Department of Defense Fiscal Year (FY) 2019 Budget Estimates

February 2018



Defense Logistics Agency

Defense-Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

UNCLASSIFIED

UNCLASSIFIED
THIS PAGE INTENTIONALLY LEFT BLANK

Defense Logistics Agency • Budget Estimates FY 2019 • RDT&E Program

Table of Volumes

Defense Advanced Research Projects Agency	Volume 1
Missile Defense Agency	
Office of the Secretary Of Defense	Volume 3
Chemical and Biological Defense Program	Volume 4
Defense Contract Management Agency	
DoD Human Resources Activity	Volume 5
Defense Information Systems Agency	
Defense Logistics Agency	Volume 5
Defense Security Cooperation Agency	Volume 5
Defense Security Service	Volume 5
Defense Technical Information Center	Volume 5
Defense Threat Reduction Agency	Volume 5
The Joint Staff	Volume 5
United States Special Operations Command	
Washington Headquarters Service	Volume 5
Operational Test and Evaluation. Defense	Volume 5

Defense Logistics Agency • Budget Estimates FY 2019 • RDT&E Program

Defense Geospatial Intelligence Agency	(see	NIP	and MIP	Justification	n Books
Defense Intelligence Agency	(see	NIP	and MIP	Justification	n Books
National Security Agency	(see	NIP	and MIP	Justification	n Books
Defense Contract Audit Agency				٠١	/olume

Defense Logistics Agency • Budget Estimates FY 2019 • RDT&E Program

Volume 5 Table of Contents

Comptroller Exhibit R-1	Volume 5 - v
Program Element Table of Contents (by Budget Activity then Line Item Number)	Volume 5 - xxix
Program Element Table of Contents (Alphabetically by Program Element Title)	Volume 5 - xxx
Exhibit R-2's	Volume 5 - ′

UNCLASSIFIED
THIS PAGE INTENTIONALLY LEFT BLANK

Department of Defense FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Appropriation	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO	FY 2018 Total PB Requests+ with CR Adj OCO
Research, Development, Test & Eval, DW	189,190	319,796	319,796		
Total Research, Development, Test & Evaluation	189,190	319,796	319,796		

Department of Defense FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

Appropriation	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req Emergency	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	P.L.115-96***	Remaining Req
Research, Development, Test & Eval, DW				319,796		319,796
Total Research, Development, Test & Evaluation				319,796		319,796

Department of Defense
FY 2019 President's Budget
Exhibit R-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

02 Feb 2018

Appropriation	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Research, Development, Test & Eval, DW	273,011		273,011
Total Research, Development, Test & Evaluation	273,011	•	273,011

Department of Defense FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Summary Recap of Budget Activities	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base		PB Request	
Advanced Technology Development	129,264	270,925	270,925		
System Development And Demonstration	35,623	44,177	44,177		
Management Support	4,554				
Operational System Development	19,749	4,694	4,694		
Total Research, Development, Test & Evaluation	189,190	319,796	319,796		
Summary Recap of FYDP Programs					
Research and Development	169,441	315,102	315,102		
Central Supply and Maintenance	19,749	4,694	4,694		
Total Research, Development, Test & Evaluation	189,190	319,796	319,796		

Department of Defense FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Summary Recap of Budget Activities	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs		P.L.115-96***	Remaining Req
The state of the s			 270,925		270,925
Advanced Technology Development			·		
System Development And Demonstration			44,177		44,177
Management Support					
Operational System Development			4,694		4,694
Total Research, Development, Test & Evaluation			319,796		319,796
Summary Recap of FYDP Programs					
Research and Development			315,102		315,102
Central Supply and Maintenance			4,694		4,694
Total Research, Development, Test & Evaluation			319,796		319,796

Department of Defense FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Summary Recap of Budget Activities	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Advanced Technology Development	230,376		230,376
System Development And Demonstration	35,060		35,060
Management Support	4,000		4,000
Operational System Development	3,575		3,575
Total Research, Development, Test & Evaluation	273,011		273,011
Summary Recap of FYDP Programs			
Research and Development	269,436		269,436
Central Supply and Maintenance	3,575		3,575
Total Research, Development, Test & Evaluation	273,011		273,011

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Summary Recap of Budget Activities	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	
Advanced Technology Development	129,264	270,925	270,925	
System Development And Demonstration	35,623	44,177	44,177	
Management Support	4,554			
Operational System Development	19,749	4,694	4,694	
Total Research, Development, Test & Evaluation	189,190	319,796	319,796	
Summary Recap of FYDP Programs				
Research and Development	169,441	315,102	315,102	
Central Supply and Maintenance	19,749	4,694	4,694	
Total Research, Development, Test & Evaluation	189,190	319,796	319,796	

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

. Decre of Product Activities	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	P.L.115-96***	Remaining Req
Summary Recap of Budget Activities						
Advanced Technology Development				270,925		270,925
	•			44,177		44,177
System Development And Demonstration				<i>-</i>		
Management Support						4 604
Operational System Development				4,694		4,694
Total Research, Development, Test & Evaluation				319,796		319,796
Summary Recap of FYDP Programs						
				315,102		315,102
Research and Development				4,694		4,694
Central Supply and Maintenance				319,796		319,796
Total Research, Development, Test & Evaluation				315,750		

R-119PB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Page D-1A Volume 5 - xii

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Summary Recap of Budget Activities	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Advanced Technology Development	230,376		230,376
System Development And Demonstration	35,060		35,060
Management Support	4,000		4,000
Operational System Development	3,575		3,575
Total Research, Development, Test & Evaluation	273,011		273,011
Summary Recap of FYDP Programs			,
Research and Development	269,436		269,436
Central Supply and Maintenance	3,575		3,575
Total Research, Development, Test & Evaluation	273,011		273,011

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

Appropriation	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO	FY 2018 Total PB Requests+ with CR Adj OCO
Defense Logistics Agency	189,190	319,796	319,796		
Total Research, Development, Test & Evaluation	189,190	319,796	319,796		

Defense-Wide
FY 2019 President's Budget
Exhibit R-1 FY 2019 President's Budget
Total Obligational Authority
(Dollars in Thousands)

	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	P.L.115-96***	Remaining Req
Appropriation			 		
a de la companya			319,796		319,796
Defense Logistics Agency			319,796		319,796
Total Research, Development, Test & Evaluation			515,750		·

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

Appropriation	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Defense Logistics Agency	273,011		273,011
Total Research, Development, Test & Evaluation	273,011		273,011

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element Number	Item	Act	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO	FY 2018 Total PB Requests+ with CR Adj OCO	
									
48	0603680s	Manufacturing Technology Program	03	19,736	40,511	40,511			U
50	06037128	Generic Logistics R&D Technology Demonstrations	03	14,541	10,611	10,611			Ŭ
51	0603713S	Deployment and Distribution Enterprise Technology	03	6,618					Ū
53	0603720S	Microelectronics Technology Development and Support	. 03	88,369	219,803	219,803			ับ -
	Advar	ced Technology Development		129,264	270,925	270,925			
127	0605070S	DOD Enterprise Systems Development and Demonstration	05	3,661	6,266	6,266		·	Ū
129	06050805	Defense Agency Initiatives (DAI) - Financial System	05	27,194	24,436	24,436			Ū
130	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05	4,768	13,475	13,475			บ -
	Syste	em Development And Demonstration		35,623	44,177	44,177			
15	7 0605502S	Small Business Innovative Research	06	4,554					Ū
170	06069425	Assessments and Evaluations Cyber Vulnerabilities	06						_ U
	Mana	gement Support		4,554					
24	1 07080118	Industrial Preparedness	. 07	15,984					U
24	3 0708012S	Pacific Disaster Centers	07	1,690	1,770	1,770			Ŭ

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Appropriation: 0400D Research, Development, Test & Eval, DW

Line	Program Element Number	Item	Act	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	P.L.115-96***	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency	S
								40,511	TŦ
48	06036805	Manufacturing Technology Program	03			40,511		·	
50	0603712s	Generic Logistics R&D Technology Demonstrations	03			10,611		10,611	ט
51	0603713S	Deployment and Distribution Enterprise Technology	03					010 003	
53	0603720S	Microelectronics Technology Development and Support	03			 219,803		219,803	-
		and hard are Dorrol opment				270,925		270,925	
	Advan	ced Technology Development				6,266		6,266	U
127	7 0605070S	DOD Enterprise Systems Development and Demonstration	05			0,200		24.426	**
129	9 0605080S	Defense Agency Initiatives (DAI) - Financial System	05			24,436		24,436	
13	0 0605090S	Defense Retired and Annuitant Pay System (DRAS)	05			 13,475		13,475	
		-		<u></u> _		44,177		44,177	
	Syst	em Development And Demonstration							U
- 15	7 0605502S	Small Business Innovative Research	. 06						บ
17	0 06069428	Assessments and Evaluations Cyber Vulnerabilities	06			 <u> </u>			
1	Mana	gement Support							U
24	11 0708011S	Industrial Preparedness	07					1,77	_
24	43 0708012S	Pacific Disaster Centers	07			1,770		1,77	, ,

R-119PB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Page D-3A Volume 5 - xviii

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority

(Dollars in Thousands)

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2019 Base	FY 2019 OCO	FY 2019 Total	S e c
							
48	0603680S	Manufacturing Technology Program	03	49,667		25,00.	U
50	0603712S	Generic Logistics R&D Technology Demonstrations	03	11,778		11,778	ש
51	0603713S	Deployment and Distribution Enterprise Technology	03				Ü
53	0603720s	Microelectronics Technology Development and Support	03	168,931		168,931	Ŭ
	Advar	nced Technology Development		230,376		230,376	
127	7 0605070s	DOD Enterprise Systems Development and Demonstration	05	3,173		3,173	ΰ
129	9 0605080S	Defense Agency Initiatives (DAI) - Financial System	05	21,156		21,156	U
13	0 06050908	Defense Retired and Annuitant Pay System (DRAS)	05	10,731		10,731	υ -
		. The de Demonstration		35,060		35,060	
	Syst	em Development And Demonstration		,			
15	7 06055028	Small Business Innovative Research	06				U
17	0 06069428	Assessments and Evaluations Cyber Vulnerabilities	06	4,000		4,000	υ -
	Mana	agement Support		4,000		4,000	
. 2/	11 07080115		07				U
	13 0708012S	Pacific Disaster Centers	07	1,770		1,770	U

R-119PB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Volume 5 - xix

Defense-Wide FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Line No	Program Element Number	Item	Act	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO	FY 2018 Total PB Requests+ with CR Adj OCO	
244	244 0708047S	047S Defense Property Accountability	07	2,075	2,924	2,924			บ
		System Operational System Development		19,749	 4,694	4,694			
Tota		, Development, Test & Eval, DW		189,190	319,796	319,796			

Defense-Wide

FY 2019 President's Budget

Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

	Program Element Number	Item	Act 	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs		FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	P.L.115-96***	Remaining Req	е
244	0708047S	Defense Property Accountability System	07				2,924		2,924	U
	Opera	ational System Development				**************************************	4,694	<u></u>	4,694	
Tota	l Research,	, Development, Test & Eval, DW					319,796		319,796	

Defense-Wide FY 2019 President's Budget

Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item -	Act 	FY 2019 Base	FY 2019 OCO	FY 2019 Total	S e c
244	0708047S	Defense Property Accountability System	07	1,805		1,805	Ū
	Oper	ational System Development		3,575		3,575	
Tota	l Research	, Development, Test & Eval, DW		273,011		273,011	

R-119PB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Page D-4B Volume 5 - xxii

Defense Logistics Agency FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Appropriation: 0400D Research, Development, Test & Eval, DW

	Program Element Number	Item	Act	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO	FY 2018 Total PB Requests+ with CR Adj OCO	S e C 1
									
48	06036808	Manufacturing Technology Program	03	19,736	40,511	40,511			ט ט
50	0603712S	Generic Logistics R&D Technology Demonstrations	03	14,541	10,611	10,611			
51	06037138	Deployment and Distribution Enterprise Technology	03	6,618					σ
53	0603720S	Microelectronics Technology Development and Support	03	88,369	219,803	219,803			Ū
A	dvanced Tec	hnology Development		129,264	270,925	270,925		,	
127	0605070S	DOD Enterprise Systems Development and Demonstration	05	3,661	6,266	6,266			U
129	0605080S	Defense Agency Initiatives (DAI) - Financial System	05	27,194	24,436	24,436			Ū
130	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05	4,768		13,475			υ -
	System Devel	opment And Demonstration		35,623	44,177				
15	7 0605502S	Small Business Innovative Research	. 06	4,554					ū
17	0 06069428	Assessments and Evaluations Cyber Vulnerabilities	06	m					-
:	Management :	Support		4,554					
24	1 0708011S	Industrial Preparedness	07	15,984					Ū
24	3 0708012S	Pacific Disaster Centers	07	1,690	1,770				U
24	4 0708047S	Defense Property Accountability System	07	2,075	2,924	2,924			υ -
	Operational	System Development		19,749	4,694	4,694			

R-119PB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Volume 5 - xxiii

Defense Logistics Agency FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Appropriation: 0400D Research, Development, Test & Eval, DW

rppro	,p11001011				FY 2018		FY 2018	FY 2018		
	Program Element Number	Item	Act	FY 2018 Emergency Requests** Emergency	Less Enacted Div B P.L.115-96***	FY 2018 Remaining Req Emergency	Total PB Requests* with CR Adj	Less Enacted DIV B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req with CR Adj Base + OCO + Emergency	
									40,511	ΓT
48	0603680S	Manufacturing Technology Program	03				40,511		•	
50	0603712S	Generic Logistics R&D Technology Demonstrations	03				10,611		10,611	
51	0603713S	Deployment and Distribution Enterprise Technology	03							U
53	0603720s	Microelectronics Technology Development and Support	03				219,803		219,803	Ū
_	A max	chnology Development					270,925		270,925	
		DOD Enterprise Systems Development	05				6,266		6,266	U
127	0605070s	and Demonstration	0.5							
129	0605080S	Defense Agency Initiatives (DAI) - Financial System	05				24,436		24,436	
130	06050908	Defense Retired and Annuitant Pay System (DRAS)	05				13,475	···	13,475	U •
		lopment And Demonstration					44,177		44,177	
	system beve		06							U
15	7 0605502S	Small Business Innovative Research								U
17	0 0606942S	Assessments and Evaluations Cyber Vulnerabilities	06							-
;	Management	Support								
24	1 0708011S	Industrial Preparedness	07							Ŭ
24	3 0708012S	Pacific Disaster Centers	07				1,770	1	1,770	
	4 0708047S	Defense Property Accountability System	0.7				2,924		2,924	U
		-					4,694	<u> </u>	4,694	
	Operational	l System Development								

R-119PB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Volume 5 - xxiv

Defense Logistics Agency FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority

(Dollars in Thousands)

Appropriation: 0400D Research, Development, Test & Eval, DW

	Program Element Number	Item	Act	FY 2019 Base	FY 2019 OCO	FY 2019 Total	s e c
48	0603680S	Manufacturing Technology Program	03	49,667		49,667	υ
50	0603712S	Generic Logistics R&D Technology Demonstrations	03	11,778		11,778	U
51	0603713S	Deployment and Distribution Enterprise Technology	03				Ū
53	0603720s	Microelectronics Technology Development and Support	03	168,931		168,931	
A	dvanced Tec	chnology Development		230,376		230,376	
127	0605070S	DOD Enterprise Systems Development and Demonstration	05	3,173		3,173	U
129	0605080\$	Defense Agency Initiatives (DAI) - Financial System	05	21,156	<i>:</i>	21,156	ט
130	0605090S	Defense Retired and Annuitant Pay System (DRAS)	05	10,731		10,731	
S	System Devel	Lopment And Demonstration		35,060		35,060	
157	7 0605502S	Small Business Innovative Research	06	,			บ
170	0606942S	Assessments and Evaluations Cyber Vulnerabilities	06	4,000		4,000	Ū
1	Management :	Support		4,000		4,000	
24	1 0708011s	Industrial Preparedness	07				Ū
24	3 0708012s	Pacific Disaster Centers	07	1,770		1,770	ΰ
24	4 07080 4 7S	Defense Property Accountability System	07	1,805		1,805	บ -
	Operational	System Development		3,575		3,575	

R-119FB: FY 2019 President's Budget (Published Version), as of February 2, 2018 at 12:42:22

Volume 5 - xxv

Defense Logistics Agency FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Line No	Program Element Number	Item	Act	FY 2017 (Base + OCO)	FY 2018 PB Request with CR Adj Base	FY 2018 Total PB Requests* with CR Adj Base	FY 2018 PB Request with CR Adj OCO	FY 2018 Total PB Requests+ with CR Adj OCO	
Tota	l Defense L	ogistics Agency		189,190	 319,796	319,796			

Defense Logistics Agency FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Line No	Program Element Number	Item	Act	FY 2018 Emergency Requests** Emergency	FY 2018 Less Enacted Div B P.L.115-96*** MDDE + Ship Repairs	FY 2018 Remaining Req Emergency	FY 2018 Total PB Requests* with CR Adj Base + OCO + Emergency**	FY 2018 Less Enacted DIV B P.L.115~96*** MDDE + Ship Repairs	Remaining Req with CR Adj Base + OCO +	S
Tota	l Defense L	ogistics Agency		,		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	319,796		319,796	

Defense Logistics Agency FY 2019 President's Budget Exhibit R-1 FY 2019 President's Budget Total Obligational Authority (Dollars in Thousands)

02 Feb 2018

Line No	Program Element Number	Item	•	Act	FY 2019 Base	FY 2019 OCO	FY 2019 Total	6
Tota	l Defense I	Logistics Agency			273,011		273,011	

Defense Logistics Agency • Budget Estimates FY 2019 • RDT&E Program

Program Element Table of Contents (by Budget Activity then Line Item Number)

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Line #	Budget Acti	vity Program Element Number	Program Element Title Page	,
48	03	0603680S	Manufacturing Technology Program (ManTech)Volume 5 - 1	_
50	03	0603712S	Logistics Research and Development Technology (Log R&D)	į
51	03	0603713S	Deployment and Distribution Enterprise Technology	į
53	03	0603720S	Microelectronics Technology Development and Support (DMEA)Volume 5 - 31	

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Line #	Budget Activit	y Program Element Number	Program Element Title	Page
127	05	0605070S	DoD Enterprise Systems Development and DemonstrationVolume	5 - 39
129	05	0605080S	Defense Agencies Initiative (DAI) - Financial SystemVolume	5 - 45
130	05	0605090S	Defense Retired and Annuitant Pay System (DRAS)Volume	5 - 59

UNCLASSIFIED

Defense Logistics Agency • Budget Estimates FY 2019 • RDT&E Program

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Line #	Budget Activity	y Program Element Number	Program Element Title Page
157	06	0605502S	Small Business Innovative Research (SBIR)
170	06	0606942S	Cyber Vulnerability Assessment and Mitigation

Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Line #	Budget Activi	ty Program Element Number	Program Element Title Page
241	07	0708011S	Industrial PreparednessVolume 5 - 71
243	07	0708012S	Pacific Disaster CentersVolume 5 - 79
244	07	0708047S	Defense Property Accountability System (DPAS)

Defense Logistics Agency • Budget Estimates FY 2019 • RDT&E Program

Program Element Table of Contents (Alphabetically by Program Element Title)

Program Element Title	Program Element Number	Line #	BA Page
Cyber Vulnerability Assessment and Mitigation	0606942S	170	06Volume 5 - 69
Defense Agencies Initiative (DAI) - Financial System	0605080S	129	05Volume 5 - 45
Defense Property Accountability System (DPAS)	0708047S	244	07Volume 5 - 87
Defense Retired and Annuitant Pay System (DRAS)	0605090S	130	05Volume 5 - 59
Deployment and Distribution Enterprise Technology	0603713S	51	03Volume 5 - 23
DoD Enterprise Systems Development and Demonstration	0605070S	127	05Volume 5 - 39
Industrial Preparedness	0708011S	241	07Volume 5 - 71
Logistics Research and Development Technology (Log R&D)	0603712S	50	03Volume 5 - 13
Manufacturing Technology Program (ManTech)	0603680S	48	03Volume 5 - 1
Microelectronics Technology Development and Support (DMEA)	0603720S	53	03Volume 5 - 31
Pacific Disaster Centers	0708012S	243	07Volume 5 - 79
Small Business Innovative Research (SBIR)	0605502S	157	06Volume 5 - 65

THIS PAGE INTENTIONALLY LEFT BLANK	UNCLASSIFIED
	THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3:

PE 0603680S I Manufacturing Technology Program (ManTech)

Date: February 2018

Advanced Technology Development (ATD)

, a contract ()												
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	0.000	19.736	40.511	49.667	-	49.667	40.848	41.199	41.382	42.169	Continuing	Continuing
IBMP: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	0.000	14.157	16.227	16.109	-	16.109	16.670	16.519	16.686	17.131	Continuing	Continuing
AAA: Maintaining Viable Supply Sources (formerly High Quality Sources)	0.000	4.302	17.103	27.770	-	27.770	19.422	19.749	19.825	20.094	Continuing	Continuing
OOO: Improving Technical and Logistics Information (formerly Industry and Customer Collaboration	0.000	1.277	7.181	5.788	-	5.788	4.756	4.931	4.871	4.944	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Manufacturing Technology (ManTech) Program funds the advanced technology development needed to achieve a responsive, efficient domestic industrial base that affordably meets the warfighters' needs in a timely manner. The ManTech program works with DLA's diverse supply chains to improve manufacturing capability throughout a product's life cycle. It provides the crucial link between invention and application by maturing, scaling up, and validating advanced manufacturing technology in "real world" environments. ManTech developments provide a path to low-risk technology implementation for the many small businesses and defense unique suppliers as well as depots and shipyards that are critical to DLA. By anticipating and addressing production and sustainment problems before they occur, readiness levels increase and sustainment costs are lower.

DLA ManTech is aligned into three Strategic Focus Areas (SFA): 1) Improving Industrial Base Manufacturing Processes; 2) Maintaining Viable Sources of Supply; and 3) Improving Technical and Logistics Information.

- The Improving Industrial Base Manufacturing Processes SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA has supply chain focused execution portfolios for food (Subsistence Network Procurement), Castings (Procurement Readiness Optimization—Advanced Casting Technology), Forgings (Procurement Readiness Optimization—Forging Advance System Technology), Batteries (Battery Network) and Additive Manufacturing.
- Maintaining Viable Supply Sources includes efforts to assure the commercial industrial base can satisfy DLA material requirements without relying on foreign sources for microcircuits and critical strategic materials. This strategic focus area mitigates supply issues caused by the lack of a reliable domestic manufacturing capability to produce products or raw materials needed to build and maintain weapon systems. The major focus of the program is maintaining a reliable, trusted, domestic source for

UNCLASSIFIED
Page 1 of 12

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)

R-1 Program Element (Number/Name)

PE 0603680S I Manufacturing Technology Program (ManTech)

Date: February 2018

"non-procurable" linear and digital microcircuits. Microcircuit emulation allows the Services to save significant costs by using form, fit and functionally equivalent spare parts rather than redesigning the next-higher-assembly.

• The Improving Technical and Logistics Information SFA include efforts to improve and facilitate the exchange of engineering and logistics information among DLA, the Military Services, DLA industry partners and DLA customers. It includes the Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) programs. A primary focus of this SFA is to capitalize on the emerging "Model Based Enterprise" paradigm and the semantic web as an enabler to a logistics system that is smart and connected up and down the supply chain and across all DLA Customers and suppliers. A major focus is to transform DoD engineering data from two-dimensional paper-based products to three-dimensional computer based models, and to develop processes to move from "electronic paper" (i.e. PDF files) to technical data files that can interface directly with industries' engineering systems. The benefits include shorter product introduction cycles, lower set up-costs for parts production and more economical small batch production.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	31.259	40.511	50.098	-	50.098
Current President's Budget	19.736	40.511	49.667	-	49.667
Total Adjustments	-11.523	0.000	-0.431	-	-0.431
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
Congressional Adds	10.000	-			
Congressional Directed Transfers	-	-			
Reprogrammings	-20.185	-			
SBIR/STTR Transfer	-1.338	-			
Inflation Adjustment	-	-	-0.431	-	-0.431

Change Summary Explanation

In FY2017, Manufacturing Technology received a Congressional Add for \$10M for the Casting program with emphasis on Steel Castings. Under the FY2017 CR, PE 30603680S was considered a new start so ManTech business was executed under 70708011S resulting in reprogramming amount of \$16.184M. The remaining reprogramming amount is a \$1.963M reprogramming to Generic Logistics R&D as well as the USTRANSCOM amount owed to ManTech in the amount of \$2.218M. Under the FY2017 CR, a portion of ManTech's funding was provided to USTRANSCOM to continue business operations. Upon enactment, the USTRANSCOM funding is being returned to ManTech. In FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$1.338M.

In FY2019, program increased for the development of electron beam manufacturing processes for microcircuits (+\$9.000M – to Maintaining Viable Supply Sources). Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019.

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 2 of 12

R-1 Line #48

Volume 5 - 2

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency									Date: February 2018			
Appropriation/Budget Activity 0400 / 3					PE 0603680S I Manufacturing Technology Program (ManTech)				Project (Number/Name) IBMP I Improving Industrial Base Manufacturing Processes (formerly Material Availability)			
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
IBMP: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	0.000	14.157	16.227	16.109	-	16.109	16.670	16.519	16.686	17.131	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Improving Industrial Base Manufacturing Processes Strategic Focus Area (SFA) is an R&D effort undertaken with DLA's suppliers to reduce material costs, reduce the length and variability of production lead-times, assure DLA managed products meet performance requirements, and continuously improve quality and reliability. Benefits of this SFA include lower material costs, lower inventory levels and more predictable Customer Wait Times, fewer quality deficiencies, and lower customer support costs. This SFA includes within its scope the Subsistence Network, the Battery Network, the Castings/Forging programs and Additive Manufacturing programs.

The Battery Network (BATTNET) objective is to develop the next generation of battery manufacturing technologies for cost and price efficiency, longer shelf life, and lighter batteries with higher energy. BATTNET conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher a Manufacturing Readiness Level (MRL) for specific groups of batteries. BATTNET also focuses on projects to develop the production capability for advanced lithium-based non-rechargeable and rechargeable batteries to ensure the prompt and sustained availability, quality, and affordability of Service approved batteries. Desired outcomes include: streamlined inventory and associated cost reductions through standardization and improved distribution practices; resolved obsolescence issues; addressed surge and sustainment issues; enhanced security of supply chain; increased competition and manufacturing base; reduced per unit battery cost; and leveraged Service-level (Army, Navy, Air Force) and other governmental (DOE, DOT, NASA) R&D efforts to insert new technology and practices into the existing DLA battery inventory.

The Subsistence Network (SUBNET) Program is the successor to the Combat Rations Network R&D program. SUBNET focuses on solutions to develop and promote manufacturing improvements in the subsistence supply chain. The program's expanded areas of interest include: combat rations, food equipment, field feeding solutions, food footprint, food innovations, food safety and defense developments, garrison feeding, nutrition and health, storage and packing solutions, surge and sustainment support, and water security. SUBNET forms a community of practice with Military Services, U.S. Department of Agriculture, Natick Soldier Research Development, and Engineering Center; Academia, and Industry to research and promote manufacturing improvements in the Subsistence Supply Chain with the goals of maximizing capability and capacity to produce, and to encourage innovation and modernization needed to leverage the latest technologies. Desired outcomes include: reduced cost, increased efficiencies, enhanced quality, and improved surge demand capabilities.

The Casting program works to ensure a stable, reliable, and competitive domestic casting industrial base for the weapon system needs of the Department of Defense (DoD). Castings works with industry, universities, and the Casting Industry Associations to identify projects to improve the materials, processes and business practices of the nation's foundry industry. The program aligns its projects with strategic issues and focus areas within the DLA and DoD. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Cast parts are ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered, up to 10% are castings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed, these capabilities will support the foundry industry,

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 3 of 12

R-1 Line #48

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	су	Date: February 2018	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 3	PE 0603680S I Manufacturing Technology	IBMP / Imp	proving Industrial Base
	Program (ManTech)	Manufactu	ring Processes (formerly Material
		Availability)

where these technologies will be tested and implemented, usually in conjunction with the industry associations. These advancements improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

The Forging program works to ensure a stable, reliable, and competitive domestic forging industrial base for the weapon system needs of the Department of Defense and the Defense Logistics Agency. Working with industry, universities, and the Forging Industry Association to identify projects to improve the materials, processes and business practices of the nation's forging industry. The program aligns its projects with strategic issues and focus areas within the DLA and DoD. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Forged parts are ~2% of National Stock Number (NSN) Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered, up to 10% are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the forging industry, where these technologies will be tested and implemented in conjunction with the industry associations. These advancements improve the forging supply chains for the DoD and the DLA to better support the warfighter. We will invest in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DoD weapon systems.

The Additive Manufacturing (AM) objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA is pursing all AM technology as a lead-time and inventory reduction enabler. The AM effort pursues alternate means of supply for products that are otherwise non-procurable or susceptible to procurement issues due to an unresponsive manufacturing vendor base. The AM effort includes the identification of AM candidates among the population of products that are needed but hard to obtain, costly or have long manufacturing lead times. The AM effort requires management of 3D digital technical and manufacturing data. In addition, the AM effort includes the development of the processes that will tie the designers, engineers, maintainers, logisticians, procurement managers and the vendor base into a seamless AM procurement stream. Potential benefits include products that can address an unfulfilled Warfighter readiness need by reducing production lead times, production costs, storage costs, transportation costs and in some cases fuel consumption due to lighter design and material options. DLA R&D will leverage these efforts with Industry, Academia and ongoing Military Service-level agreements (Army, Navy, Marine Corps, Air Force), Oak Ridge National Laboratory (ORNL) and the Department of Energy.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	14.157	16.227	16.109
FY 2018 Plans: The Battery Network will initiate new projects and continue efforts from FY17 for improving the production readiness, transition and standardization of soldier and system batteries within the DLA supply chain. The Battery Network will also transition new battery manufacturing technologies developed in Small Business Innovative Research (SBIR) - electrode laser cutting, solvent-free electrode production, low cost materials production or recycling, advanced performance cells. DLA will also continue initiatives for manufacturing and material improvements in the vacuum electron tube supply base (used in microwave and rada systems) and pursue additional opportunities.			

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 4 of 12

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Lo	ogistics Agency	Date:	February 2018	8	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S I Manufacturing Technology Program (ManTech)	Project (Number/Name) IBMP I Improving Industrial Base Manufacturing Processes (formerly I Availability)			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019	
The Subsistence Network program plans to initiate and execute she SUBNET will also continue to pursue SBIR Topics in Subsistence. Community partners (military services, industry, and academia) to I modernization, and promote manufacturing improvements in the sufficient of the Castings program plans to investigate, develop and deploy in supply chains for the Department of Defense and the Defense Log Announcement (BAA) closed in FY17 and from that, we competitive required to include a business case with specific metrics and a transfer executing projects approved and awarded in prior years. The Forging program will continue executing projects approved and receive an increase in funding to cover the unfunded requirements develop and deploy innovative enterprise and technical solutions to the warfighter. We competitively award contracts to fulfill those required to increase and transition plan for success.	The Subsistence Network will also continue to work with everage the latest technologies, encourage innovation and ubsistence supply chain. novative enterprise and technical solutions to improve cast istics Agency to support the warfighter. A Broad Agency rely award contracts to fulfill those requirements. Projects resition plan for success. The Casting program will also condition to the property of the propert	ting will be optinue will gate, upport			
The AM program plans to leverage Industry and the Military Service with the Army, Navy, Marine Corps, Air Force) ORNL and the Department of Marine Under the respective agreements. Desired outcome methodologies for AM, identification of AM applications for castings castings using AM, exploration of conversion of recyclable material AM purposes, and optimization of polymer and metal AM production parts. These efforts seek to increase the number of AM parts qualified time, storage costs, transportation costs, in some cases reducted options. Overall DLA Enterprise AM efforts will provide alternatives readiness needs. FY 2019 Plans: The Battery Network will initiate new projects for improving the product of the program will be provided in the program will be producted by industry – advanced electrical desired in the program will be producted by industry – advanced electrical desired in the program will be producted in the program will be producted by industry – advanced electrical desired in the program will be producted in the program will be	artment of Energy by providing funding for AM support act is include: acceleration of rapid qualification and certification and forging preforms, rapid cast production and repair of its to AM material, improved reverse engineering processed in to obtain land, air and sea and expeditionary platform so fied for procurement and achieve savings from the association of fuel consumption due to lighter design and materials in product realization in order to address unfulfilled Warfiglians and the consumption and standardization of soldies also leverage new battery manufacturing technologies for the consumption of soldies.	ivities on f es for pare ated al ghter er or the			

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 5 of 12

	UNCLASSIFIED					
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Lo	ogistics Agency		Date: F	ebruary 2018	3	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S I Manufacturing Technology Program (ManTech)	IBMP I Manufa	Project (Number/Name) BMP I Improving Industrial Base Manufacturing Processes (formerly Ma			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2017	FY 2018	FY 2019	
advanced performance cells, and deep-discharge lithium-ion capal requirements for manufacturing and material improvements in the						
The Subsistence Network program plans to research and execute supply chain in FY19, and continue efforts from FY18. The Subsist to leverage technology innovations and promote manufacturing impulsistence. The Subsistence Network will work with community the latest technologies, encourage innovation and modernization, a supply chain.	ence Network will attend subsistence trade and industry of provements. The program will also pursue SBIR Topics in partners (military services, industry, and academia) to leve	events I erage				
The Castings program plans to research, develop and deploy innocompetitive domestic industrial base for the DoD and DLA in support competitively awarded contracts to fulfill these requirements; project and a transition plan for success. The Casting program will continue Associations to identify improvements to materials, processes, and Casting program will continue to execute projects approved and avidevelopment and needs while executing projects awarded in FY19	ort of the needs of the warfighter. The program will use cts are required to include a business case with specific more to work with industry, academia, and the leading Indust I business practices of the nation's metal casting industry. Warded in prior years but will also maintain focus on future	ry . The				
The Forging program will investigate, develop and deploy innovative supply chain and the forging industry. The program will explore altermodeling to reduce production lead time and costs. Enhancements process and post-processing improvements are some projects that warfighter. The Forging program will also continue to execute projects.	ernative forging manufacturing methods, materials and so to modeling and simulation software coupled with forging talign the forging program with fulfilling the needs of the					
The AM Program plans to fund technically proficient efforts that act for AM items, identify the best AM applications for castings and for using an AM technical data package at simultaneous geographic p deployed at expeditionary sea, land or air bases. Using market res Announcements (BAA), DLA R&D will identify the best courses of a data to keep these items competitive. The DLA R&D efforts include effectively manage manufacturing data and maintain a consistent A Collaboration will continue with the Military Service Engineering St. Navy, Marine Corps, Air Force) and the Department of Energy by page 1.	ging preforms, achieve precise repeatability of part fabrications of need and prove the delivery of AM parts to warfig earch, requests for information/proposals, Broad Agency action to negotiate intellectual property for AM fabrication to the proof of concept of using digital thread methodologies and product from design through qualification and acceptate apport Activities (via Service-level agreements with the Arman and acceptation and acceptations are service-level agreements.	es to nce. my,				

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED Page 6 of 12

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics A	gency	'	Date: F	ebruary 2018	3	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S I Manufacturing Technology Program (ManTech)	IBMP / II	ect (Number/Name) P I Improving Industrial Base ufacturing Processes (formerly Nability)			
B. Accomplishments/Planned Programs (\$ in Millions) agreements. The partnership with ORNL will allow further options with the E Military Services and Industry collaboration to develop digital verification and key performance parameters) of AM technical data and first article testing for items. These efforts seek to increase the number of AM parts qualified for plead-time, storage costs, transportation costs, in some cases reduction of footions.	d validation (including measures of effectiveness or polymers and metals, and critical and non-criti procurement and achieve savings from the assoc	erage s and cal iated	Y 2017	FY 2018	FY 2019	
FY 2018 to FY 2019 Increase/Decrease Statement: FY19 increase is to begin to automate combat rations visual inspections an packaging systems for combat rations.	d prepare for future innovative nanotechnology					

Accomplishments/Planned Programs Subtotals

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

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

E. Performance Metrics

40% of applicable projects (ex. non-studies) will transition.

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 7 of 12

R-1 Line #48

14.157

16.227

16.109

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2019 D	efense Log	istics Agen	су					Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 3					PE 0603680S / Manufacturing Technology				Project (Number/Name) AAA I Maintaining Viable Supply Sources (formerly High Quality Sources)			
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
AAA: Maintaining Viable Supply Sources (formerly High Quality Sources)	0.000	4.302	17.103	27.770	-	27.770	19.422	19.749	19.825	20.094	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Maintaining Viable Supply Sources SFA are projects undertaken to assure that the industrial base can respond to DLA requirements and DLA can fill military customers' material requirements reliably and consistently. Benefits include eliminating cancelled requisitions returned to customers as "non-procurable." This strategic focus area includes within its scope the former Material Acquisition Electronics (MAE) program.

The MAE Roadmap has four major thrusts in Digital Microcircuits: Advanced Schottky TTL, TTL Compatible CMOS, 512 Kilobit RAM/ROM and Mega Gate ASIC. The Roadmap also includes a new major thrust area: Linear Microcircuits. Over the past several years, obsolescence in this class of microcircuits has greatly increased and has become a significant concern. These are classes of microcircuits that are expected to become non-procurable in FY 17 and beyond. Without the technologies planned on the MAE Roadmap, DLA will not be able to support DoD's requirements for high quality spare parts for critical electronic systems and subsystems.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Maintaining Viable Supply Sources (formerly High Quality Sources)	4.302	17.103	27.770
FY 2018 Plans: MAE will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. MAE will continue a major new thrust in emulation to address Linear Microcircuits in addition to its traditional focus on Digital. Several efforts will address basic design, manufacturing, electrical test and quality/reliability requirements for establishing a basis for product-oriented developments across the FYDP. MAE will also complete development and transition TTL-Compatible CMOS Microcircuit Emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. The newly transitioned emulation capabilities will address several discontinued device families and will increase the potential emulation production envelope by several hundred NSNs. MAE will also continue development of additional emulation capabilities including development of a 1 million gate Application-Specific Integration Circuit (ASIC) and 256K Read-Only and Random-Access Memory Emulation Capabilities. It will begin applying 350 nanometer emulation technology to specific part families for additional NSNs.			
FY 2019 Plans: MAE will continue planning for the specific emulation technology implementations to support specific device family groups in consonance with Customer and Agency requirements. It will begin digital microcircuit process development at the 250 nanometer technology node including development of electron-beam lithography techniques. MAE will continue a major new thrust in emulation to address Linear Microcircuits in addition to its traditional focus on Digital. Several efforts will address basic design,			

PE 0603680S: Manufacturing Technology Program (ManTec...
Defense Logistics Agency

UNCLASSIFIED
Page 8 of 12

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	су	Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
0400 / 3	PE 0603680S I Manufacturing Technology	AAA I Maintaining Viable Supply Sources
	Program (ManTech)	(formerly High Quality Sources)

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
manufacturing, electrical test and quality/reliability requirements for establishing a basis for product-oriented developments across the FYDP. MAE will complete and transition 20-Volt operational amplifier emulation capability into full-scale production increasing DLA's ability to re-establish sourcing of non-procurable microcircuit NSNs. MAE will continue 40-Volt operational amplifier and analog switch projects started in FY18. It will continue applying 350 nanometer emulation technology to specific part families for additional NSNs including 256K Static Random Access Memory (SRAM).			
FY 2018 to FY 2019 Increase/Decrease Statement: The proposed FY19 one-year \$9M investment in equipment will graduate the Advanced Microcircuit Emulation program from soon to be antiquated photolithographic manufacturing techniques to use the more advanced electron beam lithography microcircuit manufacturing methods, which will support at least two future generations of technology over 10 to 15 years.			
Accomplishments/Planned Programs Subtotals	4.302	17.103	27.770

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

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

E. Performance Metrics

40% of applicable projects (ex. non-studies) will transition.

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 9 of 12

R-1 Line #48

Exhibit R-2A, RDT&E Project Ju	stification:	: PB 2019 E	Defense Log	istics Agen	су					Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 3					PE 0603680S / Manufacturing Technology				Project (Number/Name) OOO I Improving Technical and Logistics Information (formerly Industry and Customer Collaboration			
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
OOO: Improving Technical and Logistics Information (formerly Industry and Customer Collaboration	0.000	1.277	7.181	5.788	-	5.788	4.756	4.931	4.871	4.944	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Improving Technical and Logistics Information SFA projects improve and facilitate the communication of technical and logistics information among industry, DLA's military customers and DLA. This SFA includes the Military Unique Sustainment Technology (MUST), the Defense Logistics Information Research (DLIR), and the Emergent Manufacturing Technology (EMT) portfolios within its scope.

The MUST Program focus addresses GAO Report 12-707 recommendations for DoD to establish a "knowledge-based approach" to collaborate on define and communicate of military unique requirements. DLA has the responsibility to communicate and manage the technical requirements among the Services and the Defense Industrial Base. Currently there is no common environment for collaborating on new requirements among the stakeholders. The strategic objective of the DLA MUST program is to identify, develop and adopt technologies that can significantly reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end-to-end supply chain.

The DLIR program researches core technology to improve the quality, speed, and interoperability of logistics data. DLA must transform business practices and methodologies as the data for weapons systems evolves from traditional formats and delivery methods (such as two-dimensional images and PDF formats) to newer, more innovative methods (such as three-dimensional solid models, object-oriented databases, service-oriented architecture (SOA) and Web 3C standards). This fundamental shift for DLA is driven by the Model-Based Enterprise approach, which is influencing the way industry is delivering design and development data for weapon systems to the Military Services and the way the Military Services in turn manage and provide the data to DLA. DLA Logistics Operations, DLA Acquisition, DLA Tech/Quality, and the Defense Standardization Program Office (DSPO) are key stakeholders in the DLIR initiatives to modernize the representation and delivery of weapons systems data. The DLIR program researches and demonstrates the use of innovative technologies to streamline DLA operations; current thrusts include development of logistics data interoperability and availability, and research into the transformation of DLA data repositories to a digitally linked, model-based enterprise.

The Technical and Logistical Data Interoperability will pioneer methods to capture data from military Services, Original Equipment Manufacturers (OEMs), and suppliers to form a seamless thread of interoperable and linked data models.

The EMT program addresses emerging and out of cycle requirements that always occur as DLA strives to maintain readiness of the aging weapon systems.

PE 0603680S: Manufacturing Technology Program (ManTec...
Defense Logistics Agency

UNCLASSIFIED
Page 10 of 12

R-1 Line #48

	UNCLASSIFIED			
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense	Logistics Agency	Date: I	ebruary 2018	}
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S I Manufacturing Technology Program (ManTech)	Project (Number/ OOO I Improving Information (forme Collaboration	•	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019
Title: Improving Technical and Logistics Information (formerly In-	dustry and Customer Collaboration	1.277	7.181	5.78
FY 2018 Plans: DLIR plans to resume moving DLA from PDF Tech Data to Small technology to improve logistics data across the DLA Enterprise. MUST plans to continue test and validation pilots as well as produced in the produced plans and produced plans.	ess reengineering. In addition MUST plans to begin a scheo	dule		
for prototype development and demonstration to be initiated in F	Y19.			
Emerging Manufacturing Technology program enables DLA to in implemented in the nearer term, without degrading well establish advance those technologies sooner to the warfighter earlier. SBI a prime example of activities that will be funded with these funds addressing strategic materials shortage/risk.	hed program efforts. This program enables the Agency to R phase III efforts (which cannot be funded with SBIR funds	,		
FY 2019 Plans: DLIR plans to continue assisting DLA improve the quality and interpretate the defense industrial base. Specifically, DLIR will initiate the Log LITE proposes publishing logistics documents as data instead of extract and model the data inside the document. This approach of documents and to ensure broad industry adoption. LITE will enautate sources.	gistics Interoperability Technology Extension (LITE) project. PDF utilizing advanced semantic interpretation techniques will be based upon open standards to improve publishability	of		
MUST plans to conduct test and validation pilots, process reenging (FRD) for transition. The focus will be the Product Test Center (Inchange Management, the Supply Request Package (SRP) processchedule for Implementations with complete FRDs will start in France in the supply Request Package (SRP) processes the supply Request	PTC) industry reporting module, the TexSpec conversion for ess reengineering and the Shade Instrument Large Scale Pi	r Spec		
The EMT program enables DLA to investigate new disruptive ted without degrading well established program efforts. This program order to provide to the warfighter earlier. SBIR phase III efforts (vor activities that will be funded with these funds, examples include strategic materials shortage/risk. Efforts will begin in FY19 to advapproach to take advantage of integrated, computer-based systems.	m enables the Agency to advance those technologies soone which cannot be funded with SBIR funds) are a prime example emerging magnetic braking technologies, and addressing vance Digital Manufacturing by developing a comprehensive	er in ble		

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Ager	псу		Date: F	ebruary 2018	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603680S I Manufacturing Technology Program (ManTech)	000 I In	,	Logistics nd Customer	
B. Accomplishments/Planned Programs (\$ in Millions) and various collaboration tools to create and manufacture products to support Materials requirements will be addressed through the EMT program.	the warfighter. Additionally, any emergent Str	-	Y 2017	FY 2018	FY 2019
FY 2018 to FY 2019 Increase/Decrease Statement: FY19 decrease due to funds realignment to Maintaining Viable Supply Sources	S.				
	Accomplishments/Planned Programs Sub	totals	1.277	7.181	5.788

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

N/A

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

E. Performance Metrics

40% of applicable projects (ex; non-studies) will transition.

PE 0603680S: *Manufacturing Technology Program (ManTec...* Defense Logistics Agency

UNCLASSIFIED
Page 12 of 12

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3:

PE 0603712S I Logistics Research and Development Technology (Log R&D)

Date: February 2018

Advanced Technology Development (ATD)												
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	120.123	14.541	10.611	11.778	-	11.778	12.067	12.358	12.548	12.786	Continuing	Continuing
0: Prior Years	105.030	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
EMM: Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)	3.471	4.090	4.062	4.131	-	4.131	4.223	4.321	4.414	4.496	Continuing	Continuing
GLTD: Improving Logistics Processes (formerly Logistics Process)	5.413	4.990	3.849	3.904	-	3.904	4.015	4.128	4.214	4.280	Continuing	Continuing
04: Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)	6.209	5.461	2.700	3.743	-	3.743	3.829	3.909	3.920	4.010	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Logistics Agency is responsible for providing to the Military Services, and other Federal Agencies, as well as combined and allied forces the full spectrum of logistics, acquisition and technical services. DLA sources and provides virtually 100 percent of the consumable items the military forces need to operate – including food, uniforms, fuel and energy, medical supplies, construction and barrier materials and equipment, and more than 85 percent of the military's spare parts. DLA also provides logistics services including logistics information data, manages the reutilization of military equipment, and documents automation and production services. DLAs Logistics Research and Development (Log R&D) program helps ensure that advanced logistics concepts and business processes are used to accomplish the agency's mission with the leanest possible infrastructure. Log R&D identifies the best commercial business practices and tailors them, as necessary, into the most effective business processes for the agency. Logistics R&D develops and demonstrates high risk, high payoff technology that provides a significantly higher level of support at the lowest possible costs.

The DLA Log R&D program is organized into three SFAs:

- •Enhancing Analysis, Modeling, and Decision Support: R&D efforts to develop decision support tools, such as modeling, simulation, and other analytics to improve operational strategy decision-making, forecasting, and procurement, which support more effective and efficient responses to emerging market and customer requirements.
- •Improving Logistics Processes: R&D efforts to develop and implement advanced technology in logistics processes over and above current baseline systems.
- •Emergent Logistics R&D Requirements: R&D efforts to support emergent Logistics R&D requirements that arise out of the budget cycle. These out of cycle requirements always occur. The SFA begins new projects in a timely manner without disrupting ongoing projects by funds reallocation. This SFA scope includes all DLA supply chains and logistics processes.

PE 0603712S: Logistics Research and Development Techn...
Defense Logistics Agency

Page 1 of 10

R-1 Line #50

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

R-1 Program Element (Number/Name)

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3:

PE 0603712S I Logistics Research and Development Technology (Log R&D)

Date: February 2018

Advanced Technology Development (ATD)

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	11.011	10.611	11.881	-	11.881
Current President's Budget	14.541	10.611	11.778	-	11.778
Total Adjustments	3.530	0.000	-0.103	-	-0.103
Congressional General Reductions	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	4.000	-			
Congressional Directed Transfers	-	-			
Reprogrammings	-0.037	-			
SBIR/STTR Transfer	-0.433	-			
Inflation Adjustment	-	-	-0.103	-	-0.103

Change Summary Explanation

In FY2017, the Logistics R&D program received a Congressional Add for \$4M to support and advance cellulosic biofuels. The program reprogramed funds to Manufacturing Technology in the amount of \$0.037M. In FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$0.433M.

Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019.

Exhibit R-2A, RDT&E Project J	thibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency							Date: February 2018				
Appropriation/Budget Activity 0400 / 3				,				Project (Number/Name) 0 / Prior Years				
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
0: Prior Years	105.030	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Prior Years include:

- -Medical Logistics Network (MLN): \$10.334M. This project was realigned to Strategic Focus Area (SFA) Emergent Logistics R&D Requirements. The MLN program supports the Medical Directorate's mission to develop and implement the critical logistics and medical supply chain business practices that ensure the cost-effective and efficient distribution of medical material to the full range of Military Health System operations.
- -Weapon System Sustainment (WSS): \$29.625M. This project was realigned to SFA Improving Logistics Processes. The WSS program spans multiple weapon systems and supply chains to improve internal processes, provide new methods, reduce costs and lead times, and ultimately, improve readiness for DLA customers.
- -Supply Chain Management (SCM): \$20.574M. This project was realigned to SFA Emergent Logistics R&D Requirements. The SCM program provides the Agency with the resources needed to quickly take advantage of new ideas emerging from the Center Commanders, Process Owners, or Staff Directors.
- -Strategic Distribution & Disposition (SDD): \$19.396M. This project was realigned to SFA Enhancing Analysis, Modeling, and Decision Support. The SDD program improves DLA's distribution and disposition capabilities, operational effectiveness, and efficiency in support of the Services, COCOMs, and DOD in CONUS, and deployed locations.
- -Energy Readiness Program (ERP): \$15.796M. This project was realigned to SFA Emergent Logistics R&D Requirements. The ERP includes Program Management Office Support (PMO) for developing program strategies and goals; Alternate Energy Development (AED) to include test and certification to support the addition of synthetic and alternative fuels to mobility fuel specifications and acquisition plan; Improving Class IIIB supply chain through Current Product Improvement (CPI) (such as the study and development of fuel additives and studies to increase sources of supply) and Infrastructure & Process Improvement (such as the development of analytical tools).
- -Defense Logistics Information Research (DLIR): \$9.305M. This project was realigned to Industrial Manufacturing PE 70708011S. The DLIR program researches, identifies, and implements potential or existing technologies using high-risk, high payoff tools, methods, techniques, and products. DLIR improves functional and business processes using the latest technologies available to support the nation's warfighter. The technical areas of interest is the development of Logistics Data Interoperability & Availability. Enhances the functionality and compatibility of data in a complex data environment using supply chain relationships and lifecycle management to allow flexible visibility.

UNCLASSIFIED
Page 3 of 10

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										Date: February 2018		
Appropriation/Budget Activity 0400 / 3					PE 0603712S I Logistics Research and Development Technology (Log R&D)				Project (Number/Name) EMM I Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)				
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	
EMM: Enhancing Analysis, Modeling, and Decision Support (formerly Analytic & Decision Support)	3.471	4.090	4.062	4.131	-	4.131	4.223	4.321	4.414	4.496	Continuing	Continuing	

A. Mission Description and Budget Item Justification

This SFA funds developments in advanced analytical tools, modeling, and simulation of logistics and supply chain processes. These tools will improve DLA forecasting and procurement strategy decisions and lead to faster and more flexible responsiveness to emerging market and customer requirements. The Strategic Distribution and Disposition (SDD) thrust will develop and implement analytical tools, models, and simulations of logistics and supply chain processes related to distribution and disposition.

The mission of the SDD program is to assist DLA Distribution and Disposition Services in anticipating, assessing, and meeting current and future Warfighter requirements by leveraging R&D to infuse innovative solutions.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Enhancing Analysis, Modeling, and Decision Support	4.090	4.062	4.131
FY 2018 Plans: SDD will complete the lead-acid and Lithium-Ion battery technology projects in support DLA Distribution and provide support to the Distribution Modernization Program (DMP) to identify, evaluate, and test disruptive technologies.			
FY 2019 Plans: SDD plans to continue providing analytical and decision support to DLA Distribution and Disposition Services providing advanced analytical tools such as Business Case Analyses (BCAs) that support DLA Distribution and Disposition Services strategic decisions. Additionally, SDD will continue to support the Distribution Modernization Program as necessary to identify, evaluate, and test disruptive technologies including drone technologies applicable to distribution and disposition.			
FY 2018 to FY 2019 Increase/Decrease Statement: No significant Increase/Decrease in FY19 Budget for SDD.			
Accomplishments/Planned Programs Subtotals	4.090	4.062	4.131

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

N/A

PE 0603712S: Logistics Research and Development Techn... Defense Logistics Agency

UNCLASSIFIED
Page 4 of 10

R-1 Line #50

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen		Date: February 2018	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 3	PE 0603712S I Logistics Research and	EMM I Ent	nancing Analysis, Modeling,
	Development Technology (Log R&D)	and Decisi	ion Support (formerly Analytic &
		Decision S	Support)

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

40% of applicable projects (ex. non-studies) will transition.

Remarks

Due to the decline of planned requirements, the Medical Logistics Network realigned to the Emergent Logistics R&D Requirements SFA in FY19.

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

E. Performance Metrics

probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.	

PE 0603712S: Logistics Research and Development Techn...
Defense Logistics Agency

UNCLASSIFIED
Page 5 of 10

Exhibit R-2A, RDT&E Project Ju	khibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency									Date: February 2018		
Appropriation/Budget Activity 0400 / 3					PE 0603712S I Logistics Research and GL				GLTD I Îm	viject (Number/Name) TD / Improving Logistics Processes Imerly Logistics Process)		
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
GLTD: Improving Logistics Processes (formerly Logistics Process)	5.413	4.990	3.849	3.904	-	3.904	4.015	4.128	4.214	4.280	Continuing	Continuing

A. Mission Description and Budget Item Justification

Logistics Processes are R&D efforts within the Weapon System Sustainment Program (WSS) undertaken to develop and implement advanced technology in the internal DLA logistics processes. To qualify for R&D funding, the R&D effort must develop and apply technology and processes over and above current baseline IT systems and continuous improvements efforts.

This strategic focus area has 2 thrusts: Technical/Quality (T/Q) Process Improvements and Selected Process Improvements.

T/Q Process Improvements to reduce material and internal costs and improve support to warfighters. Services have engineering responsibility for most Class IX parts. Many T/Q sub-processes involve interactions with Service engineering functions, which often are time-consuming and costly. Other key T/Q sub-processes are essential to the procurement function, such as analysis of parts content, source capabilities and problem resolution.

Selected Process Improvements cover processes outside the scope of the Technical/Quality (T/Q) function. Although all DLA processes are in scope, the focus for FY 2019 is on the Procurement process, especially aspects driving internal costs and delays in awards.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019	
Title: Improving Logistics Processes (LP)	4.990	3.849	3.904	
FY 2018 Plans: In FY2018, WSS will work with procurement to implement their long-term process improvement plans. Projects will focus on the areas of obtaining Market Intelligence, Industrial Outreach, and Long-Term Contract cost reduction. WSS will work with TQ to develop an Anti-Counterfeiting Roadmap of projects aimed at identifying and eliminating the threat of counterfeit parts entering the supply chain.				
FY 2019 Plans: In FY2019, WSS will continue working with Procurement to implement their long term process improvement plans to include follow on projects in the areas of Administrative and Production Lead Time Management. Another main thrust for FY2019 will be the execution of projects identified in the Anti-Counterfeiting Roadmap of FY2018.				
FY 2018 to FY 2019 Increase/Decrease Statement:				

PE 0603712S: Logistics Research and Development Techn... Defense Logistics Agency

Page 6 of 10

R-1 Line #50

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	chibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency					
Appropriation/Budget Activity 0400 / 3	,	GLTD I Ìm	umber/Name) proving Logistics Processes .ogistics Process)			

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
No significant Increase/Decrease in FY19 Budget.			
Accomplishments/Planned Programs Subtotals	4.990	3.849	3.904

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

N/A

<u>Remarks</u>

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

E. Performance Metrics

40% of applicable projects (ex. non-studies) will transition.

PE 0603712S: Logistics Research and Development Techn... Defense Logistics Agency

Exhibit R-2A, RDT&E Project Ju	xhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency											Date: February 2018		
Appropriation/Budget Activity 0400 / 3						R-1 Program Element (Number/Name) PE 0603712S I Logistics Research and Development Technology (Log R&D) Project (Number/Name) 04 I Emergent Logistics R&D Re (formerly Innovative Products & DLA Customers)					s R&D Req			
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		
04: Emergent Logistics R&D Requirements (formerly Innovative Products & Services for DLA Customers)	6.209	5.461	2.700	3.743	-	3.743	3.829	3.909	3.920	4.010	Continuing	Continuing		

A. Mission Description and Budget Item Justification

Emergent Logistics R&D SFA includes R&D efforts to develop new products and services for DLA customers. The ERP Roadmap helps to achieve the operational energy strategy goals of increasing sources of supply, developing and implementing alternative fuels under the ERP. The Supply Chain Management (SCM) Roadmap addresses emerging and out of cycle requirements that always occur and new products and services developed by DLA to include investments to qualify domestic, ultrahigh modulus, carbon fiber material for Defense and National Security space systems in order to mitigate the supply chain costs and risks of this strategic material.

Title: Emergent Logistics R&D Requirements FY 2018 Plans: SCM will continue to address the emerging technology opportunities that occur out of the budget cycle. This allows DLA to get a head start undertaking new technological advances without disrupting ongoing programs. In the past DLA R&D has been able to cut 12 to 24 months off the project starting lead-times. Saving the lead-time allows the agency to begin to realize the benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs. The Program will initiate the Advanced Thermoelectric Technology project to improve the current thermoelectric heater technology so it is more fuel-efficient, has an increased heating range, reduced maintenance requirements, and a longer service life. The Advanced Thermoelectric Heater will replace the existing Space Heater Convective standard heaters currently stocked at DLA, and will provide DoD a single, versatile heater that reduces the logistics footprint and satisfies the space heating requirements of expeditionary forces. Additionally, SCM will support DLA Strategic Materials with one or more cost saving opportunities that exist for DLA via recycling and recovery initiatives. In FY18, the AM project will be funded under PE 0603680S / Manufacturing Technology Program (ManTech) Project 7 - Improving Industrial Base Manufacturing Processes (formerly Material Availability). This realignment will maintain continuity of funding and activity for this program.	B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019	
SCM will continue to address the emerging technology opportunities that occur out of the budget cycle. This allows DLA to get a head start undertaking new technological advances without disrupting ongoing programs. In the past DLA R&D has been able to cut 12 to 24 months off the project starting lead-times. Saving the lead-time allows the agency to begin to realize the benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs. The Program will initiate the Advanced Thermoelectric Technology project to improve the current thermoelectric heater technology so it is more fuel-efficient, has an increased heating range, reduced maintenance requirements, and a longer service life. The Advanced Thermoelectric Heater will replace the existing Space Heater Convective standard heaters currently stocked at DLA, and will provide DoD a single, versatile heater that reduces the logistics footprint and satisfies the space heating requirements of expeditionary forces. Additionally, SCM will support DLA Strategic Materials with one or more cost saving opportunities that exist for DLA via recycling and recovery initiatives. In FY18, the AM project will be funded under PE 0603680S / Manufacturing Technology Program (ManTech) Project 7 - Improving Industrial Base Manufacturing Processes (formerly Material Availability). This realignment will maintain continuity of funding and	Title: Emergent Logistics R&D Requirements	5.461	2.700	3.743	
	SCM will continue to address the emerging technology opportunities that occur out of the budget cycle. This allows DLA to get a head start undertaking new technological advances without disrupting ongoing programs. In the past DLA R&D has been able to cut 12 to 24 months off the project starting lead-times. Saving the lead-time allows the agency to begin to realize the benefits of implementing new technology sooner than would otherwise be the case and maintain continuity of funding and activity for baseline programs. The Program will initiate the Advanced Thermoelectric Technology project to improve the current thermoelectric heater technology so it is more fuel-efficient, has an increased heating range, reduced maintenance requirements, and a longer service life. The Advanced Thermoelectric Heater will replace the existing Space Heater Convective standard heaters currently stocked at DLA, and will provide DoD a single, versatile heater that reduces the logistics footprint and satisfies the space heating requirements of expeditionary forces. Additionally, SCM will support DLA Strategic Materials with one or more cost saving opportunities that exist for DLA via recycling and recovery initiatives. In FY18, the AM project will be funded under PE 0603680S / Manufacturing Technology Program (ManTech) Project 7 - Improving Industrial Base Manufacturing Processes (formerly Material Availability). This realignment will maintain continuity of funding and				

PE 0603712S: Logistics Research and Development Techn... Defense Logistics Agency

UNCLASSIFIED
Page 8 of 10

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense	ogistics Agency	Date: F	ebruary 2018		
Appropriation/Budget Activity 0400 / 3	PE 0603712S I Logistics Research and Development Technology (Log R&D)	04 l Emèrgent Log	ect (Number/Name) Emergent Logistics R&D Red nerly Innovative Products & S Customers)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019	
ERP will continue to focus on providing additional alternatives for to improve specifications and standards for fuel quality, engage identifying alternative energy sources for Military Customers.	• •				
FY 2019 Plans: SCM will continue to address the emerging opportunities that occ produce benefits such as reduced operating costs, enhanced orgstreamlined customer service. Emerging technology requirement in SCM. (Mission moved from Enhancing Analysis, Modeling, and Advanced Thermoelectric Technology project to improve the curr has an increased heating range, reduced maintenance requirement Heater will replace the existing Space Heater Convective standars single, versatile heater that reduces the logistics footprint and satisfactions. Program will address supply chain risks in Salternate materials and sources, recycling or reclaiming strategic strategic materials. Artificial Intelligence technologies applicable prototyped. Applications for Block Chain technologies will be inversely will focus on determining R&D solutions for ongoing issues.	panizational responsiveness and reliability, network resiliency, as for the medical supply chain will be addressed, as appropriated Decision Support SFA.) Additionally, SCM will complete the rent thermoelectric heater technology so it is more fuel-efficients, and a longer service life. The Advanced Thermoelectric and the heaters currently stocked at DLA, and will provide DoD a disisfies the space heating requirements of expeditionary forces trategic and Critical Materials as needed to include qualifying materials, and developing new manufacturing processes for to logistics operations will be investigated and, where appropriestigated and prototyped in the SCM SFA.	ate nt, . iate,			
requirements (e.g. thermal stability, storage stability, ignition cap- in the qualification and certification of alternative fuels to meet mi availability of military resources necessary to complete these effor appropriate, drone technologies applied to the energy operations	litary specification requirements; this will be parallel to the orts. The ERP program will investigate and prototype, as	es			
FY 2018 to FY 2019 Increase/Decrease Statement: Funding increased to develop improvements in the Class IIIB fue alternative bulk liquid fuels and alternative energy for the military Chemistry and Contamination Identification / Characterization, ar	services. Specifically Test Method Developments/Revisions,				
	Accomplishments/Planned Programs Subto	tals 5.461	2.700	3.743	

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

N/A

PE 0603712S: Logistics Research and Development Techn... Defense Logistics Agency

UNCLASSIFIED
Page 9 of 10

R-1 Line #50

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	Date: February 2018	
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603712S / Logistics Research and	Project (Number/Name) 04 / Emergent Logistics R&D Requirements
	Development Technology (Log R&D)	(formerly Innovative Products & Services for DLA Customers)

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

Remarks

D. Acquisition Strategy

The DLA R&D program is executed through Delivery Orders placed on Indefinite Delivery/Indefinite Quantity Contracts that resulted from competitive Broad Agency Announcements and through interagency agreements with the Military Services when it is cost effective and/or provides some technical advantage, e.g. improves the probability of successful transition. DLA also has a continuously open Broad Agency Announcement for Emerging Technologies.

E. Performance Metrics

400/				/	non-studies)	111	4
7117/2	nτ	anniicanie	nrolects	I P Y	non-stridies i	1//////	transition
TO /U	\sim	applicable	projects	いひへ・	mon staares,	***	u ai ioitioi i.

PE 0603712S: Logistics Research and Development Techn... Defense Logistics Agency

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)

PE 0603713S I Deployment and Distribution Enterprise Technology

navanoca recimology Bevelopine	, iii (/ (1 D)											
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	175.886	6.618	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	182.504
0: Prior Years	62.214	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	62.214
8: Command and Control/ Optimization/Modeling and Simulation	73.951	2.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	75.951
9: Cyber	11.216	1.018	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.234
10A: Global Access	28.505	3.600	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	32.105

Note

In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

A. Mission Description and Budget Item Justification

USTRANSCOM is tasked to provide globally integrated, agile deployment and distribution solutions as well as related enabling capabilities to support national security, force readiness and sustainability within an increasingly constrained defense budget. Unpredictable/extended global distribution routes, limited visibility of sustainment requirements, force packaging limitations, lift constraints, anti-access/area denial concerns, complex supply chains, as well as non-networked battlefield command and control, planning, and decision support tools impede timely customer logistical support. To project unimpeded global power and influence, USTRANSCOM must have access to relevant, real-time information, invest in enabling capabilities that contribute to mission success, ensure the viability of our capabilities, and implement a relevant transportation strategy. Effective knowledge sharing, decision support and transparency across the joint logistics enterprise, facilitated by secure enterprise-wide visibility into logistical processes as well as the ability to effectively collaborate/operate in a contested cyberspace, is required to promote the effective/efficient/responsive global management of force projection and sustainment resources.

PE 0603713S: *Deployment and Distribution Enterprise T...* Defense Logistics Agency

UNCLASSIFIED
Page 1 of 7

R-1 Line #51 Volume 5 - 23

Date: February 2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3:

Advanced Technology Development (ATD)

R-1 Program Element (Number/Name)

PE 0603713S I Deployment and Distribution Enterprise Technology

Date: February 2018

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	6.618	0.000	0.000	-	0.000
Total Adjustments	6.618	0.000	0.000	-	0.000
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	6.618	-			
SBIR/STTR Transfer	-	-			

Change Summary Explanation

NOTE: In FY 2017, PE 0603713S (BA3) Deployment and Distribution Enterprise Technology and PE 0603264S (BA3) Agile Transportation for the 21st Century Theater were transferred to a single PE in the Air Force budget (PE 0604776F) in order to support auditability, increase management efficiency, and reduce administrative actions.

Under the FY2017 CR, this program remained in DLA's baseline. Once the budget was enacted, DLA is working, to get the funding returned from USTRANSCOM. Currently, the remaining programs awaiting the return of funds is Generic Logistics R&D (PE 30603712S) and Defense Agencies Initiatives (DAI) (PE50605080S).

UNCLASSIFIED
Page 2 of 7

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										Date: February 2018			
Appropriation/Budget Activity 0400 / 3						R-1 Program Element (Number/Name) PE 0603713S I Deployment and Distribution Enterprise Technology				Project (Number/Name) I Prior Years			
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	
0: Prior Years	62.214	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	62.214	

A. Mission Description and Budget Item Justification

Prior Years includes:

- -Capabilities Based Logistics: \$7.342M. The Department requires procedures and technologies which provide enterprise-level capabilities critical to the distribution system to improve performance of the end-to-end DOD supply chain in direct support of the full range of military operations. Ability to rapidly respond to customers' changing demands, with a reliably high level of service. These needs include: capabilities which enhance any supply or transportation mission (aeromedical, air refueling, joint logistics over-the-shore, and seabasing); analysis, tailoring and implementation of selected best enterprise-level practices from industry; and tools/ procedures to optimize transportation plus supply (distribution) plans and schedules in support of an entire operation. This project addresses the required mission support to combatant commanders and other customers in the area of capability-based logistics.
- -Deployment and Distribution Velocity Management: \$6.869M. DOD requires procedures/technologies targeted at optimizing throughput at the nodes and through the conduits of the deployment and distribution supply chains, from origin to point of use and return to include: inventory management enhancers (includes node cargo management/tracking); material handling innovations (including methods of reducing handling); improved physical access to nodes (includes aircraft all-weather visual systems); port throughput enhancements (includes in-port time reduction methods); and innovative delivery methods (for example, precision airlift, autonomous resupply). This project addresses required mission support to combatant commanders and other customers of DOD's distribution and transportation systems in the area of deployment/distribution velocity management.
- -Cross Domain Intuitive Planning: \$2.408M. Procedures/technologies which improve decision-making and collaboration within the supply chain, from the planning stage to real-time execution and retrograde operations, without need for highly specialized operators of the tools. Projects in this area address following areas: decision support tools for any echelon of the supply chain or decision-maker, distribution process simulations and models for analysis and training, distribution demand forecasting/execution monitoring tools, on-line training, automated decision-maker support (e.g., queuing, alerting, recommended courses of action), automated status monitoring with information fusion and drilldown capability, and resilient C2 infrastructure capabilities. This project will provide required mission support to combatant commanders and other distribution/transportation customers in the area of collaborative planning/execution/information sharing/decision support tools.
- -End-to-End Visibility: \$7.039M. Enhanced end-to-end visibility of all aspects of power projection/sustainment spectrum is required to improve the effectiveness/efficiency of deployment/distribution/redeployment operations to ensure warfighter support and confidence. This requires investigation into next generation Automated Information Technology (AIT)/Total Asset Visibility (TAV) technologies and/or container security to improve end-to-end distribution visibility, enhance planning/execution, and transform sustainment operations. Includes the ability to determine immediate, reliable, and accurate shipment status through system access or event management. Develop an over-arching process/system architecture which will integrate existing and innovative new programs across the supply chain to provide complete In Transit Visibility (ITV) data, to include visibility of non-DoD cargo during humanitarian/disaster relief operations. The ability of USTRANSCOM to supply transportation support for homeland defense and/or disaster relief depends on effective ways to link with other governmental and civilian agencies. Additionally need to explore the many

UNCLASSIFIED
Page 3 of 7

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency						
	R-1 Program Element (Number/Name) PE 0603713S I Deployment and Distribution Enterprise Technology	, ,	umber/Name) ears				
	·						

barriers across the Joint Deployment and Distribution Enterprise (JDDE), to include non-DoD government entities, coalition partners, non-government organizations, and commercial industry, which can create confusion/conflict or detract from the optimization of the JDDE.

- -Distribution Planning and Forecasting: \$8.504M. There is a lack of collaborative distribution planning, based on an understanding of aggregated customer requirements, for optimizing the end-to-end distribution process. Planning, forecasting and collaboration are insufficiently advanced to fully synchronize people, processes and assets to execute planned operations. Automated tools should be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems. Project investigates the need for flexible end-to-end enhanced modeling and simulation and collaborative decision support tools.
- -Joint Transportation Interface: \$14.917M. Synchronizing strategic/theater delivery capabilities to meet increasingly dynamic customer needs. Transportation information exchange across the DOD is inhibited by the disparity of systems, differing data standards, and insufficient interfaces. Queries and retrieval of status and shipment information cannot be executed due to lack of connectivity between the various components of the supply chain. The ability to maintain situational awareness of movements at macro/micro (drill down) levels, with associated force and sustainment cargo on board; to track force packages progress, and rapidly determine the impact of any delays or changes to sailing progress and arrival at port of debarkation; and to conduct "what -if" impact assessment of possible changes to delivery asset's course, speed or departure/arrival information as it relates to force or force package delivery/impact of any change on the closure of force packages in theater is required. The ability of USTRANSCOM to supply transportation support for homeland defense and/or disaster relief depends on effective ways to link with other governmental and civilian agencies. Also need to explore the many barriers across the Joint Deployment and Distribution Enterprise (JDDE), to include non-DOD government entities, coalition partners, non-government organizations, and commercial industry, which can create confusion/conflict or detract from the optimization of the JDDE.
- -Distribution Protection/Safety/Security: \$15.135M. The Theater Commander has not always been able to provide the appropriate security in a timely manner during deployment. In some cases there are insufficient security assets to oversee convoy security in-country; therefore, all movement requirements are competing for the same limited resources. Additionally need to explore new, portable methods of detecting hazardous/asymmetric materials in very small quantities to support safe logistics operations. Also explore technologies to enhance the capability to deliver personnel/materiel to anti-access/austere airfields and seaports.

Exhibit R-2A, RDT&E Project Ju	xhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency											Date: February 2018		
Appropriation/Budget Activity 0400 / 3						am Elemen 3S / Deploy Technology	ment and L		Project (Number/Name) 8 I Command and Control/Optimization/ Modeling and Simulation					
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		
8: Command and Control/ Optimization/Modeling and Simulation	73.951	2.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	75.951		

A. Mission Description and Budget Item Justification

Defense Logistics Agency

Capabilities which improve deployment, distribution and supply chain decision-making/collaboration (e.g., planning stage to real-time execution/retrograde operations) without need for highly specialized operators. Projects in this area address the following: decision support tools, distribution process simulations/analytics, distribution demand forecasting/execution monitoring, training, automated decision-maker support (e.g., queuing, alerting, courses of action), automated status monitoring with information fusion to include drilldown capability, and resilient C2 infrastructure capabilities. Current planning/forecasting/collaboration capabilities do not permit full synchronization of people, processes and assets to execute planned operations. Automated tools must be able to dynamically analyze/predict demand and provide input to advanced distribution planning systems to include the capability for Combatant Commanders to manage theater transportation operations from the port of debarkation to the point of need. Transportation information exchange across the DOD is inhibited by disparate systems, multiple data standards and insufficient interfaces. The ability to rapidly determine the impact of any delays/changes and conduct "what -if" impact assessments on the closure of force packages is required. This project addresses the required mission support to combatant commanders and other customers in the area of C2, Optimization, and Modeling and Simulations.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency											Date: February 2018		
Appropriation/Budget Activity 0400 / 3		R-1 Program Element (Number/Name) PE 0603713S I Deployment and Distribution Enterprise Technology Project (9 I Cyber					umber/Nan	mber/Name)					
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	
9: Cyber	11.216	1.018	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.234	

A. Mission Description and Budget Item Justification

USTRANSCOM requires mission assurance in a persuasive/dynamic cyber environment. USTRANSCOM requires the procedures/technologies to improve cyber surveillance and control of networks across multiple domains and the ability to continue critical network operations in contested unclassified and classified network environments. The Command also needs the ability to differentiate between valid/unauthorized users and determine/quantify the trustworthiness of hardware/software systems. Additionally must have the ability to rapidly analyze & correlate data regarding malicious activities, select/evoke real-time defense actuators, perform automated reasoning capabilities that address data quality issues, and the ability to rapidly return to a known/safe operating state.

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										Date: February 2018		
Appropriation/Budget Activity 0400 / 3		R-1 Program Element (Number/Name) PE 0603713S I Deployment and Distribution Enterprise Technology					Project (Number/Name) 0A / Global Access					
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
10A: Global Access	28.505	3.600	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	32.105

A. Mission Description and Budget Item Justification

DoD requires procedures/technologies targeted at optimizing throughput at the nodes as well as across the conduits of the deployment and distribution supply chains, from origin to point of use as well as return. Needed capabilities include inventory/cargo management, materiel handling innovations, improved physical node access, port throughput enhancements, innovative delivery methods (e.g., precision airlift, autonomous re-supply), and cargo/container security. This project addresses required mission support to combatant commanders and other customers of DoD's distribution and transportation systems in the area of deployment/distribution velocity management, manned/unmanned systems to the point of effect, and increased global reach in austere/anti-access environments.



Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity R

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3:

Advanced Technology Development (ATD)

R-1 Program Element (Number/Name)

PE 0603720S I Microelectronics Technology Development and Support (DMEA)

Date: February 2018

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	392.266	88.369	219.803	168.931	-	168.931	172.442	157.720	160.280	170.393	Continuing	Continuing
001: Technology Development	216.668	44.833	133.074	73.471	-	73.471	75.111	59.200	60.169	61.210	Continuing	Continuing
003: Trusted Foundry	175.598	43.536	86.729	95.460	-	95.460	97.331	98.520	100.111	109.183	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department finds it critical to National Security to maintain an ability to produce low volume state-of-the-practice (SOTP) and legacy microelectronics that are unavailable from commercial foundries. The Defense Microelectronics Activity (DMEA) uniquely accomplishes this mission for the Department by providing a guaranteed and Trusted source of supply of microelectronics parts that are essential to combat operations. In addition DMEA provides the rare technology capability to bridge the gap between research and application allowing DMEA to develop, manage and implement innovative microelectronic solutions to enhance mission capability. This unique research and engineering capability will be leveraged to develop low-volume, high mix fabrication processes for state-of-the-art (SOTA) technologies that meet the Department's performance and reliability needs.

This is a critical capability in an atmosphere of diminishing domestic semiconductor manufacturing capability and increasing worldwide supply chain risks with threats to defense microelectronics. Trusted access to SOTA technologies remains a major challenge and therefore it is most important to develop a long term Trusted source for the Department. Threats to Defense Microelectronics include counterfeiting, Trojan horses, specific reliability issues in military environments, and rapid obsolescence coming from an unpredictable and unsecured supply chain. As fiscal pressures force the Department to maintain its weapon systems longer than originally planned, extended combat use increases their attrition and increases the need for DMEA's unique capabilities.

Microelectronics is a crucial technology and central for all operations within the Department. Yet, as vital as this technology is to Department operations, the defense market represents less than 0.1% share of the total global semiconductor market. The Department frequently requires low volume SOTP and legacy microelectronics long after commercial foundries have moved on to advanced technology levels. There is also the major challenge of the ability of Defense R&D Programs to access Trusted SOTA technologies when developing new systems. Consequently, the semiconductor industry does not respond to the Department's particular needs of low volumes, long availability time frames, or its high-level security concerns. To meet these requirements, DMEA procures commercial licenses to organically produce semiconductor technologies that are no longer commercially manufactured or are unavailable due to no-bids owing to low volume requirements. These licenses enable DMEA to be the Department's microelectronics supplier of last resort, providing the Department with a long-term, trusted, and guaranteed source of these critical parts. This proven model can be extended to SOTA technologies by acquiring advanced commercial process Intellectual Property (IP) and implementing it in a copy exact approach.

DMEA provides increasingly rare microelectronics design and fabrication expertise to ensure that the Department can field systems capable of ensuring technological superiority over potential adversaries. DMEA provides decisive, quick turn solutions for defense, intelligence, special operations, cyber and combat missions as well as microelectronic components that are unobtainable in the commercial market. DMEA has established increased ties with the Intelligence Community (IC) and Combatant Commanders to understand their specific threats and opportunities that can be exploited by quicker, more resilient microelectronic solutions. This knowledge of varying

PE 0603720S: *Microelectronics Technology Development ...* Defense Logistics Agency

UNCLASSIFIED
Page 1 of 8

R-1 Line #53

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)

PE 0603720S I Microelectronics Technology Development and Support (DMEA)

Date: February 2018

requirements across a broad and diverse range of combatant environments and missions – along with its unique technical perspective – allows DMEA to develop, manage and implement novel microelectronic solutions to enhance mission capability. DMEA uses these cutting-edge technology capabilities and products in the solutions it develops for its military clientele. After many years of performing analogous efforts, the technical experience, mission knowledge, and practical judgment that are gained from preceding efforts are incorporated into subsequent technology maturation projects. DMEA has years of experience understanding the maturity of US and world microelectronics technology and knows what it takes to adapt the technology for the US warfighter. Based on the results of the knowledge DMEA acquires through technology forecasting, effective modeling/simulation, prototyping and experimentation, DMEA influences program requirements with recommended improvements and advancements. DMEA's capabilities make it a key tool that can be leveraged by the entire US Government in the intelligent and rapid development and application of advanced technologies to identified military needs.

Working alongside industry, DMEA utilizes a business model that establishes a pathway that accelerates the delivery of superior semiconductor technologies. DMEA's uniquely flexible foundry supports the Department with a wide variety of integrated circuits using various processes that were developed by commercial manufacturers and which are now guaranteed to remain in one location for as long as they are needed. To obtain these processes, DMEA works closely with U.S. semiconductor industry partners to acquire process licenses. DMEA incorporates commercial technology, along with accelerated acquisition methods to accelerate delivery of needed capability. In this way, DMEA revolutionizes the way the Department leverages commercial technology by exploiting business-cycle opportunities to access these technologies. In this way, the government ensures perpetual access to this technology without bearing the high, upfront process development and qualification costs.

These Government-held licenses allow for the transfer to DMEA of industry-developed IP and the related processes for Department needs. These licenses ensure no commercial conflicts by including industry's right to bid first on resulting production volumes. DMEA always looks to industry first to see if it can provide the required components. If industry cannot or will not, only then does DMEA provide the necessary prototypes and low volume production order. A critical element required to make this business model work effectively is protection of the industry partners' valuable IP and processes. DMEA is Government owned and operated, providing the structure and confidence necessary to ensure them that their IP is protected from potential competitors. This strategic and cooperative industry partnership approach allows DMEA to use industry-developed IP and processes by acquiring, installing, and applying them toward meeting the immediate and long-term needs of the Department. This unique capability is essential to all major weapon systems, combat operations, and support needs. As such, DMEA serves the Department, other US Agencies, industry and Allied nations.

DMEA assists hundreds of Department programs every year. DMEA has provided its specialized engineering assistance and capabilities to older systems, current systems, and even to programs not yet in the production phase. This includes the Counter-Rocket, Artillery, and Mortar (C-RAM) System, F-18 Super Hornet, F-22 Raptor, F-35, RQ-4 Global Hawk, MQ-9 Reaper, AEGIS Advanced Surface Missile System, Advanced Medium-Range Air-to-Air Missile (AMRAAM), HH-60G Pave Hawk Helicopter, Evolved Sea Sparrow Missile (ESSM), among many other programs. DMEA assists the Combatant Commands (COCOMs) including Special Ops, Cyber, Intelligence, and the Radiation-Hard communities.

PE 0603720S: *Microelectronics Technology Development ...* Defense Logistics Agency

UNCLASSIFIED
Page 2 of 8

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)

PE 0603720S I Microelectronics Technology Development and Support (DMEA)

-0.963

70.160

Date: February 2018

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	97.826	219.803	99.734	-	99.734
Current President's Budget	88.369	219.803	168.931	-	168.931
Total Adjustments	-9.457	0.000	69.197	-	69.197
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-8.000	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-1.457	-			

Change Summary Explanation

Inflation Adjustment

• Program Requirements Increase

Appropriation/Budget Activity

DMEA received a Congressional Rescission in the amount of \$8M for unobligated balances. In FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$1.457M.

Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019. The FY2019 increases for continued support for the top four FY2018 microelectronics initiatives, including full access to the GlobalFoundries Fab 8 (14 nm) foundry, associated upgrades to GlobalFoundries's ASIC design, tape-in, and test capabilities to facilitate 14 nm designs for weapon system program support (e.g., Military Global Positioning System (GPS) User Equipment (MGUE), and procurement of foundry process intellectual property.

PE 0603720S: *Microelectronics Technology Development* ... Defense Logistics Agency

UNCLASSIFIED
Page 3 of 8

R-1 Line #53

-0.963

70.160

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2019 D	efense Log	istics Agen	су					Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 3 R-1 Program Element (Number/Note that the properties of the pr			Technology	, ,	roject (Number/Name) 01 / Technology Development							
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
001: Technology Development	216.668	44.833	133.074	73.471	-	73.471	75.111	59.200	60.169	61.210	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Technology Development funds provide DMEA with the core resources to execute its primary mission of providing an in-house ability to quickly develop and execute appropriate solutions to keep a weapon system operational, elevate its sophistication level, or to meet new threats. These solutions use high mix, low volume, unique microelectronics that are endemic to military requirements but are not commercially available. These funds provide for the development and support necessary to ensure rapid prototyping, insertion, and support of microelectronics technologies into fielded systems, particularly as the technologies advance. Extending this mission to include assured access to Trusted state-of-the-art (SOTA) technologies will more comprehensively ensure the integrity of microelectronics in all critical defense systems. DMEA maintains critical microelectronics design and fabrication skills to ensure that the Department is provided with systems capable of ensuring technological superiority over potential adversaries. DMEA provides an in-house capability to support these strategically important microelectronics technologies with distinctive resources to meet the Department's requirements across the entire spectrum of technology development, acquisition, and long-term support. This includes producing components to meet the Department's requirements for ultra-low volume, an extended availability timeframe, and a trusted, guaranteed and secure supply of microelectronics. These funds provide basic infrastructure upgrades to acquire IP and manufacturing capabilities of SOTA technologies via the copy exact model, as well as an in-house technical staff of skilled and experienced microelectronics personnel working in state-of-the-practice facilities providing technical and application engineering support for the implementation of advanced microelectronics research technologies from inspection and analysis through design, fabrication, test, assembly, integration and installation. These funds also provide for the recapitalization and modernization of aging microelectronic infrastructure, acquisition and implementation of design and test tools, the development of advanced techniques to inspect and analyze circuits, the adaptation of tools and processes to detect increasingly sophisticated counterfeit microelectronics in the defense supply chain, and the incorporation of the process technologies that are necessary to anticipate the needs of the Department as weapon system support requirements migrate toward current state-of-the-art technologies. DMEA's capabilities make it a key resource in the intelligent and rapid application of advanced technologies to add needed performance enhancements in response to the newest asymmetric threats and to modernize aging weapon systems. DMEA designs, develops, and supports vital classified assets for ongoing and time-sensitive specialized intelligence operations and missions of the Department and the Special Operations Commands.

Today's weapon systems experience extended field operations and are required to remain in service beyond planned replacement schedules, driving the need for growth in DMEA's unique capabilities. This need, along with the continual contraction of commercial resources, makes DMEA the only available resource allowing many systems to remain operational. As such, DMEA and its capability are considered National Critical Assets.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Technology Development Accomplishments/Plans	44.833	133.074	73.471
FY 2018 Plans: DMEA will design, develop, and demonstrate microelectronics concepts, advanced technologies, and applications to solve operational problems. DMEA will apply advanced technologies to add performance enhancements in response to the newest			

PE 0603720S: *Microelectronics Technology Development ...* Defense Logistics Agency

UNCLASSIFIED
Page 4 of 8

	UNCLASSIFIED	1_			
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense		Date: February 2018			
Appropriation/Budget Activity 0400 / 3		ect (Number/Name) I Technology Development			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019	
asymmetric threats and to modernize aging weapon systems. Combatant Commands (CCMDs) and Special Operations have demands for DMEA's unique capability to provide quick technic increases, DMEA will add capacity and capability by recapitaliz and upgrading process IP, developing advanced techniques to detect increasingly sophisticated counterfeit microelectronics to which CCMDs and Special Operations can rely. DMEA will conbegin installation of semiconductor fabrication equipment in the IP for integration into the 200mm facility.	e caused those organizations to dramatically increase their cal solutions to immediate operational needs. To meet these sing and modernizing aging microelectronic infrastructure, exterinspect and analyze circuits, and adapting tools and processes of ensure a secure supply chain, all to meet quick turn solutions applete installation of the cleanroom in the 200mm facility, and to	s to s on vill			
FY 2019 Plans: DMEA will design, develop, and demonstrate microelectronics operational problems. DMEA will apply advanced technologies asymmetric threats and to modernize aging weapon systems. Combatant Commands (CCMDs) and Special Operations have demands for DMEA's unique capability to provide quick technic increases, DMEA will add capacity and capability by recapitaliz and upgrading process IP, developing advanced techniques to detect increasingly sophisticated counterfeit microelectronics to which CCMDs and Special Operations can rely. DMEA will conbegin installation of semiconductor fabrication equipment in the 200mm process IP into the 200mm facility.	to add performance enhancements in response to the newest. The increased missions seen in the last several years by a caused those organizations to dramatically increase their cal solutions to immediate operational needs. To meet these sing and modernizing aging microelectronic infrastructure, exterinspect and analyze circuits, and adapting tools and processes of ensure a secure supply chain, all to meet quick turn solutions implete installation of the cleanroom in the 200mm facility, and the	nding s to s on will			
FY 2018 to FY 2019 Increase/Decrease Statement: FY2019 program decrease reflects a discontinuity in funding for procurement and integration of 200mm foundry process intelled					
	Accomplishments/Planned Programs Sub	totals 44.833	133.074	73.47	

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

N/A

Remarks

D. Acquisition Strategy

N/A

PE 0603720S: Microelectronics Technology Development ... **Defense Logistics Agency**

UNCLASSIFIED Page 5 of 8

R-1 Line #53

Exhibit R-2A, RDT&E Project Justification: PB 2019 D	Defense Logistics Agency	Date: February 2018
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603720S I Microelectronics Technology Development and Support (DMEA)	Project (Number/Name) 001 / Technology Development
E. Performance Metrics		
N/A		

PE 0603720S: *Microelectronics Technology Development* ... Defense Logistics Agency

UNCLASSIFIED
Page 6 of 8

Exhibit R-2A, RDT&E Project J	ustification	: PB 2019 C	Defense Log	istics Agen	су					Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 3				,				Project (Number/Name) 003 / Trusted Foundry				
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
003: Trusted Foundry	175.598	43.536	86.729	95.460	-	95.460	97.331	98.520	100.111	109.183	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department, other agencies, and the intelligence community require uninterruptible access to state-of-the-art design and manufacturing processes to produce custom integrated circuits designed specifically for military purposes. Under DoDI 5200.44, Application Specific Integrated Circuits (ASICs) in critical/essential systems must be procured from Trusted sources in order to avoid altered or sabotaged parts. Worldwide competition from foreign, state-subsidized manufacturing facilities continues to greatly reduce the number of U.S. semiconductor fabrication facilities available to be Trusted sources. The prevalence of sophisticated offshore design and manufacturing facilities with economic incentives of state subsidies have resulted in the outsourcing of electronics component and integrated circuit services to these offshore facilities. This production capability is of increasing importance as domestic semiconductor manufacturing resources continue to decline, especially in the scarce domestic production capacity of high performance and state-of-the-art semiconductor technologies. Commercial sources of microelectronics remain inherently unpredictable and constitute a continued supply chain risk regardless of Government investment. This trend threatens the integrity and worldwide leadership of the U.S. semiconductor industry by eliminating many domestic suppliers and reducing access to Trusted fabrication sources for advanced technologies, and is of acute concern to the defense and intelligence communities. Secure communications and cryptographic applications, along with most other key defense technologies, depend heavily upon high performance semiconductors where a generation of improvement often translates into significant force multipliers and capability advantages. Important defense technology investments and demonstrations carry size, weight, power, and performance goals that can only be met through the use of the most sophisticated semiconductors.

The Trusted Foundry program provides the Department with access to state-of-the-art microelectronics design and manufacturing capabilities with the added benefit of Trust, if necessary, to meet their confidentiality, integrity, availability, performance and delivery needs. The program also provides the Services and other agencies with a competitive cadre of accredited Trusted suppliers that can meet the needs of their mission critical/essential systems for Trusted integrated circuit components. The Trusted Access Program Office has contracted with commercial sources to satisfy state-of-the-art semiconductor requirements. DMEA will foster all viable alternatives to continue the vital supply of Trusted microelectronics, including the work of the DMEA Trusted Access Program Office with commercial state-of-the-art industry. It is imperative for a wide range of technologies in ongoing and future Department systems that access to Trusted suppliers continues. Most importantly, access to Trusted Microelectronics is absolutely necessary to meet secure communication and cryptographic needs requiring state-of-the-art semiconductor technologies.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Trusted Foundry	43.536	86.729	95.460
FY 2018 Plans: Facilitate the availability of Trusted state-of-the-art semiconductor technology to DoD weapon system programs, research organizations, and other federal agencies through the DMEA Trusted Access Program Office (TAPO) contracts. Initiate efforts to extend Trusted access to 14 nm technology, including the securing of mask manufacturing and upgrading of Trusted ASIC design and test capabilities and capacity to facilitate 14 nm ASIC services needed by multiple DoD programs. Enhance the cadre			

PE 0603720S: *Microelectronics Technology Development ...* Defense Logistics Agency

Page 7 of 8

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Log	D	Date: February 2018			
Appropriation/Budget Activity 0400 / 3	Project (Number/Name) 003 / Trusted Foundry				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2	017	FY 2018	FY 2019
of Trusted suppliers for the critical trusted components and services Microelectronics products to include newly available leading edge to Department programs. Expand a line of trusted catalog components activities that provide the Department's programs and other agencie technologies. Start implementation of an approach for the on-shore (FPGA). Continue the development of capabilities for the inspection methods for efficiency, accuracy, and applicability to multiple process.	echnologies and other key specialty processes required by set that can be purchased by Defense contractors. Continue as with Trusted access to leading edge semiconductor fabrication of a Trusted Field-Programmable Gate Array and analysis of ASICs and continuously refine the utilizer	y e			
FY 2019 Plans: Facilitate the availability of Trusted state-of-the-art semiconductor to organizations, and other federal agencies through the DMEA Trusted to extend Trusted access to 14 nm technology for USG use through edge technologies. Enhance the cadre of trusted suppliers for the codefense systems. Enhance Trusted Microelectronics products to include specialty processes required by Department programs. Expand by Defense contractors. Continue activities that ensure the Department technologies. Continue the development of new capabilities for the utilized methods for efficiency, accuracy, and applicability to multiple	ed Access Program Office (TAPO) contracts. Continue effort the TAPO contracts, and to provide access to other lead ritical trusted components and services needed for appropolate newly available leading edge technologies and other la line of trusted catalog components that can be purchast nent has Trusted access to leading edge semiconductor inspection and analysis of ASICs and continuously refine	ing priate r sed			
FY 2018 to FY 2019 Increase/Decrease Statement: FY2019 program decrease reflects a discontinuity in funding for cer the GlobalFoundries 14 nm foundry.	tain FY2018 microelectronics initiatives, including access	to			
	Accomplishments/Planned Programs Sub	totals 4	3.536	86.729	95.46

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

PE 0603720S: *Microelectronics Technology Development ...* Defense Logistics Agency

UNCLASSIFIED
Page 8 of 8

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)

R-1 Program Element (Number/Name)

PE 0605070S I DoD Enterprise Systems Development and Demonstration

Date: February 2018

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	117.472	3.661	6.266	3.173	-	3.173	2.378	1.486	0.743	0.757	Continuing	Continuing
0: Prior Years	100.112	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
09: Enterprise Funds Distribution	17.360	3.661	6.266	3.173	-	3.173	2.378	1.486	0.743	0.757	Continuing	Continuing

A. Mission Description and Budget Item Justification

The mission of the DoD Enterprise Business Systems (DEBS) is to coordinate and enable business transformation efforts across the Department of Defense (DoD). The DLA recognizes that DoD's business enterprise must be closer to its warfighting customers than ever before. Joint military requirements drive the need for greater commonality and integration of business and financial operations.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	5.660	6.266	3.200	-	3.200
Current President's Budget	3.661	6.266	3.173	-	3.173
Total Adjustments	-1.999	0.000	-0.027	-	-0.027
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.139	-			
 FY 2017 Request for Additional 	-1.860	-	-	-	-
Appropriations Not Addressed					
Inflation Adjustment	-	-	-0.027	-	-0.027

Change Summary Explanation

In FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$0.139M. In FY2017, EFD request for additional appropriations was not addressed.

Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019.

PE 0605070S: DoD Enterprise Systems Development and D... **Defense Logistics Agency**

UNCLASSIFIED Page 1 of 6

R-1 Line #127

Exhibit R-2A, RDT&E Project Ju		Date: February 2018										
Appropriation/Budget Activity 0400 / 5	PE 060507	70S I DoD E	t (Number/ Enterprise S monstration	ystems	Project (Number/Name) 0 / Prior Years							
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
0: Prior Years	100.112	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	_	-	-	-	-		

A. Mission Description and Budget Item Justification

Prior Year includes:

- -Business Enterprise Information Services (BEIS): \$13.360M. The BEIS utilized the mature, existing infrastructure of Defense Corporate Database/Defense Corporate Warehouse (DCD/DCW), Defense Departmental Reporting System (DDRS), and Defense Cash Accountability System (DCAS) to provide timely, accurate, and reliable business information from across the DoD to support auditable financial statements as well as provide detailed information visibility for management in support of the Warfighter. The goals of BEIS were to ensure data compliance with Standard Financial Information Structure (SFIS) standards; provide security-defined, enterprise-level access to information for ad hoc management queries; and produce external financial management reports/statements based on standardized data.
- -Defense Information System for Security (DISS): \$70.319M. The DISS program was a family of systems solution that specifically addresses the security clearance and suitability determinations requirements of Section 3001 of Public Law 108-458, the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA) which requires 90% of all clearances whether Top Secret, Secret, or Confidential to be completed within 60 days, as well as supports Homeland Security Presidential Directive 12 (HSPD-12) compliance across the DoD. The DISS electronically collects, reviews, and shares relevant data, government-wide, as mandated by the IRPTA and, guided by relevant Executive Orders, Congress, and GAO recommendations, deliver and maintain an appropriately vetted world-class workforce.
- -Defense Travel System (DTS): \$1.423M. The DTS program was a fully integrated, electronic, end-to-end financial management system that automates temporary duty travel for the Department of Defense (DoD). DTS meets unique DoD mission, security and financial system requirements within the guidelines of Federal and DoD travel policies and regulations. DTS automates travel authorizations, reservations and arrangements, voucher processing, payment, reconciliation, accountability and archiving. DTS employs Digital Signature and Login/Authentication which requires users to provide a signed response using a valid DoD Public Key Infrastructure (PKI) certificate to gain access to the DTS application. Travel documents created in DTS are digitally signed with the user's PKI certificate to provide a means of identifying the signer, verifying the document's integrity, and enforcing non-repudiation of the signature by the signer.
- -Defense Retired and Annuitant Pay System (DRAS): \$15.010M. The DRAS program established and maintained a modernized retired military pay accounts. DRAS 2 will replace the current Defense Retiree and Annuitant Systems (DRAS) and selected manual processes with proven state of the market technology using Clinger-Cohen guidance for selection of the solution. Rapid fielding techniques will be used to close business process gaps by delivering incremental capability that provides clear financial benefits.

PE 0605070S: *DoD Enterprise Systems Development and D...* Defense Logistics Agency

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency Date: February 2018												
Appropriation/Budget Activity 0400 / 5		PE 060507	'0S I DoD E	t (Number/ Enterprise S monstration	,	Project (Number/Name) 09 I Enterprise Funds Distribution						
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
09: Enterprise Funds Distribution	17.360	3.661	6.266	3.173	-	3.173	2.378	1.486	0.743	0.757	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Enterprise Funds Distribution (EFD) is a multi-service/multi-agency solution established as a key initiative to provide full visibility of funds distributed through echelon I and II for the Military Departments and at all levels for the Defense Agencies to improve and modernize the OUSD(C) funds distribution process. Funds distribution by its nature is a key enabler of financial visibility within DoD enterprise systems. The concept of a fully visible enterprise funds distribution process serves as a reference where planned and coordinated funds development and execution takes place.

Within the current DoD environment, progress has been made streamlining a diverse set of stove-piped budget execution and funds distribution processes and systems. Efforts continue to improve the visibility of funding information, eliminate manual efforts and undue complexities to the management of budget authority, and to eliminate impediments in the flow of funding documents. The current environment relies heavily on manual processing and on disconnected standalone systems for the processing of Funding Authorization Documents (FADs) and reprogramming actions. This environment made the implementation of internal controls difficult, negatively impacted the accuracy and timeliness of information while making the processes of integrating and obtaining management information arduous.

The envisioned operational environment solves these problems by enabling lifecycle program value management in a web-based application utilizing an authoritative database with single-source data entry and automated workflow. Capabilities within this integrated environment will enable the automation of all funds distribution and funds control processes within OUSD(C) using authoritative and highly visible data. Specifically, capabilities include managing apportionments, distributing budget authority to the Military Departments and Defense Agencies, managing rescissions and continuing resolutions, creating and tracking reprogramming actions, and establishing program baselines and budget authority needed to support changes in funding priorities throughout the year.

The operational environment includes organizational elements down to the echelon II level responsible for managing DoD and Component appropriations operating in an unclassified environment. The web-based application provides pre-planning, apportionment, reprogramming, rescission, continuing resolution, reporting of enterprise-level funds control and distribution of appropriated funding.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Enterprise Funds Distribution (EFD)	3.661	6.266	3.173
Description: EFD will distribute funds to the Military Departments and the Defense Agencies.			
FY 2018 Plans:			

PE 0605070S: *DoD Enterprise Systems Development and D...* Defense Logistics Agency

Page 3 of 6

R-1 Line #127

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logist		Date: February 2018				
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605070S I DoD Enterprise Systems Development and Demonstration	Project (Number/Name) 09 I Enterprise Funds Distribution				
B. Accomplishments/Planned Programs (\$ in Millions) Continue development and deployment of EED Phase 2 requirements	hased on user group migration strategy. Deploy user		Y 2017	FY 2018	FY 2019	

FY 2017	FY 2018	FY 2019
3.661	6.266	3.173

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

N/A

Remarks

D. Acquisition Strategy

The EFD strategy is to use a "single acquisition to full capability," commercial-off-the-shelf (COTS) solution (Momentum software). The effort needed to ensure EFD is fully implemented for all appropriation data for the Military Services and Defense Organizations has led to a full deployment date of September 2016.

E. Performance Metrics

For performance, the objective is that 100% of the SFIS elements are SFIS compliant at FD.

PE 0605070S: *DoD Enterprise Systems Development and D...* Defense Logistics Agency

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Logistics Agency

Date: February 2018

Appropriation/Budget Activity

0400 / 5

R-1 Program Element (Number/Name)
PE 0605070S I DoD Enterprise Systems
Development and Demonstration

Project (Number/Name)09 *I Enterprise Funds Distribution*

Product Development (\$ in Millions)			FY 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	Total Cost	Target Value of Contract
Savantage Solutions	Option/ FP	Savantage Solutions : Rockville, MD	14.158	0.000		0.000		0.000		0.000		0.000	0.000	14.158	14.158
TeraThink Corporation	C/FFP	TeraThink Corporation : Reston, VA	1.710	3.661	Dec 2016	6.266	Dec 2017	3.173	Dec 2018	0.000		3.173	Continuing	Continuing	Continuing
TBD	C/FFP	TBD : TBD	1.492	0.000		0.000		0.000		0.000		0.000	0.000	1.492	1.492
		Subtotal	17.360	3.661		6.266		3.173		0.000		3.173	Continuing	Continuing	N/A

	1			1									
	Prior						2019	FY 2		FY 2019	Cost To	Total	Target Value of
	Years	FY 2	2017	FY 2	2018	Ва	se	00	30	Total	Complete	Cost	Contract
Project Cost Totals	17.360	3.661		6.266		3.173		0.000		3.173	Continuing	Continuing	N/A

Remarks

	hibit R-4, RDT&E Schedule Profile: PB 2019 Defense Logistics Agency								
Appropriation/Budget Activity 0400 / 5		PE 0605070	n Element (N u IS I DoD Enter _l Int and Demons	orise Systems		Project (Number/Name) 09 I Enterprise Funds Distribution			
	FY 2017	FY 2018	EV 2010	FY 2020	EV 2021	EV 2022	EV 2022		
	11 2017	11 2010	11 2013	11 2020	11 2021	11 2022	11 2023		
	1 2 3 4	1234	1234	1 2 3 4	1234	1234	1 2 3		
Enterprise Funds Distribution (EFD)									
Enterprise Funds Distribution (EFD)									

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity R-1

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5:

System Development & Demonstration (SDD)

R-1 Program Element (Number/Name)

PE 0605080S I Defense Agencies Initiative (DAI) - Financial System

Date: February 2018

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	110.325	27.194	24.436	21.156	-	21.156	23.673	21.806	25.336	25.815	Continuing	Continuing
01: Defense Agencies Initiatives - Financial System	110.325	27.194	24.436	21.156	-	21.156	23.673	21.806	25.336	25.815	Continuing	Continuing

Program MDAP/MAIS Code:

Project MDAP/MAIS Code(s): 0491

A. Mission Description and Budget Item Justification

This program supports the Defense Agencies Initiative (DAI) Increments 2 and 3, Category I Defense Business Systems. Previous funding for DAI Increment 1, as well as, FY2013 4th Quarter Increment 2, were documented in the Defense Enterprise Business Systems program element 0605070S. Increment 3 will deliver new capabilities: (Defense Working Capital fund and Re-Sale accounting); and an application upgrade.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	30.457	24.436	40.300	-	40.300
Current President's Budget	27.194	24.436	21.156	-	21.156
Total Adjustments	-3.263	0.000	-19.144	-	-19.144
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-2.400	-			
SBIR/STTR Transfer	-0.863	-			
Inflation Adjustment	-	-	-0.344	-	-0.344
Program Rephasing	-	-	-18.800	-	-18.800

Change Summary Explanation

Under the FY2017 CR, a portion of DAI's funding was provided to USTRANSCOM to continue business operations. Upon enactment, the USTRANSCOM funding is being returned to DIA resulting In the reprogramming amount owed to DAI for \$2.4M. FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$0.863M.

Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019.

FY2019 development will complete developing Defense Working Capital Fund (DWCF) accounting requirements necessary to serve as core and meet DISA requirements, and DeCA Re-sale accounting requirements study (to be developed in FY 2020).

PE 0605080S: Defense Agencies Initiative (DAI) - Fina... Defense Logistics Agency UNCLASSIFIED
Page 1 of 14

R-1 Line #129

Exhibit R-2A, RDT&E Project Ju	Date: February 2018											
Appropriation/Budget Activity 0400 / 5	PE 060508	am Elemen 30S / Defens ancial Syste	se Agencies		t (Number/Name) fense Agencies Initiatives - Financial							
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
01: Defense Agencies Initiatives - Financial System	110.325	27.194	24.436	21.156	-	21.156	23.673	21.806	25.336	25.815	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 0491

A. Mission Description and Budget Item Justification

The DAI mission is to deliver auditable Chief Financial Officer (CFO) Act compliant business environments for Defense Agencies providing accurate, timely, authoritative financial data supporting the DoD goal of standardizing financial management practices improving financial decision support, and supporting audit readiness. Currently, Defense Agencies use several different non-compliant financial management systems supporting diverse operational functions and the warfighter in decision-making and financial reporting. These disparate, non-integrated systems do not meet statutory requirements to produce timely, auditable reports.

The DAI program modernizes the Defense Agencies' financial management processes by streamlining financial management capabilities, addressing financial reporting material weaknesses, and supporting financial statement auditability for the majority of agencies and field activities across the DoD. DAI will support a transformation of budget, finance, and accounting processes across participating defense agencies to help improve the quality of financial information, supporting financial auditability and decision-making. The DAI business solution, once implemented, will provide a near real-time, web-based system from a ".mil" environment of integrated business processes that will enable in excess of 84,000 Defense Agency financial managers, program managers, auditors, and Defense Finance and Accounting Service (DFAS) representatives to make sound financial business decisions.

The DAI implementation approach is to deploy a standardized system solution that is consistent with requirements in the Federal Financial Management Improvement Act (FFMIA) and the DoD Business Enterprise Architecture (BEA), while leveraging the out-of-the-box capabilities of the selected Commercial-Off-the-Shelf (COTS) product, Oracle e-Business Suite (EBS), Release 12.2.5 (R12). DAI implemented an Oracle Office of Management and Budget Financial Systems Integration Office (FSIO) qualified COTS financial management business solution with common business processes and data standards. The Program Management Office (PMO) will not develop any objects that are included in core COTS software or services (i.e. vendor data from Federal authoritative source).

DAI supports the 2014 Quadrennial Defense Review (QDR) Strategy 5, "Reform the business and support functions of the Defense enterprise". DAI is also aligned to the DOD Agency Strategic Fiscal Years 2015-2018, Goal 5: Reform and Reshape the Defense Institution, Key Strategic Initiative - Improving competitiveness through accountability and efficiency and SO 5.2: Improve financial processes, controls, and information via audit readiness. The objective of the DAI system is to achieve auditable, CFO Act compliant business environments for the Defense Agencies with accurate, timely, authoritative financial data.

The primary goal is to deploy a standardized system solution to improve overall financial management and comply with BEA, Standard Financial Information Structure (SFIS)/Standard Line of Accounting (SLOA), and Office of Federal Financial Management (OFFM) requirements. Common business functions within budget execution include the Department's BEA End to End (E2E) business processes: Cost Management; Budget to Report; Procure to Pay (P2P); Acquire to Retire (real property

PE 0605080S: Defense Agencies Initiative (DAI) - Fina... Defense Logistics Agency UNCLASSIFIED
Page 2 of 14

R-1 Line #129

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	ncy		Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 5	PE 0605080S I Defense Agencies Initiative	01 I Defens	se Agencies Initiatives - Financial
	(DAI) - Financial System	System	

lifecycle accounting only); Hire to Retire (Time and Labor reporting only); and Order to Cash. Release (Rel) 1 provided an application upgrade to Oracle R12 along with (P2P) enhancements facilitating SFIS/SLOA compliance and automated Time and Labor absence management. Rel 2 introduced Grants Financial Management accounting and the start of a phased implementation of Governance, Risk and Compliance (GRC) capabilities. Future capabilities will support Rel 3 Direct Treasury Disbursing and Budget Formulation as well as Rel 4 Defense Working Capital Fund accounting, and Re-Sale Accounting (for Defense Commissary Agency (DeCA).

DAI is currently implemented at 22 Defense Agencies and the Office of the Under Secretary of Defense, Comptroller, (OUSD(C)) and supports over 39,322 users. The program office is also responsible for operational sustainment of the system. Funds are required for additional government and contractor support, licenses, maintenance, and hardware to accomplish the remaining capability developments and organizational deployments, and initiate the annual Statement on Standards for Attestation Engagements No. 18 (SSAE 18) assertion packages. In 2017, the system received an unqualified SSAE 18 report.

The benefits of DAI are:

- Common business processes and Enterprise data standards (i.e., SFIS, SLOA, Procurement Data Standard (PDS) and Procurement Request Data Standard (PRDS));
- Access to real-time financial data transactions;
- Significantly reduced data reconciliation requirements;
- Enhanced analysis and decision support capabilities; and
- Use of United States Standard General Ledger (USSGL) Chart of Accounts to resolve DoD material weaknesses and deficiencies.

The DAI PMO completed the Oracle R12 application upgrade. The DAI PMO also provides system integration services that include: acquisition/financial management, project management; blueprinting; design, build, and unit test; developing required Reports, Interfaces, Conversions, Extensions, Forms and Workflows (RICE-FW) objects; testing (cyber security/information assurance, integration, functional, performance, conversion, user acceptance, operational); end-user training (train the trainer/change management preparing the users for the cross functional skills and awareness needed to perform well with an integrated enterprise resource planning system); system deployment; conversion; information assurance; sustainment; data service; help desk support; as well as studies and analysis support.

DLA Information Operations provides the program executive officer, program manager, and PMO staff. The DAI PMO relies on DLA Acquisition for most contracting. Defense Information Systems Agency (DISA) Defense Enterprise Computing Centers (DECCs) provide application, development and test as well as Continuity of Operations (COOP) hosting, Technical Contracting Office for development task orders, and the Joint Interoperability Test Command for Interoperability testing. The DAI PMO serves as systems integrator. Contracted subject matter experts configure COTS to provide compliant business processes.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Defense Agencies Initiative (DAI) - Financial System	27.194	24.436	21.156
 FY 2018 Plans: In FY 2018, the DAI PMO will: Field DAI Increment 2 Rel 4 to users at two large agencies (over 9,409 users). Development/Testing for DISA General Fund (GF) agency unique requirements and I capabilities. 	pegin study/development of DWCF		

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

Page 3 of 14

R-1 Line #129 Volume 5 - 47

	UNCLASSIFIED								
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Log	gistics Agency	Date:	February 201	8					
Appropriation/Budget Activity 0400 / 5									
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019					
 Study/develop Agency unique requirements for DISA. Work instructions and training materials. Conduct Follow-on Test and Evaluation (FOT&E) event with using independent Operational Assessments. Support the FM & time/labor for over 45k users at over 22 Agencie Support the DoD Information Assurance Certification and Accredita actions included in the Designated Authorizing Authority required Platederal Information Systems Controls Audit Manual (FISCAM) Test award an Authority to Operate. Continue to implement the Governance, Risk and Compliance (GR Configuration, Access, Prevention & Transactions supporting audit for Maintain the technical operation including: application of DISA Section Currency for servers operating systems, middleware & applications in DISA Enterprise Computing Center (DECC) enclaves; & the daily open DLA Transaction Services as well as established Federal Enterprises Conduct regular adversarial assessments, RMF continuous monitor Vulnerability Assessment (CEVA) and a Cooperative Vulnerability and Obtain or maintain an interim Interoperability Certification or an Automatical Certain Cer	es, Field Activities and organizations. ation Risk Management Framework (RMF) process to supan of Actions and Milestones including an independent of Design/Test of Effectiveness to result in a DAA decision (RC) capabilities by expanding Enterprise controls: findings, recommendations & corrective action plans (CAF curity Technical Implementation Guides, hardware & software including patches; overseeing internal processes within the peration of several interfaces with external systems leverally experimentation Assessment (CVPA). The process of the polymer of the parties under the polymer of the polyme	Ps). vare aging mic							
In FY 2019, the DAI PMO will: • Field DAI Increment 3 Rel 1 General Fund (GF) accounting to user • Development/Testing for DWCF and agency unique requirements capabilities. • Study Agency unique requirements for DeCA. • Work instructions and training materials. • Conduct an independent operational assessment (OA) of DAI INC • Support the Financial Management (FM) & time/labor operations for organizations.	and complete the study of 4th Estate common/core 3, REL 1.	d							

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

UNCLASSIFIED
Page 4 of 14

R-1 Line #129

EXHIBIT K-2A, KDT&E PTOJECT JUSTINICATION. PD 2019 Delense Log	gistics Agency	_	Dutc. I	ebiuary 2010		
Appropriation/Budget Activity 0400 / 5	Project (Number/Name) 01 / Defense Agencies Initiatives - Finar System					
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2017	FY 2018	FY 2019	
 Support the DoD RMF process to support actions included in the I and Milestones including an independent FISCAM Test of Design/T Authority to Operate. Continue to implement the GRC capabilities by expanding Enterpr Configuration, Access, Prevention & Transactions supporting audit • Maintain the technical operation including: application of DISA Securrency for servers operating systems, middleware & applications DECC enclaves; & the daily operation of several interfaces with extensiablished Federal Enterprise system web services. Conduct regular adversarial assessments, RMF continuous monitor Vulnerability Assessment and a Cooperative Vulnerability and Penello Obtain or maintain an interim Interoperability Certification or an Autorian Program will also perform developmental, operational and Cy of the Secretary of Defense oversight. The Defense Logistics Agend conduct the annual FFMIA and SSAE 18 assessments and conduct 	rise controls: findings, recommendations & CAPs. curity Technical Implementation Guides, hardware & soft including patches; overseeing internal processes within the ernal systems leveraging DLA Transaction Services as woring including code scans, an independent Cyber Econo etration Assessment. Ithority to Connect to the DoD Global Information Grid. ber security testing with independent third parties under Cyber will contract for an independent public accounting firm	ware ne ell as mic				
FY 2018 to FY 2019 Increase/Decrease Statement: FY 2019 development will complete developing DWCF accounting requirements.	requirements necessary to serve as core and meet DISA					
	Accomplishments/Planned Programs Sub	totals	27.194	24.436	21.15	

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

Exhibit R-2A RDT&E Project Justification: PB 2019 Defense Logistics Agency

N/A

Remarks

D. Acquisition Strategy

DAI is being developed and implemented using an evolutionary/incremental strategy including major annual software releases to accommodate upgrades as required by changes to the Department's BEA including new laws, regulations and policies as governed by its Functional Sponsor and Milestone Decision Authority (MDA).

In the Acquisition Decision Memorandum (ADM) of September 23, 2013, the MDA placed DAI Increment 1 in sustainment. Increment 2 addressed the Commercial Off The Shelf (COTS) application upgrade. The upgrade was completed (January 2015); therefore, Increment 2 Rel 1 subsumed Increment 1 for all users. A new ADM in June 2017 introduced Increment 3. When Increment 3, Rel 1 goes live, it will subsume Increment 2; therefore, only one DAI production baseline exists at any point in time.

PE 0605080S: Defense Agencies Initiative (DAI) - Fina... Defense Logistics Agency UNCLASSIFIED
Page 5 of 14

R-1 Line #129

Volume 5 - 49

Date: February 2018

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Ag	Date: February 2018	
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605080S I Defense Agencies Initiative (DAI) - Financial System	umber/Name) se Agencies Initiatives - Financial

E. Performance Metrics

The following performance metrics will be performed on the DAI system:

Functionality: Financial system performance. PEO will determine substantial compliance with the annual Investment Review of PMO assertion of compliance with the latest version of the Department's BEA in scope requirements for Defense Financial Management Improvement Guidance (DFMIG) and other laws regulations and policy. Objective: Substantial compliance.

Program Conformance to BEA Processes, Data Standards, and Business Rules. The PEO will determine substantial compliance with the annual Investment Review of PMO assertion of compliance with the latest version of the Department's BEA. Objective: Substantial compliance.

Net Ready Key Performance Parameter (NR-KPP)

Attribute (Att) A - Support net-centric DoD military operations

Mission: Transform the budget, finance, and accounting operations of the DoD Agencies to achieve accurate and reliable financial information in support of financial accountability and effective and efficient decision making throughout the Defense Agencies in support of the missions of the warfighter.

A.1. Budget to Report (B2R). DAI provides General Ledger, Trial Balance, Budget Execution, and Financial Reporting Capabilities.

DAI will measure the percentage of successful attempts to:

- * Generate and transmit Trial Balance Reports. Objective-95%;
- * Receive budget information from agency-specific systems, to support budget execution. Objective-95%; and
- * Generate and transmit reports to support period end processing procedures. Objective-95%

A.2 Procure to Pay (P2P). DAI provides the capability to Order Materials and Services (Commitments), Record Purchases and Contract Information (Obligations) Pay Bills (Accounts Payable), and Create Ready to Pay File.

DAI will measure the percentage of successful attempts to:

- * Exchange contract, obligation, receipt and invoice information with external systems to support procurement processes. Objective-95%;
- * Receive Purchase Card information from external systems to manage government purchase cards (P-Cards). Objective-95%;
- * Exchange data across agencies to support intergovernmental Purchase Request (PR) processes. Objective-95%;
- * Receive travel related data from external systems to support travel financial accounting events. Objective-95%; and * Exchange miscellaneous payment information with trading partners. Objective-95%.
- A.3. Order to Cash (O2C). DAI provides the capability to Receive Customer Orders, Record Work Performed on the orders, Bill Customers, and Track Accounts Receivable.

DAI will measure the percentage of successful attempts to:

PE 0605080S: Defense Agencies Initiative (DAI) - Fina... Defense Logistics Agency Page 6 of 14

R-1 Line #129

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	Date: February 2018	
, · · · · · · · · · · · · · · · · · · ·	` ` `	 umber/Name) se Agencies Initiatives - Financial

- * Exchange data with external systems to support management of customer orders. Objective-95%;
- * Exchange receivables data with external systems. Objective-95%; and
- * Manage exchange collections data with external systems. Objective-95%.
- A.4. Acquire to Retire (A2R). DAI provides the capability to record Asset Acquisition, Depreciation, and Disposal. DAI will measure the percentage of successful attempts to:
- * Receive asset creation information from external systems. Objective-95%;
- * Accumulate and transmit costs incurred for Capital Assets on Construction in Progress (CIP) and Work in Progress (WIP) projects. Objective-95%;
- * Generate and transmit property accounting information. Objective-95%;
- * Receive property maintenance data from external systems. Objective-95%; and
- * Receive disposal of assets information from external systems. Objective-95%.
- A.5. Cost Management (formerly Cost Accounting). DAI provides Cost Accounting and Allocation Capabilities.

DAI will measure the percentage of successful attempts to:

- * Receive Project Budgets from external systems. Objective-95%; and
- * Receive cost data to support cost collection processes. Objective-95%.
- A. 6. Hire to Retire (H2R). DAI provides Civilian, Military, and Contractor Time and Labor capabilities. DAI will measure the percentage of successful attempts to:
- * Exchange employee and timekeeping information with external systems. Objective-95%; and
- * Process and send payroll data to external systems. Objective-95%.

NR-KPP Att B - Managed in the Network

- 1) Type of Networks that are connected:
- The DAI application supports multiple Defense Agencies, and thus is accessible from multiple network points. A typical user accesses the application via the web browser from his/her agency specific LAN/WAN and/or local site firewall configurations, traversing through the Non-Classified Internet Protocol Routing Network (NIPRNet) to reach the secure DAI application hosted within the DoD Demilitarized Zone (DMZ) which is controlled and managed by DISA.
- The DAI production application is hosted in a DISA DECC environment located in Ogden, UT and is managed by DAI Program Management Office
- 2) Measures of Performance (MOPs) to measure network entrance and management performance:
- a) Network related (DISA) as per DISA Catalog of Services
- -Interactive Availability Portion of network/system controlled by DISA CSD available to the partner during the interactive window
- -Batch Throughput Completion rate and delivery by specified time during batch window specified in SLA
- b) Database related (DAI Program Management Office)

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

UNCLASSIFIED
Page 7 of 14

R-1 Line #129

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Ager		Date: February 2018	
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0605080S I Defense Agencies Initiative (DAI) - Financial System	- , ,	umber/Name) se Agencies Initiatives - Financial

- -System Availability
- -On Line user system response
- 3) Network Management:
- -The Agency (user) being supported is responsible for the communications infrastructure necessary for leaving their location to connect users to the NIPRNet
- -DISA is responsible for communications on NIPRNet between the end user and the main DAI environment
- -DAI Program Management Office is responsible for activities occurring within the application and the Oracle Database
- 4) Systems Management
- -NIPRNet and Infrastructure Centralized within DISA CSD
- -DAI System centralized within DAI Program Management Office
- 5) Network Configuration Parameters N/A (within the realm of DISA management) DAI will measure the percentage of success for:
- * Supports secure Internet/NIPRNET access to solution. Interactive Availability. Objective-98.5%;
- * Supports secure Internet/NIPRNET access to solution. Batch Throughput. Objective-95%;
- * Provides adequate system response and availability to support operations. System Availability. (Condition: 5000 users/hour) Objective-95%; and
- * Provides adequate system response and availability to support operations. On-line system response. (Condition: 5000 users/hour) Objective-95%.

NR-KPP Att C - Effectively Exchange Information.

DAI will satisfy all top-level critical Information Exchange Requirements (IERs) with all required DoD Enterprise, DFAS, Defense Agencies, and Federal Systems, as documented in SV-6. There are 47 data exchanges with other systems. The objectives are 100% for accuracy and ten seconds to 1 day for timeliness. Additional details available upon request.

Major Performers:

CACI Inc Federal

Chantilly, VA

Global Model Implementation and Compliance Support to DAI

CACI Inc Federal

Chantilly, VA

DAI Implementation Support Services

CACI ISS, Inc

Fairfax, VA

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

R-1 Line #129

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defens	Date: February 2018	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
0400 / 5	PE 0605080S I Defense Agencies Initiative	01 I Defense Agencies Initiatives - Financial
	(DAI) - Financial System	System
Infrastructure Support	•	•

Intrastructure Support

International Business Machines Corporation

Reston, VA

DAI Global Model Development for Procure to Pay (P2P), Order to Cash (O2C), Budget to

Retire (B2R), and Customer Application Development (CAD)

CACI Inc Federal

Chantilly, VA

DAI Global Model Development for Acquire to Retire (A2R), Cost Accounting (CA), and Time and Labor (T&L)

Mythics Inc DBA Virginia Beach, VA

Oracle CLM and Purchase Software

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

0400 / 5

R-1 Program Element (Number/Name)
PE 0605080S I Defense Agencies Initiative

(DAI) - Financial System

Project (Number/Name)

01 I Defense Agencies Initiatives - Financial

Date: February 2018

System

Product Developmen	nt (\$ in M	illions)		FY 2	2017	FY :	2018		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
DAI Compliance Support	Option/ CPFF	CACI Inc Federal : Chantilly, VA	18.540	7.143	Jun 2017	6.489	Jun 2018	-		-		-	0.000	32.172	0.000
DAI Compliance Support Follow-on	C/TBD	TBD : TBD	0.000	0.000		0.000		6.683	Jun 2019	-		6.683	Continuing	Continuing	Continuing
DAI Implementation Support	Option/ CPAF	CACI Inc Federal : Chantilly, VA	15.600	6.651	Mar 2017	6.151	Mar 2018	-		-		-	0.000	28.402	0.000
DAI Implementation Support Follow-on	C/TBD	TBD : TBD	0.000	0.000		0.000		6.336	Mar 2019	-		6.336	Continuing	Continuing	Continuing
DAI Infrastructure Support	Option/ FFP	CACI ISS Inc : Fairfax, VA	8.183	3.472	May 2017	2.821	May 2018	-		-		-	0.000	14.476	0.000
DAI Infrastructure Support Follow-on	C/TBD	TBD : TBD	0.000	0.000		0.000		1.985	May 2019	-		1.985	Continuing	Continuing	Continuing
Global Model P2P	C/FFP	IBM : Bethesda, MD	19.212	2.715	Aug 2017	-		-		-		-	0.000	21.927	0.000
Global Model P2P Follow- on	C/TBD	TBD : TBD	0.000	0.000		3.418	Aug 2018	-		-		-	Continuing	Continuing	Continuing
Global Model A2R	C/CPFF	CACI Inc Federal : Chantilly, VA	9.012	1.134	Apr 2017	-		-		-		-	0.000	10.146	0.000
Global Model A2R Follow- on	C/TBD	TBD : TBD	0.000	0.000		2.333	Apr 2018	2.403	Apr 2019	-		2.403	Continuing	Continuing	Continuing
DAI Data Conversion Support	Option/ FFP	Terathink : Reston, VA	2.512	0.345	Mar 2017	-		-		-		-	0.000	2.857	0.000
DAI Data Conversion Support Follow-on	C/TBD	TBD : TBD	0.000	0.000		-		-		-		-	Continuing	Continuing	Continuing
Requirements Management (RM) Support	MIPR	DISA : Fort Meade, MD	0.876	0.000	Oct 2017	0.237	Oct 2018	0.159	Oct 2019	-		0.159	Continuing	Continuing	Continuing
Global Model P2P Option 1 Increase	C/FFP	IBM : Bethesda, MD	0.000	0.000		-		-		-		-	0.000	0.000	0.000
Oracle Time & Labor Software License and Maintenance	C/FP	Mythics, Inc. : Virginia Beach, VA	0.000	1.020	May 2017	-		-		-		-	0.000	1.020	0.000

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

UNCLASSIFIED
Page 10 of 14

R-1 Line #129

Product Developmen	ıt (\$ in M	illions)		FY 2	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 Contract
DCPDS/DAI Interface File Changes	MIPR	DLA Finance : Fort Belvoir, VA	0.000	0.014	Feb 2017	0.013	Feb 2018	0.010	Feb 2019	-		0.010	Continuing	Continuing	Continuing
Serena Capability	MIPR	TBD : TBD	0.000	0.000		-		-		-		-	Continuing	Continuing	Continuing
Global Model CAD	C/CPFF	CSC : Falls Church, VA	3.205	-		-		-		-		-	0.000	3.205	0.000
Jaws Professional Licenses	C/FFP	Immix : McLean, VA	0.017	-		-		-		-		-	0.000	0.017	0.000
Oracle Advanced Compression Licenses	TBD	TBD : TBD	1.622	-		-		-		-		-	0.000	1.622	0.000
Oracle Contract Lifecycle Management Licenses	C/FFP	Mythics Inc : Virginia Beach, VA	7.408	-		-		-		-		-	0.000	7.408	0.000
Oracle Licenses	MIPR	DISA : Pensacola, FL	5.446	-		-		-		-		-	0.000	5.446	0.000
Kurzweil 5000 508 Assistive Tech Licenses	C/FFP	Envision Technology Inc. : Bethesda, MD	0.008	-		-		-		-		-	0.000	0.008	0.000
Dragon Naturally Speaking 508	C/FFP	Red River Computer Co : Claremont, NH	0.007	-		-		-		-		-	0.000	0.007	0.000
DISA/DITCO Delinquent Balance	MIPR	DISA DITCO : Scott AFB, IL	0.017	-		-		-		-		-	0.000	0.017	0.000
DBTA Section 1553	MIPR	DFAS : Columbus, OH	0.377	-		-		-		-		-	0.000	0.377	0.000
Development Activities	C/TBD	TBD : TBD	0.000	-		0.000		-		-		-	Continuing	Continuing	Continuing
		Subtotal	92.042	22.494		21.462		17.576		-		17.576	Continuing	Continuing	N/A

Support (\$ in Millions)			FY 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	Total Cost	Target Value of Contract
Estimated SBIR/STTR:	TBD	TBD : TBD	0.000	1.112		0.892		0.785		-		0.785	Continuing	Continuing	Continuing
		Subtotal	0.000	1.112		0.892		0.785		-		0.785	Continuing	Continuing	N/A

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

UNCLASSIFIED
Page 11 of 14

R-1 Line #129

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Logistics Ager		Date: February 2018	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 5	PE 0605080S I Defense Agencies Initiative	01 I Defen	se Agencies Initiatives - Financial
	(DAI) - Financial System	System	

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	Total Cost	Target Value of Contract
DISA Hosting: Test and Development	MIPR	DISA : Pensacola, FL	10.242	2.696	Oct 2016	-		0.894	Oct 2018	-		0.894	Continuing	Continuing	Continuing
Interoperability	MIPR	JITC : Fort Meade, MD	3.273	0.134	May 2017	0.281	May 2018	0.290	May 2019	-		0.290	Continuing	Continuing	Continuing
Performance and Regression Testing	MIPR	JITC : Fort Huachuca, AZ	1.936	0.710	Oct 2016	0.721	Oct 2017	0.600	Oct 2018	-		0.600	Continuing	Continuing	Continuing
Operational Test and Evaluation	MIPR	JITC : Fort Huachuca, AZ	2.749	0.000	Dec 2016	0.982	Dec 2017	1.011	Dec 2018	-		1.011	Continuing	Continuing	Continuing
DCPS Testing	MIPR	DFAS : Indianapolis, IN	0.083	0.048	Oct 2016	0.098	Oct 2017	0.000	Oct 2018	-		0.000	Continuing	Continuing	Continuing
Hosting Activities	TBD	TBD : TBD	0.000	0.000		0.000		0.000		-		0.000	Continuing	Continuing	Continuing
		Subtotal	18.283	3.588		2.082		2.795		-		2.795	Continuing	Continuing	N/A
							1								Target

	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	110.325	27.194	24.436	21.156	-	21.156	Continuing	Continuing	N/A

Remarks

PE 0605080S: *Defense Agencies Initiative (DAI) - Fina...* Defense Logistics Agency

UNCLASSIFIED
Page 12 of 14

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity 0400 / 5

R-1 Program Element (Number/Name)

Project (Number/Name) PE 0605080S I Defense Agencies Initiative 01 I Defense Agencies Initiatives - Financial (DAI) - Financial System

Svstem

Date: February 2018

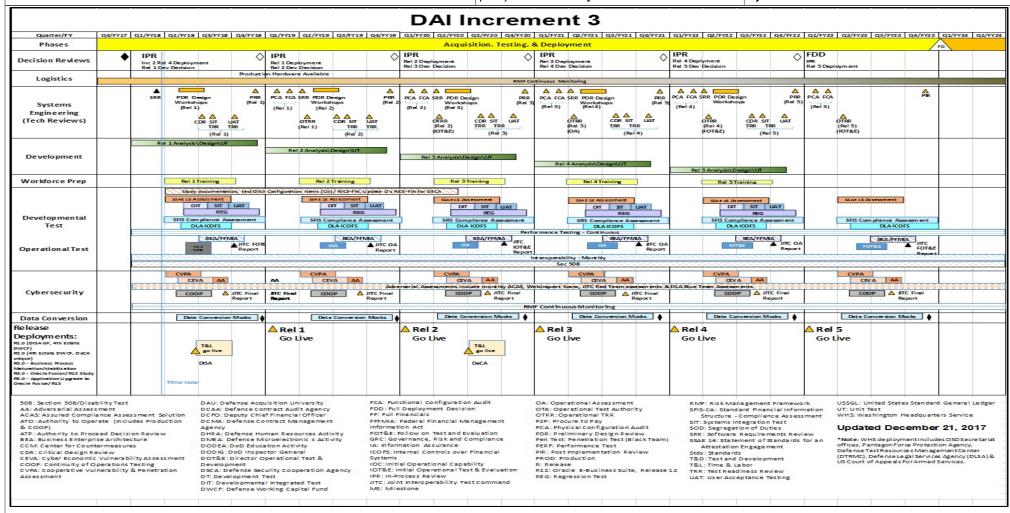


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Defense Logistics Agency			Date: February 2018
1	, ,	, ,	umber/Name)
0400 / 5	PE 0605080S I Defense Agencies Initiative	01 I Defen	se Agencies Initiatives - Financial
	(DAI) - Financial System	System	

Schedule Details

	St	art	End		
Events by Sub Project	Quarter	Year	Quarter	Year	
Defense Agencies Initiative (DAI)					
Defense Agencies Initiative (DAI)	1	2014	4	2023	

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

R-1 Program Element (Number/Name)

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5:

PE 0605090S I Defense Retired and Annuitant Pay System (DRAS)

Date: February 2018

System Development & Demonstration (SDD)

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	27.815	4.768	13.475	10.731	-	10.731	6.609	1.769	1.805	1.839	Continuing	Continuing
01: Defense Retired and Annuitant Pay System 2 (DRAS)	27.815	4.768	13.475	10.731	-	10.731	6.609	1.769	1.805	1.839	Continuing	Continuing

A. Mission Description and Budget Item Justification

The primary objective of Defense Retired and Annuitant Pay System 2 (DRAS 2) is to establish and maintain a modern retiree and annuitant pay system featuring automated, market technology in place of selected manual processes.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	7.949	13.475	2.226	-	2.226
Current President's Budget	4.768	13.475	10.731	-	10.731
Total Adjustments	-3.181	0.000	8.505	-	8.505
Congressional General Reductions	-	-			
 Congressional Directed Reductions 	-	-			
Congressional Rescissions	-	-			
Congressional Adds	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.181	-			
 FY 2017 Request for Additional 	-3.000	-	-	-	-
Appropriation Not Addressed					
Increased Program Requirements	-	-	8.505	-	8.505

Change Summary Explanation

FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$0.181M. In FY2017, DRAS2 request for additional appropriations was not addressed.

The program increase in FY2019 in the amount of \$8.505M is for system development, testing, training and hosting activities.

UNCLASSIFIED
Page 1 of 5

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency											Date: February 2018			
Appropriation/Budget Activity 0400 / 5					PE 0605090S I Defense Retired and					Project (Number/Name) 01 I Defense Retired and Annuitant Pay System 2 (DRAS)				
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		
01: Defense Retired and Annuitant Pay System 2 (DRAS)	27.815	4.768	13.475	10.731	-	10.731	6.609	1.769	1.805	1.839	Continuing	Continuing		
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-				

A. Mission Description and Budget Item Justification

The primary objective of DRAS 2 is to establish and maintain a modernized retired military pay accounts. DRAS 2 will replace the current Defense Retiree and Annuitant Systems (DRAS) and selected manual processes with proven state of the market technology. This modernization will allow for the consolidation of disparate DRAS systems and business processes, the reduction of system redundancies and inefficiencies, and increased customer satisfaction.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Defense Retired and Annuitant Pay System (DRAS) 2	4.768	13.475	10.731
FY 2018 Plans: Issue a Task Order for: - Final Build development - Perform System Integration, Interoperability, User Acceptance Testing, and Parallel Operations Testing - User Training - Establish production hosting environment and perform Cyber Defense Security activities.			
FY 2019 Plans: The system will transition to DFAS during FY2020.			
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease in FY2019 as a result of reduced program requirements.			
Accomplishments/Planned Programs Subtotals	4.768	13.475	10.731

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

N/A

Remarks

D. Acquisition Strategy

DRAS2 achieved Milestone B in August 2016 and entered into the Engineering, Development, and Production Phase of the Acquisition Lifecycle. DRAS2 achieved a successful Critical Design Review in December 2017 and is now proceeding to System Development. DRAS2 is scheduled for Full Deployment during FY20.

PE 0605090S: Defense Retired and Annuitant Pay System... Defense Logistics Agency

UNCLASSIFIED
Page 2 of 5

R-1 Line #130

Exhibit R-2A, RDT&E Project Justification: PB 2019 D	Defense Logistics Agency	Date: February 2018
oropriation/Budget Activity 0 / 5 Performance Metrics	R-1 Program Element (Number/Name) PE 0605090S I Defense Retired and Annuitant Pay System (DRAS)	Project (Number/Name) 01 I Defense Retired and Annuitant Pay System 2 (DRAS)
E. Performance Metrics		
N/A		

PE 0605090S: *Defense Retired and Annuitant Pay System...*Defense Logistics Agency

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity
0400 / 5

R-1 Program Element (Number/Name)
PE 0605090S / Defense Retired and
Annuitant Pay System (DRAS)

Date: February 2018

Project (Number/Name)
01 / Defense Retired and Annuitant Pay
System 2 (DRAS)

Product Developmen	it (\$ in Mi	illions)		FY 2	2017	FY 2	2018	FY 2 Ba	2019 ise	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	Total Cost	Target Value of Contract
DRAS2 System Development and Integration	Option/ IDIQ	CSRA : Chantilly, VA	13.096	0.000	Oct 2018	4.280	Jan 2018	7.931	Oct 2018	0.000		7.931	Continuing	Continuing	Continuing
DRAS2 COTS License Purchase	Option/ IDIQ	CSRA/Oracle : To be Determined	10.443	3.586	May 2017	0.000		0.000		0.000		0.000	Continuing	Continuing	14.110
DISA Hosting	MIPR	Virtual Operating Environment : Mechanicsburg, PA	0.721	0.332	Nov 2017	1.200	Jan 2018	1.000	Jan 2019	0.000		1.000	Continuing	Continuing	2.590
Transaction Services Interface Design	Option/ IDIQ	Northrop Grumman DLA Transaction Services : Chambersburg, PA	2.900	0.850	May 2016	0.452	Nov 2017	0.000		0.000		0.000	Continuing	Continuing	4.162
Transaction Services Interface Development & Testing	Option/ IDDQ	Northrop Grumman DLA Transaction Services : Chambersburg, PA	0.655	0.000		0.900	Jul 2018	0.900	Jul 2019	0.000		0.900	Continuing	Continuing	1.910
DRAS2 System Development & Integration	Option/ IDIQ	CSRA : Chantilly, VA	0.000	0.000		6.643	May 2018	0.000		0.000		0.000	Continuing	Continuing	6.643
Interoperability Testing	MIPR	Joint Interoperability Test Command (JITC): Fort Meade, MD	0.000	0.000		0.000		0.900	Oct 2018	0.000		0.900	Continuing	Continuing	0.900
	,	Subtotal	27.815	4.768		13.475		10.731		0.000		10.731	Continuing	Continuing	N/A

	Prior Years	FY 2017	FY 20	FY 2			Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	27.815	4.768	13.475	10.731	0.000	10.731	Continuing	Continuing	N/A

Remarks

PE 0605090S: *Defense Retired and Annuitant Pay System...* Defense Logistics Agency

UNCLASSIFIED
Page 4 of 5

R-1 Line #130

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

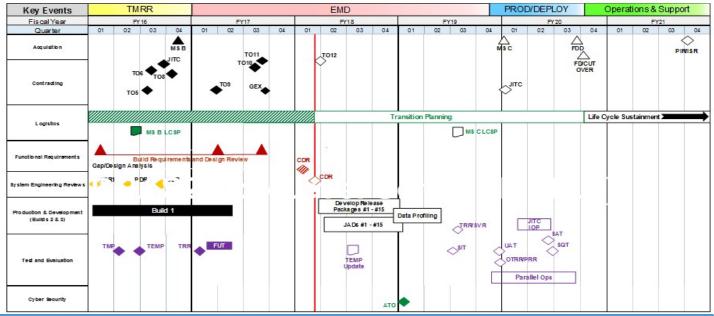
0400 / 5

R-1 Program Element (Number/Name) PE 0605090S I Defense Retired and Annuitant Pay System (DRAS)

Project (Number/Name) 01 I Defense Retired and Annuitant Pay System 2 (DRAS)

Date: February 2018

DRAS2 Top Level Schedule (TLS)



Note: The IMS is currently being mitigated for PM approval based on DLA Contracts Office guidance pertaining to IDIQ contract limitations during FY19 & FY20. Milestone C and Full Deployment dates reflected are tentative.

△ Milestone Decision Task Timeline (Planned) **Decision Point** Partial Progress Completed Document Review

MS B – Milestone B MS C – Milestone C FD – Full Deployment IATT – Interim Authority To Test ATO/ATC – Authority To Operate/Authority to Connect TMRR Technology Maturation and Risk Reduction EMD - Engineering and Manufacturing Development PROD/DEPLOY - Production and Deployment Development SI -System Integrator TO – Task Order SRR – System Requirements Review SFR – System Functional Review PDR – Preliminary Design Review CDR – Critical Design Review - T-PDR Tailored Preliminary Design Review - T-CDR Tailored Critical Design Review (Build 1 - 3) OTRR - Operational Test Readiness Review PRR -Production Readiness Review ISR - In Service Review SEP - System Engineering Plan TMP - Test Management Plan TEMP - Test & Evaluation Master Plan SAT -System Acceptance Testing SIT - System Integration Testing TRR - Technology Readiness Review SVR - System Verification Review SQT - System Qualification Testing UAT - User Acceptance Testing - DTE - Developmental Test & Evalution. (SwQT) - Software Quality Testing - Regression, System Integration, Compliance and Functional User Testing) - JITC - Joint Interoperability Test Command Proto CRP - Prototype Conference Room Pilot 2, 4, 6



Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6:

RDT&E Management Support

R-1 Program Element (Number/Name)

PE 0605502S I Small Business Innovative Research (SBIR)

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	23.043	4.554	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
01: Small Business Innovative Research	23.043	4.554	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Defense Logistics Agency's (DLA's) ability to deliver Americans the right logistics solution in every transaction requires more than successful management of the Department's wholesale supplies and suppliers. It requires supply chain excellence. Our military's ability to generate and sustain combat readiness indefinitely, anywhere on the globe requires that DLA-managed material flow seamlessly and as needed from the nation's industrial base to where it is ultimately used.

DLA's Small Business Innovative Research (SBIR) program seeks to solicit innovative research and development proposals from the small business community to address DLA's strategic and operational requirements. All selections shall demonstrate and involve some technical risk with yet to be determined technical feasibility. Phase I proposals should demonstrate the feasibility of the proposed technology and provide a strong business case for Phase II investment for a prototype or at least a proof-of-concept demonstration. A favorable return on investment and commercialization potential have a strong influence on Phase II selections.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	4.554	0.000	0.000	-	0.000
Total Adjustments	4.554	0.000	0.000	-	0.000
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	4.554	-			

Change Summary Explanation

FY2017 Small Business Innovation Research and Small Technology Transfer taxes for DLA programs amounted to \$4.554M which established the baseline or this program element.

PE 0605502S: Small Business Innovative Research (SBIR... Defense Logistics Agency

UNCLASSIFIED
Page 1 of 4

R-1 Line #157

Volume 5 - 65

Date: February 2018

Exhibit R-2A, RDT&E Project Ju		Date: February 2018												
Appropriation/Budget Activity 0400 / 6					_	am Elemen)2S / Small (SBIR)	•	•	• `	Project (Number/Name) 11 I Small Business Innovative Research				
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		
01: Small Business Innovative Research	23.043	4.554	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing		
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-				

A. Mission Description and Budget Item Justification

This program explores innovative concepts pursuant to Public Law 106-554 (Small Business Reauthorization Act of 2000) and Public Law 107-50 (Small Business Technology Transfer Program Reauthorization Act of 2001), which mandates a two-phase competition for small businesses with innovative technologies with a defense application as well as a commercial value. The SBIR and Small Business Technology Transfer (STTR) programs will develop new dual-use technologies for possible future DLA operational and sustainment requirements. Dual-use means the technologies will be judged on their potential for future private sector investment both as a vehicle for reducing development time and cost, unit costs of new DLA technologies, and as a route to national economic growth through new commercial products. DLA will conduct the competition as well as award and manage the contracts.

The DLA's SBIR/STTR investments are divided into multiple Research Areas identified from within several DLA Elements:

J6 R&D

- Nuclear Enterprise Support Office (NESO) Alternative Sources of Supply
- Additive Manufacturing Technologies, Process Controls, and Supply Chain
- Advanced Battery Manufacturing
- Advanced Aircraft Braking Systems
- Anti-Counterfeiting Technologies
- Medical 3D Printing of Prosthetics
- Seamless Self Sealing Fuel Bladders and Inflatables
- Strategic Materials Rare Earth Element Source Development
- Warehouse Modernization Technologies
- Subsistence Supply Chain Solutions
- Land & Maritime (L&M) Alternative Sources of Supply
- US Navy LCAC Power Supply Source Development
- US Air Force F-107 Engine Replacement Parts Source Development

DMEA

- Advanced microelectronics concepts, technologies, and applications

	UNULASSII ILD								
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Lo	gistics Agency	D	ate: F	ebruary 2018					
Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605502S I Small Business Innovative Research (SBIR)	605502S I Small Business Innovative 01 I Small Business Innovati							
B. Accomplishments/Planned Programs (\$ in Millions)		FY 20)17	FY 2018	FY 2019				
Title: SBIR Accomplishments/Plans		4	1.554	0.000	0.000				
FY 2018 Plans: DLA SBIR/STTR: To continue execution of all active Phase I and F 2018.1 BAA's (Broad Agency Announcements), DLA expects twelv area which will exhaust the FY 18 DLA SBIR funds. Upon completi for Phase II awards. DLA expects to award 12 new Phase II award Support Agreement. Continue execution of all active Phase I STTR projects. Upon compete for Phase II awards. Expect to award a single Phase II in	re new topics. Anticipate the selection of one to three topic on, all active Phase I projects have the opportunity to com . All Phase II awards utilize OSD/OSBP funding (\$12M) per pletion, all active Phase I projects have the opportunity to	s per pete							
DMEA SBIR/STTR: DMEA will continue execution of all active SBI progress to Phase II. DMEA will begin to study the feasibility of a h development for a broadband quadrature mixer with integrated I/Q circuit reconstruction system	igh-brilliance 9KeV x-ray source. DMEA will complete prot	otype							
FY 2019 Plans: DLA SBIR/STTR: Continue execution of all active Phase I and Pha and other divisions with DLA to identify requirements that meet DL guidance and mentorship to Phase II to projects to increase the like commercial vultures.	A's long and short term Strategic Objectives. Provide adec	quate							
DMEA SBIR/STTR: DMEA will continue to seek innovative technical needs and increase private-sector commercialization of these innovative technical needs.	·	ment							
	Accomplishments/Planned Programs Sub	totals 4	1.554	0.000	0.000				

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

N/A

Remarks

PE 0605502S: Small Business Innovative Research (SBIR... Defense Logistics Agency

UNCLASSIFIED
Page 3 of 4

R-1 Line #157

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agen	су		Date: February 2018
Appropriation/Budget Activity 0400 / 6	,	- 3 (umber/Name) Business Innovative Research

D. Acquisition Strategy

The SBIR acquisition process seeks to match projects with DLA's Strategic Focus Areas. The goal is to align SBIR/STTR developed technology with current and future DLA requirements. DLA solicits All new project execution work through the DoD SBIR Broad Agency Announcement (BAA). There are three separate solicitation periods throughout each year. (Jan-Feb, May-Jun, and Sep-Oct)

E. Performance Metrics

SBIR /STTR programs measure performance in two separate metrics

- 1. Phase Progression: In terms of progression from Phase I to Phase II, to Phase III, DLA deems each successive progression success. DLA Seeks to have a 30% progression from one Phase to the next as a minimum.
- 2. Commercialization: The Congressional language defines "Commercialization," which is clarified by the Office of Secretary of Defense Office of Small Business Programs (OSD/OSBP) Re-Authorization Policy Directive:
- (Investment) The process of developing products, processes, technologies, or services; and/or
- (Sales) The production and delivery (whether by the originating party or by others) of products, processes, technologies, or services for sale to or use by the Federal Government or commercial markets

The Small Business Administration and OSD/OSBP assign a Commercialization Index based on progression within the Phases and reported successes

UNCLASSIFIED
Page 4 of 4

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6:

RDT&E Management Support

R-1 Program Element (Number/Name)

PE 0606942S / Cyber Vulnerability Assessment and Mitigation

Date: February 2018

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	-	0.000	0.000	4.000	-	4.000	0.000	0.000	0.000	0.000	Continuing	Continuing
CVAM: Cyber Vulnerability Assessment and Mitigation	0.000	0.000	0.000	4.000	-	4.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

In section 1650 of Public Law 114-328, the National Defense Authorization Act (NDAA) for FY2017, the Congress mandated that the Department of Defense (DoD) conduct cyber vulnerability evaluations of critical military installations by December 31, 2019. The funding provided is for critical infrastructure assessments and mitigations. The Cyber Vulnerability Assessment and Mitigation program continues the cyber hardening of critical infrastructure for DLA Fuel Distribution by conducting cyber vulnerability assessments of current fuel distribution infrastructures.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	4.000	-	4.000
Total Adjustments	0.000	0.000	4.000	-	4.000
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-	-			
Program Establishment	-	-	4.000	-	4.000

Change Summary Explanation

This is a new PE in FY 2019. This is a continuation of efforts funded within the management support for the Office of the Secretary of Defense PE 0604942D8Z Assessments and Evaluation.

PE 0606942S: Cyber Vulnerability Assessment and Mitig... Defense Logistics Agency

UNCLASSIFIED
Page 1 of 2

R-1 Line #170

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										Date: February 2018			
0400 / 6					PE 0606942S / Cyber Vulnerability CVAM /				Project (N CVAM / Cy and Mitigat	ber Vulnera	Vulnerability Assessment		
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	
CVAM: Cyber Vulnerability Assessment and Mitigation	0.000	0.000	0.000	4.000	-	4.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			

A. Mission Description and Budget Item Justification

In section 1650 of Public Law 114-328, the National Defense Authorization Act (NDAA) for FY2017, the Congress mandated that the Department of Defense (DoD) conduct cyber vulnerability evaluations of critical military installations by December 31, 2019. The funding provided is for critical infrastructure assessments and mitigations. The Cyber Vulnerability Assessment and Mitigation program continues the cyber hardening of critical infrastructure for DLA Fuel Distribution by conducting cyber vulnerability assessments of current fuel distribution infrastructures.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
Title: Cyber Vulnerability Assessment and Mitigation	0.000	-	4.000
FY 2019 Plans: Conduct cyber vulnerability assessments and mitigation on existing DLA Fuel Distribution Infrastructure			
FY 2018 to FY 2019 Increase/Decrease Statement: Program is established within DLA's RDT&E portfolio in FY2019.			
Accomplishments/Planned Programs Subtotals	0.000	-	4.000

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

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Vulnerabilities that are discovered through fuel distribution infrastructure assessments will have corrective action plans (CAPs) drawn up and mitigation efforts to close gaps will be initiated. 20% of CAPs will be closed within 1 year of discovery.

PE 0606942S: *Cyber Vulnerability Assessment and Mitig...* Defense Logistics Agency

UNCLASSIFIED
Page 2 of 2

R-1 Line #170

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7:

PE 0708011S I Industrial Preparedness

Operational Systems Development

-												
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	131.718	15.984	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	147.702
0: Prior Years	109.875	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	109.875
17: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	5.293	4.800	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.093
18: Maintaining Viable Supply Sources (formerly High Quality Sources)	10.188	8.590	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	18.778
19: Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)	6.362	2.594	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.956

A. Mission Description and Budget Item Justification

The Defense Logistics Agency (DLA) Industrial Preparedness Manufacturing Technology (IP ManTech) Program supports the development of a responsive, world-class manufacturing capability to affordably meet the warfighters' needs throughout the defense system life cycle. IP ManTech: Provides the crucial link between invention and product application to speed technology transitions. The program matures and validates emerging manufacturing technologies to support low-risk implementation in industry and Department of Defense (DoD) facilities, e.g. depots and shipyards. It addresses production issues early by providing timely solutions, thereby reducing risk and positively impacting system life cycle affordability by providing solutions to manufacturing problems before they occur.

Beginning in FY16, DLA ManTech was realigned into three Strategic Focus Areas (SFA): 1) Improving Industrial base Manufacturing Processes; 2) Maintaining Viable Sources of Supply; and 3) Improving Technical and Logistics Information.

- The Improving Industrial Base Manufacturing Processes SFA includes efforts to reduce industrial base material costs and production lead-times, while improving the quality of DLA managed products. This SFA subsumed the former supply chain oriented efforts in Subsistence Network (formerly known as the Combat Rations Network for Technology Implementation), Procurement Readiness Optimization—Advanced Casting Technology (PRO-ACT), Procurement Readiness Optimization—Forging Advance System Technology (PRO-FAST), and Battery Network (BATTNET). New manufacturing processes within the scope of this SFA include emerging technologies such as Additive Manufacturing.
- Maintaining Viable Supply Sources includes efforts to assure the commercial industrial base can satisfy DLA materiel requirements. This SFA subsumed the Material Acquisition Electronics ManTech efforts. In the future, it will include other DLA efforts to maintain a viable industrial capability in areas such as Strategic Materials.
- The Improving Technical and Logistics Information SFA include efforts to improve and facilitate the exchange of engineering and logistics information among DLA industry partners and customers. It includes the MANTECH program Military Uniform System Technology (MUST) (formerly known as Customer Driven Uniform

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

Volume 5 - 71

Date: February 2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

R-1 Program Element (Number/Name)

Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7:

PE 0708011S I Industrial Preparedness

Operational Systems Development

Manufacturing) and the Defense Logistics Information Research Program from P.E. 0603712S. A primary focus of this SFA is to capitalize on the emerging "Model Based Enterprise" paradigm and the semantic web as an enabler to a logistics system that is smart and connected.

NOTE: The single supply chain exhibits were removed as they are now included within the SFA exhibits.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	15.984	0.000	0.000	-	0.000
Total Adjustments	15.984	0.000	0.000	-	0.000
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	15.984	-			
SBIR/STTR Transfer	-	-			

Change Summary Explanation

Under the FY2017 CR, PE 30603680S was considered a new start so ManTech business was executed under this PE resulting in a reprogramming amount of \$15.984M. See PE 30603680S for data.

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED Page 2 of 8 **Date:** February 2018

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										Date: February 2018		
Appropriation/Budget Activity 0400 / 7					_		t (Number/ rial Prepare	•	Project (Number/Name) 0 / Prior Years			
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
0: Prior Years	109.875	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	109.875
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Prior Year includes:

- -Combat Rations (CORANET): \$6.632M. This project was realigned to Strategic Focus Area (SFA) Improving Industrial Base Manufacturing Processes. In 2015, DLA R&D expanded the Combat Rations Network (CORANET) program to include the "Subsistence Supply Chain (SUBNET)," which consists of the supply chain for military subsistence, including combat rations, field feeding equipment, garrison feeding and "market fresh." The goal of the SUBNET program is to maximize the capability and the capacity to produce and to encourage innovation and modernization needed to leverage the latest technologies.
- -Customer Driven Uniform Manufacture (CDUM): \$18.499M. This project was realigned to SFA Improving Technical and Logistics Information. The CDUM program concluded in October 2014, and the results have been implemented DOD wide for recruit items. Residual CDUM projects have been transitioned into the Military Unique Sustainment Technology (MUST) Program. The MUST Program was initiated in 4th quarter 2014. The strategic objective of the DLA MUST program is to identify, develop and adopt technologies that can significantly reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.
- -Procurement Readiness Optimization Advanced System Technology (PRO-ACT): \$12.409M. This project was realigned to SFA Improving Industrial Base Manufacturing Processes. The Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Cast parts are ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are castings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metal casting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems. The increase in funding will help develop new technology for casting suppliers, including inspection, materials, modeling, and design.
- -Procurement Readiness Optimization Forging Advanced System Technology (PRO-FAST): \$5.627M. This project was realigned to SFA Improving Industrial Base Manufacturing Processes. The Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Forged parts are ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed, these capabilities will support the forging industry, where the technologies will be tested and implemented in conjunction with the industry associations.

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED

R-1 Line #241 Volume 5 - 73

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency		Date: February 2018
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708011S I Industrial Preparedness	Project (Number/Name) 0 / Prior Years
These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects		

These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems. The increase in funding will help develop new technology for forging suppliers, including new methods for making forge dies (typically the longest lead time and most expensive item) and for simulation of metal flow inside the forge die (to eliminate trial and error development of the die).

-Material Acquisition Electronics (MAE): \$58.396M. This project was realigned to SFA Maintaining Viable Supply Sources. The MAE program develops a capability to emulate most obsolete digital integrated circuits (ICs) in the Federal catalog using a single, flexible manufacturing line. DoD has estimated \$2.9 billion is spent every five years redesigning circuit card assemblies. Many of these circuit card redesigns are performed to mitigate IC obsolescence. Commercial ICs have short Product Life Cycles (often only 18 months). IC Manufacturers subsequently move on to later generations of ICs, leaving little to no sources for their previous IC products. DoD maintains weapons systems much longer than IC lifecycles, resulting in an obsolescence problem. In order to avoid costs and potential readiness issues associated with buying/carrying excess inventories acquired before commercial availability ceases, or redesigning the next higher assembly to mitigate the obsolete IC, DLA (as the manager of 88% of the IC Federal Stock Class) must have the capability to manufacture needed IC devices.

-Battery Network (BATTNET): \$8.312M. This project was realigned to SFA Improving Industrial Base Manufacturing Processes. The BATTNET program is focused on improving the supply and reducing the cost of procured batteries used in fielded weapon systems such as communication radios and armored vehicles. Batteries exhibit dynamic challenges for military logistics. BATTNET is a community of practice of battery supply chain members, engineering support activities, researchers, and users. BATTNET conducts R&D to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at \$183M net value - compared to FY13 \$176M and FY12 \$216M.

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Ju	chibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										Date: February 2018			
Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 0708011S I Industrial Preparedness				Project (Number/Name) 17 I Improving Industrial Base Manufacturing Processes (formerly Material Availability)						
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		
17: Improving Industrial Base Manufacturing Processes (formerly Material Availability)	5.293	4.800	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.093		
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-				

A. Mission Description and Budget Item Justification

The Material Availability (MA) Strategic Focus Area (SFA) are R&D efforts undertaken with DLA's industrial base to reduce material costs, reduce the length and variability of Production Lead-Times, assure the DLA managed products meet requirements, and continuously improve quality and reliability. Benefits of this SFA include lower material costs, lower inventory levels and more predictable Customer Wait Times, fewer quality deficiencies, and lower customer support costs. This strategic focus area includes within its scope the former Combat Rations Program, the Battery Program, the Castings and the Forgings programs.

This SFA is comprised of five roadmaps for Batteries, Subsistence Network, Castings, Forgings, and Additive Manufacturing.

The Battery network objective is to develop the next generation of battery manufacturing technologies for cost and price efficiency, longer shelf life, and lighter batteries with higher energy. The network conducts R&D initiatives to address sustainment gaps and bridge technical solutions into higher MRLs for specific groups of batteries. For FY2014, DLA received 139,163 orders for 2.85 million batteries at \$183M net value - compared to FY13 \$176M and FY12 \$216M. The Battery network focuses on projects to develop the production capability for advanced lithium-based non-rechargeable and rechargeable batteries to ensure the prompt and sustained availability, quality, and affordability of batteries. Desired outcomes include: streamlined inventory and associated cost reductions through standardization and improved distribution practices; resolved obsolescence issues; addressed surge and sustainment issues; enhanced security of supply chain; increased competition and manufacturing base; reduced per unit battery cost; and leveraged Service-level (Army, Navy, Air Force) and other governmental (DOE, DOT, NASA) R&D efforts to insert new technology and practices into the existing DLA battery inventory.

The Subsistence Supply Chain consists of military subsistence, which includes combat rations, field feeding equipment, garrison feeding and market fresh products. The Subsistence Network (SUBNET) program is a manufacturing technology program and is the successor to the Combat Rations R&D program. SUBNET's community of practice will research and promote manufacturing improvements in the subsistence supply chain with the goals of maximizing capability and capacity to produce, and to encourage innovation and modernization needed to leverage the latest technologies. The desired outcomes of the current short-term projects Microwave Assisted Thermal Sterilization (MATS), MRE Alternate Chemical Laminate, Optimize Combat Ration Inspection Costs, and Combat Rations Shelf Life Temperature Monitoring Project include testing of low risk, high-impact technology and process improvements that will improve the quality of individual and group combat rations, reduce cost, and provide efficiencies, then transitioning these improvements to industrial base suppliers and government suppliers.

The Castings consortium objective is to develop new materials and technologies for the metalcasting industry to help DLA improve the supply of parts that contain castings. Weapon system spare parts managed by DLA that contain castings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs).

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED
Page 5 of 8

R-1 Line #241 Volume 5 - 75

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Ager	ncy		Date: February 2018
Appropriation/Budget Activity 0400 / 7	PE 0708011S I Industrial Preparedness	17 I Impro	umber/Name) ving Industrial Base ring Processes (formerly Material
Cast parts are ~2% of National Stock Numbered Class IX parts but represent	5% of all hackorders, and when only the older	et hackorde	re are considered up to 10%

Cast parts are ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are castings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the foundry industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the metalcasting supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of castings critical to DOD weapon systems.

The Forgings consortium objective is to develop new materials and technologies for the forging industry to help DLA improve the supply of parts that contain forgings. Weapon system spare parts managed by DLA that contain Forgings are responsible for a disproportionate share of DLA's backorders or unfilled orders (UFOs). Forged parts are ~2% of National Stock Numbered Class IX parts but represent ~5% of all backorders, and when only the oldest backorders are considered up to 10% are forgings. This program includes tasks to develop new capabilities in the areas of inspection, materials, processes, modeling, and design. Once developed these capabilities will support the forging industry, where the technologies will be tested and implemented in conjunction with the industry associations. These advancements will improve the forging supply chains for the DOD and the DLA to better support the warfighter. This is achieved through investments in projects aimed at reducing lead-time, reducing cost, and improving quality of forgings critical to DOD weapon systems.

The Additive Manufacturing (AM) objective is to establish AM as an effective alternative to conventional manufacturing and document the process for AM benefits. DLA needs to exploit AM technology as a lead-time and inventory reduction enabler.

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED
Page 6 of 8

R-1 Line #241 Volume 5 - 76

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2019 D	efense Log	istics Agen	су					Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 7					PE 0708011S I Industrial Preparedness 18				Project (Number/Name) 18 I Maintaining Viable Supply Sources (formerly High Quality Sources)			
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
18: Maintaining Viable Supply Sources (formerly High Quality Sources)	10.188	8.590	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	18.778
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The High Quality Sources SFA are projects undertaken to assure that the industrial base can respond to DLA requirements and DLA can fill military customers' material requirements reliably and consistently. Benefits include eliminating cancelled requisitions returned to customers as "non-procurable." This strategic focus area includes within its scope the former Material Acquisition Electronics program.

The Material Acquisition Electronics roadmap has four major thrusts in Digital Microcircuits: Advanced Schottky TTL, TTL Compatible CMOS, 512 Kilobit RAM/ROM and Mega Gate ASIC. The Roadmap also includes a new major thrust area: Linear Microcircuits. Over the past several years, obsolescence in this class of microcircuits has greatly increased and has become a significant concern. These are classes of microcircuits that are expected to become non-procurable in FY 17 and beyond. Without the technologies planned on the MAE Roadmap, DLA will not be able to support DoD's requirements for high quality spare parts for critical electronic systems and subsystems.

The Strategic Materials roadmap is a new thrust for the DLA Mantech program. It is designed to ensure that critical strategic materials are available from domestic sources and that process innovations are in place to efficiently process or recover strategic materials. Domestic capabilities can enhance national security and potentially reduce Defense Stockpile requirements.

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED
Page 7 of 8

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2019 D	efense Log	jistics Agen	су					Date: Febr	uary 2018	
Appropriation/Budget Activity 0400 / 7					PE 0708011S I Industrial Preparedness 19 I Impro				Number/Name) oving Technical and Logistics on (formerly Industry and Customer tion)			
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
19: Improving Technical and Logistics Information (formerly Industry and Customer Collaboration)	6.362	2.594	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	8.956
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Improving Technical and Logistics Information Strategic Focus Area (SFA) projects improve and facilitate the communication of technical and logistics information among industry, DLA's military customers and DLA. This SFA includes Military Unique Sustainment Technology (MUST) and the Defense Logistics Information Research (DLIR) (P.E. 0603712S) within its scope. The movement of the DLIR related work from P.E. 0603712S to the DOD ManTech Program aligns the funding to the critical interface between DLA and industry and away from internal DLA operations.

The MUST focus addresses GAO Report 12-707 recommendations that DOD to establish a "knowledge-based approach" to collaborate on define and communicate of military unique requirements. DLA has the responsibility to communicate and manage the technical requirements among the Services and the Defense Industrial Base. Currently there is no common environment for collaborating on new requirements among the stakeholders. The strategic objective of the DLA MUST program is to identify, develop and adopt technologies that can significantly reduce the lead-time between Individual Item and Equipment (IIE) development and sustainment from years to months. The Program focuses on technologies that will transform the military IIE supply chain from an "electronic paper" (i.e. PDF/MS Word) based, manual environment into a knowledge based automated environment. The resulting approach will be a neutral platform that will seamlessly communicate military unique technical requirements throughout the end to end supply chain.

The DLIR Model Based Enterprise effort will develop capabilities to systematically accept engineering and design data from the Military Services, validate and store item technical data in 3D models. There are two classes of data that must be addressed: newly designed parts for systems still in development and legacy parts for systems that are in sustainment. The problem with newly designed parts is capturing the complete and accurate designs. The legacy parts do not have digital engineering models which recreating the design in contemporary engineering systems.

The Technical and Logistical Data Interoperability will pioneer methods to capture data from military Services, Original Equipment Manufacturers (OEMs), and suppliers to form a seamless thread of interoperable and linked data models.

PE 0708011S: *Industrial Preparedness* Defense Logistics Agency

UNCLASSIFIED
Page 8 of 8

R-1 Line #241

Volume 5 - 78

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

R-1 Program Element (Number/Name) Appropriation/Budget Activity

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development

PE 0708012S I Pacific Disaster Centers

operational eyeleme between												
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	18.291	1.690	1.770	1.770	-	1.770	1.770	1.785	1.821	1.856	Continuing	Continuing
1: Logistics Support Activities (LSA)	12.488	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.488
03: Pacific Disaster Center	5.803	1.690	1.770	1.770	-	1.770	1.770	1.785	1.821	1.856	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Pacific Disaster Center (PDC) has been in operation since February 1996. The PDC is a public/private partnership managed by the University of Hawaii (UH) under a cooperative agreement with the Department of Defense. It is functionally within the organization of the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) (OUSD(AT&L)) and the Defense Logistics Agency (DLA). The PDC is a world-recognized authority and leader in science and information technology applications relating to humanitarian assistance and disaster relief (HA/DR). PDC develops new and innovative technologies to operate an (unclassified) integrated multi-hazard hazard monitoring, early warning and decision support system, called RAPIDS, for the department.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	1.754	1.770	1.770	-	1.770
Current President's Budget	1.690	1.770	1.770	-	1.770
Total Adjustments	-0.064	0.000	0.000	-	0.000
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-0.064	-			

Change Summary Explanation

FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$0.064M.

PE 0708012S: Pacific Disaster Centers **Defense Logistics Agency**

UNCLASSIFIED Page 1 of 7

R-1 Line #243

Date: February 2018

Exhibit R-2A, RDT&E Project J	Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										uary 2018	
Appropriation/Budget Activity 0400 / 7						Number/Name) ics Support Activities (LSA)						
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
1: Logistics Support Activities (LSA)	12.488	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	12.488
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program is reported in accordance with Title 10, United States Code, Section 119 (a)(1) in the Special Access Program Annual Report to Congress. The staff cognizance and oversight will transfer from the DLA to the Defense Information Systems Agency (DISA) effective October 1, 2014. The USD(P) will continue to be the Operational Sponsor and functional OSD Principal Staff Assistant (PSA) for the program.

PE 0708012S: Pacific Disaster Centers Defense Logistics Agency

Exhibit R-2A, RDT&E Project Ju	Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency										uary 2018	
Appropriation/Budget Activity 0400 / 7 R-1 Program Element (Number/Na PE 0708012S / Pacific Disaster Cer							•	Project (Number/Name) 03 / Pacific Disaster Center				
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
03: Pacific Disaster Center	5.803	1.690	1.770	1.770	-	1.770	1.770	1.785	1.821	1.856	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Pacific Disaster Center (PDC) has been in operation since February 1996. The PDC is a public/private partnership managed by the University of Hawaii (UH) under a cooperative agreement with the Department of Defense. It is functionally within the organization of the OUSD(AT&L) and the DLA. The PDC is a world-recognized authority and leader in science and information technology applications relating to Humanitarian Assistance and Disaster Relief (HA/DR). It has developed innovative technologies, and has provided operational support for an (unclassified) integrated multi-hazard hazard monitoring, early warning and decision support system, called RAPIDS, for the department since 2007. The system, covering global hazard is frequently used by COCOMS, particularly PACOM and SOUTHCOM, for HA/DR missions and exercises, and was recently selected as one of the most effective systems in a position paper by the department, reviewing all unclassified information sharing systems. "Expanded use of RAPIDS across the DoD at the Combatant Commands, Joint Task Force, and by deployed units from the services" was identified as "a primary Joint Staff objective" in a memorandum dated July 6, 2017.

<u>B</u> .	Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
T	tle: Pacific Disaster Center (PDC)	1.690	1.770	1.770
P	escription: This program is reported in accordance with Title 10, United States Code, Section 119 (a)(1) in the Special Access rogram Annual Report to Congress. The USD(P) will continue to be the Operational Sponsor and functional OSD Principal Staff esistant (PSA) for the program. USD(AT&L) will provide acquisition oversight authority for the program.			
H m	ne PDC has been in operation since February 1996. The PDC is a public/private partnership managed by the University of awaii (UH) under a cooperative agreement with the Department of Defense. The Pacific Disaster Center (PDC) function, annower, and budget resources transferred to the Office of the Under Secretary of Defense (Acquisition, Technology, and ogistics) (OUSD(AT&L)) and the Defense Logistics Agency (DLA)in October 2011.			
Ti as av	ne USD(P) will continue to be the Operational Sponsor and functional OSD Principal Staff Assistant (PSA) for the program. The PDC is a world-recognized authority and leader in science and information technology applications relating to humanitarian assistance and disaster relief (HA/DR). PDC's applications and information products enhance preparedness, situational vareness, and civil-military communications for humanitarian missions worldwide, while its national-level socio-economic Risk and Vulnerability Assessments help inform strategies by measuring indicators for national resiliency using scientific methods.			
st	ne PDC Program Office's (USD(P), ASD(HD&GS), and DASD(DC&MA)) primary responsibility is for management and ewardship of governmental funds provided in Defense Department appropriations for DoD missions associated with DoD M, HA/DR, Theater Security Cooperation, and Defense Support to Civil Authorities (DSCA). In doing this, the Program Office			

PE 0708012S: Pacific Disaster Centers
Defense Logistics Agency

UNCLASSIFIED
Page 3 of 7

	UNCLASSIFIED			
Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense	Logistics Agency	Date: F	ebruary 2018	8
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708012S I Pacific Disaster Centers	Project (Number/ 03 / Pacific Disaste		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019
develops and provides policy, oversight and guidance, and jointly priorities with the UH and PDC. The PDC Program Office also se especially in the area of gaining Federal agency support and res	erves as a support element of the Hawaii-based organizatio	n		
FY 2018 Plans: Risk and Vulnerability Assessment • Explore trend analysis based on existing Global RVA data accu • Improve analytical reporting/visualization and automated asses • Incorporate country-report analytical capabilities into the above	sment capabilities using Global RVA data			
Data • Explore feasibility of hosting classified data in RAPIDS, should • Continue development of data sources for hazards and related				
Modeling • Integrate alerting capabilities and hazard impact modeling • Continue enhancing application of hazard models to estimate in	nitial needs for HA/DR support missions			
Application Improve performance of the system and enhance user experier Improve mobile device-related features (e.g. battery usage, etc Continue evaluating new and innovative technologies for enhar	2.)			
FY 2019 Plans: Risk and Vulnerability Assessment • Collaborate with regional Combatant Commands (e.g., SOUTH data into RAPIDS • Improve sub-national analytical reporting/visualization and auto	· ·	RVA		
Data • Explore new technologies for handling "big data" • Improve analytical capabilities using "big data", including use of • Continue development of data sources for hazards and related				
Modeling				

PE 0708012S: *Pacific Disaster Centers* Defense Logistics Agency

UNCLASSIFIED
Page 4 of 7

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Age	xhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Agency					
Appropriation/Budget Activity 0400 / 7	,	, ,	umber/Name) : Disaster Center			

U400 / /	PE 07000123 1 Pacific Disaster Certers	IS I Facilic Disasi	er Cerilei	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019
 Integrate Global Exposure Model for high-resolution "impact and exposure" Continue enhancing application of hazard models to estimate initial needs 				
Application • Expand use and visualization of "big data", supporting higher-resolution base. • Improve cross-device user experience (e.g., desktop, mobile tablets, smart. • Integrate mass (alert) notification functions. • Continue evaluating new and innovative technologies for enhancing user experience.	phones, wearables, etc.)			
FY 2018 to FY 2019 Increase/Decrease Statement: No significant change.				
	Accomplishments/Planned Programs Subt	otals 1.690	1.770	1.770

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

N/A

Remarks

D. Acquisition Strategy

PDC projects beyond the baseline Situational Awareness & Decision Support Applications/Tools architecture (Atlas/EMOPS/RAPIDS) undertaken in support of the DoD Cooperative Agreement (CA) with the University of Hawaii (UH) are from PDC customers (e.g., DoD, NGOs, other nations, academia, and industry). The PDC prepares the public, disaster managers, governments, and others to mitigate the effects of disasters. The goal is to have people and technology work together to preserve life, safeguard livelihoods, protect property to foster disaster-resilient communicates. Projects obtained and funded from this customer base serve as a means to determine PDC product and services relevancy.

E. Performance Metrics

Projects objectives and tasks are designed to build upon the previous year's successes and are consistent with the framework and direction provided by the Strategies 2016-2020 document (updated Nov 2016). At the beginning of each calendar year, an Annual Plan is in-place to guide the program and enable a framework for performance feedback to the DoD PDC Program Manager, the PDC Executive Director, WHS CA Contracting Office, and the UH. At the end of each calendar year, these stakeholders meet to review the past year performance and finalize a new Annual Plan for the next calendar year. This plan details a set of specific objectives to further capabilities and capacities supporting the PDC's mission and increasing operational value to the stakeholders.

PE 0708012S: Pacific Disaster Centers
Defense Logistics Agency

UNCLASSIFIED
Page 5 of 7

R-1 Line #243

Volume 5 - 83

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Logistics Agen	су		Date: February 2018
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
0400 / 7	PE 0708012S I Pacific Disaster Centers	03 I Pacific	c Disaster Center

Test and Evaluation	(\$ in Mill	ions)		FY 2	2017	FY 2	2018	FY 2 Ba	2019 ise	FY 2 OC		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
PDC Disaster AWARE: Early Warning and Decision Support Applications	MIPR	University of Hawaii Systems : Honolula, HI	5.803	1.690	Dec 2016	1.770	Mar 2018	1.770	Mar 2019	0.000		1.770	Continuing	Continuing	-
		Subtotal	5.803	1.690		1.770		1.770		0.000		1.770	Continuing	Continuing	N/A
			Prior	EV.	2017	EV.	2018	FY 2	2019	FY 2		FY 2019	Cost To	Total	Target Value of

Years FY 2017 FY 2018 Base oco Total Complete Cost Contract **Project Cost Totals** 1.690 1.770 1.770 0.000 1.770 Continuing Continuing 5.803 N/A

Remarks

PE 0708012S: *Pacific Disaster Centers* Defense Logistics Agency

UNCLASSIFIED
Page 6 of 7

Exhibit R-4, RDT&E Schedule Profile: PB	2019 Defe	ens	e L	ogis	stics	Ag	enc	у																D	ate:	Feb	ruar	у 2	2018	3		
Appropriation/Budget Activity 0400 / 7													n El e S / F									Proje 03 <i>I F</i>										
		F	Υ /	2010)		F	Y 2	011			FY	201	2		F۱	Y 20)13			FY	2014			FY	201	5		F	Y 2(016	
	1	1	2	3	4	1		2	3	4	1	2	3	4	1	i	2	3	4	1	2	3	4	1	2	3	4	1		2	3	4
PDC								ı								·																
PDC																																
		_		_				_			_					_	_	_													_	
		- F	Υ/	2017			F	Y 2	018			FY	201	9		F	Y 2()20			FY	2021			FY	202	2		F	Y 2(023	
	1	- F	Y 2	2017	7 4	1	_	Y 2	018 3	3 4	1	FY 2	_	9 4	1	_	Y 20)20 3	4	1	FY 2	2021	4	1	FY 2	202	2 4	1	F	Y 20		4
PDC	1	1				1	_			١.	1	_	_	٠,	1	_			_	1	_		4	1	_	1	4	1	F	Y 20		_



Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Defense Logistics Agency

Appropriation/Budget Activity R-1 Pr

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7: Operational Systems Development

R-1 Program Element (Number/Name)

PE 0708047S I Defense Property Accountability System (DPAS)

Date: February 2018

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	0.000	2.075	2.924	1.805	-	1.805	3.679	3.500	3.104	3.162	Continuing	Continuing
ABC: DPAS	0.000	2.075	2.924	1.805	-	1.805	3.679	3.500	3.104	3.162	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Property Accountability System (DPAS) provides the Department an accountability system which is fully compliant with financial reporting regulations and has a clean audit history. With an integrated accountability, utilization, maintenance, and warehouse capability, it is able to provide the Department an enterprise solution for asset management.

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	2.154	2.924	2.972	-	2.972
Current President's Budget	2.075	2.924	1.805	-	1.805
Total Adjustments	-0.079	0.000	-1.167	-	-1.167
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-0.079	-			
 Inflation Adjustment 	-	-	-0.025	-	-0.025
Program Rephase	-	-	-1.142	-	-1.142

Change Summary Explanation

FY2017, the Small Business Innovation Research and Small Technology Transfer Research tax amounted to \$0.079M.

Inflation adjustments for Non-Pay/Non-Fuel Pay purchases and Civilian Pay decreased the program baseline in FY2019. The FY2019 funding request was reduced by \$-1.142 million to account for the availability of prior year execution balances.

UNCLASSIFIED
Page 1 of 5

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2019 E	Defense Log	jistics Agen	су					Date: Febr	ruary 2018	
Appropriation/Budget Activity 0400 / 7					PE 070804	am Elemen 17S I Defendility System	se Property	,	Project (N ABC / DPA		ne)	
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
ABC: DPAS	0.000	2.075	2.924	1.805	-	1.805	3.679	3.500	3.104	3.162	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

B. Accomplishments/Planned Programs (\$ in Millions)

The DPAS system provides accountability and management functionality to the Department. The budgeted projects will provide enhancements to the existing capability, ensure efficient operability, and provide solutions for process gaps as they are discovered. The greater enhancements to DPAS allow the DoD to sunset legacy systems; DPAS assimilates the legacy functionality into the overall operations.

217 Good photomore in turnou i rogiumo (\$\pi\text{ in miniono})	1 1 2017	1 1 2010	1 1 2013
Title: Release DPAS v 4	2.075	2.924	1.805
Description: Provide enhancements to the warehouse management functions; incorporate vehicle telematics; improve the data warehousing for transaction history.			
FY 2018 Plans: Provide functionality for event/project planning to include personnel and equipment resources; enhance interface with DAI to expect expense transactions for CIP Projects; provide interfaces to the Air Force logistics systems.			
FY 2019 Plans: DPAS has experienced exponential growth in the areas of IT asset management and Work Order/Ticket Management. The current Work Order/Ticket tracking capability in DPAS is rather generic and causes inefficiencies for both Vehicle Managers and IT Managers. DPAS will create a Work Order process that is more streamlined and targeted to these asset types. This will be done in one of two methods, depending on which solution will result in less maintenance cost in future years. The first method would be a process that changes the fields displayed and data values in drop down lists depending on the asset type. The second method would be to develop separate processes for the asset types. DPAS will conduct user meetings in FY18 to determine the full scope of the requirements and develop the capabilities in FY19.			
DPAS will continue to provide support for the Financial Audit. The Department will have completed the first full audit and have findings that must be addressed. DPAS will work with each Service or Agency to determine the areas that DPAS can increase capability to permit the findings to be closed. At this time it is difficult to specifically state what these capabilities may be but DPAS is used by all components of the Department so there are sure to be areas that DPAS can implement capabilities to permit the Components to address the findings			
FY 2018 to FY 2019 Increase/Decrease Statement:			

FY 2017

FY 2018

FY 2019

Exhibit R-2A, RDT&E Project Justification: PB 2019 Defense Logistics Age	ency		Date: F	ebruary 2018	3
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0708047S I Defense Property Accountability System (DPAS)	Project (N ABC / DPA		Name)	
D. A					->/-0-/-

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2017	FY 2018	FY 2019
The FY 2019 funding request was reduced by \$-1.142 million to account for the availability of prior year execution balances.			
Accomplishments/Planned Programs Subtotals	2.075	2.924	1.805

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

N/A

Remarks

D. Acquisition Strategy

E. Performance Metrics

DPAS will ensure the obligations and expenditures are in line with OSD (Comptroller) guidance, as currently issued.

PE 0708047S: Defense Property Accountability System (... **Defense Logistics Agency**

UNCLASSIFIED Page 3 of 5

R-1 Line #244

Volume 5 - 89

Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Defense Logistics Agency

Date: February 2018

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 0708047S I Defense Property
Accountability System (DPAS)

Project (Number/Name) ABC / DPAS

ADC I DPAS

Cost Category Item & Type Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Date Cost Complete Cost Contract	Product Developmen	t (\$ in Mi	illions)		FY 2	2017	FY 2	018	FY 2 Ba		FY 2	 FY 2019 Total			
Development C/CPIF TBD 0.000 2.075 Mar 2017 2.924 Jun 2018 1.805 Jun 2019 0.000 1.805 Continuing Continuing -	Cost Category Item	Method		-	Cost		Cost		Cost		Cost	Cost			Target Value of Contract
Subtotal 0.000 2.075 2.924 1.805 0.000 1.805 Continuing Continuing N/A		C/CPIF		0.000	2.075	Mar 2017	2.924	Jun 2018	1.805	Jun 2019	0.000	1.805	Continuing	Continuing	-
			Subtotal	0.000	2.075		2.924		1.805		0.000	1.805	Continuing	Continuing	N/A

	Prior Years	FY 2	017	FY 2	018	FY 20 Bas	I	FY 2019 Total	Cost To	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.075		2.924		1.805	0.000	1.805	Continuing	Continuing	N/A

Remarks

xhibit R-4, RDT&E Scl ppropriation/Budget A 400 / 7			le: PB	2019	Defer	nse Lo	gistics	s Agen	icy	R-1 Pro	8047S	I Defer	se Pro	perty	ame)			umber/		y 2018	
Fiscal Year FY 2015 FY 2016 Project Task Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4					FY	2017			FY	2018			FY	2019							
Project Task	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Research																					
Design																					
Development																					
Testing																					
Implementation																					

PE 0708047S: Defense Property Accountability System (... Defense Logistics Agency

UNCLASSIFIED
Page 5 of 5

R-1 Line #244 Volume 5 - 91

