Department of Defense

	Fy 20 Exhibit R-1 Total (Do	FY 2021President's Budget Exhibit R-1 FY 2021 President's Budget Total Obligational Authority (Dollars in Thousands)	Budget dent's Budget uthority ands)		
Appropriation		FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted (Base+Emerg+ OCO)
Research, Development, Test & Eval, Army	11,371,268	12,543,435		147,304	12, 690,739
Total Research, Development, Test & Evaluation	11,371,268	12,543,435		147,304	12,690,739

Department of Defense
FY 2021President's Budget
Exhibit R-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

	EXILLIL REJ Total (Do	FAILTHIN No. 1 F1 2021 FIESTHERL'S BURGER Total Obligational Authority (Dollars in Thousands)	uthority ands)		
Appropriation	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for FY 2021 Direct War FY 2021 OCO for Base and Enduring Total Base Requirements Costs OCO	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
Research, Development, Test & Eval, Army	12, 587, 343		182,824	182,824	12,770,167
Total Research, Development, Test & Evaluation	12,587,343		182,824	182,824	12,770,167

Department of Defense FY 2021President's Budget Exhibit R-1 FY 2021 President's Budget Total Obligational Authority (Dollars in Thousands)

Summary Recap of Budget Activities	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted (Base+Emerg+
Basic Research	491,263	574,484			574,484
Applied Research	1,553,764	1,259,374			1,259,374
Advanced Technology Development	1,561,576	1,531,516			1,531,516
Advanced Component Development & Prototypes	1,213,569	2,975,681		11,114	2,986,795
System Development & Demonstration	3,119,552	2,989,779		100,147	3,089,926
Management Support	1,710,179	1,368,475		1,875	1,370,350
Operational Systems Development	1,721,365	1,844,126		34,168	1,878,294
Software and Digital Technology Pilot Programs					
Total Research, Development, Test & Evaluation	11,371,268	12,543,435		147,304	12,690,739
Summary Recan of FVDP Programs					e.
General Purpose Forces	646,373	765,324			765,324
Intelligence and Communications	311,699	236,563		37,368	273,931
Research and Development	10,090,836	11,139,975		109,936	11,249,911
Central Supply and Maintenance	106,766	108,348			108,348
Administration and Associated Activities	358				
Space	209,281	285,952			285,952
Classified Programs	5,955	7,273			7,273
Total Research, Development, Test & Evaluation	11,371,268	12,543,435		147,304	12,690,739

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Department of Defense FY 2021President's Budget

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	Exhibit R-Total	Exhibit R-1 FY 2021 President's Budget Total Obligational Authority (Dollars in Thousands)	dent's Budget uthority ands)		
			FY 2021 OCO for		
Summary Recap of Budget Activities	FY 2021 Base	FY 2021 OCO for Base Requirements	Direct War and Enduring Costs	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
Basic Research	463,359				463,359
Applied Research	920,881		2,000	2,000	922,881
Advanced Technology Development	1,203,590				1,203,590
Advanced Component Development & Prototypes	3,421,608		2,520	2,520	3,424,128
System Development & Demonstration	3,199,798		97,825	97,825	3,297,623
Management Support	1,333,123		5,137	5,137	1,338,260
Operational Systems Development	1,998,539		75,342	75,342	2,073,881
Software and Digital Technology Pilot Programs	46,445				46,445
Total Research, Development, Test & Evaluation	12,587,343		182,824	182,824	12,770,167
Summary Recap of FYDP Programs					
General Purpose Forces	923,370		2,300	2,300	925,670
Intelligence and Communications	309,698		76,942	76,942	386,640
Research and Development	11,289,280		103,582	103,582	11,392,862
Central Supply and Maintenance	61,012				61,012
Administration and Associated Activities					
Space					
Classified Programs	3,983				3,983
Total Research, Development, Test & Evaluation	12,587,343		182,824	182,824	12,770,167

Department of the Army
FY 2021President's Budget
Exhibit R-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

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	Total (Do	Total Ubligational Authority (Dollars in Thousands)	uthority ands)		
	0.00		2000	0000	FY 2020 Total Enacted
Summary Recap of Budget Activities	(Base + OCO)	FY 2020 Base Enacted	Fr zuzu Emergency	OCO Enacted	(base+£merg+ 0CO)
Basic Research	491,263	574,484			574,484
Applied Research	1,553,764	1,259,374			1,259,374
Advanced Technology Development	1,561,576	1,531,516			1,531,516
Advanced Component Development & Prototypes	1,213,569	2,975,681		11,114	2,986,795
System Development & Demonstration	3,119,552	2,989,779		100,147	3,089,926
Management Support	1,710,179	1,368,475		1,875	1,370,350
Operational Systems Development	1,721,365	1,844,126		34,168	1,878,294
Software and Digital Technology Pilot Programs					
Total Research, Development, Test & Evaluation	11,371,268	12,543,435		147,304	12,690,739
Summary Recap of FYDP Programs					
General Purpose Forces	646,373	765,324			765,324
Intelligence and Communications	311,699	236,563		37,368	273,931
Research and Development	10,090,836	11,139,975		109,936	11,249,911
Central Supply and Maintenance	106,766	108,348			108,348
Administration and Associated Activities	358			#0	
Space	209,281	285,952			285,952
Classified Programs	5,955	7,273			7,273
Total Research, Development, Test & Evaluation	11,371,268	12,543,435		147,304	12,690,739

Department of the Army
FY 2021President's Budget
Exhibit R-1 FY 2021 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Summary Recap of Budget Activities	FY 2021 Base	FY 2021 OCO for Base Requirements	FY 2021 OCO for Direct War and Enduring Costs	FY 2021 Total OCO	FY 2021 Total (Base + OCO)
				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Basic Research	463,359				463,359
Applied Research	920,881		2,000	2,000	922,881
Advanced Technology Development	1,203,590				1,203,590
Advanced Component Development & Prototypes	3,421,608		2,520	2,520	3,424,128
System Development & Demonstration	3,199,798		97,825	97,825	3,297,623
Management Support	1,333,123		5,137	5,137	1,338,260
Operational Systems Development	1,998,539		75,342	75,342	2,073,881
Software and Digital Technology Pilot Programs	46,445				46,445
Total Research, Development, Test & Evaluation	12,587,343		182,824	182,824	12,770,167
Summary Recap of FYDP Programs					
General Purpose Forces	923,370		2,300	2,300	925,670
Intelligence and Communications	309,698		76,942	76,942	386,640
Research and Development	11,289,280		103,582	103,582	11,392,862
Central Supply and Maintenance	61,012				61,012
Administration and Associated Activities					
Space					
Classified Programs	3,983				3,983
Total Research, Development, Test & Evaluation	12,587,343		182,824	182,824	12,770,167

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(Dollars in Thousands)

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Item Ac	FY 2019 Act (Base + OCO)		FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted (Base+Emerg+ 0CO)
J	02		120,327			120,327
Technology	02		98,359			98,359
Technology (02		95,771			95,771
Ü	02 80,	80,424				
Ü	02		18,947			18,947
Ü	02 25,	25,127				
Ü	02 90,	90,496				
Ü	02 43,	43,454				
Ü	02 28,	28,623				
O	02 102,899	868				
Ü	02 86,	86,737				
O	02 4,	4,884				
O	02 11,	11,890				
0	02 379,833	833				
and Electronic Devices (02 98,	98,855				
O	02 = 33,	33,218				
O	02 26,	26,594				
ring Technology (02 23,	23,755				
J	02 15,	15,364				

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Total Obligational Authority
(Dollars in Thousands)

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	1.	s + 0CO) c	60,553 U	96,484 U	56,298 U	D	18,816 U	D	D	D	D	D	D	D	Þ	Þ	Þ	Þ	Þ	D	D
	21 L	OCO (Base +	É																		
FY 2021 OCO for	ar ing	Costs																			
		Requirements																			
	FY 2021	Base	60,553	96,484	56,298		18,816														
		Act	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	02	у 02	02
		Item	Long Range Precision Fires Technology	Future Verticle Lift Technology	Air and Missile Defense Technology	Aviation Technology	C3I Applied Cyber	Electronic Warfare Technology	Missile Technology	Advanced Weapons Technology	Advanced Concepts and Simulation	Combat Vehicle and Automotive Technology	Ballistics Technology	Chemical, Smoke and Equipment Defeating Technology	Joint Service Small Arms Program	Weapons and Munitions Technology	Electronics and Electronic Devices	Night Vision Technology	Countermine Systems	Human Factors Engineering Technology	Environmental Quality Technology
	Program Line Element	No Number	18 0602147A	19 0602148A	20 0602150A	21 0602211A	22 0602213A	23 0602270A	24 0602303A	25 0602307A	26 0602308A	27 0602601A	28 0602618A	29 0602622A	30 0602623A	31 0602624A	32 0602705A	33 0602709A	34 0602712A	35 0602716A	36 0602720A

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Appropriation:	Appropriation: 2040A Research, Development, Test &	& Eval, Army	Army					
Program Line Element No Number	Item	Act	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted S (Base+Emerg+ e OCO)	
37 0602782A	Command, Control, Communications Technology	03	51,685				D	
38 0602783A	Computer and Software Technology	02	14,622				D	
39 0602784A	Military Engineering Technology	02	96,922				D	
40 0602785A	Manpower/Personnel/Training Technology	02	17,157	20,873			20,873 U	
41 0602786A	Warfighter Technology	02	55,467				D	
42 0602787A	Medical Technology	02	87,229	112,955			112,955 U	
Appli	Applied Research		1,553,764	1,259,374	; ; ; ; ; ; ; ;		1,259,374	
43 0603001A	Warfighter Advanced Technology	03	40,501				D	
44 0603002A	Medical Advanced Technology	03	94,575	83,030			83,030 U	
45 0603003A	Aviation Advanced Technology	03	165,035				D	
46 0603004A	Weapons and Munitions Advanced Technology	03	240,862				D	
47 0603005A	Combat Vehicle and Automotive Advanced Technology	03	171,448				D	
48 0603006A	Space Application Advanced Technology	03	48,542				Þ	
49 0603007A	Manpower, Personnel and Training Advanced Technology	03	6,270	11,038			11,038 U	
50 0603009A	TRACTOR HIKE	03	22,631				D	
51 0603015A	Next Generation Training & Simulation Systems	03	27,711				Ω	
52 0603115A	Medical Development	03			6		D	

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Appropriation: 2040A Research, Development, Test & Eval, Army

					FY 2021 OCO for			
Program Line Element			FY 2021	FY 2021 OCO for Base	Direct War and Enduring	FY 2021 Total	FY 2021 Total	ഗ ല
	Item	Act	Base	Requirements	Costs	000	(Base + OCO)	וט
37 0602782A	2A Command, Control, Communications Technology	02						Ω
38 0602783A	3A Computer and Software Technology	02						Þ
39 0602784A	4A Military Engineering Technology	02						Ω
40 0602785A	5A Manpower/Personnel/Training Technology	02	20,766				20,766	n
41 0602786A	6A Warfighter Technology	02						D
42 0602787A	7A Medical Technology	02	95,496			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	95,496	D
AI	Applied Research		920,881		2,000	2,000	922,881	
43 0603001A	1A Warfighter Advanced Technology	03						D
44 0603002A	2A Medical Advanced Technology	03	38,896				38,896	D
45 0603003A	3A Aviation Advanced Technology	03						D
46 0603004A	4A Weapons and Munitions Advanced Technology	03						D
47 0603005A	5A Combat Vehicle and Automotive Advanced Technology	03						D
48 0603006A	6A Space Application Advanced Technology	03						D
49 0603007A	7A Manpower, Personnel and Training Advanced Technology	03	11,659				11,659	D
50 0603009A	9A TRACTOR HIKE	03						D
51 0603015A	5A Next Generation Training & Simulation Systems	03						D
52 0603115A	5A Medical Development	03	27,723				27,723	D
ימתוטו ת	TW 2001 Process deather Product /Problem Work	140:0	1 T T T T T T T T T T T T T T T T T T T	17 2020 1+ 1	11.50.50			

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FY 2020 Total Enacted (Base+Emerg+ OCO)	66,338	135,968	136,793								23,769	224,755	260,535	142,899	189,386	174,892
FY 2020 OCO Enacted																
FY 2020 Emergency																
FY 2020 Base Enacted	66, 338	135,968	136,793								23,769	224,755	260,535	142,899	189,386	174,892
FY 2019 (Base + OCO)				43,910	4,896	6,041		40,461	92,404	16,845		211,457				
Act	03	03	03	03	03	03	03	03	03	03	03	03	03	03	03	03
Item	Army Advanced Technology Development	Soldier Lethality Advanced Technology	Ground Advanced Technology	Combating Terrorism - Technology Development	TRACTOR NAIL	TRACTOR EGGS	Counter Improvised-Threat Simulation	Electronic Warfare Technology	Missile and Rocket Advanced Technology	TRACTOR CAGE	C31 Cyber Advanced Development	High Performance Computing Modernization Program	Next Generation Combat Vehicle Advanced Technology	Network C31 Advanced Technology	Long Range Precision Fires Advanced Technology	Future Vertical Lift Advanced Technology
Program Line Element No Number	53 0603117A	54 0603118A	55 0603119A	56 0603125A	57 0603130A	58 0603131A	59 0603134A	60 0603270A	61 0603313A	62 0603322A	63 0603457A	64 0603461A	65 0603462A	66 0603463A	67 0603464A	68 0603465A

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(Dollars in Thousands)

Appropriation: 2040A Research, Development, Test & Eval, Army

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	FY 2021 Total	(Base + OCO)		62,663	109,608	14,795				25,000				23,357	188,024	199,358	158,608	121,060	156, 194
	FY 2021 Total	000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1																
FY 2021	Direct War	Costs																	
	FY 2021 OCO for Base	Requirements										es							
	FY 2021	Base		62,663	109,608	14,795				25,000				23,357	188,024	199,358	158,608	121,060	156,194
		Act	I I	03	03	03	03	03	03	03	03	03	03	03	03	03	03	03	03
		Item		Army Advanced Technology Development	Soldier Lethality Advanced Technology	Ground Advanced Technology	Combating Terrorism - Technology Development	TRACTOR NAIL	TRACTOR EGGS	Counter Improvised-Threat Simulation	Electronic Warfare Technology	Missile and Rocket Advanced Technology	TRACTOR CAGE	C3I Cyber Advanced Development	High Performance Computing Modernization Program	Next Generation Combat Vehicle Advanced Technology	Network C31 Advanced Technology	Long Range Precision Fires Advanced Technology	Future Vertical Lift Advanced Technology
	Program		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	53 0603117A	54 0603118A	55 0603119A	56 0603125A	57 0603130A	58 0603131A	59 0603134A	60 0603270A	61 0603313A	62 0603322A	63 0603457A	64 0603461A	65 0603462A	66 0603463A	67 0603464A	68 0603465A

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(Dollars in Thousands)

Approp	Appropriation:	2040A Research, Development, Test & E	Eval, i	Army					
Line El No Nu	Program Element Number	Item	Act	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	Total Enacted (Base+Emerg+ OCO)	တၿပ
0 69	0603466A	Air and Missile Defense Advanced Technology	03		82,113			82,113	D
70 06	0603606A	Landmine Warfare and Barrier Advanced Technology	03	16,860					D
71 06	0603607A	Joint Service Small Arms Program	03	22,628					D
72 06	0603710A	Night Vision Advanced Technology	03	69,094					D
73 06	0603728A	Environmental Quality Technology Demonstrations	03	28,079					D
74 06	0603734A	Military Engineering Advanced Technology	03	100,359					Þ
75 06	0603772A	Advanced Tactical Computer Science and Sensor Technology	03	45,799					D
76 00	0603794A	C3 Advanced Technology	03	45,168					D
77 06	0603920A	Humanitarian Demining	03						D
	Advan	Advanced Technology Development		1,561,576	1,531,516	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1,531,516	
78 06	0603305A	Army Missle Defense Systems Integration	04	60,301	59,487			59,487	n
79 0(0603308A	Army Space Systems Integration	04						D
80 08	0603327A	Air and Missile Defense Systems Engineering	04	44,743	52,480		200	52,980	D
81 0(0603619A	Landmine Warfare and Barrier - Adv Dev	04	40,255	82,915			82,915	D
82 00	0603627A	Smoke, Obscurant and Target Defeating Sys-Adv Dev	0.4	19,852					D
83 00	0603639A		04	40,358				77,696	Þ
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Appropriation: 2040A Research, Development, Test & Eval, Army

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FY 2021 Total (Base + OCO)	58,130								8,515	1,203,590	11,062	26,230	26,982	64,092		92,753
FY 2021 Total OCO													200			2
FY 2021 OCO for Direct War and Enduring Costs									1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				200			
FY 2021 OCO for Base Requirements									# # # # # # # # # # # # # # # # # # #							
FY 2021 Base	58,130								8,515	1,203,590	11,062	26,230	26,482	64,092		92,753
Act	03	03	03	03	03	03	03	03	03		04	04	04	04	04	04
Item	Air and Missile Defense Advanced Technology	Landmine Warfare and Barrier Advanced Technology	Joint Service Small Arms Program	Night Vision Advanced Technology	Environmental Quality Technology Demonstrations	Military Engineering Advanced Technology	Advanced Tactical Computer Science and Sensor Technology	C3 Advanced Technology	Humanitarian Demining	Advanced Technology Development	Army Missle Defense Systems Integration	Army Space Systems Integration	Air and Missile Defense Systems Engineering	Landmine Warfare and Barrier - Adv Dev	Smoke, Obscurant and Target Defeating Sys-Adv Dev	Tank and Medium Caliber Ammunition
Program Line Element No Number	69 0603466A	70 0603606A	71 0603607A	72 0603710A	73 0603728A	74 0603734A	75 0603772A	76 0603794A	77 0603920A	Advar	78 0603305A	79 0603308A	80 0603327A	81 0603619A	82 0603627A	83 0603639A

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FY 2020 Total Enacted (Base+Emerg+ 0C0)	144,234	9,514	37,490	200,791	19,561	5,406	505,890	7,339	36,975	26,113	84,381		23,043		10,023
FY 2020 OCO Enacted		3,000						1,085							
FY 2020 Emergency															
FY 2020 Base Enacted	144,234	6,514	37,490	200,791	19,561	5,406	505,890	6,254	36,975	26,113	84,381	3	23,043		10,023
FY 2019 (Base + OCO)	80,106	8,067	35,667	7,072	14,190	3,564	93,885	18,845	38,371	30,384	70,745	8,225			9,396
Act	04	0.4	04	04	04	04	04	04	04	04	04	04	04	04	04
Item	Armored System Modernization - Adv Dev	Soldier Support and Survivability	Tactical Electronic Surveillance System - Adv Dev	Night Vision Systems Advanced Development	<pre>Environmental Quality Technology - Dem/Val</pre>	NATO Research and Development	Aviation - Adv Dev	Logistics and Engineer Equipment - Adv Dev	Medical Systems - Adv Dev	Soldier Systems - Advanced Development	Robotics Development	Cross Functional Team (CFT) Advanced Development & Prototyping	Electronic Warfare Technology Maturation (MIP)	Low Earth Orbit (LEO) Satellite Capability	Analysis Of Alternatives
Program Line Element No Number	84 0603645A	85 0603747A	86 0603766A	87 0603774A	88 0603779A	89 0603790A	90 0603801A	91 0603804A	92 0603807A	93 0603827A	94 0604017A	95 0604020A	96 0604021A	97 0604035A	98 0604100A

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FY 2021 Total (Base + OCO)		151,478	5,841	194,775	24,316	13,387	4,762	647,937	4,761	28,520	26,138	121,207		22,840	22,678	10,082
FY 2021 Total OCO																
FY 2021 OCO for Direct War and Enduring Costs																
FY 2021 OCO for Base Requirements																
FY 2021 Base		151,478	5,841	194,775	24,316	13,387	4,762	647,937	4,761	28,520	26,138	121,207		22,840	22,678	10,082
Act	-	04	04	04	04	04	04	04	04	04	04	04	04	04	04	04
Item		Armored System Modernization - Adv Dev	Soldier Support and Survivability	Tactical Electronic Surveillance System - Adv Dev	Night Vision Systems Advanced Development	<pre>Environmental Quality Technology - Dem/Val</pre>	NATO Research and Development	Aviation - Adv Dev	Logistics and Engineer Equipment - Adv Dev	Medical Systems - Adv Dev	Soldier Systems - Advanced Development	Robotics Development	Cross Functional Team (CFT) Advanced Development & Prototyping	Electronic Warfare Technology Maturation (MIP)	Low Earth Orbit (LEO) Satellite Capability	Analysis Of Alternatives
Program Line Element No Number		84 0603645A	85 0603747A	86 0603766A	87 0603774A	88 0603779A	89 0603790A	90 0603801A	91 0603804A	92 0603807A	93 0603827A	94 0604017A	95 0604020A	96 0604021A	97 0604035A	98 0604100A

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FY 2020 Total Enacted (Base+Emerg+ OCO)		40,745	379,772	179,676	42,900		117,335		103,621		404,000		2,000	29,700	5,000
FY 2020 OCO Enacted							4,529								
FY 2020 Emergency															
FY 2020 Base Enacted		40,745	379,772	179,676	42,900		112,806		103,621		404,000		2,000	29,700	5,000
FY 2019 (Base + OCO)		12,393	84,981	91,749	75,711	52,894			39,890			10,324			
Act	04	04	04	04	04	04	04	0 4	04	04	04	0 4	04	04	04
Item	Small Unmanned Aerial Vehicle (SUAV) (6.4)	Future Tactical Unmanned Aircraft System (FTUAS)	Lower Tier Air Missile Defense (LTAMD) Sensor	Technology Maturation Initiatives	Maneuver - Short Range Air Defense (M-SHORAD)	TRACTOR BEAM	Army Advanced Component Development & Prototyping	Assured Positioning, Navigation and Timing (PNT)	Synthetic Training Environment Refinement & Prototyping	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	Hypersonics	Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)	Future Interceptor	Unified Network Transport	Mobile Medium Range Missile
Program Line Element No Number	99 0604101A	100 0604113A	101 0604114A	102 0604115A	103 0604117A	104 0604118A	105 0604119A	106 0604120A	107 0604121A	108 0604134A	109 0604182A	110 0604319A	111 0604403A	112 0604541A	113 0604644A

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FY 2021 Total (Base + OCO)	1,378	40,083	376,373	156,834	4,995		170,490	128,125	129,547	13,831	801,417		7,992	40,677	
FY 2021 Total OCO															
FY 2021 OCO for Direct War and Enduring Costs															
FY 2021 OCO for Base Requirements															
FY 2021 Base	1,378	40,083	376,373	156,834	4,995		170,490	128,125	129,547	13,831	801,417		7,992	40,677	
Act	04	04	04	04	04	04	04	04	0.4	0 4	04	04	04	04	04
Item	Small Unmanned Aerial Vehicle (SUAV) (6.4)	Future Tactical Unmanned Aircraft System (FTUAS)	Lower Tier Air Missile Defense (LTAMD) Sensor	Technology Maturation Initiatives	Maneuver - Short Range Air Defense (M-SHORAD)	TRACTOR BEAM	Army Advanced Component Development & Prototyping	Assured Positioning, Navigation and Timing (PNT)	Synthetic Training Environment Refinement & Prototyping	Counter Improvised-Threat Demonstration, Prototype Development, and Testing	Hypersonics	Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)	Future Interceptor	Unified Network Transport	Mobile Medium Range Missile
Program Line Element No Number	99 0604101A	100 0604113A	101 0604114A	102 0604115A	103 0604117A	104 0604118A	105 0604119A	106 0604120A	107 0604121A	108 0604134A	109 0604182A	110 0604319A	111 0604403A	112 0604541A	113 0604644A

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(Dollars in Thousands)

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FY 2020 Total Enacted S (Base+Emerg+ e 0CO)	2,000 U	52,102 U	139,110 U	104,996 U	2,986,795	8,414 U	59,539 U	D	U 671,179	n	14,997 U	13,125 U	5,781 U	2,965 U	285,136 U	143,696 U	7,393 U
FY 2020 OCO Enacted	2,000			1 1 1 1 1 1 1 1	11,114												
FY 2020 Emergency				1 1 1 1 1 1													
FY 2020 Base Enacted		52,102	139,110	104,996	2,975,681	8,414	59,539		87,179		14,997	13,125	5,781	2,965	285,136	143,696	7,393
FY 2019 (Base + OCO)		52,817	123,364	45,420	1,213,569	31,401	56,310	27,050	74,629	3,905	5,250	11,182	11,580	1,013	359,017	139,337	4,393
Act	0 4	04	04	04	Ø	05	05	05	0.5	05	0.5	0.5	05	05	0.5	0.5	0.5
Item	Integrated Base Defense (Budget Activity 4)	Cyberspace Operations Forces and Force Support	Assured Positioning, Navigation and Timing (PNT)	Army Space Systems Integration	Advanced Component Development & Prototypes	Aircraft Avionics	Electronic Warfare Development	TRACTOR CAGE	Infantry Support Weapons	Medium Tactical Vehicles	JAVELIN	Family of Heavy Tactical Vehicles	Air Traffic Control	Light Tactical Wheeled Vehicles	Armored Systems Modernization (ASM) - Eng Dev	Night Vision Systems - Eng Dev	Combat Feeding, Clothing, and Equipment
Program Line Element No Number	114 0604785A	115 0305251A	116 1206120A	117 1206308A	Advan	118 0604201A	119 0604270A	120 0604328A	121 0604601A	122 0604604A	123 0604611A	124 0604622A	125 0604633A	126 0604642A	127 0604645A	128 0604710A	129 0604713A

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FY 2021	(Base + OCO)		2,020	50,525		1	3,424,128	2,764	62,426		91,574	8,523	7,493	24,792	3,511	1,976	135,488	61,445	2,814
FY 2021	locat Oco		2,020			8 1 1 1 1 1 1 1	2,520												
FY 2021 OCO for Direct War	and Enduring		2,020			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2,520												
FY 2021	Decripements					1													
, coc	I ZUZI Base			50,525		1	3,421,608	2,764	62,426		91,574	8,523	7,493	24,792	3,511	1,976	135,488	61,445	2,814
	+		04	04	04	04	s S	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	02	0.5	0.5
	#0+1	1,001	<pre>Integrated Base Defense (Budget Activity 4)</pre>	Cyberspace Operations Forces and Force Support	Assured Positioning, Navigation and Timing (PNT)	Army Space Systems Integration	Advanced Component Development & Prototypes	Aircraft Avionics	Electronic Warfare Development	TRACTOR CAGE	Infantry Support Weapons	Medium Tactical Vehicles	JAVELIN	Family of Heavy Tactical Vehicles	Air Traffic Control	Light Tactical Wheeled Vehicles	Armored Systems Modernization (ASM) - Eng Dev	Night Vision Systems - Eng Dev	Combat Feeding, Clothing, and Equipment
	No Number		114 0604785A	115 0305251A	116 1206120A	117 1206308A	Advai	118 0604201A	119 0604270A	120 0604328A	121 0604601A	122 0604604A	123 0604611A	124 0604622A	125 0604633A	126 0604642A	127 0604645A	128 0604710A	129 0604713A

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Appropriation:	Appropriation: 2040A Kesearch, Development, Test & E	Eval, Army	δι				
Program Line Element No Number	Item	E Act (Ba	FY 2019 (Base + OCO) Ba	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted S (Base+Emerg+ e OCO) C
130 0604715A	Non-System Training Devices - Eng Dev	05	42,604	30,912			30,912 U
131 0604741A	Air Defense Command, Control and Intelligence - Eng Dev	05	208,965	33,502			33,502 U
132 0604742A	Constructive Simulation Systems Development	0.5	21,354	11,636			11,636 U
133 0604746A	Automatic Test Equipment Development	0.5	10,104	10,915			10,915 U
134 0604760A	Distributive Interactive Simulations (DIS) - Eng Dev	0.5	8,423	7,801			7,801 U
135 0604768A	<pre>Brilliant Anti-Armor Submunition (BAT)</pre>	0.5	6,568	20,000			20,000 U
136 0604780A	Combined Arms Tactical Trainer (CATT) Core	0.5	20,514	9,241			9,241 U
137 0604798A	Brigade Analysis, Integration and Evaluation	0.5	48,030	38,303			38,303 U
138 0604802A	Weapons and Munitions - Eng Dev	05	173,713	186,323			186,323 U
139 0604804A	Logistics and Engineer Equipment - Eng Dev	05	70,096	107,826			107,826 U
140 0604805A	Command, Control, Communications Systems - Eng Dev	0.5	15,366	12,595			12,595 U
141 0604807A	Medical Materiel/Medical Biological Defense Equipment - Eng Dev	0.5	45,054	48,264			48,264 U
142 0604808A	Landmine Warfare/Barrier - Eng Dev	05	39,261	37,108			37,108 U
143 0604818A	Army Tactical Command & Control Hardware & Software	0.5	163,229	129,974			129,974 U
144 0604820A	Radar Development	90	37,847	95,720			95,720 U
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					FY 2021			
(1)			FY 2021	FY 2021 OCO for Base	OCO for Direct War and Enduring	FY 2021 Total	FY 2021 Total	ഗ വ
No Number	Item	Act	Base	Requirements	Costs	000	(Base + OCO)	υı
130 0604715A	Non-System Training Devices - Eng Dev	0.5	28,036				28,036	D
131 0604741 A	Air Defense Command, Control and Intelligence - Eng Dev	0.5	43,651		27,000	27,000	70,651	D
132 0604742A	Constructive Simulation Systems Development	0.5	10,150				10,150	Þ
133 0604746A	Automatic Test Equipment Development	2 0 2	5,578				5,578	D
134 0604760A	Distributive Interactive Simulations (DIS) - Eng Dev	0.5	7,892				7,892	D
135 0604768A	Brilliant Anti-Armor Submunition (BAT)	0.5	24,975				24,975	Ω
136 0604780A	Combined Arms Tactical Trainer (CATT) Core	0.5	3,568				3,568	D
137 0604798A	Brigade Analysis, Integration and Evaluation	0.5	19,268				19,268	D
138 0604802A	Weapons and Munitions - Eng Dev	0.5	265,811				265,811	Ω
139 0604804A	Logistics and Engineer Equipment - Eng Dev	0.5	49,694				49,694	Ω
140 0604805A	Command, Control, Communications Systems - Eng Dev	0.5	11,079				11,079	D
141 0604807A	Medical Materiel/Medical Biological Defense Equipment - Eng Dev	0.5	49,870				49,870	n
142 0604808A	Landmine Warfare/Barrier - Eng Dev	90	685'6				9,589	D
143 0604818A	Army Tactical Command & Control Hardware & Software	0.5	162,513				162,513	D
144 0604820A	Radar Development	0.5	109,259				109,259	D
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FY 2020 Total Enacted (Base+Emerg+ OCO)	42,883	17,294	4,803	85,198	10,732	88, 689	102,073	83,830	6, 699	15,882	40,808		3,847	6,928	23,179	10,000
FY 2020 OCO Enacted																
FY 2020 Emergency																
FY 2020 Base Enacted	42,883	17,294	4,803	85,198	10,732	88,689	102,073	83,830	6,699	15,882	40,808		3,847	6,928	23,179	10,000
FY 2019 (Base + OCO)	35,468	25,856	10,044	50,380	1,722	74,551	158,807	107,521	3,104	15,287	42,134	107,926	4,980	4,326	32,025	10,883
Act	0.5	0.5	05	0.5	05	05	0.5	0.2	0.5	0.2	05	0.5	0.5	05	0.5	05
Item	General Fund Enterprise Business System (GFEBS)	Firefinder	Soldier Systems - Warrior Dem/Val	Suite of Survivability Enhancement Systems - EMD	Artillery Systems - EMD	Information Technology Development	<pre>Integrated Personnel and Pay System-Army (IPPS-A)</pre>	Armored Multi-Purpose Vehicle (AMPV)	<pre>Integrated Ground Security Surveillance Response Capability (IGSSR-C)</pre>	Joint Tactical Network Center (JTNC)	Joint Tactical Network (JTN)	TRACTOR TIRE	<pre>Ground-Based Operational Surveillance System - Expeditionary (GBOSS-E)</pre>	Tactical Security System (TSS)	Common Infrared Countermeasures (CIRCM)	Combating Weapons of Mass Destruction (CWMD)
Program Line Element No Number	145 0604822A	146 0604823A	147 0604827A	148 0604852A	149 0604854A	150 0605013A	151 0605018A	152 0605028A	153 0605029A	154 0605030A	155 0605031A	156 0605032A	157 0605033A	158 0605034A	159 0605035A	160 0605036A

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	FY 2021 Total (Base + OCO)		21,201	20,008	6,534	82,459	11,611	142,678	115,286	96,594		16,264	31,696		5,976		25,621	
	FY 2021 Total OCO																2,300	
FY 2021 OCO for	Direct War and Enduring Costs																2,300	
	FY 2021 OCO for Base Requirements																	
	FY 2021 Base		21,201	20,008	6,534	82,459	11,611	142,678	115,286	96,594		16,264	31,696		5,976		23,321	
	Act	È.	02	0.5	0.5	0.5	0.5	0.5	0.5	0.5	05	05	0.5	0.5	05	0.5	0.5	0.5
	Item		General Fund Enterprise Business System (GFEBS)	Firefinder	Soldier Systems - Warrior Dem/Val	Suite of Survivability Enhancement Systems - EMD	Artillery Systems - EMD	Information Technology Development	Integrated Personnel and Pay System-Army (IPPS-A)	Armored Multi-Purpose Vehicle (AMPV)	<pre>Integrated Ground Security Surveillance Response Capability (IGSSR-C)</pre>	Joint Tactical Network Center (JTNC)	Joint Tactical Network (JTN)	TRACTOR TIRE	<pre>Ground-Based Operational Surveillance System - Expeditionary (GBOSS-E)</pre>	Tactical Security System (TSS)	Common Infrared Countermeasures (CIRCM)	Combating Weapons of Mass Destruction (CWMD)
	Program Line Element No Number		145 0604822A	146 0604823A	147 0604827A	148 0604852A	149 0604854A	150 0605013A	151 0605018A	152 0605028A	153 0605029A	154 0605030A	155 0605031A	156 0605032A	157 0605033A	158 0605034A	159 0605035A	160 0605036A

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0 (6,054 U	50,662 U	28,404 U	17,082 U	1,539 U	132,477 U	194,366 U	26,104 U	37,696 U	D	184,410 U	D	Þ	6,585 U	208,638 U
(Base+Emerg+ OCO)	9	50	28	17	1	132	194	26	37		184			9	208
FI 2020 OCO Enacted						77,420					19,527				
Emergency															
Base Enacted	6,054	50,662	28,404	17,082	1,539	55,057	194,366	26,104	37,696		164,883			6,585	208,638
(Base + OCO)	14,517	33,796	18,761	40,341	7,321	26,067	92,674	65,311	46,451				15,379	12,440	318,850
Act	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	02	0.5	0.5	02	0.5	0.5
Item	Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite	Defensive CYBER Tool Development	<pre>Tactical Network Radio Systems (Low-Tier)</pre>	Contract Writing System	Missile Warning System Modernization (MWSM)	Aircraft Survivability Development	Indirect Fire Protection Capability Inc 2 - Block 1	Ground Robotics	Emerging Technology Initiatives	Medical Products and Support Systems Development	Army System Development & Demonstration	Small Unmanned Aerial Vehicle (SUAV) (6.5)	AMF Joint Tactical Radio System (JTRS)	Joint Air-to-Ground Missile (JAGM)	Army Integrated Air and Missile Defense (AIAMD)
Line Element No Number	161 0605038A	162 0605041A	163 0605042A	164 0605047A	165 0605049A	166 0605051A	167 0605052A	168 0605053A	169 0605054A	170 0605145A	171 0605203A	172 0605205A	173 0605380A	174 0605450A	175 0605457A

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FY 2021 Total (Base + OCO)		4,846	28,544	28,178	22,860		100,518	235,770	13,710	294,739	954	150,201	5,999		8,891	193,929
FY 2021 Total OCO							64,625									
FY 2021 OCO for Direct War and Enduring Costs							64,625									
FY 2021 OCO for Base Requirements																
FY 2021 Base		4,846	28,544	28,178	22,860		35,893	235,770	13,710	294,739	954	150,201	5,999		8,891	193,929
Act	ļ	05	0.5	0.5	05	0.5	02	0.5	05	05	0.5	0.5	0.5	0.5	05	0.5
Item		Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV) Sensor Suite	Defensive CYBER Tool Development	Tactical Network Radio Systems (Low-Tier)	Contract Writing System	Missile Warning System Modernization (MWSM)	Aircraft Survivability Development	Indirect Fire Protection Capability Inc 2 - Block 1	Ground Robotics	Emerging Technology Initiatives	Medical Products and Support Systems Development	Army System Development & Demonstration	Small Unmanned Aerial Vehicle (SUAV) (6.5)	AMF Joint Tactical Radio System (JTRS)	Joint Air-to-Ground Missile (JAGM)	Army Integrated Air and Missile Defense (AIAMD)
Program Line Element No Number	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	161 0605038A	162 0605041A	163 0605042A	164 0605047A	165 0605049A	166 0605051A	167 0605052A	168 0605053A	169 0605054A	170 0605145A	171 0605203A	172 0605205A	173 0605380A	174 0605450A	175 0605457A

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FY 2020 Total Enacted (Base+Emerg+ OCO)	205,620	7,835	7,232	1,664	3,936			18,432	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3,089,926	42,117	28,327	146,565	13,113	238,691	36,922		336,468
FY 2020 OCO Enacted								3,200		100,147								
FY 2020 Emergency																		
FY 2020 Base Enacted	205,620	7,835	7,232	1,664	3,936			15,232			42,117	28,327	146,565	13,113	238,691	36,922		336,468
FY 2019 (Base + OCO)		12,340		7,616	5,721	18,381	285	8,922	23,170	3,119,552	46,732	31,286	79,214	19,071	237,414	30,667	303,386	311,027
Act	0.5	0.5	0.5	0.5	05	0.5	0.5	0.5	05		90	90	90	90	90	90	90	90
Item	Manned Ground Vehicle	National Capabilities Integration (MIP)	Joint Light Tactical Vehicle (JLTV) Engineering and Manufacturing Development Ph	Aviation Ground Support Equipment	TROJAN - RH12	Auctioned Spectrum Relocation Fund	Spectrum Access Research and Development	Electronic Warfare Development	Tractor Bears	System Development & Demonstration	Threat Simulator Development	Target Systems Development	Major T&E Investment	Rand Arroyo Center	Army Kwajalein Atoll	Concepts Experimentation Program	Small Business Innovative Research	Army Test Ranges and Facilities
Program Line Element No Number	176 0605625A	177 0605766A	178 0605812A	179 0605830A	180 0303032A	181 0303267A	182 0303367A	183 0304270A	184 1205117A	Syste	185 0604256A	186 0604258A	187 0604759A	188 0605103A	189 0605301A	190 0605326A	191 0605502A	192 0605601A

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FY 2021 Total (Base + OCO)	327,732	7,670	1,742	1,467	3,451			59,755	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3,297,623	14,515	10,668	106,270	13,481	231,824	54,898		350,359
FY 2021 Total OCO								3,900	1	97,825								
FY 2021 OCO for Direct War and Enduring Costs								3,900	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	97,825								
FY 2021 OCO for Base Requirements																		
FY 2021 Base	327,732	7,670	1,742	1,467	3,451			52,855		3,199,798	14,515	10,668	106,270	13,481	231,824	54,898		350,359
Act	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		90	90	90	90	90	90	90	90
Item	Manned Ground Vehicle	National Capabilities Integration (MIP)	Joint Light Tactical Vehicle (JLTV) Engineering and Manufacturing Development Ph	Aviation Ground Support Equipment	TROJAN - RH12	Auctioned Spectrum Relocation Fund	Spectrum Access Research and Development	Electronic Warfare Development	Tractor Bears	System Development & Demonstration	Threat Simulator Development	Target Systems Development	Major T&E Investment	Rand Arroyo Center	Army Kwajalein Atoll	Concepts Experimentation Program	Small Business Innovative Research	Army Test Ranges and Facilities
Program Line Element No Number	176 0605625A	177 0605766A	178 0605812A	179 0605830A	180 0303032A	181 0303267A	182 0303367A	183 0304270A	184 1205117A	Syste	185 0604256A	186 0604258A	187 0604759A	188 0605103A	189 0605301A	190 0605326A	191 0605502A	192 0605601A

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(Dollars in Thousands)

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Appropriation: 2040A Research, Development, Test & Eval, Army

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FY 2020 Total Enacted (Base+Emerg+ OCO)	61,974	35,075	3,461	6,233	21,342	11,168	52,723	60,815	2,527	58,175	30,060	54,458	4,681	53,820	2,141	62,069
FY 2020 OCO Enacted																
FY 2020 Emergency																
FY 2020 Base Enacted	61,974	35,075	3,461	6,233	21,342	11,168	52,723	60,815	2,527	58,175	30,060	54,458	4,681	53,820	2,141	62,069
FY 2019 (Base + OCO)	82,617	39,886	3,796	9,495	21,043	15,026	52,139	56,532	2,708	60,218	28,237	66,678	3,138	53,526	4,241	60,808
Act	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Item	Army Technical Test Instrumentation and Targets	Survivability/Lethality Analysis	Aircraft Certification	Meteorological Support to RDT&E Activities	Materiel Systems Analysis	Exploitation of Foreign Items	Support of Operational Testing	Army Evaluation Center	Army Modeling & Sim X-Cmd Collaboration & Integ	Programwide Activities	Technical Information Activities	Munitions Standardization, $Effectiveness$ and $Safety$	Environmental Quality Technology Mgmt Support	Army Direct Report Headquarters - R&D - MHA	Military Ground-Based CREW Technology	Ronald Reagan Ballistic Missile Defense Test Site
Program Line Element No Number	193 0605602A	194 0605604A	195 0605606A	196 0605702A	197 0605706A	198 0605709A	199 0605712A	200 0605716A	201 0605718A	202 0605801A	203 0605803A	204 0605805A	205 0605857A	206 0605898A	207 0606001A	208 0606002A

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(Dollars in Thousands)

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FY 2021 Total (Base + OCO)	48,475	36,001	2,736	6,488	21,859	8,936	54,470	63,141	2,572	87,472	26,244	40,133	1,780	55,045		71,306
FY 2021 Total OCO						1,000										
FY 2021 OCO for Direct War and Enduring Costs						1,000										
FY 2021 OCO for Base Requirements																
FY 2021 Base	48,475	36,001	2,736	6,488	21,859	7,936	54,470	63,141	2,572	87,472	26,244	40,133	1,780	55,045	i.	71,306
Act	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
Item	Army Technical Test Instrumentation and Targets	Survivability/Lethality Analysis	Aircraft Certification	Meteorological Support to RDT&E Activities	Materiel Systems Analysis	Exploitation of Foreign Items	Support of Operational Testing	Army Evaluation Center	Army Modeling & Sim X-Cmd Collaboration & Integ	Programwide Activities	Technical Information Activities	Munitions Standardization, Effectiveness and Safety	Environmental Quality Technology Mgmt Support	Army Direct Report Headquarters - R&D - MHA	Military Ground-Based CREW Technology	Ronald Reagan Ballistic Missile Defense Test Site
Program Line Element No Number	193 0605602A	194 0605604A	195 0605606A	196 0605702A	197 0605706A	198 0605709A	199 0605712A	200 0605716A	201 0605718A	202 0605801A	203 0605803A	204 0605805A	205 0605857A	206 0605898A	207 0606001A	208 0606002A

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	FY 2020 Total Enacted S (Base+Emerg+ e OCO)	2,925 U	D	4,500 U	Þ	D	1,370,350	14,615 U	D	8,491 U	15,645 U	n	156,682 U	D	23,039 U	171,471 U	D	206,434 U
	FY 2020 OCO Enacted	1,875					1,875											
	FY 2020 Emergency	·																
	FY 2020 Base Enacted	1,050		4,500			1,368,475	14,615		8,491	15,645		156,682		23,039	171,471		206,434
Atmy	FY 2019 (Base + OCO)	2,636		88,300	122		1,710,179	6,574	4,067	7,159	17,992	12,357	152,573	22,914	33,906	139,003	2,146	173,766
Eval,	Act	90	90	90	90	90		07	07	10	07	07	07	07	07	0.1	07	07
ביינה הפספמונון הפיפוני ופטר מ	Item	CounterIntel and Human Intel Modernization	Medical Program-Wide Activities	Assessments and Evaluations Cyber Vulnerabilities	Judgment Fund Reimbursement	Financing for Cancelled Account Adjustments	Management Support	MLRS Product Improvement Program	TRACTOR PULL	Anti-Tamper Technology Support	Weapons and Munitions Product Improvement Programs	TRACTOR SMOKE	Long Range Precision Fires (LRPF)	Apache Product Improvement Program	Blackhawk Product Improvement Program	Chinook Product Improvement Program	Fixed Wing Product Improvement Program	Improved Turbine Engine Program
APP-OP-19	Program Line Element No Number	209 0606003A	210 0606105A	211 0606942A	212 0909980A	213 0909999A	Manag	214 0603778A	215 0603813A	216 0605024A	217 0607131A	218 0607133A	219 0607134A	220 0607135A	221 0607136A	222 0607137A	223 0607138A	224 0607139A

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	FY 2021 Total (Base + OCO)	5,200	19,891	4,496			1,338,260	10,157		8,682	20,409		122,733		11,236	46,091		249,257
	FY 2021 Total OCO	4,137					5,137											
FY 2021 OCO for	Direct War and Enduring Costs	4,137					5,137											
	FY 2021 OCO for Base Requirements																	
	FY 2021 Base	1,063	19,891	4,496			1,333,123	10,157		8,682	20,409		122,733		11,236	46,091		249,257
	Act	90	90	90	90	90		0.7	0.7	0.7	0.7	07	07	0.7	20	07	07	07
	Item	CounterIntel and Human Intel Modernization	Medical Program-Wide Activities	Assessments and Evaluations Cyber Vulnerabilities	Judgment Fund Reimbursement	Financing for Cancelled Account Adjustments	Management Support	MLRS Product Improvement Program	TRACTOR PULL	Anti-Tamper Technology Support	Weapons and Munitions Product Improvement Programs	TRACTOR SMOKE	Long Range Precision Fires (LRPF)	Apache Product Improvement Program	Blackhawk Product Improvement Program	Chinook Product Improvement Program	Fixed Wing Product Improvement Program	Improved Turbine Engine Program
	Program Line Element No Number	209 0606003A	210 0606105A	211 0606942A	212 0909980A	213 0909999A	Manag	214 0603778A	215 0603813A	216 0605024A	217 0607131A	218 0607133A	219 0607134A	220 0607135A	221 0607136A	222 0607137A	223 0607138A	224 0607139A

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Appropriation: 2040A Research, Development, Test & Eval, Army

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FY 2020 Total Enacted (Base+Emerg+ OCO)	1,927	18,132	5,448		45,026	1,702	87,430	47,398	277,633	199,274	9,278	144	5,270	1,287		
FY 2020 OCO Enacted														a.		
FY 2020 Emergency																
FY 2020 Base Enacted	1,927	18,132	5,448		45,026	1,702	87,430	47,398	277,633	199,274	9,278	144	5,270	1,287		
FY 2019 (Base + OCO)	35,211	36,488				2,320	72,895	29,782	321,513	35,681	13,629	146	6,077	3,588	4,760	34,050
Act	07	0.7	0.7	07	2 07	07	07	07	07	07	07	07	07	07	07	07
Item	Aviation Rocket System Product Improvement and Development	Unmanned Aircraft System Universal Products	Apache Future Development	Intel Cyber Development	Army Operational Systems Development	Family of Biometrics	Patriot Product Improvement	Joint Automated Deep Operation Coordination System (JADOCS)	Combat Vehicle Improvement Programs	155mm Self-Propelled Howitzer Improvements	Aircraft Modifications/Product Improvement Programs	Aircraft Engine Component Improvement Program	Digitization	Missile/Air Defense Product Improvement Program	Other Missile Product Improvement Programs	TRACTOR CARD
Program Line Element No Number	225 0607142A	226 0607143A	227 0607145A	228 0607150A	229 0607312A	230 0607665A	231 0607865A	232 0203728A	233 0203735A	234 0203743A	235 0203744A	236 0203752A	237 0203758A	238 0203801A	239 0203802A	240 0203808A

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(Dollars in Thousands)

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FY 2021	Total (Base + OCO)		17,155	7,743	77,177	14,652	35,851	1,324	187,840	44,691	268,919	427,254	11,688	08	4,516	1,288	81,724	
FY 2021	Total OCO																2,300	
FY 2021 OCO for	and Enduring	1 1 1 1 1 1 1 1 1 1 1															2,300	
FY 2021	OCO for Base Requirements	: : : : : : : : :																
	FY 2021 Base	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	17,155	7,743	77,177	14,652	35,851	1,324	187,840	44,691	268,919	427,254	11,688	8	4,516	1,288	79,424	
	Act	i i	0.7	07	0.7	0.7	t 07	0.7	0.7	07	07	0.7	0.7	07	07	0.7	0.7	07
	Item	1.1.1.1	Aviation Rocket System Product Improvement and Development	Unmanned Aircraft System Universal Products	Apache Future Development	Intel Cyber Development	Army Operational Systems Development	Family of Biometrics	Patriot Product Improvement	Joint Automated Deep Operation Coordination System (JADDCS)	Combat Vehicle Improvement Programs	155mm Self-Propelled Howitzer Improvements	Aircraft Modifications/Product Improvement Programs	Aircraft Engine Component Improvement Program	Digitization	Missile/Air Defense Product Improvement Program	Other Missile Product Improvement Programs	TRACTOR CARD
ひゃってい	ω.		225 0607142A	226 0607143A	227 0607145A	228 0607150A	229 0607312A	230 0607665A	231 0607865A	232 0203728A	233 0203735A	234 0203743A	235 0203744A	236 0203752A	237 0203758A	238 0203801A	239 0203802A	240 0203808A

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FY 2020 Total Enacted S (Base+Emerg+ e OCO)	Ω	D	10,000 U	97,746 U	117,294 U	D	26,749 U	25,710 U	0,076 U	D	2,073 U	D	459 U	22,147 U	13,177 U	28,821 U	5,000 U
To FY 2020 (12,904							17,050	2,000		
FY 2020 Emergency																	
FY 2020 Base Enacted			10,000	97,746	117,294		13,845	25,710	920'09		2,073		459	5,097	11,177	28,821	2,000
FY 2019 (Base + OCO)	8,000	1,132	249	74,295	113,471		40,002	40,148	51,415		1,966	1,500	450	6,000	26,416	27,109	
Act	07	0.3	07	07	20	07	0.7	1 07	0.7	0.7	10	10	0.7	07	0.7	07	07
Item	Integrated Base Defense - Operational System Dev	Materials Handling Equipment	Environmental Quality Technology - Operational System Dev	Lower Tier Air and Missile Defense (AMD) System	Guided Multiple-Launch Rocket System (GMLRS)	Joint Tactical Ground System	Security and Intelligence Activities	Information Systems Security Program	Global Combat Support System	SATCOM Ground Environment (SPACE)	WWMCCS/Global Command and Control System	Combined Advanced Applications	Integrated Broadcast Service (IBS)	Tactical Unmanned Aerial Vehicles	Airborne Reconnaissance Systems	Distributed Common Ground/Surface Systems	MQ-1C Gray Eagle UAS
Program Line Element No Number	241 0205402A	242 0205410A	243 0205412A	244 0205456A	245 0205778A	246 0208053A	248 0303028A	249 0303140A	250 0303141A	251 0303142A	252 0303150A	255 0305172A	256 0305179A	257 0305204A	258 0305206A	259 0305208A	260 0305219A

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(Dollars in Thousands)

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	FY 2021 Total (Base + OCO)				259	166	75,575	9,510	23,367	29,270	86,908	18,684			467	38,151	28,858	47,204	
	FY 2021 Total OCO								23,367							34,100	15,575		
FY 2021 OCO for	Direct War and Enduring Costs								23,367							34,100	15,575		
	FY 2021 OCO for Base Requirements																		
	FY 2021 Base				259	166	75,575	9,510		29,270	86,908	18,684			467	4,051	13,283	47,204	
	Act		ò	07	07	07	07	07	s 07	т 07	07	07	07	07	07	07	07	0.7	0.7
	Item	e E	integrated base Derense – Operational System Dev	Materials Handling Equipment	Environmental Quality Technology - Operational System Dev	Lower Tier Air and Missile Defense (AMD) System	Guided Multiple-Launch Rocket System (GMLRS)	Joint Tactical Ground System	Security and Intelligence Activities	Information Systems Security Program	Global Combat Support System	SATCOM Ground Environment (SPACE)	WWMCCS/Global Command and Control System	Combined Advanced Applications	Integrated Broadcast Service (IBS)	Tactical Unmanned Aerial Vehicles	Airborne Reconnaissance Systems	Distributed Common Ground/Surface Systems	MQ-1C Gray Eagle UAS
	Program Line Element No Number		241 UZU54UZA	242 0205410A	243 0205412A	244 0205456A	245 0205778A	246 0208053A	248 0303028A	249 0303140A	250 0303141A	251 0303142A	252 0303150A	255 0305172A	256 0305179A	257 0305204A	258 0305206A	259 0305208A	260 0305219A

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		FY 2020 Total Enacted (Base+Emerg+ OCO)		3,218 U	7,817 U	4 4,214 U	108,348 U	34,169 U	U 7,677 U	7,273 U	8 1,878,294	Ω		4 12,690,739
		FY 2020 OCO Enacted				2,214				1	34,168			147,304
Budget dent's Budget uthority ands)		FY 2020 Emergency												
FY 2021President's Budget Exhibit R-1 FY 2021 President's Budget Total Obligational Authority (Dollars in Thousands)		FY 2020 Base Enacted		3,218	7,817	2,000	108,348	34,169	7,677	7,273	1,844,126			12,543,435
FY 20 Exhibit R-1 Total (Do	Army	FY 2019 (Base + OCO)		6,180	17,863	6,524	106,766	9,927	7,400	5,955	1,721,365			11,371,268
	& Eval, Army	Act	1	07	07	07	07	07	07			0.8	ogram	
	Appropriation: 2040A Research, Development, Test &	Item		RQ-11 UAV	RQ-7 UAV	Biometrics Enabled Intelligence	End Item Industrial Preparedness Activities	SATCOM Ground Environment (SPACE)	Joint Tactical Ground System	9 Classified Programs	Operational Systems Development	Defensive CYBER - Software Prototype Development	Software and Digital Technology Pilot Program	Total Research, Development, Test & Eval, Army
	Appropriation:	Program Line Element No Number		261 0305232A	262 0305233A	263 0307665A	264 0708045A	265 1203142A	266 1208053A	6666666666 6666	Opera	267 0608041A	Softw	Total Research,

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Appropriation: 2040A Research, Development, Test & Eval, Army

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FY 2021	Total (Base + OCO)				61,012			3,983	2,073,881	46,445	46,445	12,770,167
FY 2021	Total OCO							1 1 1 1 1 1 1 1 1	75,342		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	182,824
FY 2021 OCO for Direct War	and Enduring Costs							1 1 1 1 1 1 1 1	75,342			182,824
FY 2021	OCO for Base Requirements							1				
	FY 2021 Base				61,012			3,983	1,998,539	46,445	46,445	12,587,343
	Act	07	07	07	07	07	07			80	gram	
				Intelligence	Preparedness	ment (SPACE)	System		ent	ware	logy Pilot Pro	Eval, Army
	Item	RQ-11 UAV	RQ-7 UAV	Biometrics Enabled I	End Item Industrial R Activities	SATCOM Ground Environment (SPACE)	Joint Tactical Ground System	Classified Programs	itional Systems Developm	Defensive CYBER - Software Prototype Development	rare and Digital Techno	Development, Test & E
Program		261 0305232A RQ-11 UAV	262 0305233A RQ-7 UAV			265 1203142A SATCOM Ground Environ	266 1208053A Joint Tactical Ground	9999 99999999999 Classified Programs	Operational Systems Development	267 0608041A Defensive CYBER - Soft Prototype Development	Software and Digital Technology Pilot Program	Total Research, Development, Test & E