Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0603790A: NATO Research and Development

BA 4: Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	4.612	4.961	3.874	-	3.874	6.069	5.601	5.146	5.239	Continuing	Continuing
691: NATO RSCH & DEVEL	-	4.612	4.961	3.874	-	3.874	6.069	5.601	5.146	5.239	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

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.

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	4.839	4.961	5.599	-	5.599
Current President's Budget	4.612	4.961	3.874	-	3.874
Total Adjustments	-0.227	0.000	-1.725	-	-1.725
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
Congressional Adds	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.227	-			
Adjustments to Budget Years	-	-	-1.725	-	-1.725

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^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Ju	ustification	: PB 2014 <i>P</i>	Army							DATE : Apr	il 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)							ATURE Research a		PROJECT 691: NATC	RSCH & D	PEVEL	
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
691: NATO RSCH & DEVEL	-	4.612	4.961	3.874	-	3.874	6.069	5.601	5.146	5.239	Continuing (Continuing
Quantity of RDT&E Articles												

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

B Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Fach)

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.

b. Accomplishments/i lanned i rograms (\$\psi\$ in lannons, Article &dantates in Each)	F1 2012	F1 2013	F1 2014
Title: Scientific and Technology Enterprise Management	0.819	0.897	0.699
Articles:	0	0	
Description: Scientific and Technology Enterprise Management (STEM)/International Online (IOL) Development and Implementation NATO/International Cooperative R&D (AR 70-41) and International Acquisition (AR 70-1, AR 70-3)			
FY 2012 Accomplishments: The goal of this program was to expand worldwide allied standardization and interoperability through cooperative research and development (R&D) and technology sharing per SECDEF guidance and especially in support of the U.S. Army. This program funded the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate in internationally, such as the North Atlantic Treaty Organization (NATO) Army Armaments Group (NAAG), Defense Against Terrorism (DAT) and to pursue new cooperative R&D initiatives and international cooperative agreements such as memoranda of understanding. This program also included: the United States' share of costs of the NATO Civil Budget, Chapter IX, which funded the NATO Industrial Advisory Group (NIAG) and the Special Fund for Cooperative Planning (U. S. Army is Executive Agent for this			

PE 0603790A: NATO Research and Development

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EV 2012 EV 2013

FY 2014

^{***} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJ	ECT		
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0603790A: NATO Research and Development	691: NATO RSCH & DEVEL			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quant			FY 2012	FY 2013	FY 2014
NATO bill); partially funded the Five Power Senior National Representati Bilateral SNR(A)s, and Army armaments working groups with many nation		Program,			
FY 2013 Plans:					
The goal of this program is to expand worldwide allied standardization at development (R&D) and technology sharing per SECDEF guidance and funds the travel costs and administrative support (studies, analysis, interinternationally, such as the North Atlantic Treaty Organization (NATO) A Terrorism (DAT) and to pursue new cooperative R&D initiatives and interunderstanding. This program also includes: the United States' share of the NATO Industrial Advisory Group (NIAG) and the Special Fund for Conaton NATO bill); partially funds the Five Power Senior National Representative Bilateral SNR(A)s, and Army armaments working groups with many national states.	especially in support of the U.S. Army. This progregation, equipment, etc.) required to participate rmy Armaments Group (NAAG), Defense Agains rnational cooperative agreements such as memocosts of the NATO Civil Budget, Chapter IX, which coperative Planning (U. S. Army is Executive Ageres, Army [SNR (A)], the Technical Cooperative F	ram in t randa of h funds nt for this			
FY 2014 Plans:					
The goal of this program will be to expand worldwide allied standardization development (R&D) and technology sharing per SECDEF guidance and will fund the travel costs and administrative support (studies, analysis, in in internationally, such as the North Atlantic Treaty Organization (NATO) Terrorism (DAT) and to pursue new cooperative R&D initiatives and interest of understanding. This program will also include: the United States' share funds the NATO Industrial Advisory Group (NIAG) and the Special Fund for this NATO bill); partially will fund the Five Power Senior National Rep Program, Bilateral SNR(A)s, and Army armaments working groups with the support of the state of the state of the state of the support of the state of the support of the s	especially in support of the U.S. Army. This progressive pretation, equipment, etc.) required to participe Army Armaments Group (NAAG), Defense Againational cooperative agreements such as memore of costs of the NATO Civil Budget, Chapter IX, for Cooperative Planning (U.S. Army is Executive presentatives, Army [SNR (A)], the Technical Cooperative Planning (U.S. Army is Executive presentatives, Army [SNR (A)], the Technical Cooperative Planning (U.S. Army is Executive presentatives, Army [SNR (A)], the Technical Cooperative Planning (U.S. Army is Executive presentatives).	ram ate nst randa which re Agent			
Title: Multilateral Interoperability Program		Artiology	0.645	0.693	0.540
Description: Multilateral Interoperability Program (MIP) (Partners: Germ integration work from the Command and Control Systems Interoperability Technology Demonstration (ACTD) to achieve NATO levels four (messa the effort into a sustainable program to incorporate lessons learned into	y Program (C2SIP) into an Advanced Concept ging) and five (database) interoperability and als		0	0	

PE 0603790A: *NATO Research and Development* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603790A: NATO Research and Development	d 691: NATO RSCH & DEVEL			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quant	iities in Each)		FY 2012	FY 2013	FY 2014
Continued integration work from the Command and Control Systems Interaction (ACTD) to achieve NATO levels four (message extended the effort into a sustainable program to incorporate lessons lead	ging) and five (database) interoperability and also).			
FY 2013 Plans: Continues integration work from the Command and Control Systems Integration (ACTD) to achieve NATO levels four (message the effort into a sustainable program to incorporate lessons learned into a system of the control of the contro	ging) and five (database) interoperability and also	extend			
FY 2014 Plans: Will continue integration work from the Command and Control Systems In Technology Demonstration (ACTD) to achieve NATO levels four (message extend the effort into a sustainable program to incorporate lessons learned.	ging) and five (database) interoperability and will a				
Title: Low Level Air Defense Interoperability		Articles:	0.199	0.224	0.170
Description: Low Level Air Defense Interoperability (LLAPI) (Partners: Notes of Successfully demonstrate Command and Control (C2) interoperability am (shared) assets for automated air picture exchange.	Major NATO Allies): The objective of this program	is to		O	
FY 2012 Accomplishments: The objective of this program was to successfully demonstrate Command nations' Short Range Air Defense (shared) assets for automated air picture.		icipant			
FY 2013 Plans: The objective of this program is to successfully demonstrate Command a nations' Short Range Air Defense (shared) assets for automated air picture.		oant			
FY 2014 Plans: The objective of this program will be to successfully demonstrate Comma participant nations' Short Range Air Defense (shared) assets for automated to the communication of the communic					
Title: Multi-National Network Enabled Capabilities		Articles:	0.525 0	0.577 0	0.449
Description: Multi-National Network Enabled Capabilities (MNNEC) rela Intelligence Surveillance and Reconnaissance (C4ISR)(Potential Partner NATO Allies) MNNEC would focus on developing a single solutions stand	rs: United Kingdom, France, Italy, Germany and m	ajor			

PE 0603790A: *NATO Research and Development* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army
BA 4: Advanced Component Development & Prototypes (ACD&P)

DATE: April 2013

R-1 ITEM NOMENCLATURE
PE 0603790A: NATO Research and Development
Development

Development

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 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 leverage existing interoperability standards developed by NATO as well as other international forums such as the Five

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

FY 2012 Accomplishments:

and the 5 Powers Net Centric Project Agreement.

Multi-National Network Enabled Capabilities (MNNEC) related Command, Control, Communications, Computers, Intelligence Surveillance 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 included 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 was more than interoperability of information systems; it was 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 provided at higher echelons. The MNNEC had 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).

FY 2013 Plans:

Army

Multi-National Network Enabled Capabilities (MNNEC) related Command, Control, Communications, Computers, Intelligence Surveillance 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 includes 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,

PE 0603790A: NATO Research and Development

FY 2012

FY 2013

FY 2014

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P) PE 0603790A: NATO Research and Development			& DEVEL		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quar	ntities in Each)	F'	Y 2012	FY 2013	FY 2014
databases, applications, security domains and national networks archite information systems; it is the complete networking of information system. Centric interoperability among coalition tactical land components operated Below level, but not excluding using the services provided at higher ech to define migration strategies for Net-Centric capabilities in the 2010-20 phased implementations of a Multi-National Network Enabled Capability C4ISR systems into an NCES environment to include the NATO Network	ectures. The MNNEC is more than interoperability of ns with sensors and shooters focusing on building Nating in a Joint Environment, focused at the Brigade and nelons. The MNNEC has a future force focus, endeand 25 timeframe with part of the work to determine the y. The end results would be an integration of national	et- and voring ime-			
FY 2014 Plans: Multi-National Network Enabled Capabilities (MNNEC) related Commar Surveillance and Reconnaissance (C4ISR)(Potential Partners: United K MNNEC would focus on developing a single solutions standard avoiding existing interoperability standards developed by NATO as well as other PA. A single solution standard will include common doctrine, technical a information, shared data, leverage national operating picture capabilitie databases, applications, security domains and national networks archite of information systems; it is the complete networking of information syst Net-Centric interoperability among coalition tactical land components of and Below level, but not excluding using the services provided at higher endeavoring to define migration strategies for Net-Centric capabilities in determine the time-phased implementations of a Multi-National Network integration of national C2/C4ISR systems into an NCES environment to	Gingdom, France, Italy, Germany and major NATO A g development of multiple unique solutions and lever international forums such as the Five Power Net Ce and procedural specifications to make better use of each and enable the development of interoperability of cectures. The MNNEC will be more than interoperabilitiems with sensors and shooters focusing on building perating in a Joint Environment, focused at the Briggs of echelons. The MNNEC will have a future force focus the 2010-2025 timeframe with part of the work to a Enabled Capability. The end results would be an	lies) age ntrick xisting ata, ty ade s,			
Title: Combat Identification	A	rticles:	0.048 0	0.060 0	0.043
Description: Combat Identification (Partners: UK, Germany, France an required for implementing the associated NATO Standardization Agreed Combat ID Advanced Concept Technology Demonstrator (ACTD), will published Soldier ID.	ment (STANAG 4579), allied participation in Coalition	1			
FY 2012 Accomplishments:					

PE 0603790A: *NATO Research and Development* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603790A: NATO Research and Development	PROJECT 691: NATO RSCH & DEVEL			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities CI (Partners: UK, Germany, France and Italy): Combat ID pursued the extens associated NATO Standardization Agreement (STANAG 4579), allied participa Technology Demonstrator (ACTD), pursued the NATO Staff Requirement and FY 2013 Plans: Combat Identification (Partners: UK, Germany, France and Italy): Combat ID implementing the associated NATO Standardization Agreement (STANAG 457 Advanced Concept Technology Demonstrator (ACTD), pursues the NATO State Soldier ID.	tion of tasks required for implementing the ation in Coalition Combat ID Advanced Conce a STANAG for the Dismounted Soldier ID. pursues the extension of tasks required for 79), allied participation in Coalition Combat ID.		FY 2012	FY 2013	FY 2014
FY 2014 Plans: CI (Partners: UK, Germany, France and Italy): Combat ID will pursue the external associated NATO Standardization Agreement (STANAG 4579), allied participate Technology Demonstrator (ACTD), will pursue the NATO Staff Requirement as	ation in Coalition Combat ID Advanced Conce	pt			
Title: Technology Research and Development Projects	A	rticles:	0.771	0.795 0	0.617
Description: Technology Research and Development Projects (TRDP) (Partn Australia, Netherlands, Korea, Norway): The scope of this MOU encompasses advanced Land Warfare Concepts and Technologies that are focused on Futu maturation of which may lead to the development of technologically superior of the scope of this MOU encompasses advanced Land Warfare Concepts and Technologies that are focused on Future maturation of which may lead to the development of technologically superior of the scope of this MOU encompasses advanced Land Warfare Concepts and Technologies that are focused on Future maturation of which may lead to the development of technologically superior of the scope of this MOU encompasses advanced Land Warfare Concepts and Technologies that are focused on Future maturation of which may lead to the development of technologically superior of the scope of this MOU encompasses advanced Land Warfare Concepts and Technologies that are focused on Future maturation of which may lead to the development of technologically superior of the scope of this MOU encompasses advanced Land Warfare Concepts and Technologies that are focused on Future maturation of which may lead to the development of technologically superior of the scope of	ners: United Kingdom, Germany, France, Cana is R&D collaboration on basic, exploratory and are Combat System enabling technologies, the	ada,	Š	Ŭ	
FY 2012 Accomplishments: Technology Research and Development Projects (TRDP) (United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU encompassed R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that were focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems.					
FY 2013 Plans: Technology Research and Development Projects (TRDP) (United Kingdom, G Korea, Norway): The scope of this MOU encompasses R&D collaboration on the Concepts and Technologies that are focused on Future Combat System enable to the development of technologically superior conventional weapon systems.	pasic, exploratory and advanced Land Warfar	е			
FY 2014 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P) R-1 ITEM NOMENCLATURE PE 0603790A: NATO Research and Development PROJECT 691: NATO RSCH & DEVEL			& DEVEL		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quanti	ties in Each)	Γ	FY 2012	FY 2013	FY 2014
Technology Research and Development Projects (TRDP) (United Kingdo Korea, Norway): The scope of this MOU will encompass R&D collaboration Concepts and Technologies that will be focused on Future Combat Systellead to the development of technologically superior conventional weapon	m, Germany, France, Canada, Australia, Netherlan on on basic, exploratory and advanced Land Warfa m enabling technologies, the maturation of which n	re			
Title: Senior National Representatives (Army) (SNR-(A))	Ar	ticles:	0.761 0	0.768 0	0.597
Description: Senior National Representatives (Army) (SNR-(A)) Projects Italy): Supports harmonization of programs at various levels: exchanging feasibility studies to further promote cooperative development; standardiz distributing the workload among the different nations. Technology Demon NATO Army Armaments Group (NAAG), will provide an opportunity to obsort participating NATO nations with a view to assisting future operational a studies, analysis and technology demonstrations.	information, identifying knowledge gaps and conducing, fielding and roadmapping various processes; astrations hosted by the U.S. reps to Land Group 6, serve and demonstrate the current and future capa	bility			
FY 2012 Accomplishments: Senior National Representatives (Army) (SNR-(A)) Projects (Partners: Fra harmonization of programs at various levels: exchanging information, ider studies to further promote cooperative development; standardizing, fielding the workload among the different nations. Technology Demonstrations have Armaments Group (NAAG), provided an opportunity to observe and demon NATO nations with a view to assisting future operational and material integrand technology demonstrations.	ating				
FY 2013 Plans: Senior National Representatives (Army) (SNR-(A)) Projects with international various levels: exchanging information, identifying knowledge gaps and cooperative development; standardizing, fielding and roadmapping various different nations. Technology Demonstrations hosted by the U.S. reps to provides an opportunity to observe and demonstrate the current and future assisting future operational and material interoperability. Army support of	d conducting feasibility studies to further promote us processes; distributing the workload among the Land Group, NATO Army Armaments Group (NAA) re capability of participating NATO nations with a vice	G), ew to			
FY 2014 Plans: Senior National Representatives (Army) (SNR-(A)) Projects (Partners: Fra harmonization of programs at various levels: exchanging information, identity		ts			

PE 0603790A: NATO Research and Development

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: A	April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0603790A: NATO Research and Development PROJECT 691: NATO RSCH & DEVEL				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quant	tities in Each)	Г	FY 2012	FY 2013	FY 2014
studies to further promote cooperative development; standardizing, fieldi the workload among the different nations. Technology Demonstrations had Armaments Group (NAAG), will provide an opportunity to observe and departicipating NATO nations with a view to assisting future operational analysis and technology demonstrations.	osted by the U.S. reps to Land Group, NATO Army emonstrate the current and future capability of	ıdies,			
Title: Joint Tactical Radio System	Λ	icles:	0.252	0.263	0.202
Description: Joint Tactical Radio System (JTRS) (Partners: Japan, Swe develop and implement Software-enabled radios as replacements to curroun maintaining interoperability as the countries pursue their own separate swill include a joint development of software radio specifications, separate joint interoperability testing using the system assets developed as part of	rent radio systems. The projects shall be focused on oftware radio programs. The project agreements (PA e development and testing of software waveforms, an	s)			
FY 2012 Accomplishments: Joint Tactical Radio System (JTRS) (Japan, Sweden, UK): The participal Software-enabled radios as replacements to current radio systems. The countries pursue their own separate software radio programs. The project software radio specifications, separate development and testing of software system assets developed as part of the agreements.	projects focused on maintaining interoperability as the ct agreements (PAs) included a joint development of				
FY 2013 Plans: Joint Tactical Radio System (JTRS) (Japan, Sweden, UK): The participal Software-enabled radios as replacements to current radio systems. The countries pursue their own separate software radio programs. The project software radio specifications, separate development and testing of software system assets developed as part of the agreements.	projects focuses on maintaining interoperability as the ct agreements (PAs) includes a joint development of				
FY 2014 Plans: Joint Tactical Radio System (JTRS) (Japan, Sweden, UK): The participal Software-enabled radios as replacements to current radio systems. The as the countries pursue their own separate software radio programs. The development of software radio specifications, separate development and testing using the system assets developed as part of the agreements.	projects shall be focused on maintaining interoperable project agreements (PAs) will include a joint				
Title: Artillery Command and Control Interoperability			0.348	0.387	0.300

PE 0603790A: NATO Research and Development Army

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJ			
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	PE 0603790A: NATO Research and Development	NATO Research and 691: NATO RSCH & DEVEL			
	· ·				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quar	ntities in Each)		FY 2012	FY 2013	FY 2014
Description: Artillery Command and Control Interoperability (ASCA) (F this program will develop an automated software interface between the nations will be able to receive and provide mutual fire support (i.e. cannand with minimal errors.	ir national field artillery command and control syst	ems. The	0	0	
FY 2012 Accomplishments: ASCA (Partners: France, Germany, Italy, UK): The Participants in this between their national field artillery command and control systems. The support (i.e. cannon and rocket fire) in combined operations more rapid	e nations were able to receive and provide mutual				
FY 2013 Plans: ASCA (Partners: France, Germany, Italy, UK): The Participants in this between their national field artillery command and control systems. The support (i.e. cannon and rocket fire) in combined operations more rapid	e nations are able to receive and provide mutual fi				
FY 2014 Plans: ASCA (Partners: France, Germany, Italy, UK): The Participants in this between their national field artillery command and control systems. The support (i.e. cannon and rocket fire) in combined operations more rapid	e nations will be able to receive and provide mutua				
Title: Force Protection Projects		Articles:	0.244	0.297	0.25
Description: Force Protection Projects (FPP) (Partners: United Kingdo Protection Projects will include R&D collaborationon technologies such Improvised Explosive Devices (C-IED). Programs include Military Opera Against Terrorism (DAT) initiatives such as Defense Against Mortar Atta (JPADS).	as Counter Rocket and Mortar (C-RAM) and Cou ations in Urban Terrain (MOUT) and a variety of D	rce nter efense	o l		
FY 2012 Accomplishments: Force Protection Projects (FPP) (United Kingdom, France, Germany, I	taly, Sweden, Canada): Force Protection Projects	included ces (C-			

PE 0603790A: *NATO Research and Development* Army

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army	DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0603790A: NATO Research and	691: NATO RSCH & DEVEL
BA 4: Advanced Component Development & Prototypes (ACD&P)	Development	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
IED). Programs included Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DA	AT) initiatives			
such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS).				
FY 2013 Plans: Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Project R&D collaboration technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Del IED). Programs includes Military Operations in Urban Terrain (MOUT) and a variety of Defense Against Terrorism (DA such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS). NA	evices (C-			
FY 2014 Plans: Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projection include R&D collaboration technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Expl Devices (C-IED). Programs will include Military Operations in Urban Terrain (MOUT) and a variety of Defense Against (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS).	losive			
Accomplishments/Planned Program	ns Subtotals	4.612	4.961	3.874

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

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 the Current Force.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603790A: NATO Research and

Development

PROJECT

691: NATO RSCH & DEVEL

DATE: April 2013

Management Services (\$ in Millions)			FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
STEM/IOL	TBD	RDECOM,:Ft. Belvoir, VA	0.418	0.033		0.087		0.067		-		0.067	Continuing	Continuing	0.000
Low Level Air Defense Interoperability (LLAPI)	TBD	AMCOM,:Redstone Aresnal, AL	0.407	-		-		-		-		-	Continuing	Continuing	0.000
MIP	Various	PEO C3S,:Ft. Monmouth, NJ	1.086	0.133		-		-		-		-	Continuing	Continuing	0.000
Combat Identification	TBD	CECOM,:Ft. Monmouth, NJ	0.547	0.024		-		-		-		-	Continuing	Continuing	0.000
SNR(A)	TBD	ARL,:APG, MD	0.642	-		-		-		-		-	Continuing	Continuing	0.000
TRDP	TBD	REDCOM,:Ft. Belvoir, VA	2.381	0.295		0.295		0.228		-		0.228	Continuing	Continuing	0.000
Artillery Command and Control Interoperability (ASCA)	TBD	CECOM,:Ft. Monmouth, NJ	0.125	0.014		-		-		-		-	Continuing	Continuing	0.000
Force Protection Projects (FPP)	TBD	RDECOM,:Ft. Belvoir, VA	0.051	0.048		0.035		0.028		-		0.028	0.000	0.162	0.000
	•	Subtotal	5.657	0.547		0.417		0.323		0.000		0.323			0.000

Product Development (\$ in Millions)		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Multilateral Interoperability Program (MIP)	TBD	Various:Various	2.057	0.169		0.193		0.151		-		0.151	Continuing	Continuing	Continuing
STEM-IOL	TBD	LSS/GDIT,:Fairfax, VA	5.675	0.567		0.597		0.466		-		0.466	Continuing	Continuing	Continuing
Low Level Air Defense Interoperability (LLAPI)	TBD	AMCOM,:Redstone Arsenal, AL	1.299	0.114		0.120		0.093		-		0.093	Continuing	Continuing	Continuing
Combat Identification	TBD	CECOM,:Ft. Monmouth, NJ	1.017	-		0.025		0.018		-		0.018	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

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PROJECT

691: NATO RSCH & DEVEL

DATE: April 2013

Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	TBD	CECOM,:Ft. Monmouth, NJ	3.501	0.434		0.500		0.366		-		0.366	Continuing	Continuing	Continuing
Senior National Representatives (Army) (SNR[A])	Various	ARDEC,:Arlignton, VA	8.097	0.547		0.568		0.440		-		0.440	Continuing	Continuing	Continuing
TRDP	Various	Batelle/LMI,:McLean, VA	2.382	0.185		0.205		0.159		-		0.159	Continuing	Continuing	Continuing
Artillery Command and Control Interoperability (ASCA)	Various	CECOM,:Fort Monmouth, NJ	2.025	0.176		0.197		0.154		-		0.154	Continuing	Continuing	Continuing
Joint Tactical Radio System (JTRS)	Various	PM JTRS,:San Diego, CA	0.968	0.157		0.163		0.127		-		0.127	Continuing	Continuing	Continuing
Force Protection Projects (FPP)	Various	RDECOM,:Ft Belvoir, VA	0.325	0.110		0.117		0.111		-		0.111	0.000	0.663	Continuing
		Subtotal	27.346	2.459		2.685		2.085		0.000		2.085			

Support (\$ in Millions	pport (\$ in Millions)		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
MIP	Various	CECOM:Ft. Monmouth, NJ	1.443	0.191		0.225		0.174		-		0.174	Continuing	Continuing	Continuing
Low Level Air Defense Interoperability (LLAPI)	Various	AMCOM,:Redstond Arsenal, AL	0.622	0.085		0.104		0.077		-		0.077	Continuing	Continuing	Continuing
STEM/IOL	Various	GDIT:Fairfax, VA	1.298	0.124		0.150		0.116		-		0.116	Continuing	Continuing	Continuing
Combat Identification	Various	CECOM:Ft Monmouth, Nj	0.614	0.024		0.035		0.025		-		0.025	Continuing	Continuing	Continuing
Multi-National Network Enabled Capabilities (MNNEC) related to C4ISR	Various	CECOM:Fort Monmouth, NJ	0.916	0.091		0.107		0.083		-		0.083	Continuing	Continuing	Continuing
SNR(A)	Various	ARL,:Aberdeen, Md	1.873	0.076		0.100		0.078		-		0.078	Continuing	Continuing	Continuing

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R-1 ITEM NOMENCLATURE

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army

PE 0603790A: NATO Research and

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DATE: April 2013

BA 4: Advanced Component Development & Prototypes (ACD&P)

Development

Support (\$ in Millions)		FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
TRDP	Various	RDECOM,:Ft. Belvoir, VA	2.436	0.291		0.295		0.230		-		0.230	Continuing	Continuing	Continuing
Joint Tactical Radio System (JTRS)	Various	PM JTRS,:San Diego, VA	0.617	0.095		0.100		0.075		-		0.075	Continuing	Continuing	Continuing
Artillery Command and Control Interoperability (ASCA)	Various	CECOM:Ft Monmouth, Nj	0.568	0.110		0.100		0.076		-		0.076	Continuing	Continuing	Continuing
Force Protection Projects (FPP)	Various	RDECOM,:Fort Belvoir, VA	0.042	0.048		0.050		0.052		-		0.052	0.000	0.192	Continuing
		Subtotal	10.429	1.135		1.266		0.986		0.000		0.986			

Test and Evaluation (\$ in Millions)			FY 2012		FY 2	013	FY 2 Ba		FY 2		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
MIP	Various	CECOM:Ft. Monmouth, NJ	1.282	0.152		0.275		0.215		-		0.215	Continuing	Continuing	0.000
STEM/IOL	Various	RDECOM,:Various	0.895	0.095		0.063		0.050		-		0.050	Continuing	Continuing	0.000
Low Level Air Defense Interoperability (LLAPI)	Various	AMCOM,:Redstone Aresnal, AL	0.244	-		-		-		-		-	Continuing	Continuing	0.000
SNR(A)	TBD	various:various	1.319	0.138		0.100		0.079		-		0.079	Continuing	Continuing	0.000
ASCA	TBD	CECOM:Ft. Monmouth, NJ	0.329	0.048		0.090		0.070		-		0.070	Continuing	Continuing	0.000
Joint Tactical Radio System (JTRS)	TBD	CECOM:Ft. Monmouth, NJ	0.302	-		-		-		-		-	Continuing	Continuing	0.000
Force Protection Projects (FPP)	TBD	RDECOM,:Ft. Belvoir, VA	0.052	0.038		0.065		0.066		-		0.066	0.000	0.221	0.000
		Subtotal	4.423	0.471		0.593		0.480		0.000		0.480			0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0603790A: NATO Research and	691: NATO RSCH & DEVEL
BA 4: Advanced Component Development & Prototypes (ACD&P)	Development	
		Target

	All Prior Years	FY 2	012 FY	2013	FY 20		1	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	47.855	4.612	4.96	1	3.874	0.000	3.874			

Remarks

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