Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Army	Date: May 2017
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0605038A *I NBC Reconnaissance Veh (NBCRV) Sensor Suite*

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	16.125	-	16.125	17.174	6.001	4.947	0.942	0.000	45.189
EQ7: *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*	-	0.000	0.000	16.125	-	16.125	17.174	6.001	4.947	0.942	0.000	45.189

Note

FY2016-17 Funding is reflected under PE0603627, Project Code E79

A. Mission Description and Budget Item Justification

This program upgrades the Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite (NBCRVSS). The NBCRVSS is the Mission Equipment Package for the Stryker Nuclear Biological Chemical (NBCRV) and consists of chemical point detectors, a standoff chemical vapor detector, a biological point detector, a chemical vapor sampling system, and a sensor processing group. The NBCRVSS provides the Stryker NBCRV the ability to detect, identify, collect, report, and mark, Nuclear Biological Chemical (NBC) Hazards. The NBCRVSS will explore transitioning mounted abilities to a dismounted environment. A Chemical Surface Detector (CSD) will be developed to replace the Dual Wheel Sampling System to increase maneuverability of the Stryker NBCRV and increase reliability, and Next Generation Chemical Detector Mounted (NGCD 3M) will replace the Chemical Biological Mass Spectrometer Block II to increase sensitivity, number of chemicals in the library, and reliability. In FY18 the CSD program will deliver final prototype systems and complete chemical, environmental, and on the- move testing. The NGCD 3M will begin development of Engineering and Manufacturing Development (EMD) phase systems and deliver prototypes for testing.

B. Program Change Summary ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	0.000	0.000	17.775	-	17.775
Current President's Budget	0.000	0.000	16.125	-	16.125
Total Adjustments	0.000	0.000	-1.650	-	-1.650
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	0.000	0.000	-1.650	-	-1.650

Change Summary Explanation

FY 2018 funding decrease of $1,650K is due to the reduction in the Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite (NBCRVSS) efforts within this program.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605038A / *NBC Reconnaissance Veh (NBCRV) Sensor Suite*	Project (Number/Name) EQ7 / *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
EQ7: *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*	-	0.000	0.000	16.125	-	16.125	17.174	6.001	4.947	0.942	0.000	45.189
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

FY2016 and FY2017 Funding is reflected under PE0603627A, Project Code E79

A. Mission Description and Budget Item Justification

This program upgrades the Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite (NBCRVSS). The NBCRVSS is the Mission Equipment Package for the Stryker Nuclear Biological Chemical (NBCRV) and consists of chemical point detectors, a standoff chemical vapor detector, a biological point detector, a chemical vapor sampling system, and a sensor processing group. The NBCRVSS provides the Stryker NBCRV the ability to detect, identify, collect, report, and mark, Nuclear Biological Chemical (NBC) Hazards. The NBCRVSS will explore transitioning mounted abilities to a dismounted environment. A Chemical Surface Detector (CSD) will be developed to replace the Dual Wheel Sampling System to increase maneuverability of the Stryker NBCRV and increase reliability, and Next Generation Chemical Detector Mounted (NGCD 3M) will replace the Chemical Biological Mass Spectrometer Block II to increase sensitivity, number of chemicals in the library, and reliability. In FY18 the CSD program will deliver final prototype systems and complete chemical, environmental, and on the- move testing. The NGCD 3M will begin development of Engineering and Manufacturing Development (EMD) phase systems and deliver prototypes for testing.

FY16-FY17 funded under 0603627A E79, Smoke, Obscurant and Target Defeating Sys-Adv Dev

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: Product Development ***FY 2018 Plans:*** Continue sensor suite upgrade development.	-	-	9.975
Title: Test and Evaluation ***FY 2018 Plans:*** Continue test and evaluation planning and support for sensor suite upgrade prototypes.	-	-	4.100
Title: Integrated Logistics Support ***FY 2018 Plans:*** Continue Integrated Logistics Support (ILS) and integration support to the sensor suite upgrades.	-	-	0.250
Title: Project Management Personnel	-	-	1.800

Exhibit R-2A, RDT&E Project Justification: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0605038A / *NBC Reconnaissance Veh (NBCRV) Sensor Suite*	**Project (Number/Name)** EQ7 / *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
FY 2018 Plans: Continue Government program management, system engineering, and Integrated Product Team (IPT) support.			
Accomplishments/Planned Programs Subtotals	-	-	16.125

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

The Nuclear Biological Chemical Reconnaissance Vehicle Sensor Suite (NBCRVSS) Upgrade is a single-step in the evolutionary acquisition strategy for the Stryker Nuclear Biological Chemical Reconnaissance Vehicle. The contract approach of the Chemical Surface Detector (CSD) will be a Full and Open Cost Plus Fixed Fee (CPFF) competitive prototyping contract. The contract approach of the Next Generation Chemical Detector 3 Mounted (NGCD 3M) will be Full and Open Cost-Plus Incentive Fee (CPIF) for the base EMD contract.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605038A / *NBC Reconnaissance Veh (NBCRV) Sensor Suite*	Project (Number/Name) EQ7 / *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Management Personnel	MIPR	JPM NBC CA : Edgewood, MD	0.000	-		-		1.800	Dec 2017	-		1.800	Continuing	Continuing	Continuing
		Subtotal	0.000	-		-		1.800		-		1.800	-	-	-

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development (CSD)	Option/ CPIF	TBD : TBD	0.000	-		-		6.666	Dec 2017	-		6.666	Continuing	Continuing	Continuing
Product Development (NGCD 3M)	C/CPIF	TBD : TBD	0.000	-		-		3.309	Dec 2017	-		3.309	Continuing	Continuing	Continuing
		Subtotal	0.000	-		-		9.975		-		9.975	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrated Logistics Support (ILS)	MIPR	ECBC : Edgewood, MD	0.000	-		-		0.250	Dec 2017	-		0.250	Continuing	Continuing	Continuing
		Subtotal	0.000	-		-		0.250		-		0.250	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	MIPR	ECBC : Edgewood, MD	0.000	-		-		4.100	Dec 2017	-		4.100	Continuing	Continuing	Continuing
		Subtotal	0.000	-		-		4.100		-		4.100	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Army			Date: May 2017
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605038A / *NBC Reconnaissance Veh (NBCRV) Sensor Suite*	Project (Number/Name) EQ7 / *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*	

	Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		0.000		16.125		-		16.125	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0605038A / *NBC Reconnaissance Veh (NBCRV) Sensor Suite*	**Project (Number/Name)** EQ7 / *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*

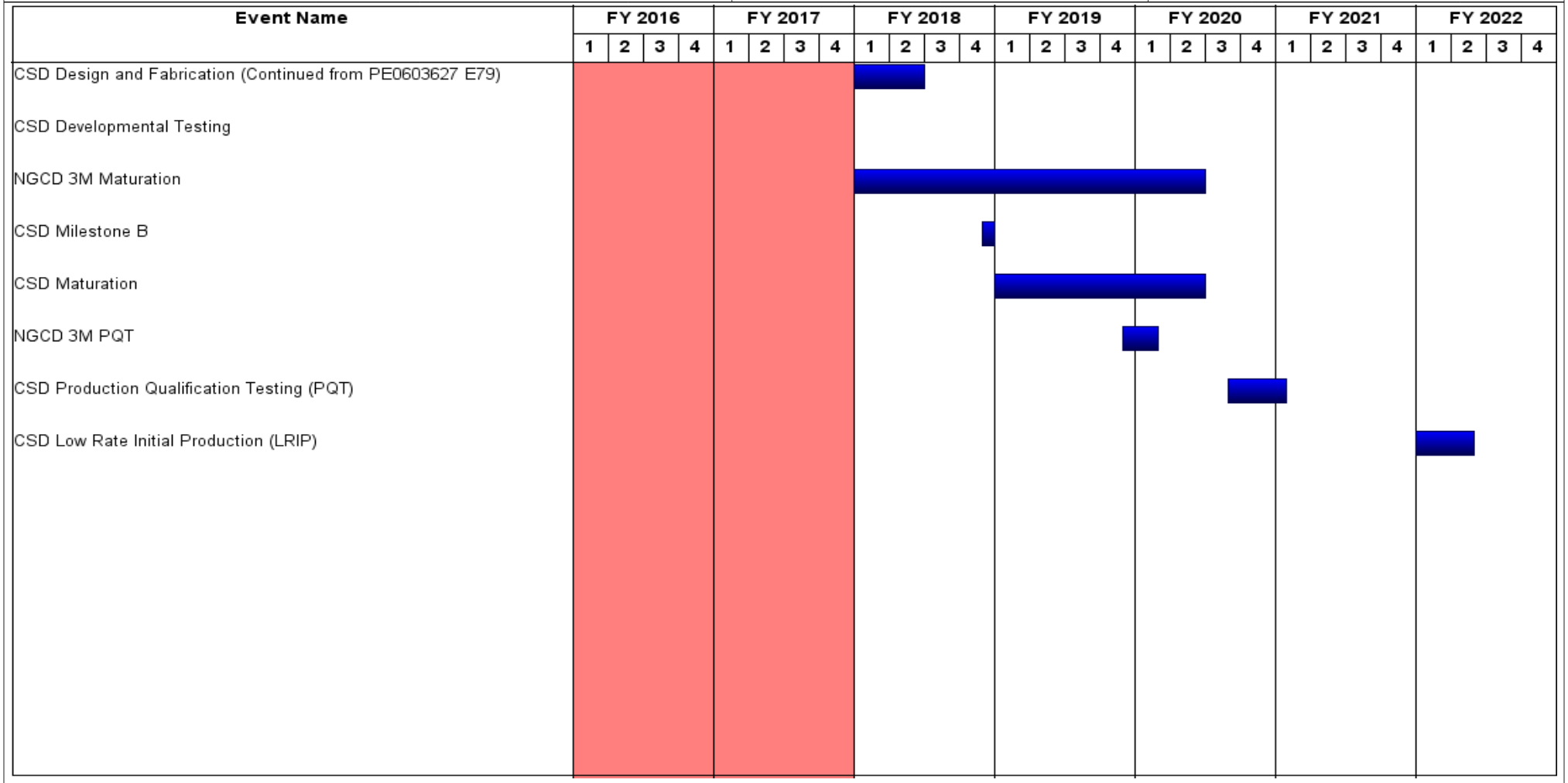

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Army		Date: May 2017
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0605038A / *NBC Reconnaissance Veh (NBCRV) Sensor Suite*	**Project (Number/Name)** EQ7 / *NBC Reconnaissance Vehicle (NBCRV) Sensor Suite*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
CSD Design and Fabrication (Continued from PE0603627 E79)	1	2018	2	2018
NGCD 3M Maturation	1	2018	2	2020
CSD Milestone B	4	2018	4	2018
CSD Maturation	1	2019	2	2020
NGCD 3M PQT	4	2019	1	2020
CSD Production Qualification Testing (PQT)	3	2020	1	2021
CSD Low Rate Initial Production (LRIP)	1	2022	2	2022