

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							February 2006		
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604633A - AIR TRAFFIC CONTROL					PROJECT 586	
COST (In Thousands)	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
586 AIR TRAFFIC CONTROL	2011	4444	4527	4026	3693	2720	4864	0	30848
<p><u>A. Mission Description and Budget Item Justification:</u> This program element funds continuous efforts in the development of modernized tactical and fixed base Air Traffic Control (ATC) systems that will significantly enhance aviation safety in both the tactical and strategic ATC domains. Funded in this program element is the development of the Mobile Tower System (MOTS). The MOTS is a tactical mobile tower designed to meet the deployability and communication requirements of the current to future force. The MOTS will be equipped with modernized and secure avionics to ensure highly reliable and consistent tactical aircraft communications across all frequency bands and ranges to ensure compatibility with all Army, Joint, and Allied aircraft. MOTS will provide modern digital, secure, anti-jam communications, a digital recorder, basic weather information, a precision location capability, and full compatibility with all military and civilian airfields as well as tactical landing zones. The currently fielded systems, AN/TSW-7A and AN/TSQ-70A, are obsolete and require two, two and a half ton vehicles, a 15Kw generator, and a support trailer to fully operate. These systems are not deployable on any aircraft smaller than a C-5, do not meet communications requirements across the operational spectrum, and are very difficult to maintain because parts are no longer manufactured for the system. MOTS is an effective risk management tool.</p> <p>Product improvements include the Air Traffic Navigation, Integration, and Coordination System (ATNAVICS) and the Tactical Airspace Integration System (TAIS). The ATNAVICS will be upgraded with a capability to interface with other ATC equipment and Army systems. Through integration of the Air Defense Interrogator, ATNAVICS will have precise radar data valuable to field artillery and air defense and interfaces will be developed to share this data. Ultimately, ATNAVICS will feed positioning and identification data of friendly air vehicles (fixed, rotary, and unmanned aerial vehicles) into the Single Integrated Air Picture (SIAP) for improved situational awareness, track continuity, airspace deconfliction and fratricide prevention. As part of the Army Battle Command System (ABCS), TAIS will evolve to more advanced collaborative capabilities, interoperability initiatives and additional Air Force interfaces. TAIS will migrate to Army Software Blocking interoperability requirements and will also ensure Joint Airspace Management and Deconfliction (JASMAD) development meets Army ATC requirements. ATC will continue to provide the warfighter with increasingly lightweight, user friendly and reliable tools to perform airspace planning and to meet the technological and operational ATC requirements for future battlefield operations.</p>									
<u>Accomplishments/Planned Program</u>						<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	
MOTS System Development, Demonstration & Testing						555	4079	3714	
Tactical Terminal Control System (TTCS) P3I Development						507	0	0	
TTCS Pre-Planned Product Improvement (P3I) Testing						366	0	0	
TAIS Client Interface						150	0	0	
TAIS P3I Testing						86	0	93	
ATNAVICS Modernization						0	0	333	
Tech and Log support						249	262	279	
Program Management Support						98	103	108	
Total						2011	4444	4527	

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	FY 2005	FY 2006	FY 2007
<u>B. Program Change Summary</u>			
Previous President's Budget (FY 2006)	2012	4508	4374
Current BES/President's Budget (FY 2007)	2011	4444	4527
Total Adjustments	-1	-64	153
Congressional Program Reductions		-45	
Congressional Rescissions		-19	
Congressional Increases			
Reprogrammings	-1		
SBIR/STTR Transfer			
Adjustments to Budget Years			153

<u>C. Other Program Funding Summary</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
APA AA0050 - Air Traffic Control	55006	61562	86351	93520	74128	76472	84108	CONT	CONT

FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
55006	61562	86351	93520	74128	76472	84108	CONT	CONT

FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
61562	86351	93520	74128	76472	84108	CONT	CONT

FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
86351	93520	74128	76472	84108	CONT	CONT

FY 2008	FY 2009	FY 2010	FY 2011	To Compl	Total Cost
93520	74128	76472	84108	CONT	CONT

FY 2009	FY 2010	FY 2011	To Compl	Total Cost
74128	76472	84108	CONT	CONT

FY 2010	FY 2011	To Compl	Total Cost
76472	84108	CONT	CONT

FY 2011	To Compl	Total Cost
84108	CONT	CONT

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Total Cost
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APA AA0050 - Air Traffic Control	55006	61562	86351	93520	74128	76472	84108	CONT	CONT
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74128	76472	84108	CONT	CONT
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Comment:

D. Acquisition Strategy PM ATC will continue to embrace new technology initiatives for the development of tactical ATC equipment and the integration of new technology into existing systems. Technology insertion will be acquired through contract modifications, engineering services tasks, and new/follow-on contracts. MOTS System Development and Demonstration contract will be awarded competitively in FY06. MOTS fabrication and testing to be completed in FY08.

ARMY RDT&E COST ANALYSIS (R3)										February 2006		
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604633A - AIR TRAFFIC CONTROL						PROJECT 586		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TTCS P3I	MIPR	Aviation Applied Technology Directorate, Ft. Eustis VA	832	507	1-2Q	0		0		0	1339	0
Tech and Log Development Support	Inhouse	PM ATC, Redstone Arsenal, AL	350	249	1-4Q	262	1-4Q	279	1-4Q	Continue	Continue	Continue
MOTS System Development/Demo	C/CPFF	TBD	0	0		3324	2Q	2426	2Q	Continue	Continue	Continue
Subtotal:			1182	756		3586		2705		Continue	Continue	Continue
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
MOTS System Development/Demo	Various	Various	0	555	1-3Q	718	2-3Q	935	1-3Q	Continue	Continue	Continue
ATNAVICS Modernization	C/CPFF	Raytheon, Marlboro, MA	0	0		0		333	2Q	Continue	Continue	Continue
TAIS Client Interface	MIPR	Future Skies, Fort Monmouth, NJ	0	150	2Q	0		0		0	150	0
Subtotal:			0	705		718		1268		Continue	Continue	Continue
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
TTCS P3I Testing	MIPR	Aviation Applied Technology Directorate, Ft. Eustis VA	103	366	1-3Q	0		0		0	469	0
MOTS Development/Op Testing	C/CPFF	Army Test and Evaluation Command	0	0		37	2Q	353	2Q	Continue	Continue	Continue

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TAIS P3I Testing	MIPR	Joint Interoperability Test Comd, Ft Huachuca, AZ	0	86	2Q	0		93	2Q	0	179	0
Subtotal:			103	452		37		446		Continue	Continue	Continue
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2005 Cost	FY 2005 Award Date	FY 2006 Cost	FY 2006 Award Date	FY 2007 Cost	FY 2007 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	In-House	PM ATC, Redstone Arsenal, AL	1690	98	1-4Q	103	1-4Q	108	1-4Q	Continue	Continue	Continue
Subtotal:			1690	98		103		108		Continue	Continue	Continue
Project Total Cost:			2975	2011		4444		4527		Continue	Continue	Continue

Schedule Detail (R4a Exhibit)						February 2006	
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<u>Schedule Detail</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>
TTCS P3I DEVELOPMENT AND TESTING	1-4Q						
TAIS CLIENT INTERFACE AND P3I TESTING	1-4Q		2-4Q				
MOTS SYSTEM DEVELOPMENT/DEMO	1-4Q	1-4Q	1-4Q	1-3Q			
MOTS DEVELOPMENTAL/OPERATIONAL TESTING		2-4Q	1-4Q	1-3Q			
ATNAVICS MODERNIZATION			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q
TAIS P3I						2-4Q	1-4Q
ALT COMMUNICATIONS AND ATC NETWORKING						2-4Q	1-4Q
MULTI-MISSION RADAR						2-4Q	1-4Q
TACTICAL TRANSPONDER LANDING SYSTEM						2-4Q	1-4Q
TACTICAL ATC MODULAR SYSTEM							2-4Q
TAIS BATTLE COMMAND MIGRATIONS					2-4Q		