

## UNCLASSIFIED

Department of Defense  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

Appropriation	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
Research, Development, Test & Eval, DW	5,364,060	5,829,463		5,829,463
Total Research, Development, Test & Evaluation	5,364,060	5,829,463		5,829,463

## UNCLASSIFIED

Department of Defense  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

Appropriation	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
Research, Development, Test & Eval, DW	5,264,901		25,230	25,230	5,290,131
Total Research, Development, Test & Evaluation	5,264,901		25,230	25,230	5,290,131

## UNCLASSIFIED

Department of Defense  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

Summary Recap of Budget Activities	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
-----				
Basic Research	178,907	232,503		232,503
Applied Research	137,537	155,369		155,369
Advanced Technology Development	1,331,773	1,322,894		1,322,894
Advanced Component Development And Prototypes	2,215,242	2,522,867		2,522,867
System Development And Demonstration	506,829	643,501		643,501
Management Support	911,883	848,805		848,805
Operational System Development	81,889	103,524		103,524
Total Research, Development, Test & Evaluation	5,364,060	5,829,463		5,829,463
 Summary Recap of FYDP Programs				
-----				
General Purpose Forces	5,479	9,985		9,985
Intelligence and Communications	209,666	289,748		289,748
Research and Development	5,148,915	5,529,730		5,529,730
Total Research, Development, Test & Evaluation	5,364,060	5,829,463		5,829,463

## UNCLASSIFIED

Department of Defense  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

Summary Recap of Budget Activities	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
-----					
Basic Research	171,656				171,656
Applied Research	158,521				158,521
Advanced Technology Development	1,317,055		25,230	25,230	1,342,285
Advanced Component Development And Prototypes	2,309,110				2,309,110
System Development And Demonstration	395,142				395,142
Management Support	793,095				793,095
Operational System Development	120,322				120,322
Total Research, Development, Test & Evaluation	5,264,901		25,230	25,230	5,290,131
Summary Recap of FYDP Programs					
-----					
General Purpose Forces	3,037				3,037
Intelligence and Communications	390,192				390,192
Research and Development	4,871,672		25,230	25,230	4,896,902
Total Research, Development, Test & Evaluation	5,264,901		25,230	25,230	5,290,131

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

Summary Recap of Budget Activities	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
Basic Research	178,907	232,503		232,503
Applied Research	137,537	155,369		155,369
Advanced Technology Development	1,331,773	1,322,894		1,322,894
Advanced Component Development And Prototypes	2,215,242	2,522,867		2,522,867
System Development And Demonstration	506,829	643,501		643,501
Management Support	911,883	848,805		848,805
Operational System Development	81,889	103,524		103,524
Total Research, Development, Test & Evaluation	5,364,060	5,829,463		5,829,463
Summary Recap of FYDP Programs				
General Purpose Forces	5,479	9,985		9,985
Intelligence and Communications	209,666	289,748		289,748
Research and Development	5,148,915	5,529,730		5,529,730
Total Research, Development, Test & Evaluation	5,364,060	5,829,463		5,829,463

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

Summary Recap of Budget Activities	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
Basic Research	171,656				171,656
Applied Research	158,521				158,521
Advanced Technology Development	1,317,055		25,230	25,230	1,342,285
Advanced Component Development And Prototypes	2,309,110				2,309,110
System Development And Demonstration	395,142				395,142
Management Support	793,095				793,095
Operational System Development	120,322				120,322
Total Research, Development, Test & Evaluation	5,264,901		25,230	25,230	5,290,131
Summary Recap of FYDP Programs					
General Purpose Forces	3,037				3,037
Intelligence and Communications	390,192				390,192
Research and Development	4,871,672		25,230	25,230	4,896,902
Total Research, Development, Test & Evaluation	5,264,901		25,230	25,230	5,290,131

UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

Appropriation	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted
Office of Secretary of Defense	5,364,060	5,829,463		5,829,463
Total Research, Development, Test & Evaluation	5,364,060	5,829,463		5,829,463

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

Appropriation	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)
Office of Secretary of Defense	5,264,901		25,230	25,230	5,290,131
Total Research, Development, Test & Evaluation	5,264,901		25,230	25,230	5,290,131



## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Se c
3	0601110D8Z	Basic Research Initiatives	01	39,051	56,573		56,573	U
5	0601120D8Z	National Defense Education Program	01	100,850	135,610		135,610	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	39,006	40,320		40,320	U
		Basic Research		178,907	232,503		232,503	
8	0602000D8Z	Joint Munitions Technology	02	19,053	19,126		19,126	U
11	0602234D8Z	Lincoln Laboratory Research Program	02	47,891	51,479		51,479	U
12	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	47,550	60,550		60,550	U
16	0602668D8Z	Cyber Security Research	02	14,429	14,935		14,935	U
21	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	8,614	9,279		9,279	U
		Applied Research		137,537	155,369		155,369	
23	0603000D8Z	Joint Munitions Advanced Technology	03	25,550	25,540		25,540	U
24	0603121D8Z	SO/LIC Advanced Development	03					U
25	0603122D8Z	Combating Terrorism Technology Support	03	149,541	171,321		171,321	U
26	0603133D8Z	Foreign Comparative Testing	03	21,715	24,277		24,277	U
32	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	17,959	18,602		18,602	U
35	0603288D8Z	Analytic Assessments	03	12,658	18,430		18,430	U
36	0603289D8Z	Advanced Innovative Analysis and Concepts	03	36,763	37,178		37,178	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se
3	0601110D8Z	Basic Research Initiatives	01	48,874				48,874	U
5	0601120D8Z	National Defense Education Program	01	92,074				92,074	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	30,708				30,708	U
		Basic Research		171,656				171,656	
8	0602000D8Z	Joint Munitions Technology	02	19,306				19,306	U
11	0602234D8Z	Lincoln Laboratory Research Program	02	52,317				52,317	U
12	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	62,200				62,200	U
16	0602668D8Z	Cyber Security Research	02	15,118				15,118	U
21	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	9,580				9,580	U
		Applied Research		158,521				158,521	
23	0603000D8Z	Joint Munitions Advanced Technology	03	25,779				25,779	U
24	0603121D8Z	SO/LIC Advanced Development	03	5,000				5,000	U
25	0603122D8Z	Combating Terrorism Technology Support	03	70,517		25,230	25,230	95,747	U
26	0603133D8Z	Foreign Comparative Testing	03	24,970				24,970	U
32	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	18,773				18,773	U
35	0603288D8Z	Analytic Assessments	03	19,429				19,429	U
36	0603289D8Z	Advanced Innovative Analysis and Concepts	03	37,645				37,645	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
37	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,971	13,590		13,590	U
40	0603342D8Z	Defense Innovation Unit (DIU)	03					U
41	0603375D8Z	Technology Innovation	03	24,825	33,068		33,068	U
43	0603527D8Z	RETRACT LARCH	03	164,544	160,762		160,762	U
44	0603618D8Z	Joint Electronic Advanced Technology	03	14,020	12,889		12,889	U
45	0603648D8Z	Joint Capability Technology Demonstrations	03	102,769	105,808		105,808	U
46	0603662D8Z	Networked Communications Capabilities	03	12,369	12,667		12,667	U
47	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	206,257	174,489		174,489	U
49	0603699D8Z	Emerging Capabilities Technology Development	03	79,469	60,700		60,700	U
51	0603716D8Z	Strategic Environmental Research Program	03	63,055	76,340		76,340	U
53	0603727D8Z	Joint Warfighting Program	03	3,236	5,978		5,978	U
58	0603769D8Z	Distributed Learning Advanced Technology Development	03	11,053	13,564		13,564	U
59	0603781D8Z	Software Engineering Institute	03	14,468	15,016		15,016	U
60	0603826D8Z	Quick Reaction Special Projects	03	64,775	59,490		59,490	U
61	0603833D8Z	Engineering Science & Technology	03	24,447	19,371		19,371	U
62	0603924D8Z	High Energy Laser Advanced Technology Program	03		74,364		74,364	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se
37	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,668				14,668	U
40	0603342D8Z	Defense Innovation Unit (DIU)	03	29,398				29,398	U
41	0603375D8Z	Technology Innovation	03	60,000				60,000	U
43	0603527D8Z	RETRACT LARCH	03	159,688				159,688	U
44	0603618D8Z	Joint Electronic Advanced Technology	03	12,063				12,063	U
45	0603648D8Z	Joint Capability Technology Demonstrations	03	107,359				107,359	U
46	0603662D8Z	Networked Communications Capabilities	03	2,858				2,858	U
47	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	96,397				96,397	U
49	0603699D8Z	Emerging Capabilities Technology Development	03	80,911				80,911	U
51	0603716D8Z	Strategic Environmental Research Program	03	66,157				66,157	U
53	0603727D8Z	Joint Warfighting Program	03	4,846				4,846	U
58	0603769D8Z	Distributed Learning Advanced Technology Development	03	13,723				13,723	U
59	0603781D8Z	Software Engineering Institute	03	15,111				15,111	U
60	0603826D8Z	Quick Reaction Special Projects	03	47,147				47,147	U
61	0603833D8Z	Engineering Science & Technology	03	19,376				19,376	U
62	0603924D8Z	High Energy Laser Advanced Technology Program	03	85,223				85,223	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Se c
63	0603941D8Z	Test & Evaluation Science & Technology	03	108,958	117,389		117,389	U
64	0603950D8Z	National Security Innovation Network	03					U
65	0604055D8Z	Operational Energy Capability Improvement	03	39,788	45,478		45,478	U
66	0303310D8Z	CWMD Systems	03	32,111	26,583		26,583	U
67	0303367D8Z	Spectrum Access Research and Development	03	86,472				U
		Advanced Technology Development		1,331,773	1,322,894		1,322,894	
70	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	32,165	28,076		28,076	U
71	0603600D8Z	WALKOFF	04	98,920	92,012		92,012	U
72	0603821D8Z	Acquisition Enterprise Data & Information Services	04	2,194	2,500		2,500	U
73	0603851D8Z	Environmental Security Technical Certification Program	04	53,342	41,925		41,925	U
89	0603920D8Z	Humanitarian Demining	04	10,519	11,262		11,262	U
90	0603923D8Z	Coalition Warfare	04	10,515	8,509		8,509	U
91	0604016D8Z	Department of Defense Corrosion Program	04	4,503	8,458		8,458	U
93	0604132D8Z	Missile Defeat Project	04	121,025	43,508		43,508	U
96	0604250D8Z	Advanced Innovative Technologies	04	1,423,173	1,387,539		1,387,539	U
97	0604294D8Z	Trusted & Assured Microelectronics	04	147,481	522,950		522,950	U
98	0604331D8Z	Rapid Prototyping Program	04	46,984	99,107		99,107	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se
63	0603941D8Z	Test & Evaluation Science & Technology	03	175,574				175,574	U
64	0603950D8Z	National Security Innovation Network	03	25,000				25,000	U
65	0604055D8Z	Operational Energy Capability Improvement	03	70,536				70,536	U
66	0303310D8Z	CWMD Systems	03	28,907				28,907	U
67	0303367D8Z	Spectrum Access Research and Development	03						U
		Advanced Technology Development		1,317,055		25,230	25,230	1,342,285	
70	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	42,695				42,695	U
71	0603600D8Z	WALKOFF	04	92,791				92,791	U
72	0603821D8Z	Acquisition Enterprise Data & Information Services	04	5,659				5,659	U
73	0603851D8Z	Environmental Security Technical Certification Program	04	66,572				66,572	U
89	0603920D8Z	Humanitarian Demining	04	10,820				10,820	U
90	0603923D8Z	Coalition Warfare	04	11,316				11,316	U
91	0604016D8Z	Department of Defense Corrosion Program	04	3,365				3,365	U
93	0604132D8Z	Missile Defeat Project	04	17,816				17,816	U
96	0604250D8Z	Advanced Innovative Technologies	04	1,312,735				1,312,735	U
97	0604294D8Z	Trusted & Assured Microelectronics	04	542,421				542,421	U
98	0604331D8Z	Rapid Prototyping Program	04	100,957				100,957	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	Se c
99	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04					U
100	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	7,839	7,763		7,763	U
101	0604532D8Z	Joint Artificial Intelligence	04		12,970		12,970	U
104	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,686	3,759		3,759	U
106	0604775D8Z	Defense Rapid Innovation Program	04	250,000	249,432		249,432	U
118	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	2,896	3,097		3,097	U
		Advanced Component Development And Prototypes		2,215,242	2,522,867		2,522,867	
123	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	12,320	8,314		8,314	U
124	0604165D8Z	Prompt Global Strike Capability Development	05	360,860	465,852		465,852	U
126	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	24,268	34,425		34,425	U
130	0605022D8Z	Defense Exportability Program	05	2,088	1,486		1,486	U
131	0605027D8Z	OUSD(C) IT Development Initiatives	05	21,312	9,568		9,568	U
133	0605075D8Z	CMO Policy and Integration	05	2,805	2,100		2,100	U
136	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	11,414	6,359		6,359	U
137	0605294D8Z	Trusted & Assured Microelectronics	05	59,516	95,959		95,959	U
140	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	4,032	2,429		2,429	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
99	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04	92,000				92,000	U
100	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	3,021				3,021	U
101	0604532D8Z	Joint Artificial Intelligence	04						U
104	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,751				3,751	U
106	0604775D8Z	Defense Rapid Innovation Program	04						U
118	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	3,191				3,191	U
		Advanced Component Development And Prototypes		2,309,110				2,309,110	
123	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	11,276				11,276	U
124	0604165D8Z	Prompt Global Strike Capability Development	05	107,000				107,000	U
126	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	40,102				40,102	U
130	0605022D8Z	Defense Exportability Program	05	17,615				17,615	U
131	0605027D8Z	OUSD(C) IT Development Initiatives	05	15,653				15,653	U
133	0605075D8Z	CMO Policy and Integration	05	1,618				1,618	U
136	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	9,619				9,619	U
137	0605294D8Z	Trusted & Assured Microelectronics	05	175,032				175,032	U
140	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	4,373				4,373	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43



## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
141	0305310D8Z	CWMD Systems: System Development and Demonstration	05	8,214	17,009		17,009	U
		System Development And Demonstration		506,829	643,501		643,501	
143	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	6,941	6,607		6,607	U
144	0604875D8Z	Joint Systems Architecture Development	06	4,695	4,079		4,079	U
145	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	204,268	270,013		270,013	U
146	0604942D8Z	Assessments and Evaluations	06	48,985	31,285		31,285	U
148	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	90,326	88,184		88,184	U
149	0605104D8Z	Technical Studies, Support and Analysis	06	21,575	22,525		22,525	U
151	0605128D8Z	Classified Program USD(P)	06	138,494	103,000		103,000	U
152	0605142D8Z	Systems Engineering	06	36,313	38,784		38,784	U
153	0605151D8Z	Studies and Analysis Support - OSD	06	5,029	3,534		3,534	U
154	0605161D8Z	Nuclear Matters-Physical Security	06	5,031	5,039		5,039	U
155	0605170D8Z	Support to Networks and Information Integration	06	12,141	11,424		11,424	U
156	0605200D8Z	General Support to USD (Intelligence)	06	165,090	5,693		5,693	U
161	0605502D8Z	Small Business Innovative Research	06	97,227				U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
141	0305310D8Z	CWMD Systems: System Development and Demonstration	05	12,854				12,854	U
		System Development And Demonstration		395,142				395,142	
143	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	9,724				9,724	U
144	0604875D8Z	Joint Systems Architecture Development	06	9,593				9,593	U
145	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	260,267				260,267	U
146	0604942D8Z	Assessments and Evaluations	06	30,834				30,834	U
148	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	83,091				83,091	U
149	0605104D8Z	Technical Studies, Support and Analysis	06	18,079				18,079	U
151	0605128D8Z	Classified Program USD(P)	06						U
152	0605142D8Z	Systems Engineering	06	37,140				37,140	U
153	0605151D8Z	Studies and Analysis Support - OSD	06	4,759				4,759	U
154	0605161D8Z	Nuclear Matters-Physical Security	06	8,307				8,307	U
155	0605170D8Z	Support to Networks and Information Integration	06	9,441				9,441	U
156	0605200D8Z	General Support to USD (Intelligence)	06	1,700				1,700	U
161	0605502D8Z	Small Business Innovative Research	06						U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Defense-Wide  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
---	-----	----	---	-----	-----	-----	-----	-
166	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	2,367	2,539		2,539	U
167	0605797D8Z	Maintaining Technology Advantage	06					U
168	0605798D8Z	Defense Technology Analysis	06	25,815	27,425		27,425	U
171	0605804D8Z	Development Test and Evaluation	06	19,810	20,133		20,133	U
174	0606100D8Z	Budget and Program Assessments	06	3,838	5,755		5,755	U
175	0606225D8Z	ODNA Technology and Resource Analysis	06	998	1,028		1,028	U
179	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	5,479	9,985		9,985	U
184	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	977	1,003		1,003	U
187	0305245D8Z	Intelligence Capabilities and Innovation Investments	06	15,255	189,529		189,529	U
188	0306310D8Z	CWMD Systems: RDT&E Management Support	06	1,229	1,241		1,241	U
189	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06					U
		Management Support		911,883	848,805		848,805	
199	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	16,464	48,765		48,765	U
200	0607310D8Z	CWMD Systems: Operational Systems Development	07	6,945	5,902		5,902	U
215	0303140D8Z	Information Systems Security Program	07	19,074	17,899		17,899	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se
166	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	3,568				3,568	U
167	0605797D8Z	Maintaining Technology Advantage	06	19,936				19,936	U
168	0605798D8Z	Defense Technology Analysis	06	16,875				16,875	U
171	0605804D8Z	Development Test and Evaluation	06	22,203				22,203	U
174	0606100D8Z	Budget and Program Assessments	06	8,017				8,017	U
175	0606225D8Z	ODNA Technology and Resource Analysis	06	3,194				3,194	U
179	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	3,037				3,037	U
184	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	1,014				1,014	U
187	0305245D8Z	Intelligence Capabilities and Innovation Investments	06	21,081				21,081	U
188	0306310D8Z	CWMD Systems: RDT&E Management Support	06						U
189	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06	221,235				221,235	U
		Management Support		793,095				793,095	
199	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	10,051				10,051	U
200	0607310D8Z	CWMD Systems: Operational Systems Development	07	12,734				12,734	U
215	0303140D8Z	Information Systems Security Program	07	67,631				67,631	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
--	-----	----	---	-----	-----	-----	-----	-
232	0305186D8Z	Policy R&D Programs	07	6,441	6,190		6,190	U
233	0305199D8Z	Net Centricity	07	17,812	16,742		16,742	U
242	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,067	1,137		1,137	U
249	0307577D8Z	Intelligence Mission Data (IMD)	07	13,086	6,889		6,889	U
		Operational System Development		81,889	103,524		103,524	
				-----	-----	-----	-----	
		Total Research, Development, Test & Eval, DW		5,364,060	5,829,463		5,829,463	

## UNCLASSIFIED

Defense-Wide  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se
232	0305186D8Z	Policy R&D Programs	07	6,301				6,301	U
233	0305199D8Z	Net Centricity	07	21,384				21,384	U
242	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,221				2,221	U
249	0307577D8Z	Intelligence Mission Data (IMD)	07						U
		Operational System Development		120,322				120,322	
Total Research, Development, Test & Eval, DW				5,264,901		25,230	25,230	5,290,131	

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
3	0601110D8Z	Basic Research Initiatives	01	39,051	56,573		56,573	U
5	0601120D8Z	National Defense Education Program	01	100,850	135,610		135,610	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	39,006	40,320		40,320	U
		Basic Research		178,907	232,503		232,503	
8	0602000D8Z	Joint Munitions Technology	02	19,053	19,126		19,126	U
11	0602234D8Z	Lincoln Laboratory Research Program	02	47,891	51,479		51,479	U
12	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	47,550	60,550		60,550	U
16	0602668D8Z	Cyber Security Research	02	14,429	14,935		14,935	U
21	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	8,614	9,279		9,279	U
		Applied Research		137,537	155,369		155,369	
23	0603000D8Z	Joint Munitions Advanced Technology	03	25,550	25,540		25,540	U
24	0603121D8Z	SO/LIC Advanced Development	03					U
25	0603122D8Z	Combating Terrorism Technology Support	03	149,541	171,321		171,321	U
26	0603133D8Z	Foreign Comparative Testing	03	21,715	24,277		24,277	U
32	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	17,959	18,602		18,602	U
35	0603288D8Z	Analytic Assessments	03	12,658	18,430		18,430	U
36	0603289D8Z	Advanced Innovative Analysis and Concepts	03	36,763	37,178		37,178	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
3	0601110D8Z	Basic Research Initiatives	01	48,874				48,874	U
5	0601120D8Z	National Defense Education Program	01	92,074				92,074	U
6	0601228D8Z	Historically Black Colleges and Universities/Minority Institutions	01	30,708				30,708	U
		Basic Research		171,656				171,656	
8	0602000D8Z	Joint Munitions Technology	02	19,306				19,306	U
11	0602234D8Z	Lincoln Laboratory Research Program	02	52,317				52,317	U
12	0602251D8Z	Applied Research for the Advancement of S&T Priorities	02	62,200				62,200	U
16	0602668D8Z	Cyber Security Research	02	15,118				15,118	U
21	0602751D8Z	Software Engineering Institute (SEI) Applied Research	02	9,580				9,580	U
		Applied Research		158,521				158,521	
23	0603000D8Z	Joint Munitions Advanced Technology	03	25,779				25,779	U
24	0603121D8Z	SO/LIC Advanced Development	03	5,000				5,000	U
25	0603122D8Z	Combating Terrorism Technology Support	03	70,517		25,230	25,230	95,747	U
26	0603133D8Z	Foreign Comparative Testing	03	24,970				24,970	U
32	0603225D8Z	Joint DoD-DoE Munitions Technology Development	03	18,773				18,773	U
35	0603288D8Z	Analytic Assessments	03	19,429				19,429	U
36	0603289D8Z	Advanced Innovative Analysis and Concepts	03	37,645				37,645	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

Page D-10A



## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
37	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,971	13,590		13,590	U
40	0603342D8Z	Defense Innovation Unit (DIU)	03					U
41	0603375D8Z	Technology Innovation	03	24,825	33,068		33,068	U
43	0603527D8Z	RETRACT LARCH	03	164,544	160,762		160,762	U
44	0603618D8Z	Joint Electronic Advanced Technology	03	14,020	12,889		12,889	U
45	0603648D8Z	Joint Capability Technology Demonstrations	03	102,769	105,808		105,808	U
46	0603662D8Z	Networked Communications Capabilities	03	12,369	12,667		12,667	U
47	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	206,257	174,489		174,489	U
49	0603699D8Z	Emerging Capabilities Technology Development	03	79,469	60,700		60,700	U
51	0603716D8Z	Strategic Environmental Research Program	03	63,055	76,340		76,340	U
53	0603727D8Z	Joint Warfighting Program	03	3,236	5,978		5,978	U
58	0603769D8Z	Distributed Learning Advanced Technology Development	03	11,053	13,564		13,564	U
59	0603781D8Z	Software Engineering Institute	03	14,468	15,016		15,016	U
60	0603826D8Z	Quick Reaction Special Projects	03	64,775	59,490		59,490	U
61	0603833D8Z	Engineering Science & Technology	03	24,447	19,371		19,371	U
62	0603924D8Z	High Energy Laser Advanced Technology Program	03		74,364		74,364	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se
37	0603291D8Z	Advanced Innovative Analysis and Concepts - MHA	03	14,668				14,668	U
40	0603342D8Z	Defense Innovation Unit (DIU)	03	29,398				29,398	U
41	0603375D8Z	Technology Innovation	03	60,000				60,000	U
43	0603527D8Z	RETRACT LARCH	03	159,688				159,688	U
44	0603618D8Z	Joint Electronic Advanced Technology	03	12,063				12,063	U
45	0603648D8Z	Joint Capability Technology Demonstrations	03	107,359				107,359	U
46	0603662D8Z	Networked Communications Capabilities	03	2,858				2,858	U
47	0603680D8Z	Defense-Wide Manufacturing Science and Technology Program	03	96,397				96,397	U
49	0603699D8Z	Emerging Capabilities Technology Development	03	80,911				80,911	U
51	0603716D8Z	Strategic Environmental Research Program	03	66,157				66,157	U
53	0603727D8Z	Joint Warfighting Program	03	4,846				4,846	U
58	0603769D8Z	Distributed Learning Advanced Technology Development	03	13,723				13,723	U
59	0603781D8Z	Software Engineering Institute	03	15,111				15,111	U
60	0603826D8Z	Quick Reaction Special Projects	03	47,147				47,147	U
61	0603833D8Z	Engineering Science & Technology	03	19,376				19,376	U
62	0603924D8Z	High Energy Laser Advanced Technology Program	03	85,223				85,223	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line	Program Element No Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
63	0603941D8Z	Test & Evaluation Science & Technology	03	108,958	117,389		117,389	U
64	0603950D8Z	National Security Innovation Network	03					U
65	0604055D8Z	Operational Energy Capability Improvement	03	39,788	45,478		45,478	U
66	0303310D8Z	CWMD Systems	03	32,111	26,583		26,583	U
67	0303367D8Z	Spectrum Access Research and Development	03	86,472				U
		Advanced Technology Development		1,331,773	1,322,894		1,322,894	
70	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	32,165	28,076		28,076	U
71	0603600D8Z	WALKOFF	04	98,920	92,012		92,012	U
72	0603821D8Z	Acquisition Enterprise Data & Information Services	04	2,194	2,500		2,500	U
73	0603851D8Z	Environmental Security Technical Certification Program	04	53,342	41,925		41,925	U
89	0603920D8Z	Humanitarian Demining	04	10,519	11,262		11,262	U
90	0603923D8Z	Coalition Warfare	04	10,515	8,509		8,509	U
91	0604016D8Z	Department of Defense Corrosion Program	04	4,503	8,458		8,458	U
93	0604132D8Z	Missile Defeat Project	04	121,025	43,508		43,508	U
96	0604250D8Z	Advanced Innovative Technologies	04	1,423,173	1,387,539		1,387,539	U
97	0604294D8Z	Trusted & Assured Microelectronics	04	147,481	522,950		522,950	U
98	0604331D8Z	Rapid Prototyping Program	04	46,984	99,107		99,107	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
63	0603941D8Z	Test & Evaluation Science & Technology	03	175,574				175,574	U
64	0603950D8Z	National Security Innovation Network	03	25,000				25,000	U
65	0604055D8Z	Operational Energy Capability Improvement	03	70,536				70,536	U
66	0303310D8Z	CWMD Systems	03	28,907				28,907	U
67	0303367D8Z	Spectrum Access Research and Development	03						U
		Advanced Technology Development		1,317,055		25,230	25,230	1,342,285	
70	0603161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E ADC&P	04	42,695				42,695	U
71	0603600D8Z	WALKOFF	04	92,791				92,791	U
72	0603821D8Z	Acquisition Enterprise Data & Information Services	04	5,659				5,659	U
73	0603851D8Z	Environmental Security Technical Certification Program	04	66,572				66,572	U
89	0603920D8Z	Humanitarian Demining	04	10,820				10,820	U
90	0603923D8Z	Coalition Warfare	04	11,316				11,316	U
91	0604016D8Z	Department of Defense Corrosion Program	04	3,365				3,365	U
93	0604132D8Z	Missile Defeat Project	04	17,816				17,816	U
96	0604250D8Z	Advanced Innovative Technologies	04	1,312,735				1,312,735	U
97	0604294D8Z	Trusted & Assured Microelectronics	04	542,421				542,421	U
98	0604331D8Z	Rapid Prototyping Program	04	100,957				100,957	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
99	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04					U
100	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	7,839	7,763		7,763	U
101	0604532D8Z	Joint Artificial Intelligence	04		12,970		12,970	U
104	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,686	3,759		3,759	U
106	0604775D8Z	Defense Rapid Innovation Program	04	250,000	249,432		249,432	U
118	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	2,896	3,097		3,097	U
		Advanced Component Development And Prototypes		2,215,242	2,522,867		2,522,867	
123	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	12,320	8,314		8,314	U
124	0604165D8Z	Prompt Global Strike Capability Development	05	360,860	465,852		465,852	U
126	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	24,268	34,425		34,425	U
130	0605022D8Z	Defense Exportability Program	05	2,088	1,486		1,486	U
131	0605027D8Z	OUSD(C) IT Development Initiatives	05	21,312	9,568		9,568	U
133	0605075D8Z	CMO Policy and Integration	05	2,805	2,100		2,100	U
136	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	11,414	6,359		6,359	U
137	0605294D8Z	Trusted & Assured Microelectronics	05	59,516	95,959		95,959	U
140	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	4,032	2,429		2,429	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
99	0604341D8Z	Defense Innovation Unit (DIU) Prototyping	04	92,000				92,000	U
100	0604400D8Z	Department of Defense (DoD) Unmanned System Common Development	04	3,021				3,021	U
101	0604532D8Z	Joint Artificial Intelligence	04						U
104	0604682D8Z	Wargaming and Support for Strategic Analysis (SSA)	04	3,751				3,751	U
106	0604775D8Z	Defense Rapid Innovation Program	04						U
118	0303191D8Z	Joint Electromagnetic Technology (JET) Program	04	3,191				3,191	U
		Advanced Component Development And Prototypes		2,309,110				2,309,110	
123	0604161D8Z	Nuclear and Conventional Physical Security Equipment RDT&E SDD	05	11,276				11,276	U
124	0604165D8Z	Prompt Global Strike Capability Development	05	107,000				107,000	U
126	0604771D8Z	Joint Tactical Information Distribution System (JTIDS)	05	40,102				40,102	U
130	0605022D8Z	Defense Exportability Program	05	17,615				17,615	U
131	0605027D8Z	OUSDC IT Development Initiatives	05	15,653				15,653	U
133	0605075D8Z	CMO Policy and Integration	05	1,618				1,618	U
136	0605210D8Z	Defense-Wide Electronic Procurement Capabilities	05	9,619				9,619	U
137	0605294D8Z	Trusted & Assured Microelectronics	05	175,032				175,032	U
140	0305304D8Z	DoD Enterprise Energy Information Management (EEIM)	05	4,373				4,373	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
 FY 2020 President's Budget  
 Exhibit R-1 FY 2020 President's Budget  
 Total Obligational Authority  
 (Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
141	0305310D8Z	CWMD Systems: System Development and Demonstration	05	8,214	17,009		17,009	U
		System Development And Demonstration		506,829	643,501		643,501	
143	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	6,941	6,607		6,607	U
144	0604875D8Z	Joint Systems Architecture Development	06	4,695	4,079		4,079	U
145	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	204,268	270,013		270,013	U
146	0604942D8Z	Assessments and Evaluations	06	48,985	31,285		31,285	U
148	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	90,326	88,184		88,184	U
149	0605104D8Z	Technical Studies, Support and Analysis	06	21,575	22,525		22,525	U
151	0605128D8Z	Classified Program USD(P)	06	138,494	103,000		103,000	U
152	0605142D8Z	Systems Engineering	06	36,313	38,784		38,784	U
153	0605151D8Z	Studies and Analysis Support - OSD	06	5,029	3,534		3,534	U
154	0605161D8Z	Nuclear Matters-Physical Security	06	5,031	5,039		5,039	U
155	0605170D8Z	Support to Networks and Information Integration	06	12,141	11,424		11,424	U
156	0605200D8Z	General Support to USD (Intelligence)	06	165,090	5,693		5,693	U
161	0605502D8Z	Small Business Innovative Research	06	97,227				U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
141	0305310D8Z	CWMD Systems: System Development and Demonstration	05	12,854				12,854	U
		System Development And Demonstration		395,142				395,142	
143	0604774D8Z	Defense Readiness Reporting System (DRRS)	06	9,724				9,724	U
144	0604875D8Z	Joint Systems Architecture Development	06	9,593				9,593	U
145	0604940D8Z	Central Test and Evaluation Investment Development (CTEIP)	06	260,267				260,267	U
146	0604942D8Z	Assessments and Evaluations	06	30,834				30,834	U
148	0605100D8Z	Joint Mission Environment Test Capability (JMETC)	06	83,091				83,091	U
149	0605104D8Z	Technical Studies, Support and Analysis	06	18,079				18,079	U
151	0605128D8Z	Classified Program USD(P)	06						U
152	0605142D8Z	Systems Engineering	06	37,140				37,140	U
153	0605151D8Z	Studies and Analysis Support - OSD	06	4,759				4,759	U
154	0605161D8Z	Nuclear Matters-Physical Security	06	8,307				8,307	U
155	0605170D8Z	Support to Networks and Information Integration	06	9,441				9,441	U
156	0605200D8Z	General Support to USD (Intelligence)	06	1,700				1,700	U
161	0605502D8Z	Small Business Innovative Research	06						U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43



## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
166	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	2,367	2,539		2,539	U
167	0605797D8Z	Maintaining Technology Advantage	06					U
168	0605798D8Z	Defense Technology Analysis	06	25,815	27,425		27,425	U
171	0605804D8Z	Development Test and Evaluation	06	19,810	20,133		20,133	U
174	0606100D8Z	Budget and Program Assessments	06	3,838	5,755		5,755	U
175	0606225D8Z	ODNA Technology and Resource Analysis	06	998	1,028		1,028	U
179	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	5,479	9,985		9,985	U
184	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	977	1,003		1,003	U
187	0305245D8Z	Intelligence Capabilities and Innovation Investments	06	15,255	189,529		189,529	U
188	0306310D8Z	CWMD Systems: RDT&E Management Support	06	1,229	1,241		1,241	U
189	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06					U
		Management Support		911,883	848,805		848,805	
199	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	16,464	48,765		48,765	U
200	0607310D8Z	CWMD Systems: Operational Systems Development	07	6,945	5,902		5,902	U
215	0303140D8Z	Information Systems Security Program	07	19,074	17,899		17,899	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

UNCLASSIFIED

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line No	Program Element Number	Item	Act	FY 2020 Base	FY 2020 OCO for Base Requirements	FY 2020 OCO for Direct War and Enduring Costs	FY 2020 Total OCO	FY 2020 Total (Base + OCO)	Se c
166	0605790D8Z	Small Business Innovation Research (SBIR)/ Small Business Technology Transfer	06	3,568				3,568	U
167	0605797D8Z	Maintaining Technology Advantage	06	19,936				19,936	U
168	0605798D8Z	Defense Technology Analysis	06	16,875				16,875	U
171	0605804D8Z	Development Test and Evaluation	06	22,203				22,203	U
174	0606100D8Z	Budget and Program Assessments	06	8,017				8,017	U
175	0606225D8Z	ODNA Technology and Resource Analysis	06	3,194				3,194	U
179	0203345D8Z	Defense Operations Security Initiative (DOSI)	06	3,037				3,037	U
184	0303260D8Z	Defense Military Deception Program Office (DMDPO)	06	1,014				1,014	U
187	0305245D8Z	Intelligence Capabilities and Innovation Investments	06	21,081				21,081	U
188	0306310D8Z	CWMD Systems: RDT&E Management Support	06						U
189	0307588D8Z	Algorithmic Warfare Cross Functional Teams	06	221,235				221,235	U
		Management Support		793,095				793,095	
199	0607210D8Z	Industrial Base Analysis and Sustainment Support	07	10,051				10,051	U
200	0607310D8Z	CWMD Systems: Operational Systems Development	07	12,734				12,734	U
215	0303140D8Z	Information Systems Security Program	07	67,631				67,631	U

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43

## UNCLASSIFIED

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

12 Mar 2019

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

Line	Program Element No Number	Item	Act	FY 2018 (Base + OCO)	FY 2019 Base Enacted	FY 2019 OCO Enacted	FY 2019 Total Enacted	S e c
232	0305186D8Z	Policy R&D Programs	07	6,441	6,190		6,190	U
233	0305199D8Z	Net Centricity	07	17,812	16,742		16,742	U
242	0305387D8Z	Homeland Defense Technology Transfer Program	07	2,067	1,137		1,137	U
249	0307577D8Z	Intelligence Mission Data (IMD)	07	13,086	6,889		6,889	U
	Operational System Development			81,889	103,524		103,524	
Total Office of Secretary of Defense				5,364,060	5,829,463		5,829,463	

Office of Secretary of Defense  
FY 2020 President's Budget  
Exhibit R-1 FY 2020 President's Budget  
Total Obligational Authority  
(Dollars in Thousands)

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

R-120PB: FY 2020 President's Budget (Published Version), as of March 12, 2019 at 12:38:43