ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes	**0603790A - NATO Research and Development**	**691**

COST (In Thousands)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
691 NATO RSCH & DEVEL	4561	2747	4801	4869	4949	5034	5123	0	63215

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. 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.

Accomplishments/Planned Program	FY 2003	FY 2004	FY 2005
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.	0	100	400
International Agreement Tracking System (IATS)/International Online (IO) Development and Implementation, NATO/International Cooperative R&D Policy Development, and Report to Congress Pursuant to 10 USC 2350a, prepare and provide to USD(A&T) the Army section of the Report to Congress on the International Cooperative Research and Development Program.	690	657	751
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 (SHORAD) assets for automated air picture exchange.	300	200	200
Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP) (Partners: United Kingdom and Norway): STGP/SIGP is an OSD interoperability initiative. The STGP is a coalition (U.S./UK/NO) part of the SIGP which is key to the Future Combat System. STGP links directly with SIGP and FCS making the Army a key player.	0	100	500

Accomplishments/Planned Program B(continued)	FY 2003	FY 2004	FY 2005
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.	1300	100	100
Simulation and Command and Control (C2) Information System Connectivity Experimentation (SINCE) (Partner: Germany): Continues to define and demonstrate a generic solution for interfacing and networking Brigade/Battalion (BDE/BN) Command and Control Information Systems (C2IS) and applicable Modeling and Simulation (M&S) systems as required to support Coalition Force Collaborative Mission Management Experimentation.	800	400	400
Senior National Representatives (Army) (SNR(A))/International Cooperative Opportunities (ICO) Projects (Partners: France, Germany, United Kingdom, 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 Mine Protection for Armored Vehicles (MPAV) Working Group, specifically, will explore mine protection techniques and technologies in pursuit of advanced armor opportunities in mine protections, and other applicable cooperative R&D areas. Another ongoing program is Lightweight Soldier System Working Group which examines digitized soldier power-sharing during coalition operations. The study explores various requirements associated with standardization of soldier communications to define levels of interconnectivity and hardware solutions.	1171	820	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.	0	0	950
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	190	300

Accomplishments/Planned Program A(continued)	FY 2003	FY 2004	FY 2005
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.	0	100	200
Small Business Innovative Research/Small Business Technology Transfer Programs	0	80	0
Totals	4561	2747	4801

B. Program Change Summary	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	4559	4779	5263
Current Budget (FY 2005 PB)	4561	2747	4801
Total Adjustments	2	-2032	-462
Congressional program reductions		-2027	
Congressional rescissions			
Congressional increases			
Reprogrammings	2	-5	
SBIR/STTR Transfer			
Adjustments to Budget Years			-462

C. Other Program Funding Summary: None

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 Current Force.

ARMY RDT&E COST ANALYSIS(R3)

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Multilateral Interoperability Program (MIP)	CPFF	C3S, CSC Fort Washington, PA	836	0		25		100		0	961	0
b . International Agreement Tracking System (IATS) - Software Development		JIL Information Systems Vienna, VA	419	477		454		520		0	1870	0
c . Low Level Air Defense Interoperability (LLAPI)			274	47		116		115		0	552	0
d . Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	TBD	TBD	0	0		69		346		0	415	0
e . Combat Identification			418	344		25		25		0	812	0
f . Simulation & C2 Information System Connectivity Experimentation (SINCE) - C2 Systems			753	564		100		100		0	1517	0
g . Senior National Representatives (Army) (SNR[A])			1590	824		623		692		0	3729	0
h . TRDP	TBD	TBD	0	0		0		312		0	312	0

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I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
i . Artillery Command and Control Interoperability (ASCA)			0	212		132		208		0	552	0
j . Joint Tactical Radio System (JTRS)			0	0		50		100		0	150	0
Subtotal:			4290	2468		1594		2518		0	10870	0

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . MIP	MIPR	CECOM Ft. Monmouth, NJ	183	0		25		100		0	308	0
b . IATS	MIPR		92	106		102		116		0	416	0
c . Low Level Air Defense Interoperability (LLAPI)	MIPR		74	128		42		41		0	285	0
d . Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	LOGSA	0	0		15		77		0	92	0

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II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
e . Combat Identification	MIPR		92	322		25		25		0	464	0
f . Simulation and C2 Information System Connectivity Experimentation (SINCE)	MIPR	CECOM Ft. Monmouth, NJ	166	118		100		100		0	484	0
g . SNR(A)	MIPR		350	173		139		154		0	816	0
h . TRDP	MIPR	TBD	0	0		0		313		0	313	0
i . Artillery Command and Control Interoperability (ASCA)			0	44		29		46		0	119	0
j . Joint Tactical Radio System (JTRS)			0	0		25		50		0	75	0
Subtotal:			957	891		502		1022		0	3372	0

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . MIP	MIPR	CECOM Ft Monmouth, NJ	122	0		25		100		0	247	0
b . IATS	MIPR		60	73		68		77		0	278	0
c . Low Level Air Defense Interoperability (LLAPI)	MIPR		49	38		12		13		0	112	0
d . Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	AMSAA, Aberdeen Proving Ground, NJ	0	0		10		52		0	62	0
e . Combat Identification	MIPR		61	333		25		25		0	444	0
f . Simulation and C2 Information System Connectivity Experimentation (SINCE)	MIPR	CECOM Ft Monmouth, NJ	110	81		100		100		0	391	0
g . SNR(A)	MIPR		233	119		93		103		0	548	0
h . TRDP	MIPR		0	0		0		0		0	0	0
i . ASCA			0	30		20		31		0	81	0
j . Joint Tactical Radio System (JTRS)			0	0		12		25		0	37	0

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III. Test and Evaluation (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			635	674		365		526		0	2200	0

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . MIP	MIPR	PEO C3S, Ft. Monmouth, NJ	61	0		25		100		0	186	0
b . IATS	MIPR		31	34		33		38		0	136	0
c . Low Level Air Defense Interoperability (LLAPI)	MIPR		25	88		30		31		0	174	0
d . Shared Tactical Ground Picture (STGP)/Single Integrated Ground Picture (SIGP)	MIPR	LOGSA	0	0		5		25		0	30	0
e . Combat Identification	MIPR		31	301		25		25		0	382	0
f . Simulation and C2 Information System Connectivity Experimentation (SINCE)	MIPR	CECOM, Ft. Monmouth, NJ	55	37		100		100		0	292	0

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IV. Management Services (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
g . SNR(A)	MIPR		117	54		46		51		0	268	0
h . TRDP	MIPR	TBD	0	0		0		325		0	325	0
i . Artillery Command and Control Interoperability (ASCA)			0	14		10		15		0	39	0
j . JTRS			0	0		12		25		0	37	0
Subtotal:			320	528		286		735		0	1869	0
Project Total Cost:			6202	4561		2747		4801		0	18311	0