

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item 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							
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												
## The FY 2014 OCO Request will be submitted at a later date												
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				

UNCLASSIFIED

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			
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												
## The FY 2014 OCO Request will be submitted at a later date												
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/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 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												

UNCLASSIFIED

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 in Each)			FY 2012	FY 2013	FY 2014
NATO bill); partially funded the Five Power Senior National Representatives, Army [SNR (A)], the Technical Cooperative Program, Bilateral SNR(A)s, and Army armaments working groups with many nations. FY 2013 Plans: The goal of this program is 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 funds 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 includes: the United States' share of costs of the NATO Civil Budget, Chapter IX, which funds the NATO Industrial Advisory Group (NIAG) and the Special Fund for Cooperative Planning (U. S. Army is Executive Agent for this NATO bill); partially funds the Five Power Senior National Representatives, Army [SNR (A)], the Technical Cooperative Program, Bilateral SNR(A)s, and Army armaments working groups with many nations. FY 2014 Plans: The goal of this program will be 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 will fund 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 will also include: the United States' share of costs of the NATO Civil Budget, Chapter IX, which funds the NATO Industrial Advisory Group (NIAG) and the Special Fund for Cooperative Planning (U. S. Army is Executive Agent for this NATO bill); partially will fund the Five Power Senior National Representatives, Army [SNR (A)], the Technical Cooperative Program, Bilateral SNR(A)s, and Army armaments working groups with many nations.					
Title: Multilateral Interoperability Program Articles: Description: 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 (e.g. AFATDS, FADC2). FY 2012 Accomplishments:			0.6450	0.6930	0.5400

UNCLASSIFIED

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 in Each)		FY 2012	FY 2013	FY 2014
Continued integration work from the Command and Control Systems Interoperability Program into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and also extended the effort into a sustainable program to incorporate lessons learned into national systems (e.g. AFATDS, FADC2). FY 2013 Plans: Continues integration work from the Command and Control Systems Interoperability Program 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 (e.g. AFATDS, FADC2). FY 2014 Plans: Will continue integration work from the Command and Control Systems Interoperability Program into an Advanced Concept Technology Demonstration (ACTD) to achieve NATO levels four (messaging) and five (database) interoperability and will also extend the effort into a sustainable program to incorporate lessons learned into national systems (e.g. AFATDS, FADC2).				
Title: Low Level Air Defense Interoperability Articles: Description: 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. FY 2012 Accomplishments: The objective of this program was to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange. FY 2013 Plans: 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. FY 2014 Plans: The objective of this program will be to successfully demonstrate Command and Control (C2) interoperability among the participant nations' Short Range Air Defense (shared) assets for automated air picture exchange		0.199 0	0.224 0	0.170
Title: Multi-National Network Enabled Capabilities Articles: Description: 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		0.525 0	0.577 0	0.449

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603790A: <i>NATO Research and Development</i>	PROJECT 691: <i>NATO RSCH & DEVEL</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
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 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. FY 2012 Accomplishments: 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: 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,			

UNCLASSIFIED

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 in Each)		FY 2012	FY 2013	FY 2014	
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).					
FY 2014 Plans: 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 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 will be 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 will have 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).					
Title: Combat Identification		0.048	0.060	0.043	
Articles:		0	0		
Description: 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.					
FY 2012 Accomplishments:					

UNCLASSIFIED

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 in Each)		FY 2012	FY 2013	FY 2014
CI (Partners: UK, Germany, France and Italy): Combat ID pursued 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), pursued the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID. FY 2013 Plans: Combat Identification (Partners: UK, Germany, France and Italy): Combat ID pursues 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), pursues the NATO Staff Requirement and a STANAG for the Dismounted Soldier ID. FY 2014 Plans: CI (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.				
Title: Technology Research and Development Projects Articles: Description: 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. 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, 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. FY 2014 Plans:		0.771 0	0.795 0	0.617

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603790A: <i>NATO Research and Development</i>	PROJECT 691: <i>NATO RSCH & DEVEL</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Technology Research and Development Projects (TRDP) (United Kingdom, Germany, France, Canada, Australia, Netherlands, Korea, Norway): The scope of this MOU will encompass R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that will be focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems.			
Title: Senior National Representatives (Army) (SNR-(A)) Articles: Description: 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. Technology Demonstrations hosted by the U.S. reps to Land Group 6, NATO Army Armaments Group (NAAG), will provide an 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. FY 2012 Accomplishments: 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. Technology Demonstrations hosted by the U.S. reps to Land Group, NATO Army Armaments Group (NAAG), provided an 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 supported of NAAG studies, analysis and technology demonstrations. FY 2013 Plans: Senior National Representatives (Army) (SNR-(A)) Projects with international partners: 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. Technology Demonstrations hosted by the U.S. reps to Land Group, NATO Army Armaments Group (NAAG), provides an 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. FY 2014 Plans: 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		0.761 0	0.768 0
			0.597

UNCLASSIFIED

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 in Each)		FY 2012	FY 2013	FY 2014
studies to further promote cooperative development; standardizing, fielding and roadmapping various processes; distributing the workload among the different nations. Technology Demonstrations hosted by the U.S. reps to Land Group, NATO Army Armaments Group (NAAG), will provide an 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.				
Title: Joint Tactical Radio System Description: 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. FY 2012 Accomplishments: Joint Tactical Radio System (JTRS) (Japan, Sweden, UK): The participants in these programs developed and implemented Software-enabled radios as replacements to current radio systems. The projects focused on maintaining interoperability as the countries pursue their own separate software radio programs. The project agreements (PAs) included 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. FY 2013 Plans: Joint Tactical Radio System (JTRS) (Japan, Sweden, UK): The participants in these programs developes and implements Software-enabled radios as replacements to current radio systems. The projects focuses on maintaining interoperability as the countries pursue their own separate software radio programs. The project agreements (PAs) includes 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. FY 2014 Plans: Joint Tactical Radio System (JTRS) (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.		Articles: 0.252 0	0.263 0	0.202
Title: Artillery Command and Control Interoperability		0.348	0.387	0.300

UNCLASSIFIED

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 in Each)			FY 2012	FY 2013	FY 2014
Articles: Description: 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. FY 2012 Accomplishments: ASCA (Partners: France, Germany, Italy, UK): The Participants in this program developed an automated software interface between their national field artillery command and control systems. The nations were able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors. FY 2013 Plans: ASCA (Partners: France, Germany, Italy, UK): The Participants in this program develops an automated software interface between their national field artillery command and control systems. The nations are able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors. FY 2014 Plans: 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.			0	0	
Title: Force Protection Projects Articles: Description: Force Protection Projects (FPP) (Partners: United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects will include R&D collaborationon technologies such as Counter Rocket 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). FY 2012 Accomplishments: Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects included R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-			0.244 0	0.297 0	0.257

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603790A: <i>NATO Research and Development</i>	PROJECT 691: <i>NATO RSCH & DEVEL</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
IED). Programs included 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). FY 2013 Plans: Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects includes R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs includes 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). NA FY 2014 Plans: Force Protection Projects (FPP) (United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects will include R&D collaborationon technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs will 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).			
Accomplishments/Planned Programs Subtotals		4.612	4.961
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.			

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: 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					
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 Complete	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 Complete	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

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: 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					
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 Complete	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,;Arlington, 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)				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 Complete	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

UNCLASSIFIED

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

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: 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			
	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	47.855	4.612		4.961		3.874		0.000		3.874			

Remarks