

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

BUDGET ACTIVITY 4 - Advanced Component Development and Prototypes		PE NUMBER AND TITLE 0603790A - NATO Research and Development						PROJECT 691	
COST (In Thousands)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
691 NATO RSCH & DEVEL	4189	4927	5041	5131	5217	5319	5418	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program implements the provisions of Title 10 U.S. Code, Section 2350a, Cooperative Research and Development (R&D) Projects: Allied Countries. The objective is to improve, through the application of emerging technologies, the conventional defense capabilities of the United States and our cooperative partners, including the North Atlantic Treaty Organization (NATO), U.S. major non-NATO allies and Friendly Foreign countries. Through technology sharing and joint equipment development these projects help reduce U.S. acquisition costs and leverage important technologies for the Army Transformation and the development of the Future Combat system. Cooperative efforts also improve multinational force compatibility with potential coalition partners through the development and use of similar equipment and improved interfaces. The program focuses specifically on international cooperative technology demonstration, validation, and interoperability of Army weapon and command, control, communications and information (C3I) systems, including the NATO Defense Against Terrorism initiatives. Projects are implemented through international agreements with foreign partners that define scope, cost and work sharing arrangements, management, contracting, security, data protection and third party transfers. Funds are used to pay for only the U.S. work share that occurs in the United States at U.S. Government and U.S. contractors facilities.

<u>Accomplishments/Planned Program:</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
International Agreement Tracking System (IATS)/International Online (IOL) Development and Implementation (including IOL conversion into STEM), NATO/International Cooperative R&D Policy Development, and Report to Congress Pursuant to 10 USC 2350a, prepare and provide to used (A&T) the Army section of the Report to Congress on the International Cooperative Research and Development Program.	755	810	815
Multilateral Interoperability Program (MIP) (Partners: Germany, France, United Kingdom, Canada, Italy): Continued integration work from the Command and Control Systems Interoperability Program (C2SIP) into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and also extend the effort into a sustainable program to incorporate lessons learned into national systems.	500	650	665
Low Level Air Defense Interoperability (LLAPI) (Partners: Major NATO Allies): The objective of this program is to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange.	200	205	212
Multi-National Network Enabled Capabilities (MNNEC) related Command, Control, Communications, Computers, Intelligence Surveillnace and Reconnaissance (C4ISR)(Potential Partners: United Kingdom, France, Italy, Germany and major NATO Allies) MNNEC would focus on developing a single solutions standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO as well as other international forums such as the Five Power Net Centrick PA. A single solution standard will include common doctrine, technical and procedural specifications to make better use of existing information, shared data, leverage national operating picture capabilities and enable the development of interoperability of data, databases, applications, security domains and national networks architectures. The MNNEC is more than interoperability of information systems; it is the complete networking of information systems with sensors and shooters focusing on building Net-Centric interoperability among coalition tactical land components operating in a Joint Environment, focused at the Brigade and Below level, but not excluding using the services	400	512	520

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provided at higher echelons. The MNNEC has a future force focus, endeavoring to define migration strategies for Net-Centric capabilities in the 2010-2025 timeframe with part of the work to determine the time-phased implementations of a Multi-National Network Enabled Capability. The end results would be an integration of national C2/C4ISR systems into an NCES environment to include the NATO Network Enabled Capabilities (NNEC) and the 5 Powers Net Centric Project Agreement.				
Combat Identification (Partners: UK, Germany, France and Italy): Combat ID will pursue the extension of tasks required for implementing the associated NATO Standardization Agreement (STANAG 4579), allied participation in Coalition Combat ID Advanced Concept Technology Demonstrator (ACTD), will pursue the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID.	60	100		100
Senior National Representatives (Army) (SNR-(A)) Projects (Partners: France, Germany, United Kingdom and Italy): Supports harmonization of programs at various levels: exchanging information, identifying knowledge gaps and conducting feasibility studies to further promote cooperative development; standardizing, fielding and roadmapping various processes; distributing the workload among the different nations. The Structured Technology Demo (STD) hosted by the U.S. reps to Land Group 6, NATO Army Armaments Group (NAAG), will provide and opportunity to observe and demonstrate the current and future capability of participating NATO nations with a view to assisting future operational and materiel interoperability. Army support of NAAG studies, analysis and technology demonstrations.	900	1000		1000
Technology Research and Development Projects (TRDP) (Partners: United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU encompasses R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that are focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems.	790	907		950
Joint Tactical Radio System (JTRS) (Partners: Japan, Sweden, UK): The participants in these programs will develop and implement Software-enabled radios as replacements to current radio systems. The projects shall be focused on maintaining interoperability as the countries pursue their own separate software radio programs. The project agreements (PAs) will include a joint development of software radio specifications, separate development and testing of software waveforms, and joint interoperability testing using the system assets developed as part of the agreements.	284	287		300
Artillery Command and Control Interoperability (ASCA) (Partners: France, Germany, Italy, UK): The Participants in this program will develop an automated software interface between their national field artillery command and control systems. The nations will be able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors.	300	318		344
Force Protection Projects (FPP) (Partners: United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects will include R&D collaboration on technologies such as COUNTER ROCKER and MORTAR (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs include Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS).				135
Small Business Innovative Research/Small Business Technology Transfer Program		138		
Total	4189	4927		5041

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<u>B. Program Change Summary</u>	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008/2009)	4891	4959	5074
Current BES/President's Budget (FY 2009)	4189	4927	5041
Total Adjustments	-702	-32	-33
Congressional Program Reductions		-32	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	-564		
SBIR/STTR Transfer	-138		
Adjustments to Budget Years			-33

C. Other Program Funding Summary Not applicable for this item.

D. Acquisition Strategy All projects are test or technical demonstrations to feed into potential new requirements in support of Army Transformation to the Future Force or as product improvements to the Current Force.

ARMY RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT		
4 - Advanced Component Development and Prototypes			0603790A - NATO Research and Development							691		
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Multilateral Interoperability Program (MIP)	CPFF	C3S, CSC Fort Washington, PA	1111	115	2Q	165	1-2Q	165	1Q	Cont.	Cont.	
International Agreement Tracking System (IATS) - Software Development	CPFF	JIL Information Systems Vienna, VA	2383	505	2Q	550	2Q	545	2Q	Cont.	Cont.	
Low Level Air Defense Interoperability (LLAPI)	MIPR	AMCOM, Redstone Ars, AL	667	43	1Q	120	2Q	117	2-3Q	Cont.	Cont.	
Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	CECOM, Ft. Monmouth, VA	761							Cont.	Cont.	
Combat Identification	MIPR	CECOM, Ft. Monmouth, VA	837	5	1Q	25	2Q	50	2Q	Cont.	Cont.	
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	MIPR	CECOM, Ft. Monmouth, VA	1557	240	1-2Q	345	1-2Q	452		Cont.	Cont.	
Senior National Representatives (Army) (SNR[A])	TBD	TBD	4448	585	2Q	770	2Q	632	2-3Q	Cont.	Cont.	
TRDP	TBD	TBD	612	251	2Q	310	1Q	305	1Q	Cont.	Cont.	
Artillery Command and Control Interoperability (ASCA)	MIPR	CECOM, Ft. Monmouth, NJ	760	188	1Q	215	2Q	217	1Q	Cont.	Cont.	
Joint Tactical Radio System (JTRS)	MIPR	PM JTRS, Rosslyn, VA	270	113	1Q	121	1Q	118	1Q	Cont.	Cont.	
Force Protection Projects (FPP)	MIPR	RDECOM, Ft. Belvoir, VA						100	1-2Q		100	
Subtotal:			13406	2045		2621		2701		Cont.	Cont.	
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract

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MIP	MIPR	CECOM Ft. Monmouth, NJ	408	155	2Q	190	1Q	195	1Q	Cont.	Cont.	
IATS	MIPR	RDECOM, Ft. Belvoir, VA	542	125	2Q	125	1Q	125	2Q	Cont.	Cont.	
Low Level Air Defense Interoperability (LLAPI)	MIPR	AMCOM, Redstone Ars, AL	326	65	2Q	45	1Q	48	1Q	Cont.	Cont.	
Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	CECOM, Ft. Monmouth, VA	169							Cont.	Cont.	
Combat Identification	MIPR	CECOM Ft. Monmouth, NJ	489	25	2Q	25	1Q	25	1Q	Cont.	Cont.	
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	MIPR	CECOM Ft. Monmouth, NJ	484	83	1-2Q	87	1-3Q	68		Cont.	Cont.	
SNR(A)	MIPR	TBD	965	169	2Q	155	1Q	190	1Q	Cont.	Cont.	
TRDP	MIPR	TBD	613	250	2Q	310	1Q	315		Cont.	Cont.	
Joint Tactical Radio System (JTRS)	MIPR	PM JTRS, Rosslyn, VA	75	95	2Q	100	1Q	115	1Q	Cont.	Cont.	
Artillery Command and Control Interoperability (ASCA)	MIPR	CECOM Ft. Monmouth, NJ	165	66	2Q	58	1Q	75	1Q	Cont.	Cont.	
Force Protection Projects (FPP)	MIPR	RDECOM, Ft. Belvoir, VA						10	2Q		10	
Subtotal:			4236	1033		1095		1166		Cont.	Cont.	

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
MIP	MIPR	CECOM Ft Monmouth, NJ	397	115	2Q	150	1Q	155	1Q	Cont.	Cont.	
IATS	MIPR	RDECOM, Ft. Belvoir, VA	362	84	2-3Q	85	1Q	90	1Q	Cont.	Cont.	
Low Level Air Defense Interoperability (LLAPI)	MIPR	AMCOM, Redstone Ars, AL	125	38	2Q	15	2Q	17	1Q	Cont.	Cont.	

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Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	AMSAA, Aberdeen Proving Ground, NJ	82							Cont.	Cont.	
Combat Identification	MIPR	CECOM Ft Monmouth, NJ	469	15	2Q	25	2Q		1Q	Cont.	Cont.	
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	MIPR	CECOM Ft Monmouth, NJ	391	52	1-2Q	55	2Q			Cont.	Cont.	
SNR(A)	MIPR	TBD	621	90	1-2Q	115	1-2Q	125	1Q	Cont.	Cont.	
TRDP	MIPR	TBD										
ASCA	MIPR	CECOM Ft Monmouth, NJ	112	31	1Q	35	2Q	40	1Q	Cont.	Cont.	
Joint Tactical Radio System (JTRS)	MIPR	CECOM Ft Monmouth, NJ	22	38	2Q	33	2Q	67	1Q	Cont.	Cont.	
Force Protection Projects (FPP)	MIPR	RDECOM, Ft. Belvoir, VA						12	2-3Q			12
Subtotal:			2581	463		513		506		Cont.	Cont.	

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
MIP	MIPR	PEO C3S, Ft. Monmouth, NJ	286	115	2Q	145	1Q	150	1Q	Cont.	Cont.	
IATS	MIPR	RDECOM, Ft. Belvoir, VA	176	41	2Q	50	1Q	55	1Q	Cont.	Cont.	
Low Level Air Defense Interoperability (LLAPI)	MIPR	AMCOM, Redstone, Ars, AL	205	54	2Q	25	1Q	30	1Q	Cont.	Cont.	
Shared Tactical GroundPicture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	CECOM, Ft. Monmouth, VA	47							Cont.	Cont.	
Combat Identification	MIPR	CECOM, Ft. Monmouth, NJ	407	15	2Q	25	1Q	25	1Q	Cont.	Cont.	

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Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	MIPR	CECOM, Ft. Monmouth, NJ	292	25	1Q	25	1Q			Cont.	Cont.	
SNR(A)	MIPR	TBD	319	56	2Q	60	1Q	53	1Q	Cont.	Cont.	
TRDP	MIPR	TBD	481	289	2Q	325	1Q	330	1Q	Cont.	Cont.	
Artillery Command and Control Interoperability (ASCA)	MIPR	CECOM, Ft. Monmouth, NJ	54	15	2Q	10	1Q	12	1Q	Cont.	Cont.	
JTRS	MIPR	PM JTRS, Rosslyn, VA	27	38	2Q	33	1Q			Cont.	Cont.	
Force Protection Projects (FPP)	MIPR	RDECOM, Ft. Belvoir, VA						13	2-3Q			13
Subtotal:			2294	648		698		668		Cont.	Cont.	
Project Total Cost:			22517	4189		4927		5041		Cont.	Cont.	