

UNCLASSIFIED

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

03 Feb 2020

Appropriation	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted (Base+Emerg+ OCO)
Research, Development, Test & Eval, DW	5,984,436	5,827,044		25,230	5,852,274
Total Research, Development, Test & Evaluation	5,984,436	5,827,044		25,230	5,852,274

UNCLASSIFIED

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

03 Feb 2020

Appropriation	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)
Research, Development, Test & Eval, DW	4,772,874		19,288	19,288	4,792,162
Total Research, Development, Test & Evaluation	4,772,874		19,288	19,288	4,792,162

UNCLASSIFIED

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

03 Feb 2020

	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted (Base+Emerg+ OCO)
Summary Recap of Budget Activities					
Basic Research	226,506	267,656			267,656
Applied Research	151,817	166,721			166,721
Advanced Technology Development	1,316,889	1,437,142		25,230	1,462,372
Advanced Component Development & Prototypes	2,512,642	2,247,814			2,247,814
System Development & Demonstration	712,358	441,579			441,579
Management Support	1,042,254	1,051,810			1,051,810
Operational Systems Development	21,970	214,322			214,322
Software And Digital Technology Pilot Programs					
Total Research, Development, Test & Evaluation	5,984,436	5,827,044		25,230	5,852,274
Summary Recap of FYDP Programs					
General Purpose Forces	9,892	8,037			8,037
Intelligence and Communications	287,500	384,982			384,982
Research and Development	5,686,075	5,434,025		25,230	5,459,255
Administration and Associated Activities	969				
Total Research, Development, Test & Evaluation	5,984,436	5,827,044		25,230	5,852,274

UNCLASSIFIED

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

03 Feb 2020

	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)
Summary Recap of Budget Activities					

Basic Research	166,781				166,781
Applied Research	181,039				181,039
Advanced Technology Development	1,085,375		19,288	19,288	1,104,663
Advanced Component Development & Prototypes	2,005,079				2,005,079
System Development & Demonstration	230,402				230,402
Management Support	731,306				731,306
Operational Systems Development	105,937				105,937
Software And Digital Technology Pilot Programs	266,955				266,955
Total Research, Development, Test & Evaluation	4,772,874		19,288	19,288	4,792,162
Summary Recap of FYDP Programs					

General Purpose Forces	3,099				3,099
Intelligence and Communications	353,704				353,704
Research and Development	4,416,071		19,288	19,288	4,435,359
Administration and Associated Activities					
Total Research, Development, Test & Evaluation	4,772,874		19,288	19,288	4,792,162

UNCLASSIFIED

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

03 Feb 2020

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Software And Digital Technology Pilot Programs					
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General Purpose Forces	9,892	8,037			8,037
Intelligence and Communications	287,500	384,982			384,982
Research and Development	5,686,075	5,434,025		25,230	5,459,255
Administration and Associated Activities	969				
Total Research, Development, Test & Evaluation	5,984,436	5,827,044		25,230	5,852,274

UNCLASSIFIED

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

03 Feb 2020

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Summary Recap of Budget Activities					
Basic Research	166,781				166,781
Applied Research	181,039				181,039
Advanced Technology Development	1,085,375		19,288	19,288	1,104,663
Advanced Component Development & Prototypes	2,005,079				2,005,079
System Development & Demonstration	230,402				230,402
Management Support	731,306				731,306
Operational Systems Development	105,937				105,937
Software And Digital Technology Pilot Programs	266,955				266,955
Total Research, Development, Test & Evaluation	4,772,874		19,288	19,288	4,792,162
Summary Recap of FYDP Programs					
General Purpose Forces	3,099				3,099
Intelligence and Communications	353,704				353,704
Research and Development	4,416,071		19,288	19,288	4,435,359
Administration and Associated Activities					
Total Research, Development, Test & Evaluation	4,772,874		19,288	19,288	4,792,162

UNCLASSIFIED

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

03 Feb 2020

Appropriation	FY 2019 (Base + OCO)	FY 2020 Base Enacted	FY 2020 Emergency	FY 2020 OCO Enacted	FY 2020 Total Enacted (Base+Emerg+ OCO)
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Office of Secretary of Defense	5,984,436	5,827,044		25,230	5,852,274
Total Research, Development, Test & Evaluation	5,984,436	5,827,044		25,230	5,852,274

UNCLASSIFIED

Defense-Wide
 FY 2021 President's Budget
 Exhibit R-1 FY 2021 President's Budget
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Office of Secretary of Defense	4,772,874		19,288	19,288	4,792,162
Total Research, Development, Test & Evaluation	4,772,874		19,288	19,288	4,792,162

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element 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) c
3	0601110D8Z	Basic Research Initiatives	01	55,195	70,874			70,874 U
5	0601120D8Z	National Defense Education Program	01	132,743	144,074			144,074 U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	38,568	52,708			52,708 U
		Basic Research		226,506	267,656			267,656
8	0602000D8Z	Joint Munitions Technology	02	19,067	19,306			19,306 U
11	0602230D8Z	Defense Technology Innovation	02					U
12	0602234D8Z	Lincoln Laboratory Research Program	02	49,647	52,317			52,317 U
13	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	59,567	60,400			60,400 U
17	0602668D8Z	Cyber Security Research	02	14,594	25,118			25,118 U
22	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	8,942	9,580			9,580 U
		Applied Research		151,817	166,721			166,721
24	0603000D8Z	Joint Munitions Advanced Technology	03	25,462	25,779			25,779 U
25	0603121D8Z	SO/LIC Advanced Development	03		5,000			5,000 U
26	0603122D8Z	Combating Terrorism Technology Support	03	168,012	91,517		25,230	116,747 U
27	0603133D8Z	Foreign Comparative Testing	03	23,867	24,970			24,970 U
33	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	17,941	18,773			18,773 U
36	0603288D8Z	Analytic Assessments	03	17,768	18,429			18,429 U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-3

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element Number	Item	Act	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)	Se
3	0601110D8Z	Basic Research Initiatives	01	35,565				35,565	U
5	0601120D8Z	National Defense Education Program	01	100,241				100,241	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	30,975				30,975	U
		Basic Research		166,781				166,781	
8	0602000D8Z	Joint Munitions Technology	02	19,409				19,409	U
11	0602230D8Z	Defense Technology Innovation	02	35,000				35,000	U
12	0602234D8Z	Lincoln Laboratory Research Program	02	41,080				41,080	U
13	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	60,722				60,722	U
17	0602668D8Z	Cyber Security Research	02	15,255				15,255	U
22	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	9,573				9,573	U
		Applied Research		181,039				181,039	
24	0603000D8Z	Joint Munitions Advanced Technology	03	22,920				22,920	U
25	0603121D8Z	SO/LIC Advanced Development	03	4,914				4,914	U
26	0603122D8Z	Combating Terrorism Technology Support	03	51,089		19,288	19,288	70,377	U
27	0603133D8Z	Foreign Comparative Testing	03	25,183				25,183	U
33	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	18,873				18,873	U
36	0603288D8Z	Analytic Assessments	03	23,775				23,775	U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-3A

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program 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) c
37	0603289D8Z	Advanced Innovative Analysis and Concepts	03	36,344	37,645			37,645 U
38	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	13,286	14,668			14,668 U
40	0603338D8Z	Defense Modernization and Prototyping	03					U
42	0603342D8Z	Defense Innovation Unit (DIU)	03		29,398			29,398 U
43	0603375D8Z	Technology Innovation	03	25,856	30,000			30,000 U
45	0603527D8Z	RETRACT LARCH	03	161,453	159,688			159,688 U
46	0603618D8Z	Joint Electronic Advanced Technology	03	12,680	12,063			12,063 U
47	0603648D8Z	Joint Capability Technology Demonstrations	03	102,494	89,859			89,859 U
48	0603662D8Z	Networked Communications Capabilities	03	12,291	2,858			2,858 U
49	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	171,749	197,397			197,397 U
51	0603699D8Z	Emerging Capabilities Technology Development	03	59,350	109,411			109,411 U
53	0603716D8Z	Strategic Environmental Research Program	03	75,485	66,157			66,157 U
55	0603727D8Z	Joint Warfighting Program	03	5,161	4,846			4,846 U
60	0603769D8Z	Distributed Learning Advanced Technology Development	03	13,414	22,446			22,446 U
61	0603781D8Z	Software Engineering Institute	03	15,016	15,111			15,111 U

UNCLASSIFIED

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

03 Feb 2020

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

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37	0603289D8Z	Advanced Innovative Analysis and Concepts	03	36,524				36,524	U
38	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,703				14,703	U
40	0603338D8Z	Defense Modernization and Prototyping	03	133,375				133,375	U
42	0603342D8Z	Defense Innovation Unit (DIU)	03	26,141				26,141	U
43	0603375D8Z	Technology Innovation	03	27,709				27,709	U
45	0603527D8Z	RETRACT LARCH	03	130,283				130,283	U
46	0603618D8Z	Joint Electronic Advanced Technology	03	15,164				15,164	U
47	0603648D8Z	Joint Capability Technology Demonstrations	03	85,452				85,452	U
48	0603662D8Z	Networked Communications Capabilities	03	5,882				5,882	U
49	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	93,817				93,817	U
51	0603699D8Z	Emerging Capabilities Technology Development	03						U
53	0603716D8Z	Strategic Environmental Research Program	03	53,862				53,862	U
55	0603727D8Z	Joint Warfighting Program	03	3,871				3,871	U
60	0603769D8Z	Distributed Learning Advanced Technology Development	03	6,765				6,765	U
61	0603781D8Z	Software Engineering Institute	03	12,598				12,598	U

UNCLASSIFIED

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

03 Feb 2020

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62	0603826D8Z	Quick Reaction Special Projects	03	57,004	35,647			35,647 U
63	0603833D8Z	Engineering Science & Technology	03	18,895	19,376			19,376 U
64	0603924D8Z	High Energy Laser Advanced Technology Program	03	71,819	80,723			80,723 U
65	0603941D8Z	Test & Evaluation Science & Technology	03	114,559	191,574			191,574 U
66	0603950D8Z	National Security Innovation Network	03		40,000			40,000 U
67	0604055D8Z	Operational Energy Capability Improvement	03	44,362	64,900			64,900 U
68	0303310D8Z	CWMD Systems	03	25,619	28,907			28,907 U
69	0303367D8Z	Spectrum Access Research and Development	03	27,002				U
	Advanced Technology Development			1,316,889	1,437,142		25,230	1,462,372
72	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	27,123	42,695			42,695 U
73	0603600D8Z	WALKOFF	04	89,376	92,791			92,791 U
74	0603821D8Z	Acquisition Enterprise Data & Information Services	04	2,500	5,659			5,659 U
75	0603851D8Z	Environmental Security Technical Certification Program	04	41,058	68,572			68,572 U
91	0603920D8Z	Humanitarian Demining	04	10,952	14,700			14,700 U
92	0603923D8Z	Coalition Warfare	04	8,379	11,316			11,316 U
93	0604011D8Z	Next Generation Information Communications Technology (5G)	04	52,000	200,000			200,000 U

UNCLASSIFIED

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

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62	0603826D8Z	Quick Reaction Special Projects	03						U
63	0603833D8Z	Engineering Science & Technology	03						U
64	0603924D8Z	High Energy Laser Advanced Technology Program	03	105,410				105,410	U
65	0603941D8Z	Test & Evaluation Science & Technology	03	187,065				187,065	U
66	0603950D8Z	National Security Innovation Network	03						U
67	0604055D8Z	Operational Energy Capability Improvement	03						U
68	0303310D8Z	CWMD Systems	03						U
69	0303367D8Z	Spectrum Access Research and Development	03						U
		Advanced Technology Development		1,085,375		19,288	19,288	1,104,663	
72	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	32,636				32,636	U
73	0603600D8Z	WALKOFF	04	106,529				106,529	U
74	0603821D8Z	Acquisition Enterprise Data & Information Services	04						U
75	0603851D8Z	Environmental Security Technical Certification Program	04	61,345				61,345	U
91	0603920D8Z	Humanitarian Demining	04						U
92	0603923D8Z	Coalition Warfare	04	10,129				10,129	U
93	0604011D8Z	Next Generation Information Communications Technology (5G)	04	449,000				449,000	U

UNCLASSIFIED

Defense-Wide
 FY 2021 President's Budget
 Exhibit R-1 FY 2021 President's Budget
 Total Obligational Authority
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03 Feb 2020

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94	0604016D8Z	Department of Defense Corrosion Program	04	9,281	13,165			13,165 U
96	0604132D8Z	Missile Defeat Project	04	41,961	14,816			14,816 U
99	0604250D8Z	Advanced Innovative Technologies	04	1,347,956	1,133,365			1,133,365 U
100	0604294D8Z	Trusted & Assured Microelectronics	04	517,356	547,421			547,421 U
101	0604331D8Z	Rapid Prototyping Program	04	96,196	72,351			72,351 U
102	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04		17,000			17,000 U
103	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	7,625	7,021			7,021 U
104	0604532D8Z	Joint Artificial Intelligence	04	12,968				U
107	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,621	3,751			3,751 U
108	0604775D8Z	Defense Rapid Innovation Program	04	241,194				U
119	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	3,096	3,191			3,191 U
		Advanced Component Development & Prototypes		2,512,642	2,247,814			2,247,814
124	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	8,185	11,276			11,276 U
125	0604165D8Z	Prompt Global Strike Capability Development	05	525,670	151,000			151,000 U
127	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	46,210	54,102			54,102 U
131	0605022D8Z	Defense Exportability Program	05	1,455	12,115			12,115 U

UNCLASSIFIED

UNCLASSIFIED

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

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94	0604016D8Z	Department of Defense Corrosion Program	04	3,325				3,325	U
96	0604132D8Z	Missile Defeat Project	04						U
99	0604250D8Z	Advanced Innovative Technologies	04	730,508				730,508	U
100	0604294D8Z	Trusted & Assured Microelectronics	04	489,076				489,076	U
101	0604331D8Z	Rapid Prototyping Program	04	102,023				102,023	U
102	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04	13,255				13,255	U
103	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	2,787				2,787	U
104	0604532D8Z	Joint Artificial Intelligence	04						U
107	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,469				3,469	U
108	0604775D8Z	Defense Rapid Innovation Program	04						U
119	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	997				997	U
		Advanced Component Development & Prototypes		2,005,079				2,005,079	
124	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	7,173				7,173	U
125	0604165D8Z	Prompt Global Strike Capability Development	05						U
127	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	54,985				54,985	U
131	0605022D8Z	Defense Exportability Program	05	12,928				12,928	U

UNCLASSIFIED

UNCLASSIFIED

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

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132	0605027D8Z	OUSD(C) IT Development Initiatives	05	9,219	9,590			9,590 U
134	0605075D8Z	CMO Policy and Integration	05	2,100	1,618			1,618 U
138	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	6,126	9,619			9,619 U
139	0605294D8Z	Trusted & Assured Microelectronics	05	94,617	175,032			175,032 U
140	0605772D8Z	Nuclear Command, Control, & Communications	05					U
143	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	2,391	4,373			4,373 U
144	0305310D8Z	CWMD Systems: System Development and Demonstration	05	16,385	12,854			12,854 U
	System Development & Demonstration			712,358	441,579			441,579
146	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	6,606	9,724			9,724 U
147	0604875D8Z	Joint Systems Architecture Development	06	3,929	9,593			9,593 U
148	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	295,067	390,692			390,692 U
149	0604942D8Z	Assessments and Evaluations	06	30,138	30,834			30,834 U
151	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	88,004	89,091			89,091 U
152	0605104D8Z	Technical Studies, Support and Analysis	06	21,281	18,079			18,079 U
154	0605128D8Z	Classified Program USD(P)	06	127,000	104,000			104,000 U
155	0605142D8Z	Systems Engineering	06	37,446	37,140			37,140 U

UNCLASSIFIED

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

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132	0605027D8Z	OUSD(C) IT Development Initiatives	05	10,259				10,259	U
134	0605075D8Z	CMO Policy and Integration	05	1,648				1,648	U
138	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	8,279				8,279	U
139	0605294D8Z	Trusted & Assured Microelectronics	05	107,585				107,585	U
140	0605772D8Z	Nuclear Command, Control, & Communications	05	3,685				3,685	U
143	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	3,275				3,275	U
144	0305310D8Z	CWMD Systems: System Development and Demonstration	05	20,585				20,585	U
		System Development & Demonstration		230,402				230,402	
146	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	9,793				9,793	U
147	0604875D8Z	Joint Systems Architecture Development	06	8,497				8,497	U
148	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	422,451				422,451	U
149	0604942D8Z	Assessments and Evaluations	06	18,379				18,379	U
151	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	79,046				79,046	U
152	0605104D8Z	Technical Studies, Support and Analysis	06						U
154	0605128D8Z	Classified Program USD(P)	06						U
155	0605142D8Z	Systems Engineering	06	49,376				49,376	U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-7A

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program 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) c
156	0605151D8Z	Studies and Analysis Support - OSD	06	3,423	4,759			4,759 U
157	0605161D8Z	Nuclear Matters-Physical Security	06	4,854	8,307			8,307 U
158	0605170D8Z	Support to Networks and Information Integration	06	11,042	9,441			9,441 U
159	0605200D8Z	General Support to USD (Intelligence)	06	8,139	20,200			20,200 U
164	0605502D8Z	Small Business Innovative Research	06	147,668				U
167	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	2,539	3,568			3,568 U
168	0605797D8Z	Maintaining Technology Advantage	06		20,936			20,936 U
169	0605798D8Z	Defense Technology Analysis	06	27,231	15,875			15,875 U
172	0605804D8Z	Development Test and Evaluation	06	19,417	22,203			22,203 U
175	0606100D8Z	Budget and Program Assessments	06	5,544	8,017			8,017 U
176	0606225D8Z	ODNA Technology and Resource Analysis	06	1,028	3,194			3,194 U
180	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	9,892	8,037			8,037 U
187	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	966	1,014			1,014 U
191	0305245D8Z	Intelligence Capabilities and Innovation Investments	06	188,876	15,871			15,871 U
192	0306310D8Z	CWMD Systems: RDT&E Management Support	06	1,195				U

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
156	0605151D8Z	Studies and Analysis Support - OSD	06	5,777				5,777	U
157	0605161D8Z	Nuclear Matters-Physical Security	06	16,552				16,552	U
158	0605170D8Z	Support to Networks and Information Integration	06	9,582				9,582	U
159	0605200D8Z	General Support to USD (Intelligence)	06	1,940				1,940	U
164	0605502D8Z	Small Business Innovative Research	06						U
167	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	3,582				3,582	U
168	0605797D8Z	Maintaining Technology Advantage	06	29,566				29,566	U
169	0605798D8Z	Defense Technology Analysis	06	29,059				29,059	U
172	0605804D8Z	Development Test and Evaluation	06	27,198				27,198	U
175	0606100D8Z	Budget and Program Assessments	06	13,173				13,173	U
176	0606225D8Z	ODNA Technology and Resource Analysis	06	3,200				3,200	U
180	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	3,099				3,099	U
187	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	1,036				1,036	U
191	0305245D8Z	Intelligence Capabilities and Innovation Investments	06						U
192	0306310D8Z	CWMD Systems: RDT&E Management Support	06						U

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element 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) c
193	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06		221,235			221,235 U
198	0909999D8Z	Financing for Cancelled Account Adjustments	06	969				U
		Management Support		1,042,254	1,051,810			1,051,810
203	0607210D8Z	Industrial Base Analysis and Sustainment Support	07		104,051			104,051 U
204	0607310D8Z	CWMD Systems: Operational Systems Development	07		12,734			12,734 U
216	0303140D8Z	Information Systems Security Program	07	17,899	67,631			67,631 U
235	0305186D8Z	Policy R&D Programs	07		6,301			6,301 U
236	0305199D8Z	Net Centricity	07	4,071	21,384			21,384 U
245	0305387D8Z	Homeland Defense Technology Transfer Program	07		2,221			2,221 U
		Operational Systems Development		21,970	214,322			214,322
270	0608648D8Z	Acquisition Visibility - Software Pilot Program	08					U
272	0308588D8Z	Algorithmic Warfare Cross Functional Teams - Software Pilot Program	08					U
		Software And Digital Technology Pilot Progr						
Total Research, Development, Test & Eval, DW				5,984,436	5,827,044		25,230	5,852,274

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
193	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06						U
198	0909999D8Z	Financing for Cancelled Account Adjustments	06						U
		Management Support		731,306				731,306	
203	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	9,151				9,151	U
204	0607310D8Z	CWMD Systems: Operational Systems Development	07	19,082				19,082	U
216	0303140D8Z	Information Systems Security Program	07	46,577				46,577	U
235	0305186D8Z	Policy R&D Programs	07	7,144				7,144	U
236	0305199D8Z	Net Centricity	07	21,793				21,793	U
245	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,190				2,190	U
		Operational Systems Development		105,937				105,937	
270	0608648D8Z	Acquisition Visibility - Software Pilot Program	08	16,848				16,848	U
272	0308588D8Z	Algorithmic Warfare Cross Functional Teams - Software Pilot Program	08	250,107				250,107	U
		Software And Digital Technology Pilot Progr		266,955				266,955	
Total	Research, Development, Test & Eval, DW			4,772,874		19,288	19,288	4,792,162	

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program 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) c
3	0601110D8Z	Basic Research Initiatives	01	55,195	70,874			70,874 U
5	0601120D8Z	National Defense Education Program	01	132,743	144,074			144,074 U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	38,568	52,708			52,708 U
	Basic Research			226,506	267,656			267,656
8	0602000D8Z	Joint Munitions Technology	02	19,067	19,306			19,306 U
11	0602230D8Z	Defense Technology Innovation	02					U
12	0602234D8Z	Lincoln Laboratory Research Program	02	49,647	52,317			52,317 U
13	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	59,567	60,400			60,400 U
17	0602668D8Z	Cyber Security Research	02	14,594	25,118			25,118 U
22	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	8,942	9,580			9,580 U
	Applied Research			151,817	166,721			166,721
24	0603000D8Z	Joint Munitions Advanced Technology	03	25,462	25,779			25,779 U
25	0603121D8Z	SO/LIC Advanced Development	03		5,000			5,000 U
26	0603122D8Z	Combating Terrorism Technology Support	03	168,012	91,517		25,230	116,747 U
27	0603133D8Z	Foreign Comparative Testing	03	23,867	24,970			24,970 U
33	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	17,941	18,773			18,773 U
36	0603288D8Z	Analytic Assessments	03	17,768	18,429			18,429 U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-10

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
3	0601110D8Z	Basic Research Initiatives	01	35,565				35,565	U
5	0601120D8Z	National Defense Education Program	01	100,241				100,241	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	30,975				30,975	U
	Basic Research			166,781				166,781	
8	0602000D8Z	Joint Munitions Technology	02	19,409				19,409	U
11	0602230D8Z	Defense Technology Innovation	02	35,000				35,000	U
12	0602234D8Z	Lincoln Laboratory Research Program	02	41,080				41,080	U
13	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	60,722				60,722	U
17	0602668D8Z	Cyber Security Research	02	15,255				15,255	U
22	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	9,573				9,573	U
	Applied Research			181,039				181,039	
24	0603000D8Z	Joint Munitions Advanced Technology	03	22,920				22,920	U
25	0603121D8Z	SO/LIC Advanced Development	03	4,914				4,914	U
26	0603122D8Z	Combating Terrorism Technology Support	03	51,089		19,288	19,288	70,377	U
27	0603133D8Z	Foreign Comparative Testing	03	25,183				25,183	U
33	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	18,873				18,873	U
36	0603288D8Z	Analytic Assessments	03	23,775				23,775	U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-10A

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element 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) c
37	0603289D8Z	Advanced Innovative Analysis and Concepts	03	36,344	37,645			37,645 U
38	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	13,286	14,668			14,668 U
40	0603338D8Z	Defense Modernization and Prototyping	03					U
42	0603342D8Z	Defense Innovation Unit (DIU)	03		29,398			29,398 U
43	0603375D8Z	Technology Innovation	03	25,856	30,000			30,000 U
45	0603527D8Z	RETRACT LARCH	03	161,453	159,688			159,688 U
46	0603618D8Z	Joint Electronic Advanced Technology	03	12,680	12,063			12,063 U
47	0603648D8Z	Joint Capability Technology Demonstrations	03	102,494	89,859			89,859 U
48	0603662D8Z	Networked Communications Capabilities	03	12,291	2,858			2,858 U
49	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	171,749	197,397			197,397 U
51	0603699D8Z	Emerging Capabilities Technology Development	03	59,350	109,411			109,411 U
53	0603716D8Z	Strategic Environmental Research Program	03	75,485	66,157			66,157 U
55	0603727D8Z	Joint Warfighting Program	03	5,161	4,846			4,846 U
60	0603769D8Z	Distributed Learning Advanced Technology Development	03	13,414	22,446			22,446 U
61	0603781D8Z	Software Engineering Institute	03	15,016	15,111			15,111 U

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
37	0603289D8Z	Advanced Innovative Analysis and Concepts	03	36,524				36,524	U
38	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,703				14,703	U
40	0603338D8Z	Defense Modernization and Prototyping	03	133,375				133,375	U
42	0603342D8Z	Defense Innovation Unit (DIU)	03	26,141				26,141	U
43	0603375D8Z	Technology Innovation	03	27,709				27,709	U
45	0603527D8Z	RETRACT LARCH	03	130,283				130,283	U
46	0603618D8Z	Joint Electronic Advanced Technology	03	15,164				15,164	U
47	0603648D8Z	Joint Capability Technology Demonstrations	03	85,452				85,452	U
48	0603662D8Z	Networked Communications Capabilities	03	5,882				5,882	U
49	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	93,817				93,817	U
51	0603699D8Z	Emerging Capabilities Technology Development	03						U
53	0603716D8Z	Strategic Environmental Research Program	03	53,862				53,862	U
55	0603727D8Z	Joint Warfighting Program	03	3,871				3,871	U
60	0603769D8Z	Distributed Learning Advanced Technology Development	03	6,765				6,765	U
61	0603781D8Z	Software Engineering Institute	03	12,598				12,598	U

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program 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) c
62	0603826D8Z	Quick Reaction Special Projects	03	57,004	35,647			35,647 U
63	0603833D8Z	Engineering Science & Technology	03	18,895	19,376			19,376 U
64	0603924D8Z	High Energy Laser Advanced Technology Program	03	71,819	80,723			80,723 U
65	0603941D8Z	Test & Evaluation Science & Technology	03	114,559	191,574			191,574 U
66	0603950D8Z	National Security Innovation Network	03		40,000			40,000 U
67	0604055D8Z	Operational Energy Capability Improvement	03	44,362	64,900			64,900 U
68	0303310D8Z	CWMD Systems	03	25,619	28,907			28,907 U
69	0303367D8Z	Spectrum Access Research and Development	03	27,002				U
	Advanced Technology Development			1,316,889	1,437,142		25,230	1,462,372
72	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	27,123	42,695			42,695 U
73	0603600D8Z	WALKOFF	04	89,376	92,791			92,791 U
74	0603821D8Z	Acquisition Enterprise Data & Information Services	04	2,500	5,659			5,659 U
75	0603851D8Z	Environmental Security Technical Certification Program	04	41,058	68,572			68,572 U
91	0603920D8Z	Humanitarian Demining	04	10,952	14,700			14,700 U
92	0603923D8Z	Coalition Warfare	04	8,379	11,316			11,316 U
93	0604011D8Z	Next Generation Information Communications Technology (5G)	04	52,000	200,000			200,000 U

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
62	0603826D8Z	Quick Reaction Special Projects	03						U
63	0603833D8Z	Engineering Science & Technology	03						U
64	0603924D8Z	High Energy Laser Advanced Technology Program	03	105,410				105,410	U
65	0603941D8Z	Test & Evaluation Science & Technology	03	187,065				187,065	U
66	0603950D8Z	National Security Innovation Network	03						U
67	0604055D8Z	Operational Energy Capability Improvement	03						U
68	0303310D8Z	CWMD Systems	03						U
69	0303367D8Z	Spectrum Access Research and Development	03						U
	Advanced Technology Development			1,085,375		19,288	19,288	1,104,663	
72	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	32,636				32,636	U
73	0603600D8Z	WALKOFF	04	106,529				106,529	U
74	0603821D8Z	Acquisition Enterprise Data & Information Services	04						U
75	0603851D8Z	Environmental Security Technical Certification Program	04	61,345				61,345	U
91	0603920D8Z	Humanitarian Demining	04						U
92	0603923D8Z	Coalition Warfare	04	10,129				10,129	U
93	0604011D8Z	Next Generation Information Communications Technology (5G)	04	449,000				449,000	U

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element 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) c
94	0604016D8Z	Department of Defense Corrosion Program	04	9,281	13,165			13,165 U
96	0604132D8Z	Missile Defeat Project	04	41,961	14,816			14,816 U
99	0604250D8Z	Advanced Innovative Technologies	04	1,347,956	1,133,365			1,133,365 U
100	0604294D8Z	Trusted & Assured Microelectronics	04	517,356	547,421			547,421 U
101	0604331D8Z	Rapid Prototyping Program	04	96,196	72,351			72,351 U
102	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04		17,000			17,000 U
103	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	7,625	7,021			7,021 U
104	0604532D8Z	Joint Artificial Intelligence	04	12,968				U
107	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,621	3,751			3,751 U
108	0604775D8Z	Defense Rapid Innovation Program	04	241,194				U
119	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	3,096	3,191			3,191 U
		Advanced Component Development & Prototypes		2,512,642	2,247,814			2,247,814
124	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	8,185	11,276			11,276 U
125	0604165D8Z	Prompt Global Strike Capability Development	05	525,670	151,000			151,000 U
127	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	46,210	54,102			54,102 U
131	0605022D8Z	Defense Exportability Program	05	1,455	12,115			12,115 U

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element Number	Item	Act	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)	Se
94	0604016D8Z	Department of Defense Corrosion Program	04	3,325				3,325	U
96	0604132D8Z	Missile Defeat Project	04						U
99	0604250D8Z	Advanced Innovative Technologies	04	730,508				730,508	U
100	0604294D8Z	Trusted & Assured Microelectronics	04	489,076				489,076	U
101	0604331D8Z	Rapid Prototyping Program	04	102,023				102,023	U
102	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04	13,255				13,255	U
103	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	2,787				2,787	U
104	0604532D8Z	Joint Artificial Intelligence	04						U
107	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,469				3,469	U
108	0604775D8Z	Defense Rapid Innovation Program	04						U
119	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	997				997	U
		Advanced Component Development & Prototypes		2,005,079				2,005,079	
124	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	7,173				7,173	U
125	0604165D8Z	Prompt Global Strike Capability Development	05						U
127	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	54,985				54,985	U
131	0605022D8Z	Defense Exportability Program	05	12,928				12,928	U

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element 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) c
132	0605027D8Z	OUSD(C) IT Development Initiatives	05	9,219	9,590			9,590 U
134	0605075D8Z	CMO Policy and Integration	05	2,100	1,618			1,618 U
138	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	6,126	9,619			9,619 U
139	0605294D8Z	Trusted & Assured Microelectronics	05	94,617	175,032			175,032 U
140	0605772D8Z	Nuclear Command, Control, & Communications	05					U
143	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	2,391	4,373			4,373 U
144	0305310D8Z	CWMD Systems: System Development and Demonstration	05	16,385	12,854			12,854 U
		System Development & Demonstration		712,358	441,579			441,579
146	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	6,606	9,724			9,724 U
147	0604875D8Z	Joint Systems Architecture Development	06	3,929	9,593			9,593 U
148	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	295,067	390,692			390,692 U
149	0604942D8Z	Assessments and Evaluations	06	30,138	30,834			30,834 U
151	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	88,004	89,091			89,091 U
152	0605104D8Z	Technical Studies, Support and Analysis	06	21,281	18,079			18,079 U
154	0605128D8Z	Classified Program USD(P)	06	127,000	104,000			104,000 U
155	0605142D8Z	Systems Engineering	06	37,446	37,140			37,140 U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-14

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
132	0605027D8Z	OUSD(C) IT Development Initiatives	05	10,259				10,259	U
134	0605075D8Z	CMO Policy and Integration	05	1,648				1,648	U
138	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	8,279				8,279	U
139	0605294D8Z	Trusted & Assured Microelectronics	05	107,585				107,585	U
140	0605772D8Z	Nuclear Command, Control, & Communications	05	3,685				3,685	U
143	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	3,275				3,275	U
144	0305310D8Z	CWMD Systems: System Development and Demonstration	05	20,585				20,585	U
	System Development & Demonstration			230,402				230,402	
146	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	9,793				9,793	U
147	0604875D8Z	Joint Systems Architecture Development	06	8,497				8,497	U
148	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	422,451				422,451	U
149	0604942D8Z	Assessments and Evaluations	06	18,379				18,379	U
151	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	79,046				79,046	U
152	0605104D8Z	Technical Studies, Support and Analysis	06						U
154	0605128D8Z	Classified Program USD(P)	06						U
155	0605142D8Z	Systems Engineering	06	49,376				49,376	U

R-121PB: FY 2021 President's Budget (Published Version), as of February 3, 2020 at 09:13:36

Page D-14A

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element 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) c
156	0605151D8Z	Studies and Analysis Support - OSD	06	3,423	4,759			4,759 U
157	0605161D8Z	Nuclear Matters-Physical Security	06	4,854	8,307			8,307 U
158	0605170D8Z	Support to Networks and Information Integration	06	11,042	9,441			9,441 U
159	0605200D8Z	General Support to USD (Intelligence)	06	8,139	20,200			20,200 U
164	0605502D8Z	Small Business Innovative Research	06	147,668				U
167	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	2,539	3,568			3,568 U
168	0605797D8Z	Maintaining Technology Advantage	06		20,936			20,936 U
169	0605798D8Z	Defense Technology Analysis	06	27,231	15,875			15,875 U
172	0605804D8Z	Development Test and Evaluation	06	19,417	22,203			22,203 U
175	0606100D8Z	Budget and Program Assessments	06	5,544	8,017			8,017 U
176	0606225D8Z	ODNA Technology and Resource Analysis	06	1,028	3,194			3,194 U
180	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	9,892	8,037			8,037 U
187	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	966	1,014			1,014 U
191	0305245D8Z	Intelligence Capabilities and Innovation Investments	06	188,876	15,871			15,871 U
192	0306310D8Z	CWMD Systems: RDT&E Management Support	06	1,195				U

UNCLASSIFIED

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program Element No Number	Item	Act	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)	S e c
156	0605151D8Z	Studies and Analysis Support - OSD	06	5,777				5,777	U
157	0605161D8Z	Nuclear Matters-Physical Security	06	16,552				16,552	U
158	0605170D8Z	Support to Networks and Information Integration	06	9,582				9,582	U
159	0605200D8Z	General Support to USD (Intelligence)	06	1,940				1,940	U
164	0605502D8Z	Small Business Innovative Research	06						U
167	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	3,582				3,582	U
168	0605797D8Z	Maintaining Technology Advantage	06	29,566				29,566	U
169	0605798D8Z	Defense Technology Analysis	06	29,059				29,059	U
172	0605804D8Z	Development Test and Evaluation	06	27,198				27,198	U
175	0606100D8Z	Budget and Program Assessments	06	13,173				13,173	U
176	0606225D8Z	ODNA Technology and Resource Analysis	06	3,200				3,200	U
180	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	3,099				3,099	U
187	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	1,036				1,036	U
191	0305245D8Z	Intelligence Capabilities and Innovation Investments	06						U
192	0306310D8Z	CWMD Systems: RDT&E Management Support	06						U

UNCLASSIFIED

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

03 Feb 2020

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

Line	Program 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) c
193	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06		221,235			221,235 U
198	0909999D8Z	Financing for Cancelled Account Adjustments	06	969				U
	Management Support			1,042,254	1,051,810			1,051,810
203	0607210D8Z	Industrial Base Analysis and Sustainment Support	07		104,051			104,051 U
204	0607310D8Z	CWMD Systems: Operational Systems Development	07		12,734			12,734 U
216	0303140D8Z	Information Systems Security Program	07	17,899	67,631			67,631 U
235	0305186D8Z	Policy R&D Programs	07		6,301			6,301 U
236	0305199D8Z	Net Centricity	07	4,071	21,384			21,384 U
245	0305387D8Z	Homeland Defense Technology Transfer Program	07		2,221			2,221 U
	Operational Systems Development			21,970	214,322			214,322
270	0608648D8Z	Acquisition Visibility - Software Pilot Program	08					U
272	0308588D8Z	Algorithmic Warfare Cross Functional Teams - Software Pilot Program	08					U
	Software And Digital Technology Pilot Programs							
Total Office of Secretary of Defense				5,984,436	5,827,044		25,230	5,852,274

UNCLASSIFIED

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

03 Feb 2020

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

Line No	Program Element Number	Item	Act	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)	Se c
193	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06						U
198	0909999D8Z	Financing for Cancelled Account Adjustments	06						U
		Management Support		731,306				731,306	
203	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	9,151				9,151	U
204	0607310D8Z	CWMD Systems: Operational Systems Development	07	19,082				19,082	U
216	0303140D8Z	Information Systems Security Program	07	46,577				46,577	U
235	0305186D8Z	Policy R&D Programs	07	7,144				7,144	U
236	0305199D8Z	Net Centricity	07	21,793				21,793	U
245	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,190				2,190	U
		Operational Systems Development		105,937				105,937	
270	0608648D8Z	Acquisition Visibility - Software Pilot Program	08	16,848				16,848	U
272	0308588D8Z	Algorithmic Warfare Cross Functional Teams - Software Pilot Program	08	250,107				250,107	U
		Software And Digital Technology Pilot Programs		266,955				266,955	
Total Office of Secretary of Defense				4,772,874		19,288	19,288	4,792,162	