division (600) • Congressionally Directed Sensor Study (2000) • Small Business Innovative Research/Small Business Technology Transfer (SBIR/STTR) (511) <p>FY 1996 Planned Program</p> <ul style="list-style-type: none"> • Continue Block III Software Development (19606) • Prepare for Block III Users Test (800) • Prepare for Technology Insertion (629) <p>FY 1997 Planned Program</p> <ul style="list-style-type: none"> • Conduct Block III Users Test (UT) (2000) • Continue Block III Software Development (18339) • Prepare for Block III Development Test (DT) (804) <p>Project D2JT - Forward Area Air Defense Command and Control Operational Test: This project finances the direct costs of planning and conducting operational testing and evaluation of the Forward Area Air Defense Command, Control, and Intelligence (FAAD C2I) by the Operational Test and Evaluation Command (OPTEC). The FAAD C2I is an Acquisition Category (ACAT) ID system with a dedicated Initial Operational Test and Evaluation (IOTE) in FY 1995 in support of Milestone III full production decisions. Operational testing is conducted under conditions, as close as possible, to those encountered in combat with typical user troops trained to employ the system. OPTEC provides Army leadership with an independent test and evaluation of effectiveness and suitability of the system. Project D2JT is not a new start. It is restructured from PE 0605712, Support of Operational Testing, Project D001, OPTEC IOTE. In FY 1995 funding for operational testing of ACAT I systems is programmed with the PE funding for each system. Future fiscal years will be reprogrammed when system information becomes available.</p> <p>FY 1994 Program: Program unfunded in FY 1994</p> <p>FY 1995 Planned Program</p> <ul style="list-style-type: none"> • Conduct FAAD C2I IOTE (131) • SBIR/STTR (3) <p>FY 1996 Planned Program: Program unfunded in FY 1996</p>		

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Exhibit FUNCTIONALITY 5 - Engineering And Manufacturing Development	PE NUMBER AND TITLE 0604741A Air Def Cmd, Cntl & Intel-Engr Dev																																				
<p>FY 1997 Planned Program: Program unfunded in FY 1997</p> <p>Project D146 - Air Defense Tactical Operations Center: Air Defense Artillery (ADA) requires a standardized, integrated, automated command post (CP) and fire direction center (FDC) capability that will fully interoperate with all US Army and Joint C3I and Air Defense systems, and selected systems of allied nations. These capabilities will be incorporated in an Air Defense Tactical Operations Center (ADTOC). The ADTOC must incorporate air defense and theater missile defense force operations and engagement operations functions into a single command, control, communications and intelligence system. Project D146 finances the direct costs of developing an ADTOC that will be used to provide a single system command, control, communications, and intelligence system that will support the requirements of any air defense weapon system at any echelon of Corps and below. This is not a new start. These efforts were previously funded under Project D126.</p> <p>FY 1994 Program: Program unfunded in FY 1994</p> <p>FY 1995 Planned Program: Program unfunded in FY 1995</p> <p>FY 1996 Planned Program</p> <ul style="list-style-type: none"> • Development and integration studies (995) <p>FY 1997 Planned Program: Program unfunded in FY 1997</p>																																					
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">B. Program Change Summary</th> <th style="text-align: center;"><u>FY 1994</u></th> <th style="text-align: center;"><u>FY 1995</u></th> <th style="text-align: center;"><u>FY 1996</u></th> <th style="text-align: center;"><u>FY 1997</u></th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget</td> <td style="text-align: center;">15410</td> <td style="text-align: center;">26494</td> <td style="text-align: center;">22056</td> <td style="text-align: center;">21139</td> </tr> <tr> <td>Appropriated Value</td> <td style="text-align: center;">15410</td> <td style="text-align: center;">28136</td> <td></td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td style="text-align: center;">+2116</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. SBIR/STTR decrement (-184)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">b. HQDA reprogramming (+2300)</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Current President's Budget</td> <td style="text-align: center;">17526</td> <td style="text-align: center;">28136</td> <td style="text-align: center;">22030</td> <td style="text-align: center;">21143</td> </tr> </tbody> </table>			B. Program Change Summary	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	Previous President's Budget	15410	26494	22056	21139	Appropriated Value	15410	28136			Adjustments to Appropriated Value	+2116				a. SBIR/STTR decrement (-184)					b. HQDA reprogramming (+2300)					Current President's Budget	17526	28136	22030	21143
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Current President's Budget	17526	28136	22030	21143																																	
<p>Change Summary Explanation:</p> <p>Project D126:</p> <p>Funding: FY94 reprogramming to enable Development Test (DT) to remain on schedule and to cover OPTEC requirement in FY94. \$1M restructured to D146 in FY 96 to finance direct costs of developing an ADTOC. FY 95 (+2M) added for Congressionally directed Sensor Study.</p> <p>Schedule: None</p> <p>Technical: None</p> <p>Project D146:</p> <p>Funding: \$1M restructured into this project in FY 96 to finance direct costs of developing an ADTOC.</p>																																					

		DATE February 1995
BUDGET ACTIVITY 5 - Engineering And Manufacturing Development	PE NUMBER AND TITLE 0604741A Air Def Cmd, Cntl & Intel-Engr Dev	
Schedule: None Technical: None		

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BUDGET ACTIVITY 5 - Engineering And Manufacturing Development			PE NUMBER AND TITLE 0604741A Air Def Cmd, Cntl & Intel-Engr Dev						PROJECT D126							
COST (In Thousands)	FY 1994 Actual	FY 1995 Estimate	FY 1996 Estimate	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	Cost to Complete	Total Cost						
D126 FAAD Command and Contol Engineering Development	17526	28002	21035	21143	15338	2044	6994	7981	111902	655100						
C. Other Program Funding Summary																
	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	To Compl	Total Cost						
RDTE, DE10 - FAAD GBS	16661	5900								22561						
OPA 2, WK5053 - FAAD GBS	7900	63855	44678	53282	46776	44438	64327	69010	CONT	CONT						
OPA 2, AD5050 - FAAD C2	13300	14150	32942	38236	16811	12628	0	0	0	128067						
Spares (BA9702/MA9702/BS9702)	1473	1447	1520	1425	1677	933			0	8475						
Spares (BS9732)			2634	4040	5672	5868				18214						
D. Schedule Profile																
	<u>FY 1994</u>			<u>FY 1995</u>				<u>FY 1996</u>				<u>FY 1997</u>				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Conduct Block II Development Test				X*												
Initiate Block III Software Development				X*												
Conduct Block II IOT&E					X*											
Milestone III Decision for Heavy Divisions					X											
Complete Block II Software Development								X								
First Unit Equipped Initial -- Heavy Division								X								
Conduct Block III Users Test														X		

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)						DATE					
BUDGET ACTIVITY						February 1995					
5 - Engineering And Manufacturing Development						PE NUMBER AND TITLE					
						0604741A Air Def Cmd, Cntl & Intel-Engr Dev					
						PROJECT					
						D126					
A. Project Cost Breakdown											
					<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>			
Major Contract					9528	17500	16500	15000			
Support Contract					775	1000	1000	1000			
PMO/In-house/Other					2883	2694	3335	3143			
GFE/Testing					4340	6808	200	2000			
Total					17526	*28002	21035	21143			
* SBIR/STTR (511).											
B. Budget Acquisition History and Planning Information											
Performing Organizations											
Contractor or Government	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1994	FY 1994	FY 1995	FY 1996	FY 1997	Budget to Complete	Total Program
Product Development Organizations											
TRW	C/CPIF	Sep 86	178000	178000	176233	228					176461
TRW	SS/CPIF	Aug 92	50106	50106	15806	9000	7100				31906
TRW	SS/CPIF	Sep 94	53194	53194	0	300	7400	14000	14000	CONT	CONT
TRW	SS/T&M	Sep 93	4900	4900	0	0	1000	2500	1000	CONT	CONT
Matrix (RDEC)	MIPR					1132	1031	1900	1800	CONT	CONT
Sensor Study	TBD	TBD					2000				2000
Support and Management Organizations											
SETA, CAS	SS/CPFF	Feb 91	9400	9400	9099	775				CONT	CONT
SETA, TBD	C/CPFF						1000	1000	1000	CONT	CONT
In-House/ Other						1451	1663	1435	1343	CONT	CONT
Test and Evaluation Organizations											
ADATD, Ft Bliss						2440	6608		2000	CONT	CONT
OPTEC						2000					2000

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)					DATE February 1995					
BUDGET ACTIVITY			PE NUMBER AND TITLE							
5 - Engineering And Manufacturing Development			0604741A Air Def Cmd, Cntl & Intel-Engr Dev							
Government Furnished Property										
Item	Contract Method/Type e or Funding Vehicle	Award or Obligation Date	Delivery Date	Total Prior to FY 1994	FY 1994	FY 1995	FY 1996	FY 1997	Budget to Complete	Total Program
Product Development Property										
CHS	MIPR				200	200	200		CONT	CONT
JTIDS	MIPR	1988		6000					0	6000
Support and Management Property: None										
Test and Evaluation Property: None										
				Total Prior to FY 1994	FY 1994	FY 1995	FY 1996	FY 1997	Budget to Complete	Total Program
Subtotal Product Development				198039	10860	18731	18600	16800	CONT	CONT
Subtotal Support and Management				9099	2226	2663	2435	2343	CONT	CONT
Subtotal Test and Evaluation					4440	6608		2000	CONT	CONT
Total Project				207138	17526	*28002	21035	21143	CONT	CONT
*SBIR/STTR (511).										

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EXHIBIT 5 - Engineering And Manufacturing Development			PE NUMBER AND TITLE 0604741A Air Def Cmd, Cntl & Intel-Engr Dev								PROJECT D146	
COST (In Thousands)	FY 1994 Actual	FY 1995 Estimate	FY 1996 Estimate	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	Cost to Complete	Total Cost		
D146 Air Defense Tactical Operations Center	0	0	995	0	0	0	0	0	Continuing	Continuing		
C. <u>Other Program Funding Summary</u> Not Applicable												
D. <u>Schedule Profile</u>												
	FY 1994			FY 1995			FY 1996			FY 1997		
	1	2	3	4	1	2	3	4	1	2	3	4
ADTOC Development						X						

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BUDGET ACTIVITY			PE NUMBER AND TITLE				PROJECT	
5 - Engineering And Manufacturing Development			0604741A Air Def Cmd, Cntl & Intel-Engr Dev				D146	
A. Project Cost Breakdown								
			<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>		
Development Efforts					995			
Total					995			
B. Budget Acquisition History and Planning Information								
Performing Organizations								
Contractor or Government	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1994			
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</u>	<u>FY 1994</u>	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>
Product Development Organizations								
TBD	TBD						995	CONT
Support and Management Organizations: None								
Test and Evaluation Organizations: None								
Government Furnished Property: None								
Subtotal Product Development						995	CONT	CONT
Subtotal Support and Management								
Subtotal Test and Evaluation								
Total Project						995	CONT	CONT

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BUDGET ACTIVITY 5 - Engineering And Manufacturing Development				PE NUMBER AND TITLE 0604741A Air Def Cmd, Cntl & Intel-Engr Dev					PROJECT D2JT	
COST (In Thousands)	FY 1994 Actual	FY 1995 Estimate	FY 1996 Estimate	FY 1997 Estimate	FY 1998 Estimate	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	Cost to Complete	Total Cost
D2JT FAAD C2 Operational Test	0	134	0	0	0	0	0	0	Continuing	Continuing
C. Other Program Funding Summary										
	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	To Compl	Total Cost
RDTE, A 0604820 Radar Development - FAADC3I Oper Test - D2IT		4951								4951
D. Schedule Profile										
	FY 1994			FY 1995		FY 1996		FY 1997		
FAADC2 IOTE	1	2	3	4	1	2	3	4	1	2
				X*						3
										4

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BUDGET ACTIVITY			PE NUMBER AND TITLE				PROJECT				
5 - Engineering And Manufacturing Development			0604741A Air Def Cmd, Cntl & Intel-Engr Dev				D2JT				
A. Project Cost Breakdown											
			<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>					
Testing				134							
Total				134							
B. Budget Acquisition History and Planning Information											
Performing Organizations											
Contractor or Government	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1994	FY 1994	FY 1995	FY 1996	FY 1997	Budget to Complete	Total Program
Product Development Organizations: N/A											
Support and Management Organizations: N/A											
Test and Evaluation Organizations											
							134				134
Government Furnished Property: None											
Subtotal Product Development											
Subtotal Support and Management											
Subtotal Test and Evaluation											
Total Project											
							134				134