Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army												Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*					R-1 Program Element (Number/Name) PE 0604290A *I Mid-tier Networking Vehicular Radio (MNVR)*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	-	2.556	23.328	9.730	-	9.730	-	-	-	-	-	35.614
DW1: *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	-	2.556	23.328	9.730	-	9.730	-	-	-	-	-	35.614

The FY 2015 OCO Request will be submitted at a later date.

Note

FY13 RDTE: A Congressional mark of -$10M was realized; program was funded $2.636M. Sequestration reduced program funding further to $2.556M.

A. Mission Description and Budget Item Justification

Product Manager Mid-tier Networking Vehicular Radios (MNVR) provides software-defined, multi-channel networking radios for a wide variety of Army tactical vehicles to meet the Army's requirement for the Mid-tier Wideband Networking (MWN) capability. The MNVR provides self-forming and self-healing communication networks from the brigade to the platoon level throughout the full range of military operations.

The Mid-tier Networking Vehicular Radio (MNVR), a modified Non-Developmental (NDI), is a multi-channel, Type 1 (supporting multiple independent levels of security), vehicular mounted radio hosting networking waveforms, Wideband Networking Waveform (WNW) and Solider Radio Waveform (SRW), respectively, which support Army Mission Command operational requirements. The MNVR narrows the data capability gap at the Brigade Combat Team (BCT) company level and provides the capability to build a data extension to the lowest echelons, and then enables the extension of services from the Forward Operating Base (FOB) to the platform. MNVR provides a dynamic, scalable, On-the-Move (OTM) network architecture, connecting the Soldier to the Mission Command (MC) Network and enhances capability to exchange voice and data simultaneously and faster than current systems. The advanced network waveforms provide rapid distribution of data and imagery with increased information assurance protection and automatic routing across complex terrain. The system will operate Internet Protocol (IP) based networking waveforms offering increased data throughput through self-forming, self-healing, managed communication networks. It's route and retransmit functionality links waveforms in different frequency bands, within the 2 Megahertz (MHz) to 2 Gigahertz (GHz), to form one coherent network.

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army					Date: March 2014
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*			R-1 Program Element (Number/Name) PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*		
B. Program Change Summary ($ in Millions)	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO**	**FY 2015 Total**
Previous President's Budget	12.636	23.341	9.897	-	9.897
Current President's Budget	2.556	23.328	9.730	-	9.730
Total Adjustments	-10.080	-0.013	-0.167	-	-0.167
• Congressional General Reductions	-10.000	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Sequestration Adjustment	-0.080	-	-	-	-
• Army Adjustment	-	-0.013	-0.167	-	-0.167

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	Project (Number/Name) DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	

COST ($ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
DW1: *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	-	2.556	23.328	9.730	-	9.730	-	-	-	-	-	35.614
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

The Mid-tier Networking Vehicular Radio (MNVR) is a modified Non-Developmental Item (NDI) industry solution for a multi-channel vehicular radio hosting networking waveforms, addressing the Army's requirement for Mid-tier Wideband Networking (MWN) capabilities to support the Warfighter by providing an extension of data services from the upper tactical network at brigade and battalion to the lower tactical network at company and platoon echelon platforms. Source Selection has been awarded on a full and open competition, single award, Indefinite Delivery Indefinite Quantity (IDIQ), firm fixed price, 3-year ordering period. Production ramp up for 232 radios for Test & Evaluation and certification purposes began in 1QFY14. 45-107 radios will be procured for Initial Operational Test & Evaluation (IOT&E) after Milestone C (MS C) decision is made in 2QFY15.

A. Mission Description and Budget Item Justification

Product Manager Mid-tier Networking Vehicular Radios (MNVR) provides software-defined, multi-channel networking radios for a wide variety of Army tactical vehicles to meet the Army's requirement for the Mid-tier Wideband Networking (MWN) capability. The MNVR provides self-forming and self-healing communication networks from the brigade to the platoon level throughout the full range of military operations.

The Mid-tier Networking Vehicular Radio (MNVR), a modified Non-Developmental (NDI), is a multi-channel, Type 1 (supporting multiple independent levels of security), vehicular mounted radio hosting networking waveforms, Wideband Networking Waveform (WNW) and Solider Radio Waveform (SRW), respectively, which support Army Mission Command operational requirements. The MNVR narrows the data capability gap at the Brigade Combat Team (BCT) company level and provides the capability to build a data extension to the lowest echelons, and then enables the extension of services from the Forward Operating Base (FOB) to the platform. MNVR provides a dynamic, scalable, On-the-Move (OTM) network architecture, connecting the Soldier to the Mission Command (MC) Network and enhances capability to exchange voice and data simultaneously and faster than current systems. The advanced network waveforms provide rapid distribution of data and imagery with increased information assurance protection and automatic routing across complex terrain. The system will operate Internet Protocol (IP) based networking waveforms offering increased data throughput through self-forming, self-healing, managed communication networks. It's route and retransmit functionality links waveforms in different frequency bands, within the 2 Megahertz (MHz) to 2 Gigahertz (GHz), to form one coherent network.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Title: Mid-tier Networking Vehicular Radio (MNVR) Product	2.556	23.328	9.730
Articles:	-	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2013	FY 2014	FY 2015
Description: RDTE funding supports program management efforts of Source Selection of industry solution for a modified Non-Developmental Item (NDI), radio contract development, test & certification efforts through Limited User Test (LUT), and the start of platform integration. Of note: Program received late-year Above Threshold Reprogramming (ATR) in the amount of $47M in FY12 RDTE. These funds were executed against FY13 requirements. ***FY 2013 Accomplishments:*** A Congressional mark of $10M was realized; program was funded $2.636M. Sequestration reduced program funding down to $2.556M. Remaining FY 2013 RDTE combined with late-year ATR FY12 RDTE funding supported the Program Office plan to complete Source Selection, let the contract for the modified NDI radios, and prepare for a Demonstration, the product's first risk reduction activity, at NIE 14.2. The MNVR Capabilities Production Document (CPD) was approved by JROCM in May 2013. An ADM was signed on 20 September 2013 by the Defense Acquisition Executive (DAE), approving a Materiel Development Decision (MDD). The ADM designated MNVR as an ACAT 1D Special Interest Program under the continued oversight of the DAE, approved Army to award Industry contract, and authorized the purchase of 232 modified NDI radios for Test & Evaluation and Certification purposes in order to inform a MS C decision in 2QFY15. Program completed Source Selection and awarded the contract for procurement of 232 radios on 24 September 2013. ***FY 2014 Plans:*** FY 2014 funding supports program management, test and evaluation and system security certification activities to execute the modified Non-Developmental Item (NDI) strategy for a mid-tier networking vehicular capability. Activities include Government Integration Testing (GIT), a Demonstration at Network Integration Event (NIE) 14.2, and Government Regression Testing (GRT), all as risk reduction activities in support of Limited User Test (LUT) in 1QFY15. FY 2014 funding also supports management of first delivery order production for test & certification, and platform integration efforts. ***FY 2015 Plans:*** FY 2015 supports program management costs, continued test and evaluation and system security certification activities needed to execute the modified Non-Developmental Item (NDI) strategy for a mid-tier networking vehicular capability. Test activities include Limited User Test (LUT) and a Logistics Demonstration in support of sustainment. FY 2015 funding also supports management of the second production delivery order for test & certification, and preparation for sustainment efforts. Of note, once program receives MS C decision, OPA funding will support fielding procurement and continued program management costs as program readies for fielding to CS 17 & 18.			
Accomplishments/Planned Programs Subtotals	2.556	23.328	9.730

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• B51001: *Mid-tier Networking Vehicular Radio (MNVR)*	86.105	19.200	9.692	-	9.692	2.929	2.945	2.941	2.951	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Mid-tier Networking Vehicular Radio (MNVR) is a modified Non-Developmental Item (NDI) industry solution for a multi-channel vehicular radio hosting networking waveforms, addressing the Army's requirement for Mid-tier Wideband Networking (MWN) capabilities to support the Warfighter by providing an extension of data services from the upper tactical network at brigade and battalion to the lower tactical network at company and platoon echelon platforms. This approach takes advantage of competitively priced, mature and producible technology that meets technical specifications.

Decision Point 1 – 4QFY13: An ADM was signed on 20 September 2013 by the Defense Acquisition Executive (DAE), approving a Materiel Development Decision (MDD). The ADM designated MNVR as an ACAT 1D Special Interest Program under the continued oversight of the DAE, approved Army to award Industry contract, and authorized the purchase of up to 232 modified NDI radios for Test & Evaluation, Platform Integration and Certification purposes in order to inform a MS C decision in 2QFY15.

Decision Point 2 - 2QFY15: Program will provide all regulatory and statutory documentation in preparation for a Milestone C (MS C) decision, at which time program will move forward into Low Rate Initial Production (LRIP) and procure 45-107 radios in support of IOT&E, complete all testing and certifications, and complete platform integration.

Decision Point 3 – 2QFY16: After Initial Operational Test & Evaluation (IOT&E) is successfully completed, the program will move forward to the Full Rate Production decision to garner approval to field. DO 3 would then procure approximately 852 radio systems in support of fielding to CS 17-18.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	Project (Number/Name) DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/FFP	Aberdeen Proving Ground : Maryland	24.272	2.404		10.034		3.821		-		3.821	Continuing	Continuing	-
		Subtotal	24.272	2.404		10.034		3.821		-		3.821	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System Development Analysis and Product Source Selection	C/FFP	Aberdeen Proving Ground : Maryland	12.298	0.113		1.890		-		-		-	Continuing	Continuing	-
		Subtotal	12.298	0.113		1.890		-		-		-	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Test and Evaluation	C/FFP	Aberdeen Proving Ground : Maryland	10.430	0.039		11.404		5.909		-		5.909	Continuing	Continuing	-
		Subtotal	10.430	0.039		11.404		5.909		-		5.909	-	-	-

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	47.000	2.556		23.328		9.730		-		9.730	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

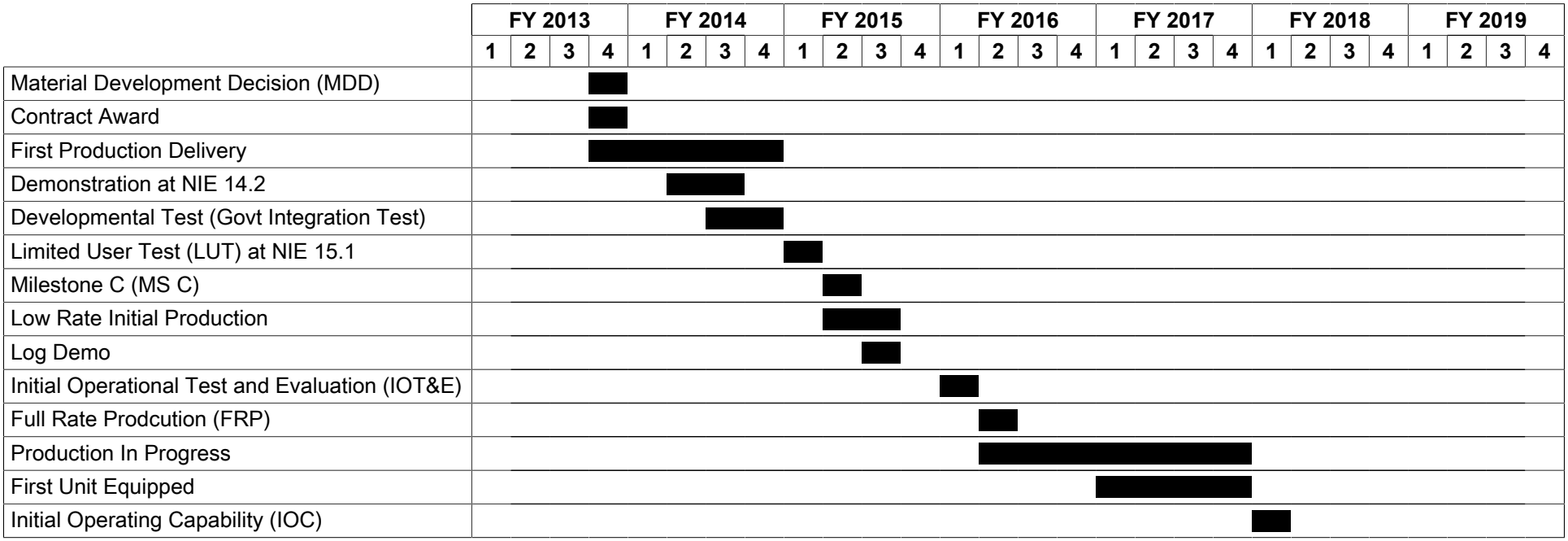

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0604290A / *Mid-tier Networking Vehicular Radio (MNVR)*	**Project (Number/Name)** DW1 / *Mid-Tier Wideband Networking Vehicular Radio Mnvr*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Material Development Decision (MDD)	4	2013	4	2013
Contract Award	4	2013	4	2013
First Production Delivery	4	2013	4	2014
Demonstration at NIE 14.2	2	2014	3	2014
Developmental Test (Govt Integration Test)	3	2014	4	2014
Limited User Test (LUT) at NIE 15.1	1	2015	1	2015
Milestone C (MS C)	2	2015	2	2015
Low Rate Initial Production	2	2015	3	2015
Log Demo	3	2015	3	2015
Initial Operational Test and Evaluation (IOT&E)	1	2016	1	2016
Full Rate Prodcution (FRP)	2	2016	2	2016
Production In Progress	2	2016	4	2017
First Unit Equipped	1	2017	4	2017
Initial Operating Capability (IOC)	1	2018	1	2018