Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army

R-1 Program Element (Number/Name)

2040: Research, Development, Test & Evaluation, Army I BA 4: Advanced

PE 0603807A I Medical Systems Advanced Development

Date: February 2018

Component Development & Prototypes (ACD&P)

Appropriation/Budget Activity

, ,												
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	47.336	33.491	34.284	-	34.284	39.477	40.475	43.169	35.353	0.000	273.585
808: DoD Drug & Vacc Ad	-	14.382	14.372	14.004	-	14.004	16.125	16.548	16.948	17.372	0.000	109.751
811: Mil HIV Vac&Drug Dev	-	4.120	5.230	5.296	-	5.296	5.460	5.603	5.973	1.110	0.000	32.792
836: Field Medical Systems Advanced Development	-	17.334	13.604	14.691	-	14.691	17.599	18.022	19.937	16.871	0.000	118.058
CS4: MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)	-	7.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	7.500
FF4: Counterdrug, DDR, Sys Development & Demonstration	-	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
VS7: MEDEVAC Mission Equipment Package (MEP) - Adv Dev	-	0.000	0.285	0.293	-	0.293	0.293	0.302	0.311	0.000	0.000	1.484

### A. Mission Description and Budget Item Justification

This Program Element (PE) funds development of medical materiel within the early system integration portion of the System Development and Demonstration phase of the acquisition life cycle using 6.4 (Advanced Component Development and Prototype) funding. Program efforts support transition of promising Science and Technology candidate medical technologies (drugs, vaccines, medical devices, diagnostics, and mechanisms for detection and control of disease carrying insects) to larger scale testing in humans for safety and effectiveness. Programs are aligned to meet future force requirements identified within concept documents and organizational structures. This PE also provides funding for Food and Drug Administration (FDA) regulated human clinical trials to gain additional information about safety and effectiveness on the path to licensure for use in humans.

The Projects supported by this PE are:

Project 808 funds development of candidate medical countermeasures for infectious diseases of military relevance. Efforts include vaccines, drugs, diagnostic kits/ devices, and insect control measures. These funds support human clinical efficacy trials of the drug/vaccine in a larger group that are designed to assess performance and to continue safety assessments in a larger group of volunteers. Products from this Project will transition to PE 0604807A/Project 849.

Project 811 funds the development of military relevant human immunodeficiency virus (HIV) medical countermeasures. It provides funding for planning and conducting of human clinical trials in a group of healthy volunteers to assess the drug/vaccine for safety, tolerability, how the drug/vaccine is distributed, metabolized, and excreted from the body, and investigate the appropriate dose for therapeutic use. Products from this Project will transition to PE 0604807A/Project 812.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army

Date: February 2018

#### Appropriation/Budget Activity

R-1 Program Element (Number/Name)

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

PE 0603807A I Medical Systems Advanced Development

Project 836 funds the demonstration and validation of medical products for enhanced combat casualty care and follow-on care, including rehabilitation. This project also funds the human clinical trials that test the safety and effectiveness of biologics, devices and demonstration. Clinical trials are conducted in accordance with United States (U.S.) FDA regulations. Products from this project will transition to PE 0604807A/Project 832.

Project VS7 funds program upgrades, retrofits, trains, and sustains the fleet of Medical Evacuation legacy helicopters that continue to play a major role in Iraq and Afghanistan. The approved force design increased the number of air frames in the force from 12 to 15 aircraft for 37 medical evacuation (MEDEVAC) companies. All products from this Project will transition to PE 0604807A/Project VS8.

Project CS4 funds congressionally special interest in:Transport Telemedicine - Initiate Joint Advanced Technology Demonstration to provide Medical Treatment Facility (MTF) automatic situational awareness system to identify patients en-route to MTFs and automate paramedic tasks.

These Projects are managed by U.S. Army Medical Materiel Development Activity (USAMMDA) and U.S. Army Medical Materiel Agency (USAMMA) of the U.S. Army Medical Research and Materiel Command.

Project FF4 funded Secretary of Defense approved counterdrug advanced development efforts used in a major re-design of the Forensic Toxicology Drug Testing Laboratory (FTDTL) information management system used to test urine samples for the presence of illegal drugs. The Drug Testing Program - Client Collection System (DTP-CSS) is comprised of several variations of a desktop application used to select service members for random drug testing, prepare labels for urine specimen bottles, and print corresponding chain-of-custody documents. This Project will standardize DTP-CSS across all services and migrate it to a Web-based system.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	33.503	33.491	35.572	-	35.572
Current President's Budget	47.336	33.491	34.284	-	34.284
Total Adjustments	13.833	0.000	-1.288	-	-1.288
Congressional General Reductions	-0.015	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	7.500	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
Reprogrammings	3.506	-			
SBIR/STTR Transfer	-1.158	-			
<ul> <li>Adjustments to Budget Years</li> </ul>	-	-	-1.288	-	-1.288
OSD Directed Transfer	4.000	_	-	-	-

**Congressional Add Details (\$ in Millions, and Includes General Reductions)** 

Project: CS4: MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)

FY 2017 FY 2018

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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army	Date: Fe	ebruary 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	
2040: Research, Development, Test & Evaluation, Army I BA 4: Advanced	PE 0603807A I Medical Systems Advanced Development	
Component Development & Prototypes (ACD&P)		

Congressional Add Details (\$ in Millions, and Includes General Reductions)	FY 2017	FY 2018
Congressional Add: Congressional Special Interest_ Transport Telemedicne	7.500	-
Congressional Add Subtotals for Project: CS4	7.500	-
Congressional Add Totals for all Projects	7.500	-

# **Change Summary Explanation**

In Fiscal Year 2017 there was a Congressional Add of \$7.5 Million for Medical Systems Advanced Development Initiatives, an Office of the Secretary of Defense (OSD)-directed \$4.0 Million transfer to Project FF4, counterdrug DVR System Development and Demonstration, and there was a reprogramming action of \$3.506 Million from 0604807A/812 to 0603807A/811 for HIV Vaccine Development.

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Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2019 Army  Date: February 2018											
Appropriation/Budget Activity 2040 / 4		,				Project (Number/Name) 808 / DoD Drug & Vacc Ad						
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
808: DoD Drug & Vacc Ad	-	14.382	14.372	14.004	-	14.004	16.125	16.548	16.948	17.372	0.000	109.751
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

R Accomplishments/Planned Programs (\$ in Millions)

This Project funds development of candidate medical countermeasures for infectious diseases of military relevance. These efforts are in: vaccines, drugs, diagnostic kits/devices, and to determine if insects are infected with pathogenic organisms capable of infecting service members/preventive medicine measures. These funds support human clinical effectiveness (capacity to produce a desired size of an effect under ideal or optimal conditions) trials of the drug/vaccine in larger groups that are designed to assess how well the drug/vaccine works, and to continue safety assessments in a larger group of volunteers. Funding supports both technical evaluations and human clinical testing to assure the safety and effectiveness of medical diagnostic kits and devices. This work, which is performed in military laboratories or civilian pharmaceutical firms, is directed toward the prevention of disease, early diagnosis, and accelerated recovery time once diagnosed; to enhance battlefield readiness. All clinical trials are conducted in accordance with United States (U.S.) Food and Drug Administration (FDA) regulations, a mandatory obligation for all military products placed into the hands of medical providers or service members. Product development priorities are determined based upon four major factors: (1) the extent and threat of the disease within the Combatant Commands theater of operations, (2) the clinical severity of the disease, (3) the technical maturity of the proposed solution, and (4) the affordability of the solution (development and production).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019	
Title: DoD Drug and Vaccine Advanced Development	14.382	14.372	14.004	
<b>Description:</b> Funding is provided for the following effort in the development of candidate medical countermeasures for military relevant infectious disease.				
FY 2018 Plans:  Dengue Vaccine Block II: Will continue clinical development of the dengue human infection model, a tool used to evaluate and down select candidates transitioning from science and technology (S&T). Treatment for Resistant Wound Infections: Conduct safety and effectiveness clinical study. Next Generation Malaria Prophylaxis: Will continue the retinal (eye) safety study (3 year study) started in FY16. Will prepare the protocols for the required soldier specific studies needed for the FDA review. Rapid Diagnostic and Detection Devices (Infectious Disease Diagnostics (Multiple)): Will continue field testing and evaluation of several diagnostic product candidates to include: dengue, chikungunya and bacterial diarrhea.				
FY 2019 Plans:  Dengue Vaccine Block II: Will continue the clinical development of the dengue human infection model (DHIM), a tool for rapid evaluation of efficacy of dengue vaccines and therapeutics. Treatment for Resistant Wound Infections: Will monitor technical maturity of candidate treatments for evidence of safety and efficacy in relevant animal models. Proposed solutions could be stallone treatments or adjuncts to established medical practice. Candidate treatments could be small-molecule drugs, biologicals	nd-			

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army	Date: February 2018			
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development	umber/Name) Drug & Vacc Ad		

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
such as bacteriophages, or antibodies. Next Generation Malaria Prophylaxis: Will continue the retinal (eye) safety study (3 year study) started in FY17. Address any FDA post-marketing approval requirements. Rapid Diagnostic and Detection Devices (Infectious Disease Diagnostics (Multiple)): The dengue and chikungunya assays will continue to be developed and evaluated. Clinical testing will be conducted for dengue and clinical sites identified for chikungunya.			
FY 2018 to FY 2019 Increase/Decrease Statement:  Decrease in funding of \$19 dollars in FY19 was due to price adjustments.			
Accomplishments/Planned Programs Subtotals	14.382	14.372	14.004

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

PE 0603807A: Medical Systems Advanced Development

N/A

#### **Remarks**

### D. Acquisition Strategy

Test and evaluate in-house and commercially developed products in extensive government-managed clinical trials to gather data required for FDA licensure and Environmental Protection Agency registration.

### E. Performance Metrics

N/A

Exhibit R-3, RDT&E P	roject C	ost Analysis: PB 2	2019 Army	,								Date:	February	2018	
<b>Appropriation/Budge</b> 2040 / 4	t Activity	1	-			R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development Project (I								'	
Management Service	s (\$ in M	illions)		FY 2	2017	FY 2	2018	FY 2 Ba		FY 2		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contrac
Medical Product Development Management Services Cost	Various	Not Applicable : Not applicable	19.535	2.030		2.520		2.511		-		2.511	Continuing	Continuing	Continuir
Medical Product Development Management Services Cost	РО	General Dynamics Information Technology, : Frederick MD	2.493	2.086		2.454		2.322		-		2.322	0.000	9.355	-
													<del>                                     </del>		
		Subtotal	22.028	4.116		4.974		4.833		-		4.833	Continuing	Continuing	N/A
Product Developmen	t (\$ in Mi	Subtotal	22.028	4.116 FY 2	2017	4.974 <b>FY 2</b>	2018	4.833 FY 2 Ba		FY 20		4.833 FY 2019 Total	Continuing	Continuing	N//
Product Developmen	t (\$ in Mi Contract Method & Type	Subtotal	Prior Years		2017 Award Date		2018 Award Date	FY 2		FY 2		FY 2019	Cost To Complete	Total Cost	Target Value of
•	Contract Method	Subtotal	Prior	FY 2	Award	FY 2	Award	FY 2 Ba	se Award	FY 20 OC	O	FY 2019 Total	Cost To Complete	Total	Target Value of Contract
Cost Category Item  Medical Product	Contract Method & Type	Subtotal  Illions)  Performing Activity & Location  Not applicable : Not	Prior Years	FY 2	Award	FY 2	Award	FY 2 Ba	se Award	FY 20 OC	O	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contrac
Cost Category Item  Medical Product Development Cost Rapid Diagnostic and	Contract Method & Type Various	Performing Activity & Location Not applicable : Not applicable Inbios, Inc : Seattle	Prior Years	FY 2	Award	FY 2	Award	FY 2 Ba Cost	se Award	FY 20 OC	O	FY 2019 Total Cost	Cost To Complete	Total Cost Continuing 2.051	Target Value of Contract
Cost Category Item  Medical Product Development Cost Rapid Diagnostic and	Contract Method & Type Various C/Various	Performing Activity & Location Not applicable: Not applicable Inbios, Inc: Seattle WA	Prior Years 28.430	FY 2  Cost  2.036	Award Date	FY 2  Cost  2.803	Award Date	FY 2 Ba  Cost - 2.051	Award Date	FY 20 OC Cost	Award Date	FY 2019 Total Cost	Cost To Complete Continuing 0.000	Total Cost Continuing 2.051	Target Value of Contrac Continuin
Cost Category Item  Medical Product Development Cost  Rapid Diagnostic and Detection Devices	Contract Method & Type Various C/Various	Performing Activity & Location Not applicable: Not applicable Inbios, Inc: Seattle WA	Prior Years 28.430	Cost 2.036	Award Date	FY 2  Cost  2.803  - 2.803	Award Date	FY 2 Ba  Cost - 2.051 2.051	Award Date	FY 20 OC Cost	Award Date	FY 2019 Total  Cost  - 2.051 2.051 FY 2019	Cost To Complete Continuing 0.000	Total Cost Continuing 2.051	Target Value of Contract Continuin - N// Target Value of
Cost Category Item  Medical Product Development Cost Rapid Diagnostic and Detection Devices  Support (\$ in Millions	Contract Method & Type  Various  C/Various  Contract Method	Performing Activity & Location Not applicable : Not applicable Inbios, Inc : Seattle WA Subtotal  Performing	Prior Years 28.430 - 28.430	FY 2  Cost  2.036  - 2.036	Award Date	FY 2  Cost  2.803  - 2.803	Award Date	FY 2 Ba  Cost  - 2.051  2.051  FY 2 Ba	Award Date  019 se  Award	FY 20 Cost	Award Date	FY 2019 Total  Cost  - 2.051 2.051 FY 2019 Total  Cost	Cost To Complete Continuing 0.000 Continuing	Total Cost  Continuing  2.051  Continuing  Total Cost	Target Value of Contract  Continuin  - N//  Target Value of Contract

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army	Date: February 2018		
' ' '	,	- , (	umber/Name)
2040 / 4	PE 0603807A I Medical Systems Advanced Development	808 I DoD	Drug & Vacc Ad

Test and Evaluation	(\$ in Milli	ions)		FY 2	2017	FY 2	018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	Various	Not applicable : Not applicable	51.149	2.703		3.251		0.548		-		0.548	Continuing	Continuing	Continuin
Dengue Block II	IA	WRAIR and AFRIMS : Silver Spring MD	-	0.800		1.144		3.302		-		3.302	0.000	5.246	-
Malaria Prophylaxis clinical trial	TBD	TBD : TBD	5.099	2.200		2.200		2.050		-		2.050	0.000	11.549	-
		Subtotal	56.248	5.703		6.595		5.900		-		5.900	Continuing	Continuing	N/A
			Prior Years	FY 2	2017	FY 2	018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total	Cost To	Total Cost	Target Value of Contract
	-	Project Cost Totals	119.900	14.382		14.372		14.004		-		14.004	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army

Appropriation/Budget Activity

2040 / 4

R-1 Program Element (Number/Name)
PE 0603807A / Medical Systems Advanced
Development

Project (Number/Name)
808 / DoD Drug & Vacc Ad

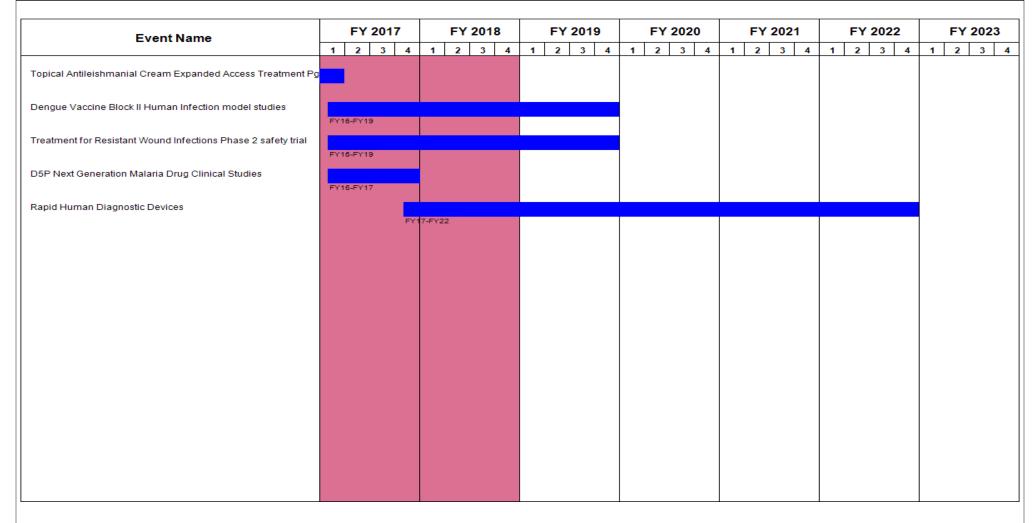


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army	Date: February 2018		
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development	, ,	umber/Name) Drug & Vacc Ad

# Schedule Details

	St	art	E	nd
Events	Quarter	Year	Quarter	Year
Topical Antileishmanial Cream Expanded Access Treatment Pgm	2	2011	1	2017
Dengue Vaccine Block II Human Infection model studies	1	2016	4	2019
Treatment for Resistant Wound Infections Phase 2 safety trial	1	2016	4	2019
D5P Next Generation Malaria Drug Clinical Studies	1	2016	4	2017
Rapid Human Diagnostic Devices	4	2017	4	2022

Exhibit R-2A, RDT&E Project Ju	stification	PB 2019 A	rmy							Date: Febr	ruary 2018	
Appropriation/Budget Activity 2040 / 4					_		•	•	Project (Number/Name) 811 / Mil HIV Vac&Drug Dev			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
811: Mil HIV Vac&Drug Dev	-	4.120	5.230	5.296	-	5.296	5.460	5.603	5.973	1.110	0.000	32.792
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

This project funds development of militarily relevant human immunodeficiency virus (HIV) medical countermeasures. It provides for the planning and conduct of human clinical trials in a group of healthy volunteers to assess for safety and tolerability of medical countermeasures, how the drug/vaccine is distributed through, metabolized in, and excreted from the body, and to investigate the appropriate dose. Development efforts are focused on militarily unique needs affecting manning, mobilization, and deployment. The cumulative cost of treating HIV-positive DoD personnel is estimated to be \$16.6 billion for 3000 personnel over a 50-year lifetime. All clinical trials are conducted in accordance with U.S. FDA regulations.

Research efforts are coordinated with the National Institutes of Health and the National Institute of Allergy and Infectious Diseases (NIAID), Division of Acquired Immune Deficiency Syndrome (DAIDS).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Military HIV Vaccine & Drug Development	4.120	5.230	5.296
<b>Description:</b> This Project funds advanced development research to develop candidate HIV vaccines, assess their safety and effectiveness in evaluations with human subjects, and protect military personnel from risks associated with HIV infection.			
FY 2018 Plans: Regional Vaccine Candidate: Completing execution of cohort study in high risk population in Thailand in preparation for start of clinical trial to Phase IIb/III effectiveness testing (testing to determine safety and performance) of vaccine regimen.			
Global Vaccine Candidate: Developing human safety study test plan for new HIV vaccine components. Initiating regulatory and scientific reviews of human safety study test plan. Preparing clinical safety study sites in Africa to execute the study of the global vaccine. Global vaccine has moved up in priority because it meets the manufacturing capability requirement and can meet the Capability Development Document threshold in one step as opposed to incrementally.			
FY 2019 Plans:  New components of the regional vaccine will be tested in FY19. This testing will determine if improved effectiveness can be achieved. This study will be conducted in three regions, and is supported by the U.S. Army and DAIDS.  The cohort studies in Thailand and Germany will be completed in FY19, with results available by the end of the FY. Selection of clinical sites for future effectiveness studies will be initiated.			
FY 2018 to FY 2019 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army			Date: February 2018
1	R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development	- , ,	umber/Name) IIV Vac&Drug Dev

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
The minor increase of funding in FY 19 was due to inflation factor.			
Accomplishments/Planned Programs Subtotals	4.120	5.230	5.296

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

N/A

### Remarks

# D. Acquisition Strategy

Test and evaluate commercially developed drug/vaccine candidates in government-managed trials.

# **E. Performance Metrics**

N/A

					UN	NCLASS	SIFIED								
Exhibit R-3, RDT&E F	Project C	ost Analysis: PB 2	019 Army	y								Date:	February	/ 2018	
Appropriation/Budge 2040 / 4	t Activity	У				R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development  Project (Number/Name) 811 I Mil HIV Vac&Drug Dev									
Management Service	es (\$ in M	lillions)		FY 2	2017	FY 2	018		2019 ase		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Medical Product Development Management Services Cost	TBD	Not Applicable : Not Applicable	3.161	0.119		0.852		-		-		-	Continuing	Continuing	Continuir
	I	Subtotal	3.161	0.119		0.852		-		-		-	Continuing	Continuing	N/A
Product Developmen	Not Applicable  Product Development (\$ in Millions)				FY 2017		018	FY 2019 Base		FY 2019 OCO		FY 2019 Total		1	1
	Contract Method	Performing	Prior		Award		Award		Award		Award		Cost To	Total	Target Value of
Cost Category Item  Medical Product	<b>&amp; Type</b> TBD	Activity & Location  Not applicable : Not	<b>Years</b> 3.797	0.284	Date	0.997	Date	Cost	Date	Cost	Date	Cost	Continuing	Cost	Continuin
Development Cost	100	applicable											_		
		Subtotal	3.797	0.284		0.997		-		-		-	Continuing	Continuing	j N//
Support (\$ in Millions	s)			FY 2	017	FY 2	018		2019 ase		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Medical Product Development Support Cost	TBD	TBD : TBD	2.282	0.157		1.112		-		-		-	0.000	3.551	-
		Subtotal	2.282	0.157		1.112		-		-		-	0.000	3.551	N/A
Remarks Not Applicable												-			

PE 0603807A: Medical Systems Advanced Development Army

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R-1 Line #68

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

Project (Number/Name)

PE 0603807A I Medical Systems Advanced Development

811 I Mil HIV Vac&Drug Dev

Test and Evaluation	(\$ in Milli	ons)		FY 2	2017	FY 2	2018	FY 2 Ba	2019 Ise	FY 2	2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	TBD	Not applicable : Not Applicable	19.978	3.560		2.269		5.296		-		5.296	0.000	31.103	-
		Subtotal	19.978	3.560		2.269		5.296		-		5.296	0.000	31.103	N/A

Remarks

2040 / 4

Not Applicable

	Prior Years	FY 2017	FY 2	018	FY 2 Ba	FY 2	2019 CO	FY 2019 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	29.218	4.120	5.230		5.296	-		5.296	Continuing	Continuing	N/A

Remarks

PE 0603807A: *Medical Systems Advanced Development* Army

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army

Appropriation/Budget Activity

2040 / 4

R-1 Program Element (Number/Name)
PE 0603807A / Medical Systems Advanced
Development

Project (Number/Name)
811 / Mil HIV Vac&Drug Dev

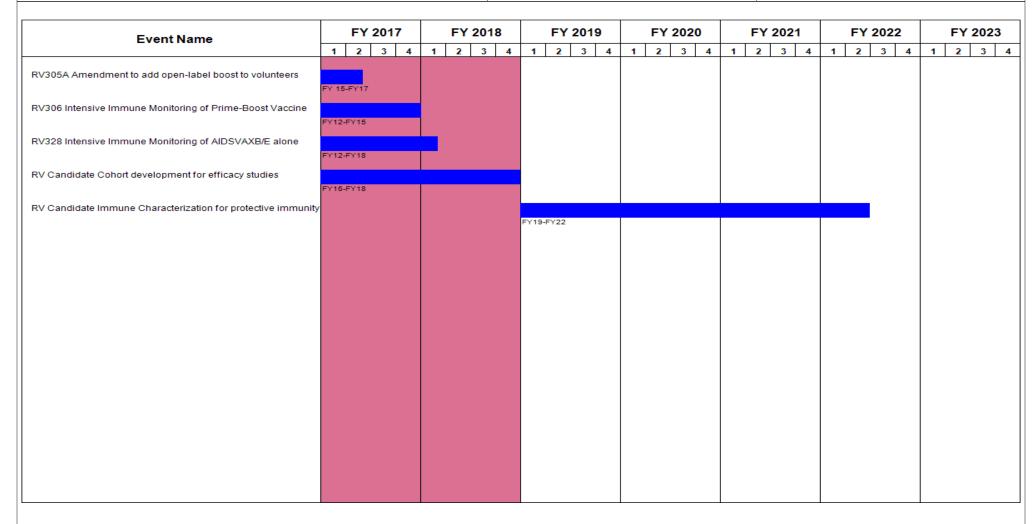


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army			Date: February 2018
1	R-1 Program Element (Number/Name) PE 0603807A / Medical Systems Advanced Development	- 3 (	umber/Name) IV Vac&Drug Dev
	Development		

# Schedule Details

	St	art	E	nd
Events	Quarter	Year	Quarter	Year
RV305A Amendment to add open-label boost to volunteers	3	2015	2	2017
RV306 Intensive Immune Monitoring of Prime-Boost Vaccine	2	2011	4	2017
RV328 Intensive Immune Monitoring of AIDSVAXB/E alone	4	2014	1	2018
RV403 to evaluate adjuvant's ability to enhance durability	2	2015	3	2015
RV Candidate Cohort development for efficacy studies	4	2016	4	2018
RV Candidate Immune Characterization for protective immunity	1	2019	2	2022

Exhibit R-2A, RDT&E Project J	ustification	: PB 2019 A	rmy							Date: February 2018		
Appropriation/Budget Activity 2040 / 4										umber/Name) Medical Systems Advanced ent		
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
836: Field Medical Systems Advanced Development	-	17.334	13.604	14.691	-	14.691	17.599	18.022	19.937	16.871	0.000	118.058
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

This Project funds the demonstration and validation of medical products for enhanced combat casualty care and follow-on care, including rehabilitation. This Project funds human clinical trials to test the safety and effectiveness of biologics (products derived from living organisms) and devices necessary to meet medical requirements. When available, commercial-off-the-shelf (COTS) medical products are also tested and evaluated for transition to engineering and manufacturing development. Consideration is also given to reducing the medical logistics footprint through smaller weight, volume, and equipment independence from supporting materials. All clinical trials are conducted in accordance with U.S. FDA regulations.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Field Medical Systems Advanced Development - Program Management (PM) Medical Devices	14.463	10.848	8.349
<b>Description:</b> Advanced Concept Development funding is provided for the following development of medical devices in support of enhanced combat casualty care.			
FY 2018 Plans: Compartment Syndrome Pressure Device: This Project transitioned to Defense Health Program funding in FY17.			
Junctional / Noncompressible Hemorrhage Control Agent: Developmental efforts will be completed and available for procurement. Intrathoracic Pressure Regulation Therapy (IPRT): Perform operational and suitability testing. Achieve Milestone B. Field Anesthesia: Performing a pivotal clinical trial on the device and working to finalize the design for production and obtain FDA clearance/approval.  Ocular Drug Delivery (Ocular Salvage Device): Starting clinical trials. Complete Milestone A and finalize the capability development document.  Portable Extracorporeal Membrane Oxidation (ECMO) device: Conduct clinical validation of prototype device. Work towards Milestone B accomplishment.  Non-invasive neuro assessment device (NINAD): Product will transition to Advanced Development in FY18. Prepare for FDA submission and initiate clinical trials.			
FY 2019 Plans: Field Anesthesia: Will continue clinical trials and prototype comparison. Temporary Corneal Repair (TCR): Continue down select activities.			

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: F	ebruary 2018	<b>,</b>
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development	Project (Number/I 836 / Field Medical Development	/anced	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019
Portable ECMO: Will continue clinical trials and device refinement. NINAD: Will continue FDA clinical trial for the indication for use of diagnosis.	ing mild traumatic brain injury.			
FY 2018 to FY 2019 Increase/Decrease Statement: Funding decrease was due to a shift in priorities from PM Devices to other	PMs to fund higher priority efforts.			
Title: Field Medical Systems Advanced Development - PM Medical Suppo	ort Systems	2.871	2.494	2.65
<b>Description:</b> Funding is provided for the following effort in the development combat casualty care and health care operations.	nt of products that support the medical mission in			
FY 2018 Plans:  Next Generation Uniform Repellent/Impregnation: Transitioning to PE 0604-Litter Transport Shock/Stressor Mitigation System (Formally: NGIS): Transference Triage Sensor System: Transitioning to PE 0604807A/Project 832 Nett Warrior Enhanced Physiological Sensors (Wearable): Collaborating with development of wearable physiological sensors.	sitioning to PE 0604807A/Project 832.			
FY 2019 Plans: Nett Warrior Enhanced Wearable Sensors: Will continue to collaborate wit of wearable sensors. Semi-autonomous casualty evacuation (CASEVAC) Ground Platform (S-N Combat Support Systems on the Ground Mobility Vehicle Infantry Squad N	MET): Will collaborate with PEO Combat Systems 8			
FY 2018 to FY 2019 Increase/Decrease Statement: The increase of funding in FY19 is due to the planned progression of mediother PEOs.	ical products under development, in collaboration v	<i>i</i> ith		
Title: Field Medical Systems Advanced Development - PM Tissue Injury a	nd Regenerative Medicine	-	0.262	2.36
<b>Description:</b> Funding for engineering and manufacturing development of for enhanced medical capability and readiness	tissue injury and regenerative medicine health prod	lucts		
FY 2018 Plans: Fracture Putty: Transition ?Fracture Putty? scaffold product from Science development, validation, and required FDA regulatory activities to achieve FY 2019 Plans:		ıp		

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PE 0603807A: Medical Systems Advanced Development Page 17 of 37 Army

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army  Date: February 2									
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development	·   ·							
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019					
Topical Burn Conversion Prevention Product: Will submit an Investiga effectiveness trials for a product to prevent superficial burn wounds from injuries.  Systemic Burn Conversion Prevention Product: Will initiate manufacture effectiveness) for a product used as an intravenous treatment in burn Permanent Acellular Arterial Graft: Will initiate manufacturing of mater support vascular grafting for extremity repair and reconstruction.	om developing into deep partial and full thickness burn uring of material and Phase 2 clinical trial (safety and injuries.	d							
FY 2018 to FY 2019 Increase/Decrease Statement: The increase of funding in FY19 is due to the planned progression of the planned	two burn medical products in development.								
Title: Field Medical Systems Advanced Development - PM Pharmace	utical Systems	-	-	1.32					
<b>Description:</b> Funding is provided for engineering and manufacturing of Manager (PM) Pharmaceuticals for enhanced combat casualty care a		1							
FY 2019 Plans: Cold Stored Platelets in Platelet Additive Solution: Will complete studies for product characterization and labeling information and effectiveness.									
FY 2018 to FY 2019 Increase/Decrease Statement: Increase is due to blood related product studies scheduled in FY19.									

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

PE 0603807A: Medical Systems Advanced Development

N/A

#### Remarks

# D. Acquisition Strategy

Develop in-house or industrial prototypes in government-managed programs to meet military and regulatory requirements for production and fielding.

# **E. Performance Metrics**

N/A

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17.334

13.604

14.691

**Accomplishments/Planned Programs Subtotals** 

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army

Date: February 2018

Appropriation/Budget Activity

2040 / 4

R-1 Program Element (Number/Name)
PE 0603807A I Medical Systems Advanced
Development

Project (Number/Name)
836 I Field Medical Systems Advanced
Development

Management Service	s (\$ in M	illions)		FY 2	2017	FY 2	2018	FY 2 Ba			FY 2019 FY 2019 OCO Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Medical Product Development Management Services Cost	Various	Not Applicable : Not applicable	41.811	3.124		1.009		0.974		-		0.974	Continuing	Continuing	Continuing
Medical Product Development Management Services Cost	C/IDIQ	Not applicable : Not applicable	-	1.200		-		1.185		-		1.185	0.000	2.385	-
		Subtotal	41.811	4.324		1.009		2.159		-		2.159	Continuing	Continuing	N/A

Product Developmen	nt (\$ in M	illions)	FY 2017		FY 2	018	FY 2019 Base		FY 2019 OCO		FY 2019 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Product Development	TBD	TBD : TBD	0.932	-		-		-		-		-	0.000	0.932	-
Medical Product Development	TBD	ALL Product : Various	1.931	1.083		0.850		2.368		-		2.368	Continuing	Continuing	Continuin
Product Development of Freeze-dried plasma	TBD	TBD : TBD	8.778	-		-		-		-		-	Continuing	Continuing	Continuin
Point of Care Coagulation Profiler	TBD	TBD : TBD	0.385	-		-		-		-		-	0.000	0.385	-
TBI Diagnostic Assay System - Increment II (benchtop/POC/ Bandits)	TBD	Banyan BioMarkers, Inc : Alachua FL	13.231	2.583		-		-		-		-	0.000	15.814	-
Impedance Threshold Device for the Treatment of Traumatic Brain Injury	TBD	Advance Circulatory Systems Inc. : Roseville, MN	2.322	-		0.626		-		-		-	0.000	2.948	-
Compartment Syndrome Pressure Device	TBD	Twinstar : Minniapolis, MN	1.871	-		-		-		-		-	0.000	1.871	-
Hydration Status Monitor	TBD	Gaia Medical : LaJolla CA	0.841	-		-		-		-		-	0.000	0.841	-
Noninvasive Neuromodulator TBI	TBD	TBD : TBD	2.036	-		2.298		-		-		-	0.000	4.334	-

PE 0603807A: *Medical Systems Advanced Development* Army

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R-1 Line #68

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army Date: February 2018 R-1 Program Element (Number/Name) Appropriation/Budget Activity Project (Number/Name) PE 0603807A I Medical Systems Advanced 2040 / 4 836 I Field Medical Systems Advanced Development Development FY 2019 FY 2019 FY 2019 **Product Development (\$ in Millions)** FY 2017 FY 2018 Base oco Total Contract Target Method Performing Prior Award Award Award Award **Cost To** Total Value of **Cost Category Item** & Type Activity & Location **Years** Cost Date Date Cost Date Cost Date Complete Cost Contract Cost Cost TBD: Various **PTSD** Various 2.032 2.300 0.000 4.332 locations Ocular Salvage Device Various TBD: TBD 2.479 2.461 0.000 4.940 **TBD** TBD: Various 3.262 1.120 0.000 6.950 Field Anesthesia 2.568 1.120 Field Sterilizer TBD TBD: TBD 3.515 3.221 3.221 0.000 6.736 HemCon Medical **Product Development TBD** Technologies: 9.720 Continuing Continuing Continuing Tigard, Oregon Banvan BioMarkers. TBD **Product Development** 31.514 Continuing Continuing Continuing Inc : Alachua FL Fast Track Drugs & Development of Platelet Biologics: Frederick. Continuina Continuina Continuina **TBD** 1.800 Derived Hemostatic agent MD Non-invasive neuro C/Various | TBD : TBD 3 874 assessment device 0.800 3 074 3 074 0.000 (NINAD) Advanced Refrigerated Platelet Storage C/Various | TBD : TBD 0.985 0.985 0.000 0.985 Technology Subtotal 78.876 11.545 11.797 10.768 10.768 Continuing Continuing N/A FY 2019 FY 2019 FY 2019 Support (\$ in Millions) FY 2017 FY 2018 Base oco Total Contract Target Method Performing Prior Award Award Award Award Cost To Total Value of Date **Cost Category Item** & Type **Activity & Location Years** Cost Date Cost Cost Date Cost Date Cost Complete Cost Contract Medical Product Not Applicable: Not Various 45.720 1.152 Continuing Continuing Continuing 0.744 0.548 1.152 Development Support Cost applicable 45.720 0.744 1.152 1.152 Continuing Continuing Subtotal 0.548 N/A

Remarks

No product/contract costs greater than \$1M individually.

PE 0603807A: Medical Systems Advanced Development Army

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army	Date: February 2018						
Appropriation/Budget Activity	,	1 Program Element (Number/Name) Project (Number					
2040 / 4	PE 0603807A I Medical Systems Advanced	836 I Field	Medical Systems Advanced				
	Development	Developme	ent				

Test and Evaluation	\$ in Millions)		FY 2	017	FY 2	2018	FY 2 Ba		FY 2	2019 CO	FY 2019 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Medical Product Development T&E Cost	TBD	Not applicable : Not applicable	37.693	0.721		0.250		0.612		-		0.612	Continuing	Continuing	Continuing
		Subtotal	37.693	0.721		0.250		0.612		-		0.612	Continuing	Continuing	N/A

#### Remarks

No product/contract costs greater than \$1M individually.

	Prior Years	FY 2	017	FY 2	018	FY 2 Ba	FY 2019 OCO	FY 2019 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	204.100	17.334		13.604		14.691	-	14.691	Continuing	Continuing	N/A

#### Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army **Date:** February 2018 Appropriation/Budget Activity R-1 Program Element (Number/Name) **Project (Number/Name)** 2040 / 4 PE 0603807A I Medical Systems Advanced 836 I Field Medical Systems Advanced Development Development FY 2017 FY 2018 FY 2019 FY 2020 FY 2021 FY 2022 FY 2023 **Event Name** 1 2 3 4 1 2 3 4 2 3 4 2 3 4 2 3 4 1 2 3 4 1 3 4 Temporary Corneal Repair R&D development Noninvasive Neuro Assessment Device development R&D development Intrathoracic Pressure Regulation Therapy R&D development Field Anesthesia R&D development Cold Stored Platelets in Platelet Additive solution R7D Development

Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army	Date: February 2018		
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 4	PE 0603807A I Medical Systems Advanced	836 I Field	Medical Systems Advanced
	Development	Developme	ent

# Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Temporary Corneal Repair	2	2016	1	2021	
Noninvasive Neuro Assessment Device development	1	2016	1	2023	
Intrathoracic Pressure Regulation Therapy	4	2015	1	2023	
Field Anesthesia	4	2017	3	2022	
Cold Stored Platelets in Platelet Additive solution	4	2017	4	2023	

Exhibit R-2A, RDT&E Project Ju		Date: Febr	bruary 2018									
PE 0603807A / Medical Systems Advanced   C						Project (N CS4 / MED INITIATIVE	DICAL SYS	AL SYSTEMS ADV DEV				
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
CS4: MEDICAL SYSTEMS ADV DEV INITIATIVES (CA)	-	7.500	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	7.500
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

# A. Mission Description and Budget Item Justification

Congressional Interest Item funding for medical systems advanced development initiatives in Transport Telemedicine - Initiate Joint Advanced Technology Demonstration for MEDHUB to provide Medical Treatment Facility (MTF) automatic situational awareness system to identify patients en-route to MTFs and automate paramedic tasks.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018
Congressional Add: Congressional Special Interest_ Transport Telemedicne	7.500	-
FY 2017 Accomplishments: N/A		
Congressional Adds Subtotals	7.500	-

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

N/A

Remarks

# D. Acquisition Strategy

N/A

#### **E. Performance Metrics**

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army		Date: February 2018	
1	,	- 3 (	umber/Name)
2040 / 4	PE 0603807A I Medical Systems Advanced	CS4 / MED	DICAL SYSTEMS ADV DEV
	Development	INITIATIVE	ES (CA)

Product Development (\$ in Millions)				FY 2	2017	FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Telemedicine product development	C/TBD	TBD/: TBD	-	7.500		-		-		-		-	0.000	7.500	-
Subtotal -				7.500		-		-		-		-	0.000	7.500	N/A
															Toward

	Prior Years	FY 2	017	FY 2	2018		2019 ise	FY 201 OCO	9 FY 2019 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	-	7.500		0.000		-		-	-	0.000	7.500	N/A

Remarks

Date: February 2018 Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name) 2040 / 4 PE 0603807A I Medical Systems Advanced CS4 I MEDICAL SYSTEMS ADV DEV INITIATIVES (CA) Development

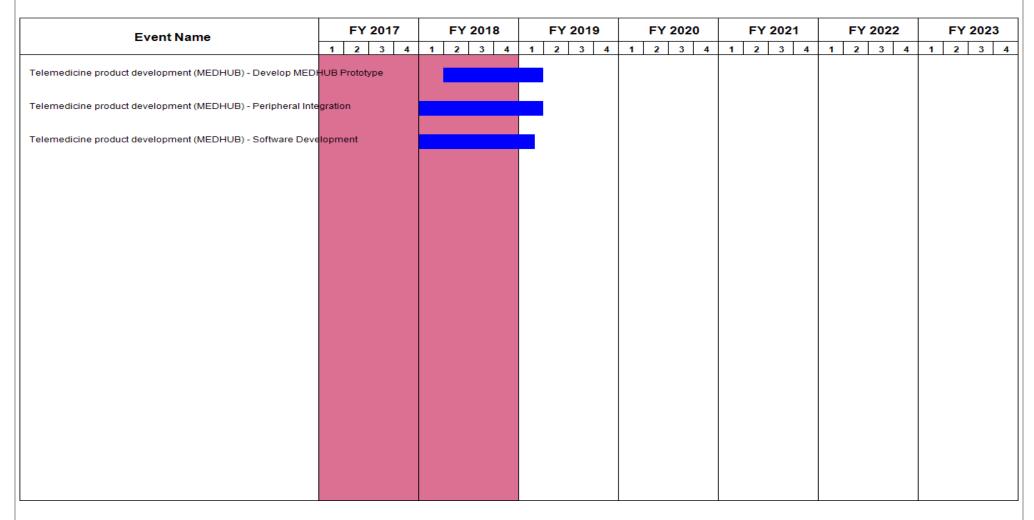


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army	Date: February 2018		
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 4	PE 0603807A I Medical Systems Advanced	CS4 / MED	DICAL SYSTEMS ADV DEV
	Development	INITIATIVE	ES (CA)

# Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Telemedicine product development (MEDHUB) - Develop MEDHUB Prototype	2	2018	1	2019	
Telemedicine product development (MEDHUB) - Peripheral Integration	1	2018	1	2019	
Telemedicine product development (MEDHUB) - Software Development	1	2018	1	2019	

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2019 Army											
Appropriation/Budget Activity 2040 / 4							<b>t (Number</b> / al Systems .	•	Project (Number/Name) FF4 I Counterdrug, DDR, Sys Development & Demonstration			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
FF4: Counterdrug, DDR, Sys Development & Demonstration	-	4.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	4.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

### A. Mission Description and Budget Item Justification

Supports the Secretary of Defense approved counterdrug advanced development efforts used in a major re-design of the Forensic Toxicology Drug Testing Laboratory (FTDTL) information management system used to test urine samples for the presence of illegal drugs. The Drug Testing Program - Client Collection System (DTP-CSS) is comprised of several variations of a desktop application used to select service members for random drug testing, prepare labels for urine specimen bottles, and print corresponding chain-of-custody documents. This Project will standardize DTP-CSS across all services and migrate it to a Web-based system.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Development and demonstration of tracking laboratory urine samples used in drug testing	4.000	-	-
Accomplishments/Planned Programs Subtotals	4.000	-	-

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

N/A

Remarks

# D. Acquisition Strategy

N/A

#### **E. Performance Metrics**

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army		Date: February 2018	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 4	PE 0603807A I Medical Systems Advanced	FF4 / Cour	nterdrug, DDR, Sys Development
	Development	& Demons	tration

Product Development (\$ in Millions)				FY 2	2017	FY 2	2018	FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/UCA	Alliant Corps LLC : San Antonio, TX	4.400	4.000		-		-		-		-	0.000	8.400	-
		Subtotal	4.400	4.000		-		-		-		-	0.000	8.400	N/A
		[													Torget

	Prior Years	FY	2017	FY 2	2018		2019 Ise	FY 201 OCO	I		Total Cost	Target Value of Contract
Project Cost Totals	4.400	4.000		0.000		-		-		- 0.000	8.400	N/A

**Remarks** 

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army

Appropriation/Budget Activity

2040 / 4

R-1 Program Element (Number/Name)
PE 0603807A / Medical Systems Advanced
Development

PF4 / Counterdrug, DDR, Sys Development
& Demonstration

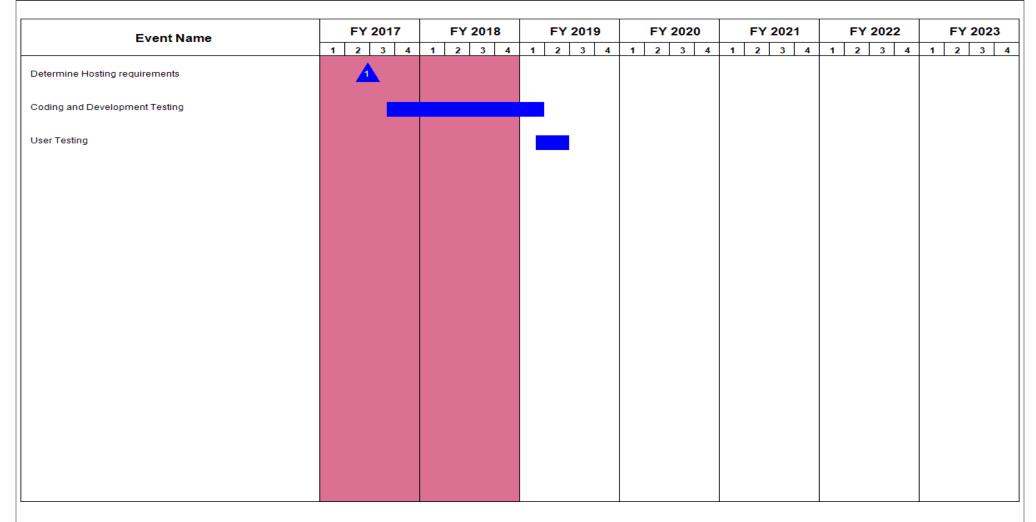


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army			Date: February 2018
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603807A I Medical Systems Advanced Development	- , (	

# Schedule Details

	Sta	art	End		
Events	Quarter	Year	Quarter	Year	
Determine Hosting requirements	2	2017	2	2017	
Coding and Development Testing	3	2017	1	2019	
User Testing	1	2019	2	2019	

Exhibit R-2A, RDT&E Project Ju	xhibit R-2A, RDT&E Project Justification: PB 2019 Army											
Appropriation/Budget Activity 2040 / 4						am Elemen 17A / Medica ent			Project (Number/Name) VS7 I MEDEVAC Mission Equipment Package (MEP) - Adv Dev			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
VS7: MEDEVAC Mission Equipment Package (MEP) - Adv Dev	-	0.000	0.285	0.293	-	0.293	0.293	0.302	0.311	0.000	0.000	1.484
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

#### Note

Medical Evacuation Enroute Care Validation Study is completed in Fiscal Year (FY) 2015. Products from this project transition to Program element (PE) 0604807A/ Project VS8 in FY 16.

#### A. Mission Description and Budget Item Justification

R Accomplishments/Planned Programs (\$ in Millions)

Original models of Army Black Hawk Medical Evacuation (MEDEVAC) helicopters continue to play a major role in maintaining high U.S. troop survival rates in Iraq and Afghanistan by evacuating wounded troops in less than one-hour. In 2009 a Vice Chief of Staff, Army (VCSA)-approved force design update increased the number of air frames in the force from 12 to 15 aircraft for 37 MEDEVAC companies to better meet operational needs. In 2010, the U.S. Army Medical Department (AMEDD) accepted life-cycle management of the MEDEVAC Evacuation Package (MEP) from PEO Aviation. In order to achieve required operational capability and enhance commonality across the MEDEVAC fleet, the MEDEVAC MEP program upgrades, retrofits, trains, and sustains the 256 MEDEVAC legacy helicopters to achieve the medical capability provided by the HH-60M, which is factory built for the MEDEVAC mission.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019	
Title: Medical Evacuation Development	-	0.285	0.293	
<b>Description:</b> This activity performs Aeromedical Evacuation Cabin and Technology Research to determine the optimum space and configuration for performing necessary life-saving paramedic-level tasks. Efforts will develop patient handling system components and prototypes to ensure paramedic skills and tasks are performed to standard to save Soldiers? lives during point of injury MEDEVAC Missions.				
FY 2018 Plans:  Medical Evacuation Development: Aeromedical Evacuation Cabin and Technology Research is determining optimum space and configuration in order to perform necessary life-saving paramedic-level tasks. Developing patient handling system components and prototypes to ensure paramedic skills and tasks are performed to standard to save Soldiers? lives during point of injury MEDEVAC Missions.				
FY 2019 Plans: Future Vertical Lift (FVL) Aeromedical Evacuation Cabin Space and Technology Research and Design (Medical Evacuation Development): Determine optimum space and configuration to perform life-saving paramedic-level tasks in current and future				

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EV 2017 EV 2010

EV 2040

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date	: February 2018	8	
Appropriation/Budget Activity 2040 / 4	PE 0603807A I Medical Systems Advanced	, , ,			
B. Accomplishments/Planned Programs (\$ in Millions) evacuation platforms. Will develop patient handling system compone performed to standard to save Soldiers? lives during MEDEVAC Mis		FY 201	7 FY 2018	FY 2019	
FY 2018 to FY 2019 Increase/Decrease Statement: Increase in funding in FY19 is due to inflation factors.					
	Accomplishments/Planned Programs Subt	totals	- 0.285	0.293	

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

N/A

Remarks

# D. Acquisition Strategy

Develop in-house or industrial prototypes in government-managed programs to meet military MEDEVAC and regulatory requirements for production and fielding.

# E. Performance Metrics

N/A

					Ur	ICLA55	DIFIED								
Exhibit R-3, RDT&E F	Project C	ost Analysis: PB 2	2019 Army	y								Date:	February	2018	
<b>Appropriation/Budge</b> 2040 / 4	t Activity	/					3807A / N		umber/N ystems A		VS7 / N	(Number MEDEVAC e (MEP) -	Mission E	Equipmer	nt
Management Service	es (\$ in M	lillions)		FY:	2017	FY 2	2018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value o Contrac
Medical Product Development Management Services Cost	TBD	APM MEDEVAC : Huntsville, AL	0.189	-		0.129		0.293		-		0.293	0.000	0.611	-
		Subtotal	0.189	-		0.129		0.293		-		0.293	0.000	0.611	N/
Product Developmer	nt (\$ in M	illions)		FY	2017	FY 2	2018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contrac
Medical Product Development Cost	TBD	APM MEDEVAC PEO Aviation : Huntsville AL	1.479	-		0.156		-		-		-	0.000	1.635	-
		Subtotal	1.479	-		0.156		-		-		-	0.000	1.635	N/
Support (\$ in Millions	s)			FY:	2017	FY 2	2018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contrac
Medical Product Development Support Cost	TBD	APM MEDEVAC : Huntsville, AL	0.911	-		-		-		-		-	0.000	0.911	-
		Subtotal	0.911	-		-		-		-		-	0.000	0.911	N/
Test and Evaluation	(\$ in Milli	ions)		FY:	2017	FY 2	2018	FY 2 Ba	2019 ise		2019 CO	FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contrac
Medical Product Development T&E Cost	MIPR	APM MEDEVAC PEO Aviation : Huntsville, AL	0.199	-		-		-		-		-	0.000	0.199	-
	1	· '	0.199										0.000	0.199	N/

PE 0603807A: *Medical Systems Advanced Development* Army

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R-1 Line #68

Exhibit R-3, RDT&E Project Cost A	<b>Analysis</b> : PB 2	2019 Army						Date:	February	2018	
Appropriation/Budget Activity 2040 / 4			PE 0603807A I Medical Systems Advanced VS7 I MED					(Number/Name) EDEVAC Mission Equipment e (MEP) - Adv Dev			
			FY 2017	FY 2018	FY 2019 Base	FY 2		′ 2019 「otal	Cost To Complete	Total Cost	Target Value of Contrac
Pro	ject Cost Totals	2.778	-	0.285	0.293	-		0.293	0.000	3.356	N/
Remarks	oject Cost Totals	2.778	-	0.285	0.293	- 1		0.293	0.000	3.356	

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Army	Date: February 2018	
Appropriation/Budget Activity 2040 / 4	PE 0603807A I Medical Systems Advanced	Project (Number/Name) VS7 I MEDEVAC Mission Equipment Package (MEP) - Adv Dev

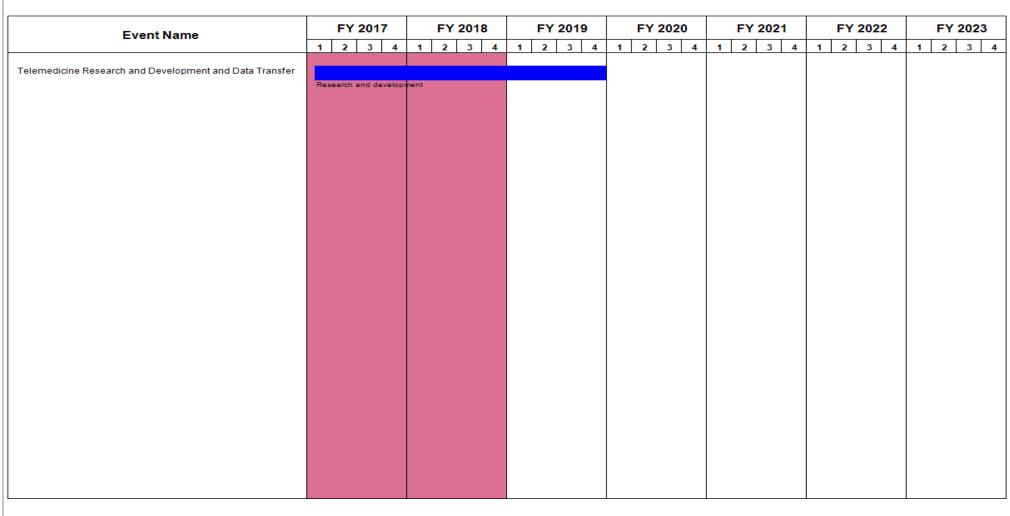


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Army	Date: February 2018		
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
2040 / 4	PE 0603807A I Medical Systems Advanced	VS7 I MED	EVAC Mission Equipment
	Development	Package (I	MEP) - Adv Dev

# Schedule Details

	St	art	End		
Events	Quarter	Year	Quarter	Year	
Telemedicine Research and Development and Data Transfer	1	2016	4	2019	