Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army											Date: February 2015	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 0603790A *I NATO Research and Development*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	-	3.743	2.952	6.075	-	6.075	6.248	5.319	5.238	5.343	Continuing	Continuing
691: *NATO Rsch & Devel*	-	3.743	2.952	6.075	-	6.075	6.248	5.319	5.238	5.343	Continuing	Continuing

Note

Reduction attributed to realignment to other higher priority Army programs.

Additional FY16 funds will be used to persue cooperative projects that were postponed or not persue due to funding reductions in previous years such as the Coalition Wideband Networking Waveform Phase II, 5-Power-Net-centric Command and Control Interoperability projects. Land Warfare Concept Experimentation, projects to enhance information processing, exploitation, and dissemination capabilities, and multilateral cooperative projects in electronic warfare.
Technology Research and Development Projects (TRDP) moved under several other programs such as: Aviation Systems Technologies, Soldier Technologies, Missile and Rocket Technologies, Chem/Bio Technologies, and Weapons and Munitions Technologies.
Missile and Rocket technologies will be funded in FY16.
Soldier Technologies includes former Force Protection Projects amd TRDP.

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. contractor facilities.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army					Date: February 2015
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*		R-1 Program Element (Number/Name) PE 0603790A / *NATO Research and Development*			
B. Program Change Summary ($ in Millions)	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**
Previous President's Budget	3.872	2.954	6.593	-	6.593
Current President's Budget	3.743	2.952	6.075	-	6.075
Total Adjustments	-0.129	-0.002	-0.518	-	-0.518
• Congressional General Reductions	-	-0.002			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.129	-			
• Adjustments to Budget Years	-	-	-0.518	-	-0.518

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603790A / *NATO Research and Development*	Project (Number/Name) 691 / *NATO Rsch & Devel*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
691: *NATO Rsch & Devel*	-	3.743	2.952	6.075	-	6.075	6.248	5.319	5.238	5.343	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

New bullet for FY 2016 will include: Missile and Rocket Technologies.
Communications Interoperability and Electronics Technologies is the result of the combination of Multi-National Network Enable Capabilities, Low Level Air Defense Interoperability, JTRS Combat Identification and Miltilateral Interoperability Programs and Artillary Command and Control Interoperability.
Soldier Technologies will replace former Force Protection Projects.
Technology Research and Development Projects (TRDP) moved under several other programs such as: Aviation Systems Technologies, Soldier Technologies, Missile and Rocket Technologies, Chem/Bio Technologies, and Weapons and Munitions Technologies.

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. contractor facilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Scientific and Technology Enterprise Management	0.699	-	-
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 2014 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			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
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 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 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. Effective FY15, efforts in this area will move to Armaments Cooperation Enterprise Support.			
Title: Armaments Cooperation Enterprise Support ***Description:*** Armaments Cooperation Enterprise Support/ International Online (IOL) Development and Implementation NATO/ International Cooperative R&D (AR 70-41) and International Acquisition (AR 70-1, AR 70-3). Prior to FY15, efforts in this area were covered under the area entitled Scientific and Technology Enterprise Management. ***FY 2015 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 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); the Technical Cooperation Program, and Army armaments cooperation working groups with many nations. ***FY 2016 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 will fund the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate 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. Additional funds will allow the coordination for cooperative research, development and evaluation of defense technologies/systems/equipments plus joint production and follow-on support of defense systems or equipment and the procurement of foreign technologies.	-	1.176	1.340
Title: Multilateral Interoperability Program ***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	0.538	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
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 Accomplishments:*** 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 will also extend the effort into a sustainable program to incorporate lessons learned into national systems (e.g. AFATDS, FADC2). Effective FY15, MIP efforts will move to Communications, interoperability, and electronics technologies			
Title: Multi-National Network Enabled Capabilities (MNNEC)	0.449	-	-
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 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 2014 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 focused 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 is the complete networking of information systems with sensors and shooters focusing on building Net-Centric interoperability among coalition tactical land			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
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 was an integration of National C2/C4ISR systems into an NCES environment to include the NATO Network Enabled Capabilities (NNEC). Effective FY15, efforts in this area will move to Communications, interoperability, and electronics technologies.			
Title: Communications Interoperability, and Electronics Technologies ***Description:*** The goal of this project is to develop technologies that enable interoperability among partner countries' command, control, communications, sensors, and information systems. Efforts under this project include development of a single solution standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO. Such standards 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. Includes efforts from areas formerly titled Multi-National Network Enabled Capabilities, Low Level Air Defense Interoperability, JTRS, Combat Identification, and Multilateral Interoperability Program. ***FY 2015 Plans:*** The goal of this project is to develop technologies that enable interoperability among partner countries' command, control, communications, sensors, and information systems. Efforts under this project include development of a single solution standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO. Such standards 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. Includes projects formerly titled Multi-National Network Enabled Capabilities, Low Level Air Defense Interoperability, JTRS, Combat Identification, and Multilateral Interoperability Program. ***FY 2016 Plans:*** The goal of this project is to develop technologies that enable interoperability among partner countries' command, control, communications, sensors, and information systems. Efforts under this project include development of a single solution standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO. Such standards 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. FY16 funds increased because, it Includes funded projects formerly titled Multi-National Network Enabled Capabilities, Low Level Air Defense Interoperability, JTRS, Combat Identification,	-	0.700	1.686

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
and Multilateral Interoperability Program. Additional FY16 funds will be used to persue cooperative projects that were postponed or not persue due to funding reductions in previous years such as the Coalition Wideband Networking Waveform Phase II, 5-Power-Net-centric Command and Control Interoperability projects. Land Warfare Concept Experimentation, projects to enhance information processing, exploitation, and dissemination capabilities, and multilateral cooperative projects in electronic warfare.			
Title: Combat Identification ***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 2014 Accomplishments:*** 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. Effective FY15, Combat ID efforts will move under Communications, Interoperability, and Electronics Technologies.	0.043	-	-
Title: Technology Research and Development Projects ***Description:*** 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 2014 Accomplishments:*** The scope of this MOU encompasses R&D collaboration on basic, exploratory and advanced Land Warfare Concepts and Technologies that focused on Future Combat System enabling technologies, the maturation of which may lead to the development of technologically superior conventional weapon systems. Effective FY15, TRDP efforts will move under several other programs such as: Aviations Systems Technologies, Soldiers Technologies, Missile and Rocket Technologies, Chem/Bio Technologies, and Weapons and Munitions Technologies.	0.617	-	-
Title: Senior National Representatives (Army) (SNR-(A)) ***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,	0.090	0.058	0.139

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
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 2014 Accomplishments:*** Senior National Representatives (Army) (SNR-(A)) Projects (Partners: France, Germany, United Kingdom and Italy): Supported 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 NAAG studies, analysis and technology demonstrations. ***FY 2015 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 road mapping 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 2016 Plans:*** Senior National Representatives (Army) (SNR-(A)) Projects with international partner will support harmonization of programs at various levels: exchanging information, identifying knowledge gaps and conducting feasibility studies to further promote cooperative development; standardizing, fielding and road mapping 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 will support of NAAG studies, analysis and technology demonstrations. Additional funds will be used to persue cooperative initiatives that were postponed, cancelled or not persued due to funding reductions in previous years such as forums and engagement with long-standing foreign partners to identify interoperability gaps and develop necessary standardization programs.			
Title: Joint Tactical Radio System	0.502	-	-
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			

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
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 2014 Accomplishments:*** The participants in this program developed and implemented Software-enabled radios as replacements to current radio systems. The project 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. Effective FY15, efforts in this area moved under Communications, Interoperability, and Electronics Technologies.			
Title: Artillery Command and Control Interoperability ***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 2014 Accomplishments:*** The Participants in this program worked on developing an automated software interface between their national field artillery command and control systems. ASCA Nations was able to receive and provide mutual fire support (i.e. cannon and rocket fire) in combined operations more rapidly and with minimal errors. Effective FY15, efforts in this program moved to Weapons and Munitions Technologies.	0.378	-	-
Title: Weapons and Munitions Technologies ***Description:*** Weapons and munitions technologies (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 2015 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for Army weapons systems and associated munitions. Areas of cooperation include fuzing and warhead systems, guidance systems, counter improvised explosive device neutralization, directed energy, and fire control systems. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of	-	0.588	1.410

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
improving defense capabilities of the U.S. and partner countries. Effective FY15, efforts in this program will be combined with Artillery Command and Control Interopeability. ***FY 2016 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for Army weapons systems and associated munitions. Areas of cooperation include fuzing and warhead systems, guidance systems, counter improvised explosive device neutralization, directed energy, and fire control systems. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. This program was combined with Artillery Command and Control Interopeability in FY15. Additional FY16 funds will be used to persue cooperative projects that were postponed or not persue due to funding reductions in previous years, such as cooperative projects to develop and demonstrate interoperability among U.S. and foreign partners artillery weapons systems and ammunitions.			
Title: Low Level Air Defense Interoperability ***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 2014 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. Effective FY15, efforts in this program moved to Communications, Interoperability, and Electronics Technologies	0.170	-	-
Title: Force Protection Projects ***Description:*** Force Protection Projects (FPP) (Partners: United Kingdom, France, Germany, Italy, Sweden, Canada): Force Protection Projects include R&D collaboration on 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 2014 Accomplishments:*** Force Protection Projects included R&D collaboration on technologies such as Counter Rocket and Mortar (C-RAM) and Counter Improvised Explosive Devices (C-IED). Programs included Military Operations in Urban Terrain (MOUT) and a variety of Defense	0.257	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Against Terrorism (DAT) initiatives such as Defense Against Mortar Attacks (DAMA) and Joint Precision Air Drop System (JPADS). Effective FY15 efforts in this program moved to Soldier Technologies.			
Title: Soldier Technologies ***Description:*** Soldier Technologies (Partners: United Kingdom, France, Germany, Italy, Sweden, Canada): Soldier Technologies will include R&D collaboration on 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 2015 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved technologies to increase the effectiveness, health, and reliability of the individual soldier. Such technologies will maximize soldier survivability, sustainability, mobility, combat effectiveness, and field quality of life. Efforts under this project will also enable interoperability and standardization among partner country systems that support the individual soldier. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. Effective FY15 this program will include Force Protection Projects Programs ***FY 2016 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved technologies to increase the effectiveness, health, and reliability of the individual soldier. Such technologies will maximize soldier survivability, sustainability, mobility, combat effectiveness, and field quality of life. Efforts under this project will also enable interoperability and standardization among partner country systems that support the individual soldier. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. Since FY15 this program adopted Force Protection Project and projects under TRDP, additional funds will be used to persue cooperative projects that were postponed or not persue due to funding reductins in previous years such as cooperative projects in soldier psychological health and traumatic brain injury, improved small arms systems, eye safe lasers, portable soldier power technologies, and enhance body armor.	-	0.020	0.300
Title: Ground Systems Technologies ***Description:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve survivability, weapons, ground platforms (manned and unmanned), and mobility and counter-mobility to provide soldiers with unmatched offensive and defensive capabilities in weapons and military vehicles. Areas of cooperation include ground systems design, propulsion, structures, robotics, alternative fuels and lubricants, systems integration, electronics,	-	0.200	0.350

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
and power management. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. ***FY 2015 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve survivability, weapons, ground platforms (manned and unmanned), and mobility and counter-mobility to provide soldiers with unmatched offensive and defensive capabilities in weapons and military vehicles. Areas of cooperation include ground systems design, propulsion, structures, robotics, alternative fuels and lubricants, systems integration, electronics, and power management. Such cooperative development is done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. ***FY 2016 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve survivability, weapons, ground platforms (manned and unmanned), and mobility and counter-mobility to provide soldiers with unmatched offensive and defensive capabilities in weapons and military vehicles. Areas of cooperation will include ground systems design, propulsion, structures, robotics, alternative fuels and lubricants, systems integration, electronics, and power management. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. Additional FY16 funds will be used to continue funding cooperative projects in armored vehicle underbody blast protection and unmanned ground vehicles such as Hybrid Electric PA between US and Japan.			
Title: Aviation Systems Technologies ***Description:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved aerodynamics, aeromechanics, avionics, weapons and sensor integration, propulsion, and aviation autonomy technologies that improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for vertical lift aviation systems. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. ***FY 2015 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved aerodynamics, aeromechanics, avionics, weapons and sensor integration, propulsion, and aviation autonomy technologies that improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for vertical	-	0.180	0.300

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
lift aviation systems. Such cooperative development is done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. ***FY 2016 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved aerodynamics, aeromechanics, avionics, weapons and sensor integration, propulsion, and aviation autonomy technologies that improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for vertical lift aviation systems. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. Additional FY16 funds will be used to persue cooperative projects that were postponed or not pursued due to funding reductions in previous years such as cooperative projects to develop advance rotorcraft technologies and improve systems that aid pilots and aircrew in degrated visual environments.			
Title: Chemical and Biological Defense Technologies ***Description:*** The goal of this project is to cooperate with partner countries to increase interoperability and standardization of chemical, biological, and radiological defense materiel and to develop jointly improved technologies to defend against weapons of mass destruction. Areas of cooperation include aerosol physics, toxicology, vaccinations, filtration science, agent detection and monitoring, handling, and demilitarization. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. ***FY 2015 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and standardization of chemical, biological, and radiological defense materiel and to develop jointly improved technologies to defend against weapons of mass destruction. Areas of cooperation include aerosol physics, toxicology, vaccinations, filtration science, agent detection and monitoring, handling, and demilitarization. Such cooperative development was done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries. ***FY 2016 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and standardization of chemical, biological, and radiological defense materiel and to develop jointly improved technologies to defend against weapons of mass destruction. Areas of cooperation include aerosol physics, toxicology, vaccinations, filtration science, agent detection and monitoring, handling, and demilitarization. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and	-	0.030	0.350

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
partner countries. Additional FY16 funds will be used to continue cooperative projects that were postponed due to funds reductions in previous years, such as cooperative projects to develop vaccines for soldier protection against biological threats and enhanced radiological and biological threat detection systems.			
Title: Missiles and Rocket Technologies ***Description:*** The goal of this project is to cooperate with partner countries to increase interoperability and deveop jointly improved missile and rocket technologies, such as propulsion, energetic materials, payloads, flight control systems, sensors, and seekers. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purpose of improving defense capabilities of the U.S. and partner countries. ***FY 2016 Plans:*** The goal of this project is to cooperate with partner countries to increase interoperability and deveop jointly improved missile and rocket technologies, such as propulsion, energetic materials, payloads, flight control systems, sensors, and seekers. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purpose of improving defense capabilities of the U.S. and partner countries. a portion of former Technology Research and Development Projects (TRDP) was moved to Missiles and Rockets as part of project realignment in FY15. Additional FY16 funds will be used to persue cooperative projects that were postponed or not pursued due to funding reductions in previous years such as cooperative projects to enhance coalition capabilities in Ground-based Air Defense.	-	-	0.200
Accomplishments/Planned Programs Subtotals	3.743	2.952	6.075

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

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.

Below is the list of the programs that were changed, combined or renamed in FY15 and FY16.

Communications, Interoperability, and Electronics Technologies
The goal of this project is to develop technologies that enable interoperability among partner countries' command, control, communications, sensors, and information systems. Efforts under this project include development of a single solution standard avoiding development of multiple unique solutions and leverage existing interoperability standards developed by NATO. Such standards 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. Includes projects formerly titled Multi-National Network Enabled Capabilities, Low Level Air Defense Interoperability, JTRS, Combat Identification, and Multilateral Interoperability Program.

Missile and Rocket Technologies
The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved missile and rocket technologies, such as propulsion, energetic materials, payloads, flight control systems, sensors, and seekers. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries.

Aviation Systems Technologies
The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved aerodynamics, aeromechanics, avionics, weapons and sensor integration, propulsion, and aviation autonomy technologies that improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for vertical lift aviation systems. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries.

Soldier Technologies
The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly improved technologies to increase the effectiveness, health, and reliability of the individual soldier. Such technologies will maximize soldier survivability, sustainability, mobility, combat effectiveness, and field quality of life. Efforts under this project will also enable interoperability and standardization among partner country systems that support the individual soldier. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries.

Chemical and Biological Defense Technologies
The goal of this project is to cooperate with partner countries to increase interoperability and standardization of chemical, biological, and radiological defense materiel and to develop jointly improved technologies to defend against weapons of mass destruction. Areas of cooperation include aerosol physics, toxicology, vaccinations, filtration science, agent detection and monitoring, handling, and demilitarization. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries.

Ground Systems Technologies
The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve survivability, weapons, ground platforms (manned and unmanned), and mobility and counter-mobility to provide soldiers with unmatched offensive and defensive capabilities in weapons and military vehicles. Areas of cooperation include ground systems design, propulsion, structures, robotics, alternative fuels and lubricants, systems integration, electronics, and power management. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

Weapons and Munitions Technologies
The goal of this project is to cooperate with partner countries to increase interoperability and develop jointly technologies to improve range, payloads, speed, survivability and lethality to maintain U.S. technical superiority and combat overmatch for Army weapons systems and associated munitions. Areas of cooperation include fuzing and warhead systems, guidance systems, counter improvised explosive device neutralization, directed energy, and fire control systems. Such cooperative development will be done under the auspices of international agreements established among the participating countries for the purposes of improving defense capabilities of the U.S. and partner countries.

Senior National Representative (Army) program
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 road mapping 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.

Armaments Cooperation Enterprise Support
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 will fund the travel costs and administrative support (studies, analysis, interpretation, equipment, etc.) required to participate 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); the Technical Cooperation Program, and Army armaments cooperation working groups with many nations.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603790A / *NATO Research and Development*	Project (Number/Name) 691 / *NATO Rsch & Devel*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ArmamentsCooperation Enterprise Support	TBD	RDECOM : Ft Belvoir, VA	0.000	-		0.006		0.006		-		0.006	-	0.012	-
Weapons and Munitions	TBD	CECOM : Aberdeen Proving Ground, MD	0.000	-		0.008		0.010		-		0.010	-	0.018	-
Ground Systems Technologies	MIPR	TARDEC : Warren, MI	0.000	-		-		0.050		-		0.050	-	0.050	-
Communications Interoperability and Electronic Technologies Interoperability	MIPR	Various, : Various	0.000	-		-		0.006		-		0.006	-	0.006	-
STEM/IOL	TBD	RDECOM, : Ft. Belvoir, VA	0.538	0.067		-		-		-		-	Continuing	Continuing	-
Chemical and Biological Technologies	MIPR	Aberseen Proving Groun : MD	0.000	-		-		0.060		-		0.060	-	0.060	-
Low Level Air Defense Interoperability (LLAPI)	TBD	AMCOM, : Redstone Arsenal, AL	0.407	-		-		-		-		-	Continuing	Continuing	-
MIP	Various	PEO C3S, : Aberdeen Proving Ground, MD	1.219	-		-		-		-		-	Continuing	Continuing	-
Combat Identification	TBD	CECOM, : Aberdeen Proving Ground, MD	0.571	-		-		-		-		-	Continuing	Continuing	-
SNR(A)	TBD	ARL, : APG, MD	0.642	-		-		-		-		-	Continuing	Continuing	-
TRDP	TBD	REDCOM, : Ft. Belvoir, VA	2.896	0.228		-		-		-		-	Continuing	Continuing	-
Artillery Command and Control Interoperability (ASCA)	TBD	CECOM, : Aberdeen Proving Ground, MD	0.139	-		-		-		-		-	Continuing	Continuing	-
Force Protection Projects (FPP)	TBD	RDECOM, : Ft. Belvoir, VA	0.134	0.028		-		-		-		-	-	0.162	-
		Subtotal	6.546	0.323		0.014		0.132		-		0.132	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603790A / *NATO Research and Development*	Project (Number/Name) 691 / *NATO Rsch & Devel*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Multilateral Interoperability Program (MIP)	TBD	Various : Various	2.376	0.151		-		-		-		-	Continuing	Continuing	Continuing
STEM-IOL	TBD	LSS/GDIT, : Fairfax, VA	6.756	0.466		-		-		-		-	Continuing	Continuing	Continuing
Missiles and Rocket Technologies	MIPR	APG, Redstone Arsenal : MD, AL	0.000	-		-		0.100		-		0.100	-	0.100	-
Combat Identification	TBD	CECOM, : Aberdeen Proving Ground, MD	1.042	0.018		-		-		-		-	Continuing	Continuing	Continuing
Communications, Interoperability, and Electronics Technologies	TBD	CECOM, JTRS, COALWNW, JTNC : Aberdeen Proving Ground, MD, CA	0.000	-		0.400		0.100		-		0.100	-	0.500	-
Weapons and Munitions	Various	CECOM : Aberdeen Proving Ground, MD	0.000	-		0.450		0.075		-		0.075	-	0.525	-
Multi-National Network Enabled Capabilities (MNNEC)	TBD	CECOM, : Aberdeen Proving Ground, MD	4.435	0.366		-		-		-		-	Continuing	Continuing	Continuing
Aviation Systems Technologies	Various	Various : Various	0.000	-		0.100		0.050		-		0.050	-	0.150	-
Artillery Command and Control Interoperability (ASCA)	Various	CECOM, : Aberdeen Proving Ground, MD	2.381	0.154		-		-		-		-	Continuing	Continuing	Continuing
TRDP	Various	Battelle/LMI, : McLean, VA	2.772	0.159		-		-		-		-	Continuing	Continuing	Continuing
Senior National Representatives (Army) (SNR[A])	Various	ARDEC, : Arlington, VA	9.012	-		-		-		-		-	Continuing	Continuing	Continuing
Communications Interoperability and Electronic Technologies-	Various	Joint Tactical Radio System (JTRS)-JTNC, COALWNW : San Diego, CA	1.288	0.127		-		-		-		-	Continuing	Continuing	Continuing
Ground Systems Technology	FFRDC	Various : Various	0.000	-		0.100		-		-		-	-	0.100	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603790A / *NATO Research and Development*	Project (Number/Name) 691 / *NATO Rsch & Devel*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Force Protection Projects (FPP)	Various	RDECOM, : Ft Belvoir, VA	0.552	0.111		-		-		-		-	-	0.663	Continuing
Low Level Air Defense Interoperability (LLAPI)	TBD	AMCOM, : Redstone Arsenal, AL	1.513	0.093		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	32.127	1.645		1.050		0.325		-		0.325	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Armaments Cooperation Enterprise Support	Various	LSS/GDIT : Fairfax, VA	0.000	-		1.170		1.334		-		1.334	-	2.504	-
Missiles and Rocket Technologies	MIPR	APG, Redstone Arsenal : MD, AL	0.000	-		-		0.100		-		0.100	-	0.100	-
Communications, Interoperability, and Electronics Technologies	TBD	Joint Tactical Radio (JTRS), JTNC, COALWNW : Aberdeen Proving Ground, MD	0.000	-		0.200		1.440		-		1.440	-	1.640	-
Aviation Systems Technologies	Various	ARDECOM : Ft Belvoir, VA	0.000	-		0.050		0.225		-		0.225	-	0.275	-
Ground Systems Technology	MIPR	Various : Various	0.000	-		0.050		0.300		-		0.300	-	0.350	-
SNR(A)	Various	ARL, : Aberdeen, MD	2.049	0.045		0.058		0.059		-		0.059	Continuing	Continuing	Continuing
Low Level Air Defense Interoperability (LLAPI)	Various	AMCOM, : Redstone Arsenal, AL	0.811	0.077		-		-		-		-	Continuing	Continuing	Continuing
Weapons and Munitions	Various	CECOM, ARDEC, AMMO, PEO C3T : Aberdeen Proving Ground, Various	0.000	-		0.050		1.225		-		1.225	-	1.275	-
Soldier Technologies	TBD	Various : Various	0.000	-		0.020		0.300		-		0.300	-	0.320	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Chemical & Biological Defense Technologies	MIPR	RDECOM : Edgewood, Aberdeen, MD	0.000	-		0.030		0.290		-		0.290	-	0.320	-
STEM/IOL	Various	GDIT : Fairfax, VA	1.532	0.116		-		-		-		-	Continuing	Continuing	Continuing
MIP	Various	CECOM : Aberdeen Proving Ground, MD	1.859	0.172		-		-		-		-	Continuing	Continuing	Continuing
MNNEC	Various	CECOM : Aberdeen Proving Ground, MD	1.114	0.083		-		-		-		-	Continuing	Continuing	Continuing
Combat Identification	Various	CECOM : Aberdeen Proving Ground, MD	0.673	0.025		-		-		-		-	Continuing	Continuing	Continuing
TRDP	Various	RDECOM, : Ft. Belvoir, VA	2.977	0.230		-		-		-		-	Continuing	Continuing	Continuing
Joint Tactical Radio System (JTRS)	Various	PM JTRS, : San Diego, VA	0.812	0.230		-		-		-		-	Continuing	Continuing	Continuing
Force Protection Projects (FPP)	Various	RDECOM, : Fort Belvoir, VA	0.140	0.052		-		-		-		-	-	0.192	Continuing
Artillery Command and Control Interoperability (ASCA)	Various	CECOM : Aberdeen Proving Ground, MD	0.778	0.224		-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	12.745	1.254		1.628		5.273		-		5.273	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIP	Various	CECOM : Aberdeen Proving Ground, MD	1.664	0.215		-		-		-		-	Continuing	Continuing	-
STEM/IOL	Various	RDECOM, : Various	1.053	0.050		-		-		-		-	Continuing	Continuing	-
Communications, Interoperability, and Electronics Technologies	TBD	JTRN, JTNC, COALWNW : Various	0.000	-		0.100		0.140		-		0.140	-	0.240	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603790A / *NATO Research and Development*	Project (Number/Name) 691 / *NATO Rsch & Devel*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Low Level Air Defense Interoperability (LLAPI)	Various	AMCOM, : Redstone Arsenal, AL	0.244	-		-		-		-		-	Continuing	Continuing	-
SNR(A)	TBD	Various : Various	1.557	0.045		-		0.080		-		0.080	Continuing	Continuing	-
ASCA	TBD	CECOM : Aberdeen Proving Ground, MD	0.467	0.070		-		-		-		-	Continuing	Continuing	-
Weapons and Munitions	TBD	CECOM : Various	0.000	-		0.080		0.100		-		0.100	-	0.180	-
Joint Tactical Radio System (JTRS)	TBD	CECOM : Aberdeen Proving Ground, MD	0.302	0.075		-		-		-		-	Continuing	Continuing	-
Aviation Systems Technologies	TBD	RDECOM, Ft Belvoir, VA : Various	0.000	-		0.030		0.025		-		0.025	-	0.055	-
Ground Systems Technologies	MIPR	TARDEC : Various	0.000	-		0.050		-		-		-	-	0.050	-
Force Protection Projects (FPP)	TBD	RDECOM, : Ft. Belvoir, VA	0.155	0.066		-		-		-		-	-	0.221	-
		Subtotal	5.442	0.521		0.260		0.345		-		0.345	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	56.860	3.743		2.952		6.075		-		6.075	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

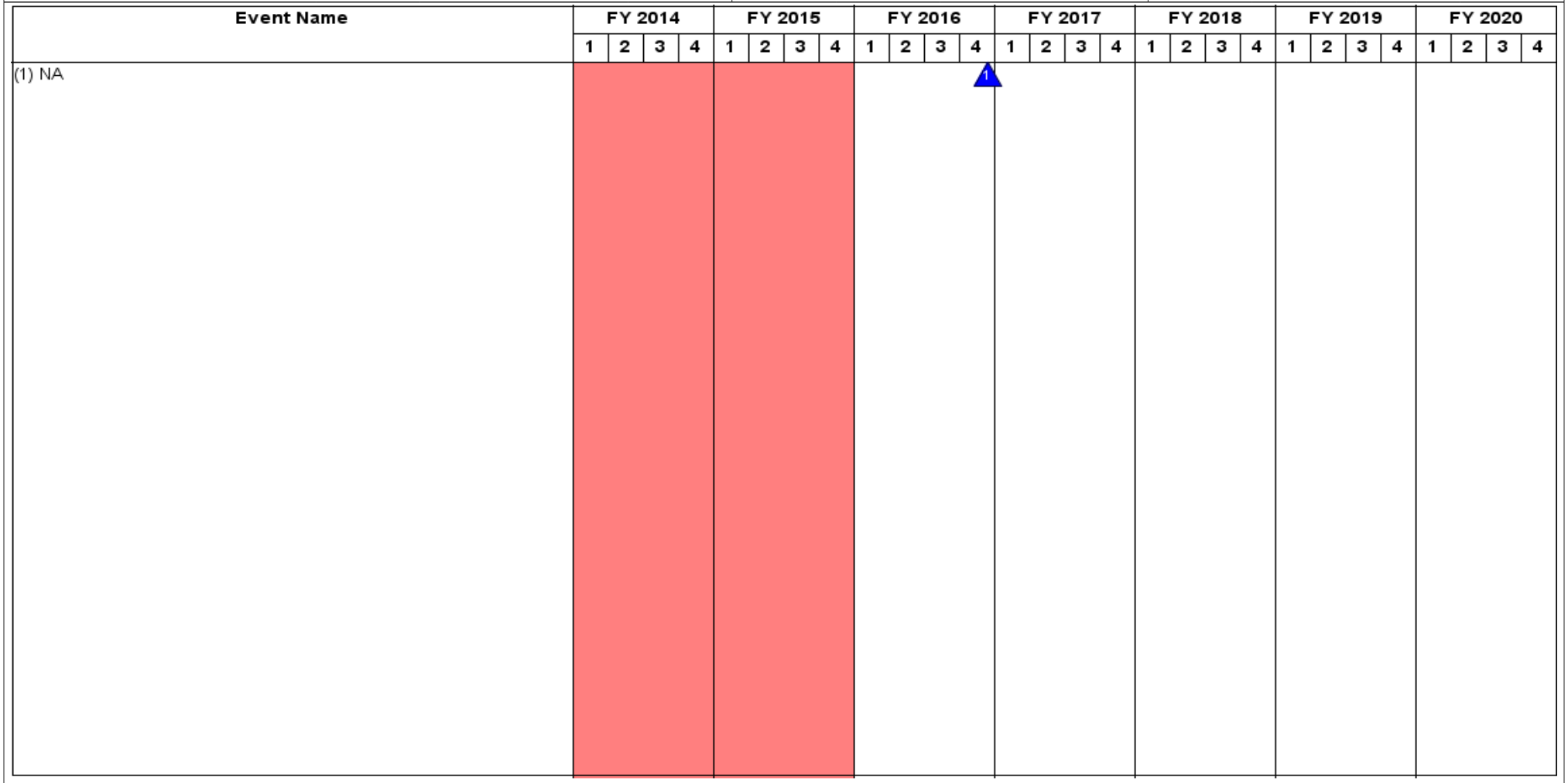

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 0603790A / *NATO Research and Development*	**Project (Number/Name)** 691 / *NATO Rsch & Devel*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
NA	4	2016	4	2016