

# **RDT&E PROGRAMS (R-1)**

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*Department of Defense Budget  
for Fiscal Year 1999*

*February 1998*

## **Preface**

**The RDT&E Programs (R-1) is derived from and consistent with the Budget Review System database.**

**The R-1 is provided annually to the DoD oversight committees of the Congress coincident with the transmittal of the President's Budget. This document is also provided to OASD (PA) for use by non-DoD activities, and is available to the public on the Internet at <http://www.dtic.mil/comptroller>.**

**Office of the Under Secretary of Defense (Comptroller)**

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Summary

Date: FEB 1998

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 Thousands of Dollars  
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	FY 1997	FY 1998	FY 1999
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Summary By Appropriation			
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Research Development Test & Eval Army	4,915,915	5,025,279	4,780,545
Research Development Test & Eval Navy	7,884,361	7,879,912	8,108,923
Research Development Test & Eval AF	14,089,834	13,982,255	13,598,093
Research Development Test & Eval Defwide	9,312,589	9,496,233	9,314,665
Developmental Test & Eval, Defense	275,792	245,725	251,106
Operational Test & Evaluation, Defense	24,219	29,794	25,245
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Total Research, Development, Test & Evaluation	36,502,710	36,659,198	36,078,577

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Summary

Date: FEB 1998

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Thousands of Dollars  
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	FY 1997	FY 1998	FY 1999
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Summary Recap of Budget Activities			
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Basic Research	1,031,920	1,041,839	1,111,227
Applied Research	2,821,792	2,996,042	3,019,851
Advanced Technology Development	3,639,059	3,762,352	3,050,193
Demonstration and Validation	5,864,080	6,396,570	6,516,243
Engineering and Manufacturing Development	8,536,124	8,199,157	7,986,551
RDT&E Management Support	3,464,876	3,198,994	2,770,676
Operational Systems Development	11,144,859	11,064,244	11,623,836
	-----	-----	-----
Total Research, Development, Test & Evaluation	36,502,710	36,659,198	36,078,577
Summary Recap of FYDP Programs			
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Strategic Forces	114,878	129,638	225,275
General Purpose Forces	2,899,197	2,817,559	2,951,190
Intelligence and Communications	7,750,423	7,669,906	7,768,334
Mobility Forces	79,466	121,201	182,614
Research and Development	25,240,665	25,474,965	24,463,667
Central Supply and Maintenance	240,299	215,245	278,332
Training Medical and Other	1,778	1,258	
Administration and Assoc Activities	24,850	38,633	41,148
Support of Other Nations	9,523	37,907	12,114
Special Operations Forces	141,631	152,886	155,903
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Total Research, Development, Test & Evaluation	36,502,710	36,659,198	36,078,577

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Date: FEB 1998

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	FY 1997	FY 1998	FY 1999
	-----	-----	-----
Summary Recap of Budget Activities			
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Basic Research	174,763	180,643	200,760
Applied Research	541,944	654,051	511,285
Advanced Technology Development	653,525	657,518	483,595
Demonstration and Validation	539,607	562,811	466,009
Engineering and Manufacturing Development	1,145,529	1,162,405	1,269,124
RDT&E Management Support	1,144,658	1,129,057	1,076,593
Operational Systems Development	715,889	678,794	773,179
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Total Research Development Test & Eval Army	4,915,915	5,025,279	4,780,545
Summary Recap of FYDP Programs			
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Strategic Forces	25,680	33,011	103,937
General Purpose Forces	512,499	451,291	450,086
Intelligence and Communications	70,983	83,818	161,996
Research and Development	4,261,515	4,382,656	4,027,610
Central Supply and Maintenance	45,006	64,278	30,511
Administration and Assoc Activities	232		
Support of Other Nations		10,225	6,405
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Total Research Development Test & Eval Army	4,915,915	5,025,279	4,780,545

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Appropriation: 2040 A Research Development Test &amp; Eval Army

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
1	0601101A	In-House Laboratory Independent Research	1	14,108	13,678	14,902	U
2	0601102A	Defense Research Sciences	1	117,041	121,827	137,399	U
3	0601104A	University and Industry Research Centers	1	43,614	45,138	48,459	U
		Basic Research		174,763	180,643	200,760	
4	0602104A	TRACTOR ROSE	2	2,987		6,000	U
5	0602105A	Materials Technology	2	14,339	12,415	10,137	U
6	0602120A	Sensors and Electronic Survivability	2	19,140	25,855	18,738	U
7	0602122A	TRACTOR HIP	2	7,796	7,018	11,685	U
8	0602211A	Aviation Technology	2	20,637	22,211	29,746	U
9	0602270A	EW Technology	2	14,845	18,925	16,249	U
10	0602303A	Missile Technology	2	28,677	24,238	25,180	U
11	0602308A	Modeling and Simulation Technology	2	20,107	20,339	27,981	U
12	0602601A	Combat Vehicle and Automotive Technology	2	34,272	60,162	40,107	U
13	0602618A	Ballistics Technology	2	39,248	40,042	31,115	U
14	0602622A	Chemical, Smoke and Equipment Defeating Technolog	2	2,193	3,577	5,116	U
15	0602623A	Joint Service Small Arms Program	2	4,388	9,000	5,229	U
16	0602624A	Weapons and Munitions Technology	2	20,993	29,905	29,489	U
17	0602705A	Electronics and Electronic Devices	2	23,756	24,464	22,329	U
18	0602709A	Night Vision Technology	2	16,935	16,712	19,157	U

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
19	0602712A	Countermine Systems	2	7,052	10,272	10,715	U
20	0602716A	Human Factors Engineering Technology	2	15,781	16,723	13,369	U
21	0602720A	Environmental Quality Technology	2	50,019	56,131	13,842	U
22	0602782A	Command, Control, Communications Technology	2	13,893	16,197	19,746	U
23	0602783A	Computer and Software Technology	2	6,419	658	2,185	U
24	0602784A	Military Engineering Technology	2	37,505	50,802	37,488	U
25	0602785A	Manpower/Personnel/Training Technology	2	9,196	8,736	8,602	U
26	0602786A	Warfighter Technology	2	23,513	18,088	18,661	U
27	0602787A	Medical Technology	2	106,131	160,376	67,255	U
28	0602789A	ARMY Artificial Intelligence Technology	2	2,122	1,205	1,164	U
29	0602805A	Dual Use Applications Program	2			20,000	U
		Applied Research		541,944	654,051	511,285	
30	0603001A	Warfighter Advanced Technology	3	23,211	34,361	32,969	U
31	0603002A	Medical Advanced Technology	3	195,884	176,737	11,012	U
32	0603003A	Aviation Advanced Technology	3	54,901	89,467	30,048	U
33	0603004A	Weapons and Munitions Advanced Technology	3	27,661	25,444	24,555	U
34	0603005A	Combat Vehicle and Automotive Advanced Technology	3	28,160	40,796	54,435	U
35	0603006A	Command, Control, Communications Advanced Technology	3	29,627	25,708	20,109	U
36	0603007A	Manpower, Personnel and Training Advanced Technology	3	4,289	2,910	3,021	U



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				FY 1997	FY 1998	FY 1999	
37	0603009A	TRACTOR HIKE	3	16,123	13,441	9,873	U
38	0603013A	TRACTOR DIRT	3	2,679		57	U
39	0603017A	TRACTOR RED	3	8,221	5,399	4,590	U
40	0603020A	TRACTOR ROSE	3	4,845	10,859	2,016	U
41	0603105A	Military HIV Research	3	17,080	2,629	5,710	U
42	0603238A	Global Surveillance/Air Defense/Precision Strike Technology Demonstn	3	19,291	12,773	9,973	U
43	0603270A	EW Technology	3	6,480	7,929	11,508	U
44	0603313A	Missile and Rocket Advanced Technology	3	93,739	90,468	86,096	U
45	0603322A	TRACTOR CAGE	3	6,123	5,991	4,408	U
46	0603606A	Landmine Warfare and Barrier Advanced Technology	3	26,899	31,581	21,944	U
47	0603607A	Joint Service Small Arms Program	3	8,825	9,015	5,173	U
48	0603654A	Line-Of-Sight Technology Demonstration	3	9,533	4,845	20,099	U
49	0603710A	Night Vision Advanced Technology	3	28,584	18,705	23,960	U
50	0603734A	Military Engineering Advanced Technology	3	19,678	19,574	13,564	U
51	0603772A	Advanced Tactical Computer Science and Sensor Technology	3	21,692	18,886	18,456	U
52	0603780A	Tactical Towed Array Sonar (H)	3			54,419	U
53	0604280A	Joint Tactical Radio	3		10,000	15,600	U
		Advanced Technology Development		653,525	657,518	483,595	
54	0603018A	TRACTOR TREAD	4	2,267			U

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				FY 1997	FY 1998	FY 1999	
55	0603308A	Army Missile Defense Systems Integration	4	68,205	73,304	12,240	U
56	0603619A	Landmine Warfare and Barrier - Adv Dev	4	27,164	24,299	6,778	U
57	0603627A	Smoke, Obscurant and Target Defeating Sys-Adv Dev	4	5,573			U
58	0603639A	Armament Enhancement Initiative	4	56,687	37,127	26,526	U
59	0603640A	Artillery Propellant Development	4	8,103	8,258		U
60	0603645A	Armored System Modernization - Adv Dev	4	1,612	1,945		U
61	0603649A	Engineer Mobility Equipment Advanced Development	4	498			U
62	0603653A	Advanced Tank Armament System (ATAS)	4	11,144	8,704	8,928	U
63	0603713A	Army Data Distribution System	4	25,699	20,526	17,281	U
64	0603745A	Tactical Electronic Support Systems - Adv Dev	4	3,837			U
65	0603747A	Soldier Support and Survivability	4	6,487	7,324	7,581	U
66	0603766A	Tactical Electronic Surveillance System - Adv Dev	4	24,714	19,566		U
67	0603774A	Night Vision Systems Advanced Development	4	2,254	2,848	2,681	U
68	0603790A	NATO Research and Development	4	9,495	8,866	11,161	U
69	0603801A	Aviation - Adv Dev	4	10,648	13,696	7,487	U
70	0603804A	Logistics and Engineer Equipment - Adv Dev	4	7,100	6,574	17,478	U
71	0603805A	Combat Service Support Control System Evaluation and Analysis	4	15,479	7,280	14,353	U
72	0603807A	Medical Systems - Adv Dev	4	9,730	6,555	11,414	U
73	0603851A	TRACTOR CAGE (Dem/Val)	4	2,922	1,851	966	U
74	0603854A	Artillery Systems - Dem/Val	4	232,288	314,017	313,166	U

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				FY 1997	FY 1998	FY 1999	
75	0603856A	SCAMP Block II Dem/Val	4	7,701	71	7,969	U
		Demonstration and Validation		539,607	562,811	466,009	
76	0604201A	Aircraft Avionics	5	17,706	31,660	7,878	U
77	0604220A	Armed, Deployable OH-58D	5	1,100			U
78	0604223A	Comanche	5	325,299	272,187	367,823	U
79	0604270A	EW Development	5	69,067	84,180	85,989	U
80	0604321A	All Source Analysis System	5	37,463	26,094	28,081	U
81	0604325A	Follow-on to TOW	5	5,934	13,449	48,106	U
82	0604328A	TRACTOR CAGE	5	1,484	11	1,788	U
83	0604604A	Medium Tactical Vehicles	5	5,719	3,614		U
84	0604609A	Smoke, Obscurant and Target Defeating Sys-Eng Dev	5			706	U
85	0604611A	JAVELIN	5	5,855	7,771	5,277	U
86	0604619A	Landmine Warfare	5	25,355	19,189	23,189	U
87	0604622A	Family of Heavy Tactical Vehicles	5	4,906	4,845		U
88	0604633A	Air Traffic Control	5	7,086	4,533	1,737	U
89	0604640A	Advanced Command and Control Vehicle (AC2V)	5	7,545	10,532		U
90	0604641A	Tactical Unmanned Ground Vehicle (TUGV)	5	2,728	2,604	2,468	U
91	0604642A	Light Tactical Wheeled Vehicles	5	3,409			U
92	0604645A	Armored Systems Modernization (ASM)-Eng. Dev.	5	6,408		4,500	U

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
93	0604649A	Engineer Mobility Equipment Development	5	44,225	50,585	63,069	U
94	0604710A	Night Vision Systems - Eng Dev	5	33,970	35,052	21,311	U
95	0604713A	Combat Feeding, Clothing, and Equipment	5	73,404	60,053	62,218	U
96	0604715A	Non-System Training Devices - Eng Dev	5	46,142	82,965	64,035	U
97	0604716A	Terrain Information - Eng Dev	5	6,969	2,825	2,999	U
98	0604726A	Integrated Meteorological Support System	5		1,887	1,790	U
99	0604739A	Integrated Broadcast Service	5	4,588	4,360	4,447	U
100	0604741A	Air Defense Command, Control and Intelligence	5	19,577	21,181	6,476	U
101	0604746A	Automatic Test Equipment Development	5	8,868	8,220	7,030	U
102	0604760A	Distributive Interactive Simulations (DIS)	5	17,618	20,249	2,766	U
103	0604766A	Tactical Exploitation of National Capabilities	5	14,839	17,807	44,674	U
104	0604768A	Brilliant Anti-Armor Submunition (BAT)	5	161,583	229,389	134,858	U
105	0604770A	Joint Surveillance/Target Attack Radar System	5	9,406	6,726	5,503	U
106	0604778A	Positioning Systems Development (SPACE)	5	417	407	379	U
107	0604780A	Combined Arms Tactical Trainer (CATT) Core	5	29,420	12,880	7,533	U
108	0604801A	Aviation - Eng Dev	5	4,331	4,951	6,599	U
109	0604802A	Weapons and Munitions - Eng Dev	5	21,567	14,611	37,725	U
110	0604804A	Logistics and Engineer Equipment - Eng Dev	5	19,061	27,174	26,002	U
111	0604805A	Command, Control, Communications Systems	5	13,315	10,710	16,404	U
112	0604807A	Medical Materiel/Medical Biological Defense	5	4,570	4,345	5,338	U

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				FY 1997	FY 1998	FY 1999	
113	0604808A	Landmine Warfare/Barrier - Eng Dev	5	9,342	13,818	46,905	U
114	0604814A	Sense and Destroy Armament Missile - Eng Dev	5	9,677	10,847	20,813	U
115	0604816A	LONGBOW - Eng Dev	5	10,762			U
116	0604817A	Combat Identification	5	16,889	19,026	13,471	U
117	0604818A	Army Tactical Command & Control Hardware & Software	5	35,495	19,184	32,929	U
118	0604820A	Radar Development	5			2,786	U
119	0604823A	Firefinder	5	2,430	2,484	19,822	U
120	0604824A	DUAP Commercial Operations and Support Savings	5			33,600	U
121	0604854A	Artillery Systems - EMD	5			100	U
Engineering and Manufacturing Development				1,145,529	1,162,405	1,269,124	
122	0604256A	Threat Simulator Development	6	11,146	16,480	11,935	U
123	0604258A	Target Systems Development	6	9,661	11,328	13,127	U
124	0604759A	Major T&E Investment	6	39,698	39,200	40,284	U
125	0605103A	Rand Arroyo Center	6	20,550	16,534	16,718	U
126	0605301A	Army Kwajalein Atoll	6	140,078	120,918	142,710	U
127	0605326A	Concepts Experimentation Program	6			17,441	U
128	0605502A	Small Business Innovative Research	6	99,082			U
129	0605601A	Army Test Ranges and Facilities	6	128,036	118,327	119,553	U
130	0605602A	Army Technical Test Instrumentation and Targets	6	20,761	32,160	33,439	U

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				FY 1997	FY 1998	FY 1999	
131	0605604A	Survivability/Lethality Analysis	6	29,362	31,308	30,498	U
132	0605605A	DOD High Energy Laser Test Facility	6	29,227	28,965	15,022	U
133	0605606A	Aircraft Certification	6	2,415	2,828	2,924	U
134	0605702A	Meteorological Support to RDT&E Activities	6	6,278	6,235	6,691	U
135	0605706A	Materiel Systems Analysis	6	14,006	27,755	9,711	U
136	0605709A	Exploitation of Foreign Items	6	6,962	7,523	4,031	U
137	0605712A	Support of Operational Testing	6	44,900	76,807	66,320	U
138	0605716A	Army Evaluation Center	6			25,526	U
139	0605801A	Programwide Activities	6	58,310	79,626	64,588	U
140	0605802A	International Cooperative Research and Developmen	6	1,494			U
141	0605803A	Technical Information Activities	6	16,465	14,673	16,251	U
142	0605805A	Munitions Standardization, Effectiveness and Safety	6	3,083	11,064	8,497	U
143	0605853A	Environmental Conservation	6	1,874	1,723	3,195	U
144	0605854A	Pollution Prevention	6	13,413	5,187	8,694	U
145	0605856A	Environmental Compliance	6	52,716	56,576	44,116	U
146	0605876A	Minor Construction (RPM) - RDT&E	6	4,148	4,258	4,205	U
147	0605878A	Maintenance and Repair (RPM) - RDT&E	6	66,869	83,751	49,233	U
148	0605879A	Real Property Services (RPS) - RDT&E	6	88,190	86,199	87,172	U
149	0605896A	Base Operations - RDT&E	6	217,667	224,593	230,029	U
150	0605898A	Management Headquarters (Research and Development	6	18,035	25,039	4,683	U
151	0909999A	Financing for Cancelled Account Adjustments	6	232			U
RDT&E Management Support				1,144,658	1,129,057	1,076,593	

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
152	0603778A	MLRS Product Improvement Program	7	61,721	36,171	20,244	U
153	0102419A	Aerostat Joint Project Office	7	25,680	33,011	103,937	U
154	0203726A	Adv Field Artillery Tactical Data System	7	37,507	37,455	35,111	U
155	0203735A	Combat Vehicle Improvement Programs	7	203,653	161,497	94,756	U
156	0203740A	Maneuver Control System	7	27,166	24,510	28,923	U
157	0203744A	Aircraft Modifications/Product Improvement Programs	7	21,836	21,567	26,681	U
158	0203752A	Aircraft Engine Component Improvement Program	7	3,734	2,849	2,948	U
159	0203758A	Digitization	7	98,124	94,103	45,007	U
160	0203759A	Force XXI Battle Command, Brigade and Below	7			52,469	U
161	0203761A	Force Twenty-One (XXI), Warfighting Rapid	7	16,640	43,126	99,528	U
162	0203801A	Missile/Air Defense Product Improvement Program	7	60,882	30,443	11,252	U
163	0203802A	Other Missile Product Improvement Programs	7	13,570	1,216	1,248	U
164	0203806A	TRACTOR RUT	7	3,030	2,046		U
165	0203808A	TRACTOR CARD	7	6,588	6,373	3,993	U
166	0208010A	Joint Tactical Communications Program (TRI-TAC)	7	17,747	21,105	35,941	U
167	0208053A	Joint Tactical Ground System	7	2,022	5,001	12,229	U
168	0301359A	Special Army Program	7	10,929	7,315	6,537	U
169	0303140A	Information Systems Security Program	7	3,048	11,771	7,433	U
170	0303142A	SATCOM Ground Environment (SPACE)	7	37,665	48,939	53,897	U
171	0303150A	WWMCCS/Global Command and Control System	7	18,877	14,581	17,543	U

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Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se c
172	0305114A	Traffic Control, Approach and Landing System-FY	7		728		U
173	0305128A	Security and Investigative Activities	7	464	484	950	U
174	0305204A	Tactical Unmanned Aerial Vehicles	7			75,636	U
175	0708045A	End Item Industrial Preparedness Activities	7	45,006	64,278	30,511	U
176	1001018A	NATO Joint STARS	7		10,225	6,405	U
Operational Systems Development				715,889	678,794	773,179	
Total Research Development Test & Eval Army				4,915,915	5,025,279	4,780,545	



## UNCLASSIFIED

Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Summary

Date: FEB 1998

Thousands of Dollars

	FY 1997	FY 1998	FY 1999
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Summary Recap of Budget Activities			
-----			
Basic Research	345,606	338,743	362,679
Applied Research	514,282	493,622	524,723
Advanced Technology Development	462,002	514,781	460,725
Demonstration and Validation	1,904,375	2,219,002	2,358,359
Engineering and Manufacturing Development	2,153,911	2,227,348	2,063,281
RDT&E Management Support	681,340	551,033	616,973
Operational Systems Development	1,822,845	1,535,383	1,722,183
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Total Research Development Test & Eval Navy	7,884,361	7,879,912	8,108,923
Summary Recap of FYDP Programs			
-----			
Strategic Forces	59,970	68,757	98,520
General Purpose Forces	1,034,986	892,144	910,206
Intelligence and Communications	643,652	521,113	582,465
Research and Development	6,052,594	6,344,529	6,388,705
Central Supply and Maintenance	84,237	53,369	129,027
Administration and Assoc Activities	8,922		
	-----	-----	-----
Total Research Development Test & Eval Navy	7,884,361	7,879,912	8,108,923

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## UNCLASSIFIED

Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
1	0601152N	In-House Laboratory Independent Research	1	14,175	14,248	14,734	U
2	0601153N	Defense Research Sciences	1	331,431	324,495	347,945	U
		Basic Research		345,606	338,743	362,679	
3	0602111N	Air and Surface Launched Weapons Technology	2	32,112	28,379	37,140	U
4	0602121N	Ship, Submarine & Logistics Technology	2	48,790	48,865	43,177	U
5	0602122N	Aircraft Technology	2	21,931	24,553	23,229	U
6	0602131M	Marine Corps Landing Force Technology	2	16,016	13,458	12,132	U
7	0602228N	Historically Black Colleges and Universities	2			4,699	U
8	0602232N	Communications, Command and Control,	2	53,967	54,814	65,033	U
9	0602233N	Human Systems Technology	2	49,837	38,079	29,722	U
10	0602234N	Materials, Electronics and Computer Technology	2	85,881	70,174	77,617	U
11	0602270N	Electronic Warfare Technology	2	18,274	21,164	23,849	U
12	0602314N	Undersea Warfare Surveillance Technology	2	44,442	44,578	50,619	U
13	0602315N	Mine Countermeasures, Mining and Special Warfare	2	40,958	41,451	45,928	U
14	0602435N	Oceanographic and Atmospheric Technology	2	70,661	71,491	56,722	U
15	0602633N	Undersea Warfare Weaponry Technology	2	31,413	36,616	34,856	U
16	0602805N	Dual Use Applications Program	2			20,000	U
		Applied Research		514,282	493,622	524,723	
17	0603217N	Air Systems and Weapons Advanced Technology	3	36,870	34,562	48,143	U

## UNCLASSIFIED

Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
18	0603238N	Precision Strike and Air Defense Technology	3	61,610	54,319	58,306	U
19	0603270N	Advanced Electronic Warfare Technology	3	14,072	16,635	17,169	U
20	0603508N	Surface Ship & Submarine HM&E Advanced Technology	3	31,064	48,261	39,264	U
21	0603640M	Marine Corps Advanced Technology Demonstration	3	19,646	58,780	41,931	U
22	0603706N	Medical Development	3	55,593	68,151	18,728	U
23	0603707N	Manpower, Personnel and Training Adv Tech Dev	3	18,002	21,834	21,042	U
24	0603712N	Environmental Quality and Logistics Advanced Technology	3	37,701	25,462	20,919	U
25	0603747N	Undersea Warfare Advanced Technology	3	45,697	44,772	56,827	U
26	0603782N	Mine and Expeditionary Warfare Advanced Technolog	3	40,847	36,876	41,710	U
27	0603792N	Advanced Technology Transition	3	69,110	83,510	74,392	U
28	0603794N	C3 Advanced Technology	3	31,790	21,619	22,294	U
		Advanced Technology Development		462,002	514,781	460,725	
29	0603207N	Air/Ocean Tactical Applications	4	17,265	15,499	28,824	U
30	0603208N	Training System Aircraft	4	1,963			U
31	0603216N	Aviation Survivability	4	12,237	16,447	8,164	U
32	0603254N	ASW Systems Development	4	20,682	23,962	20,184	U
33	0603261N	Tactical Airborne Reconnaissance	4	27,497	10,262	1,479	U
34	0603382N	Advanced Combat Systems Technology	4	3,685	5,077	8,653	U
35	0603502N	Surface and Shallow Water Mine Countermeasures	4	82,210	71,146	73,491	U

## UNCLASSIFIED

Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
36	0603504N	Advanced Submarine Combat Systems Development	4	36,549	60,087	68,402	U
37	0603506N	Surface Ship Torpedo Defense	4	5,107			U
38	0603512N	Carrier Systems Development	4	13,555	19,976	154,307	U
39	0603513N	Shipboard System Component Development	4	17,404	22,022	27,725	U
40	0603514N	Ship Combat Survivability	4	8,131	6,840	7,595	U
41	0603525N	PILOT FISH	4	89,956	113,659	117,094	U
42	0603536N	RETRACT JUNIPER	4	9,462	9,388	11,055	U
43	0603542N	Radiological Control	4	2,729	2,940	3,600	U
44	0603553N	Surface ASW	4	3,453	5,491	11,871	U
45	0603561N	Advanced Submarine System Development	4	61,679	110,618	60,520	U
46	0603562N	Submarine Tactical Warfare Systems	4	4,296	4,007	4,676	U
47	0603563N	Ship Concept Advanced Design	4	14,356	15,713	14,900	U
48	0603564N	Ship Preliminary Design & Feasibility Studies	4	15,761	52,084	42,668	U
49	0603570N	Advanced Nuclear Power Systems	4	129,571	121,639	118,342	U
50	0603573N	Advanced Surface Machinery Systems	4	64,459	46,324	58,419	U
51	0603576N	CHALK EAGLE	4	142,165	131,501	122,031	U
52	0603582N	Combat System Integration	4	5,672	7,379	9,654	U
53	0603609N	Conventional Munitions	4	24,255	37,236	39,775	U
54	0603610N	Advanced Warhead Development (MK-50)	4	599			U
55	0603611M	Marine Corps Assault Vehicles	4	36,261	68,186	104,822	U

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Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
56	0603612M	Marine Corps Mine/Countermeasures Systems - Adv Dev	4	1		1,958	U
57	0603635M	Marine Corps Ground Combat/Support System	4	40,542	40,357	37,133	U
58	0603654N	Joint Service Explosive Ordnance Development	4	6,580	10,301	10,756	U
59	0603658N	Cooperative Engagement	4		206,851	131,623	U
60	0603711N	Fleet Tactical Development	4	3,167			U
61	0603713N	Ocean Engineering Technology Development	4	8,002	10,283	15,257	U
62	0603721N	Environmental Protection	4	47,882	55,685	59,438	U
63	0603724N	Navy Energy Program	4	3,899	4,037	4,592	U
64	0603725N	Facilities Improvement	4	2,124	6,521	1,861	U
65	0603734N	CHALK CORAL	4	74,293	90,562	97,552	U
66	0603746N	RETRACT MAPLE	4	79,167	115,179	117,186	U
67	0603748N	LINK PLUMERIA	4	34,971	28,266	22,123	U
68	0603751N	RETRACT ELM	4	24,984	23,577	11,665	U
69	0603755N	Ship Self Defense - Dem/Val	4	267,344	9,597	12,337	U
70	0603785N	Combat Systems Oceanographic Performance Assessment	4	12,887	11,332		U
71	0603787N	Special Processes	4	88,428	78,209	81,743	U
72	0603790N	NATO Research and Development	4	9,381	9,672	11,004	U
73	0603795N	Land Attack Technology	4	52,595	58,998	110,104	U
74	0603800N	Joint Strike Fighter (JSF) - Dem/Val	4	243,286	449,674	463,402	U
75	0603851M	Nonlethal Weapons - Dem/Val	4		16,290	22,592	U

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FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
76	0603852N	Arsenal Ship	4	27,317			U
77	0603860N	Joint Precision Approach and Landing Systems	4		2,894		U
78	0603889N	Counterdrug RDT&E Projects	4	20,027			U
79	0604327N	Hard and Deeply Buried Target Defeat System	4		4,839	9,827	U
80	0604707N	Space and Electronic Warfare (SEW) Architecture/ Engineering Support	4	6,539	8,395	17,955	U
		Demonstration and Validation		1,904,375	2,219,002	2,358,359	
81	0603208N	Training System Aircraft	5		391	595	U
82	0603266N	AH-1T Composite Rotor Blade (H)	5	68,087			U
83	0604212N	Other Helo Development	5	63,218	124,877	231,120	U
84	0604214N	AV-8B Aircraft - Eng Dev	5	15,801	10,689	13,787	U
85	0604215N	Standards Development	5	24,917	36,804	51,987	U
86	0604217N	S-3 Weapon System Improvement	5	8,010	2,097	31,469	U
87	0604218N	Air/Ocean Equipment Engineering	5	5,204	5,898	6,162	U
88	0604221N	P-3 Modernization Program	5	7,525	12,728	3,046	U
89	0604231N	Tactical Command System	5	29,049	41,631	50,713	U
90	0604245N	H-1 Upgrades	5		83,608	98,542	U
91	0604261N	Acoustic Search Sensors	5	13,657	18,315	29,637	U
92	0604262N	V-22A	5	605,641	512,139	355,142	U
93	0604264N	Air Crew Systems Development	5	25,596	17,366	9,454	U

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Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
94	0604270N	EW Development	5	117,809	95,646	128,586	U
95	0604307N	Surface Combatant Combat System Engineering	5	85,334	118,543	132,561	U
96	0604310N	Arsenal Ship	5		13,462		U
97	0604311N	LPD-17 Class Systems Integration	5	4,251	13,944	1,343	U
98	0604312N	Tri-Service Standoff Attack Missile	5		3,794	2,064	U
99	0604355N	Vertical Launch ASROC	5		8,733		U
100	0604366N	Standard Missile Improvements	5	9,199	523	1,320	U
101	0604373N	Airborne MCM	5	30,432	17,905	24,967	U
102	0604503N	SSN-688 and Trident Modernization	5	56,922	56,024	50,300	U
103	0604504N	Air Control	5	12,513	8,947	4,198	U
104	0604507N	Enhanced Modular Signal Processor	5	20,733	2,370	1,599	U
105	0604512N	Shipboard Aviation Systems	5	9,710	8,931	8,531	U
106	0604516N	Ship Survivability	5	3,826	5,900	6,196	U
107	0604518N	Combat Information Center Conversion	5	9,574	10,943	4,704	U
108	0604524N	Submarine Combat System	5	17,543	17,745	11,710	U
109	0604528N	SWATH (Small Waterplane Area Twin Hull)	5		45,000		U
110	0604558N	New Design SSN	5	362,413	307,749	218,816	U
111	0604561N	SSN-21 Developments	5	70,687	50,307	27,456	U
112	0604562N	Submarine Tactical Warfare System	5	21,460	43,066	28,573	U
113	0604567N	Ship Contract Design/ Live Fire T&E	5	2,728	89,516	133,645	U

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Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
114	0604574N	Navy Tactical Computer Resources	5	27,500	33,862	8,249	U
115	0604601N	Mine Development	5	2,371	2,270	15	U
116	0604603N	Unguided Conventional Air-Launched Weapons	5	30,333	28,020	5,183	U
117	0604610N	Lightweight Torpedo Development	5	11,517	18,615	8,106	U
118	0604612M	Marine Corps Mine Countermeasures Systems - Eng	5	3,813	912	3,855	U
119	0604618N	Joint Direct Attack Munition	5	30,047	12,003	11,738	U
120	0604651M	Nonlethal Weapons - EMD	5	9,326			U
121	0604654N	Joint Service Explosive Ordnance Development	5	5,609	6,416	7,037	U
122	0604703N	Personnel, Training, Simulation, and Human Factor	5	754	992	1,235	U
123	0604710N	Navy Energy Program	5	1,903	2,873	5,544	U
124	0604721N	Battle Group Passive Horizon Extension System	5	5,199	4,382	5,770	U
125	0604727N	Joint Standoff Weapon Systems	5	82,267	77,977	73,022	U
126	0604755N	Ship Self Defense - EMD	5	134,751	157,971	148,165	U
127	0604771N	Medical Development	5	3,173	16,418	4,321	U
128	0604777N	Navigation/ID System	5	49,054	37,460	42,301	U
129	0604784N	Distributed Surveillance System	5	54,455	41,586	42,017	U
130	0604805N	Commercial Operations and Support Savings	5			28,500	U
		Engineering and Manufacturing Development		2,153,911	2,227,348	2,063,281	
131	0604256N	Threat Simulator Development	6	22,060	12,479	24,400	U



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Department of the Navy  
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Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
132	0604258N	Target Systems Development	6	28,200	43,705	54,800	U
133	0604759N	Major T&E Investment	6	35,952	34,164	17,281	U
134	0605152N	Studies and Analysis Support - Navy	6	7,884	6,124	10,132	U
135	0605154N	Center for Naval Analyses	6	40,474	35,347	44,201	U
136	0605155N	Fleet Tactical Development	6	2,821	2,650	2,748	U
137	0605502N	Small Business Innovative Research	6	121,356			U
138	0605804N	Technical Information Services	6	4,768	3,166	8,513	U
139	0605853N	Management, Technical & International Support	6	18,985	17,943	28,690	U
140	0605856N	Strategic Technical Support	6	1,882	1,923	2,213	U
141	0605861N	RDT&E Science and Technology Management	6	68,658	54,161	64,455	U
142	0605862N	RDT&E Instrumentation Modernization	6	6,111	8,293	8,530	U
143	0605863N	RDT&E Ship and Aircraft Support	6	50,044	46,971	57,421	U
144	0605864N	Test and Evaluation Support	6	233,014	255,609	260,601	U
145	0605865N	Operational Test and Evaluation Capability	6	7,966	8,773	9,194	U
146	0605866N	Navy Space and Electronic Warfare (SEW) Support	6	2,176	2,521	3,477	U
147	0605867N	SEW Surveillance/Reconnaissance Support	6	11,449	10,573	13,185	U
148	0605873M	Marine Corps Program Wide Support	6	8,618	6,631	7,132	U
149	0909999N	Financing for Cancelled Account Adjustments	6	8,922			U
RDT&E Management Support				681,340	551,033	616,973	

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Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test &amp; Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Thousands of Dollars				S e c
			Act	FY 1997	FY 1998	FY 1999	
150	0604227N	HARPOON Modifications	7			1,965	U
151	0101221N	Strategic Sub & Weapons System Support	7	29,922	39,101	56,604	U
152	0101224N	SSBN Security Technology Program	7	22,657	23,856	33,588	U
153	0101226N	Submarine Acoustic Warfare Development	7	7,391	5,800	8,328	U
154	0204136N	F/A-18 Squadrons	7	402,816	310,824	357,214	U
155	0204152N	E-2 Squadrons	7	60,012	62,530	47,797	U
156	0204163N	Fleet Telecommunications (Tactical)	7	17,623	15,961	16,297	U
157	0204229N	Tomahawk and Tomahawk Mission Planning Center	7	138,809	88,760	66,727	U
158	0204311N	Integrated Surveillance System	7	33,126	9,573	19,772	U
159	0204413N	Amphibious Tactical Support Units	7	1,231	645	1,945	U
160	0204571N	Consolidated Training Systems Development	7	43,192	66,661	28,390	U
161	0204575N	Electronic Warfare (EW) Readiness Support	7	1,240	1,578	3,716	U
162	0205601N	HARM Improvement	7	35,783	39,913	18,921	U
163	0205604N	Tactical Data Links	7	34,695	39,934	49,757	U
164	0205620N	Surface ASW Combat System Integration	7	6,412	7,560	9,390	U
165	0205632N	MK-48 ADCAP	7	10,491	10,451	17,550	U
166	0205633N	Aviation Improvements	7	50,794	49,307	64,956	U
167	0205658N	Navy Science Assistance Program	7	15,534			U
168	0205667N	F-14 Upgrade	7	9,377	11,289	12,947	U
169	0205675N	Operational Nuclear Power Systems	7	54,894	54,337	54,183	U

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Department of the Navy  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 1319 N Research Development Test & Eval Navy

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
170	0206313M	Marine Corps Communications Systems	7	53,960	40,840	50,594	U
171	0206623M	Marine Corps Ground Combat/Supporting Arms System	7	9,557	13,699	14,699	U
172	0206624M	Marine Corps Combat Services Support	7	7,993	4,857	4,634	U
173	0207161N	Tactical AIM Missiles	7	45,319	57,946	65,855	U
174	0207163N	Advanced Medium Range Air-to-Air Missile (AMRAAM)	7	2,128	5,479	4,862	U
175	0301303N	Maritime Intelligence	7				
176	0301327N	Technical Reconnaissance and Surveillance	7				
177	0303109N	Satellite Communications (SPACE)	7	32,000	16,256	18,188	U
178	0303140N	Information Systems Security Program	7	22,388	16,773	22,201	U
179	0303150N	WWMCCS/Global Command and Control System	7		484	469	U
180	0304111N	Special Activities	7				
181	0305154N	Defense Airborne Reconnaissance Program	7	7,929			U
182	0305160N	Defense Meteorological Satellite Program (SPACE)	7	16,735	4,753	11,671	U
183	0305188N	Joint C4ISR Battle Center (JBC)	7			5,352	U
184	0305192N	Joint Military Intelligence Programs	7		2,341	2,302	U
185	0305207N	Manned Reconnaissance Systems	7		334	342	U
186	0305927N	Naval Space Surveillance	7	659	387	399	U
187	0702207N	Depot Maintenance (Non-IF)	7			69,967	U
188	0708011N	Industrial Preparedness	7	84,237	53,369	59,060	U
		Operational Systems Development		1,822,845	1,535,383	1,722,183	
Total	Research Development Test & Eval Navy			7,884,361	7,879,912	8,108,923	

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Department of the Air Force  
FY 1999 RDT&E Program

Exhibit R-1

Summary

Date: FEB 1998

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Thousands of Dollars  
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	FY 1997	FY 1998	FY 1999
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Summary Recap of Budget Activities			
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Basic Research	182,082	196,251	209,395
Applied Research	635,453	567,810	582,023
Advanced Technology Development	452,832	425,844	379,318
Demonstration and Validation	835,385	1,068,821	1,282,962
Engineering and Manufacturing Development	4,520,549	4,152,773	3,751,014
RDT&E Management Support	1,052,866	1,019,415	554,349
Operational Systems Development	6,410,667	6,551,341	6,839,032
	-----	-----	-----
Total Research Development Test & Eval AF	14,089,834	13,982,255	13,598,093
Summary Recap of FYDP Programs			
-----			
Strategic Forces	29,228	27,870	22,818
General Purpose Forces	1,325,137	1,447,271	1,562,755
Intelligence and Communications	5,028,014	4,990,824	4,971,526
Mobility Forces	79,466	121,201	182,614
Research and Development	7,498,235	7,288,279	6,755,309
Central Supply and Maintenance	104,955	71,585	92,563
Training Medical and Other	1,778	1,258	
Administration and Assoc Activities	13,498	6,285	6,756
Support of Other Nations	9,523	27,682	3,752
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Total Research Development Test & Eval AF	14,089,834	13,982,255	13,598,093

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Department of the Air Force  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 3600 F Research Development Test &amp; Eval AF

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
1	0601102F	Defense Research Sciences	1	182,082	196,251	209,395	U
		Basic Research		182,082	196,251	209,395	
2	0602102F	Materials	2	75,448	69,339	62,578	U
3	0602201F	Aerospace Flight Dynamics	2	62,507	57,446	64,932	U
4	0602202F	Armstrong Lab Exploratory Development	2	86,404	72,118	60,805	U
5	0602203F	Aerospace Propulsion	2	68,860	57,261	69,061	U
6	0602204F	Aerospace Avionics	2	63,953	61,025	65,549	U
7	0602269F	Hypersonic Technology Program	2	9,986	9,305	16,649	U
8	0602601F	Phillips Lab Exploratory Development	2	138,483	118,266	116,139	U
9	0602602F	Conventional Munitions	2	39,222	38,505	41,529	U
10	0602702F	Command Control and Communications	2	90,590	84,545	65,175	U
11	0602805F	Dual Use Applications Program	2			19,606	U
		Applied Research		635,453	567,810	582,023	
12	0603106F	Logistics Systems Technology	3	17,059	14,502	8,677	U
13	0603108F	Integrated Data Systems	3		18,541		U
14	0603112F	Advanced Materials for Weapon Systems	3	23,524	26,503	21,006	U
15	0603202F	Aerospace Propulsion Subsystems Integration	3	23,919	23,378	30,814	U
16	0603203F	Advanced Avionics for Aerospace Vehicles	3	28,240	25,077	26,442	U
17	0603205F	Flight Vehicle Technology	3	8,734	5,441	7,035	U

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
18	0603211F	Aerospace Structures	3	9,398	9,734	12,494	U
19	0603216F	Aerospace Propulsion and Power Technology	3	34,464	33,126	38,984	U
20	0603227F	Personnel, Training and Simulation Technology	3	6,928	5,668	6,636	U
21	0603231F	Crew Systems and Personnel Protection Technology	3	22,191	24,881	16,603	U
22	0603238F	Global Surveillance and Communication Technology	3	2,180			U
23	0603245F	Flight Vehicle Technology Integration	3	5,948	6,062	7,674	U
24	0603253F	Advanced Avionics Integration	3	14,107	12,012	10,536	U
25	0603270F	Electronic Combat Technology	3	26,133	32,540	25,553	U
26	0603302F	Space and Missile Rocket Propulsion	3	22,137	17,249	21,121	U
27	0603311F	Ballistic Missile Technology	3	3,253	7,537		U
28	0603401F	Advanced Spacecraft Technology	3	72,925	54,899	42,571	U
29	0603410F	Space Systems Environmental Interactions Technology	3	2,528	3,012	3,457	U
30	0603601F	Conventional Weapons Technology	3	25,279	21,622	23,244	U
31	0603605F	Advanced Weapons Technology	3	55,467	50,832	40,153	U
32	0603707F	Weather Systems Technology	3	3,175	1,943	1,568	U
33	0603723F	Environmental Engineering Technology	3	7,412	3,786	2,663	U
34	0603726F	C3I Subsystem Integration	3	8,167	9,364	11,025	U
35	0603728F	Advanced Computing Technology	3	7,558	5,270	7,827	U
36	0603789F	C3 Advanced Development	3	9,103	12,865	13,235	U
37	0305176F	Combat Survivor Evader Locator	3	13,003			U
Advanced Technology Development				452,832	425,844	379,318	

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c	
				FY 1997	FY 1998	FY 1999		
38	0603260F	Intelligence Advanced Development	4	4,478	4,489	4,615	U	
39	0603319F	Airborne Laser Program	4	56,037	151,439	292,219	U	
40	0603430F	Advanced MILSATCOM (SPACE)	4	32,403	38,307	54,413	U	
41	0603432F	Polar Adjunct (SPACE)	4	59,439	14,511	41,508	U	
42	0603434F	National Polar-orbiting Operational Environmental	4	27,622	31,438	64,732	U	
43	0603441F	Space Based Infrared Architecture (SPACE) - Dem	4	252,492	202,433	160,262	U	
44	0603617F	Command, Control, and Communication Applications	4	3,992	7,232	7,770	U	
45	0603742F	Combat Identification Technology	4	1,936	1,276	6,177	U	
46	0603790F	NATO Research and Development(H)	4	9,767	10,414	11,117	U	
47	0603800F	Joint Strike Fighter	4	251,626	432,277	456,137	U	
48	0603851F	Intercontinental Ballistic Missile - Dem/Val	4	45,961	46,372	29,360	U	
49	0603852F	C-130J - Dem/Val	4		3,741		U	
50	0603853F	Evolved Expendable Launch Vehicle Program (SPACE)	4	44,263	60,437		U	
51	0603854F	Global Broadcast Service	4	33,094	54,089	70,147	U	
52	0603855F	Space Architect Office	4	10,939			U	
53	0603856F	Air Force/NRO Partnership (AFNP)	4			17,645	U	
54	0603860F	Joint Precision Approach and Landing Systems	4			22,057	U	
55	0603876F	Space-Based Laser	4			35,000	U	
56	0604237F	Variable Stability In-Flight Simulator Test	4	1,336	5,650		U	
57	0604327F	Hard and Deeply Buried Target Defeat System	4		4,716	9,803	U	
Demonstration and Validation					835,385	1,068,821	1,282,962	

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
58	0604201F	Integrated Avionics Planning and Development	5	14,202	15,406	10,762	U
59	0604218F	Engine Model Derivative Program (EMDP)	5	1,474	701		U
60	0604222F	Nuclear Weapons Support	5	6,124	4,456	4,977	U
61	0604226F	B-1B	5	207,386	208,222	195,385	U
62	0604227F	Training Systems Development	5	4,241	4,061	1,961	U
63	0604233F	Specialized Undergraduate Pilot Training	5	63,975	67,866	55,563	U
64	0604239F	F-22 EMD	5	1,888,985	1,958,915	1,582,217	U
65	0604240F	B-2 Advanced Technology Bomber	5	585,612	335,254	131,247	U
66	0604243F	Manpower, Personnel and Training Development	5	4,132	4,112		U
67	0604270F	EW Development	5	93,797	75,700	90,126	U
68	0604321F	Combat Intelligence System -EMD	5	2,786			U
69	0604441F	Space Based Infrared System (SBIRS) High EMD	5	193,018	316,467	538,438	U
70	0604442F	Space Based Infrared System (SBIRS) Low EMD	5			33,328	U
71	0604479F	Milstar LDR/MDR Satellite Communications (SPACE)	5	659,656	628,027	550,940	U
72	0604480F	Global Positioning System Block IIF (SPACE)	5	36,426	66,918	62,591	U
73	0604600F	Munitions Dispenser Development	5	46,142	17,519	7,559	U
74	0604602F	Armament/Ordnance Development	5	3,477	1,511	12,037	U
75	0604604F	Submunitions	5	4,761	4,748	4,805	U
76	0604611F	Joint Standoff Land Attack Missile (JSLAM)	5		40,622		U
77	0604617F	Air Base Operability	5	2,776	1,260	2,503	U



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Line No	Program Element Number	Item	Thousands of Dollars				S e c
			Act	FY 1997	FY 1998	FY 1999	
78	0604618F	Joint Direct Attack Munition	5	32,932	21,896	12,204	U
79	0604703F	Aeromedical/Chemical Defense Systems	5	4,498	3,907	3,336	U
80	0604706F	Life Support Systems	5	10,289	4,301	3,744	U
81	0604708F	Civil, Fire, Environmental, Shelter Engineering	5	2,613	2,526	2,715	U
82	0604711F	Systems Survivability (Nuclear Effects)	5	35			U
83	0604727F	Joint Standoff Weapons Systems	5	22,039	21,992	15,134	U
84	0604735F	Combat Training Ranges	5	26,490	19,131	14,581	U
85	0604740F	Computer Resource Technology Transition (CRTT)	5	1,805	4,157	200	U
86	0604750F	Intelligence Equipment	5	1,013	1,223	1,300	U
87	0604754F	Joint Tactical Information Distribution System	5	29,127	7,374	7,956	U
88	0604762F	Common Low Observables Verification System	5			4,901	U
89	0604770F	Joint Surveillance/Target Attack Radar System	5	206,130			U
90	0604779F	Joint Interoperability of Tactical Command & Control Systems	5	4,697	4,972	5,823	U
91	0604805F	Commercial Operations and Support Savings	5			27,937	U
92	0604851F	Intercontinental Ballistic Missile - EMD	5	199,219	143,913	81,546	U
93	0604853F	Evolved Expendable Launch Vehicle Program (SPACE)	5		26,572	280,297	U
94	0605011F	RDT&E for Aging Aircraft	5			4,901	U
95	0207325F	Joint Air-to-Surface Standoff Missile (JASSM)	5	160,692	123,460		U
96	0207414F	Combat Intelligence System	5		11,590		U
97	0305176F	Combat Survivor Evader Locator	5		3,994		U
Engineering and Manufacturing Development				4,520,549	4,152,773	3,751,014	

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			Act	FY 1997	FY 1998	FY 1999	
98	0603402F	Space Test Program (SPACE)	6	46,367	38,696		U
99	0604256F	Threat Simulator Development	6	56,456	51,501	32,582	U
100	0604258F	Target Systems Development	6	4,626	4,491	1,666	U
101	0604759F	Major T&E Investment	6	29,440	53,364	34,518	U
102	0605101F	RAND Project Air Force	6	21,236	18,370	21,168	U
103	0605306F	Ranch Hand II Epidemiology Study	6	8,827	10,285	4,408	U
104	0605502F	Small Business Innovation Research	6	212,854	208,848		U
105	0605704F	Theater Air Defense BMC4I	6	11,990			U
106	0605712F	Initial Operational Test & Evaluation	6	21,744	27,153	24,541	U
107	0605807F	Test and Evaluation Support	6	413,892	372,496	370,168	U
108	0605808F	Development Planning	6	6,401	4,270	6,075	U
109	0605853F	Environmental Conservation	6	10,412	11,276		U
110	0605854F	Pollution Prevention	6	19,723	9,251	1,673	U
111	0605856F	Environmental Compliance	6	21,829	16,159		U
112	0605860F	Rocket Systems Launch Program (SPACE)	6	32,165	26,348	7,865	U
113	0605864F	Space Test Program (STP)	6			45,933	U
114	0605876F	Minor Construction (RPM) - RDT&E	6		1,792		U
115	0605878F	Maintenance and Repair (RPM) - RDT&E	6		50,301		U
116	0605879F	Real Property Services (RPS) - RDT&E	6		47,994		U
117	0605896F	Base Operations - RDT&E	6	127,667	63,229		U

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				FY 1997	FY 1998	FY 1999	
118	0909900F	Financing for Expired Account Adjustments	6	7,237			U
119	1001004F	International Activities	6		3,591	3,752	U
		RDT&E Management Support		1,052,866	1,019,415	554,349	
120	0101113F	B-52 Squadrons	7	10,594	3,235	6,436	U
121	0101120F	Advanced Cruise Missile	7	1,105	2,314		U
122	0102325F	Joint Surveillance System	7	3,654	1,831	2,175	U
123	0102326F	Region/Sector Operation Control Center	7	8,921	19,233	13,592	U
124	0102411F	North Atlantic Defense System	7	4,954	1,257	615	U
125	0207131F	A-10 Squadrons	7			2,312	U
126	0207133F	F-16 Squadrons	7	125,489	95,333	125,076	U
127	0207134F	F-15E Squadrons	7	152,353	129,774	104,207	U
128	0207136F	Manned Destructive Suppression	7	13,130	12,259	2,443	U
129	0207141F	F-117A Squadrons	7	11,777	8,964	5,147	U
130	0207161F	Tactical AIM Missiles	7	29,245	51,199	52,966	U
131	0207163F	Advanced Medium Range Air-to-Air Missile (AMRAAM)	7	9,704	39,875	45,078	U
132	0207217F	Podded Reconnaissance System	7	6,127	282		U
133	0207247F	AF TENCAP	7	18,172	14,233	6,447	U
134	0207248F	Special Evaluation Program	7	34,922	69,162	92,551	U
135	0207268F	Aircraft Engine Component Improvement Program	7	92,636	98,058	92,069	U

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				FY 1997	FY 1998	FY 1999	
136	0207320F	Sensor Fused Weapons	7	18,664	16,437	3,551	U
137	0207323F	AGM-86C Conventional Air-Launched Cruise Missile	7	1,722			U
138	0207325F	Joint Air-to-Surface Standoff Missile (JASSM)	7			132,870	U
139	0207412F	Theater Air Control Systems	7	589	377	431	U
140	0207414F	Combat Intelligence System	7			9,802	U
141	0207417F	Airborne Warning and Control System (AWACS)	7	55,004	43,606	28,189	U
142	0207419F	Tactical Airborne Command and Control Systems	7	71			U
143	0207423F	Advanced Communications Systems	7	1,646	2,728	2,348	U
144	0207424F	Evaluation and Analysis Program	7	75,534	68,353	84,950	U
145	0207431F	Combat Air Intelligence System Activities	7	7,373			U
146	0207433F	Advanced Program Technology	7	68,210	93,902	74,707	U
147	0207438F	Theater Battle Management (TBM) C4I	7	32,712	24,778	27,292	U
148	0207440F	Tactical Air Control System for Counternarcotics	7	1,245			U
149	0207581F	Joint Surveillance and Target Attack Radar System	7		118,335	123,793	U
150	0207590F	Seek Eagle	7	13,550	16,909	17,590	U
151	0207591F	Advanced Program Evaluation	7	180,983	209,935	272,914	U
152	0207601F	USAF Modeling and Simulation	7	25,505	19,807	14,899	U
153	0207605F	Wargaming and Simulation Centers	7			5,287	U
154	0208006F	Mission Planning Systems	7	17,606	14,747	17,090	U
155	0208019F	Tactical Information Program (TIP)	7			10,685	U

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				FY 1997	FY 1998	FY 1999	
156	0208021F	Information Warfare Support	7	1,273	1,299	1,375	U
157	0208030F	War Reserve Materiel - Ammunition	7	670			U
158	0208031F	War Reserve Materiel - Equipment/Secondary Items	7			1,470	U
159	0208060F	Theater Missile Defenses	7	21,740	26,873	31,057	U
160	0208160F	Technical Evaluation System	7	107,804	96,922	113,040	U
161	0208161F	Special Evaluation System	7	38,989	38,074	61,119	U
162	0301310F	Foreign Technology Division	7	3,160	874	1,234	U
163	0301315F	Missile and Space Technical Collection	7	39,689	8,794	18,595	U
164	0301324F	FOREST GREEN	7				
165	0301398F	Management Headquarters GDIP	7		1,816	1,241	U
166	0302015F	E-4B National Airborne Operations Center (NAOC)	7			4,233	U
167	0303110F	Defense Satellite Communications System (SPACE)	7	30,098	9,961	15,641	U
168	0303131F	Minimum Essential Emergency Communications	7	23,307	32,399	39,230	U
169	0303140F	Information Systems Security Program	7	6,667	4,961	8,420	U
170	0303141F	Global Combat Support System	7	14,943	19,745	17,973	U
171	0303144F	Joint Spectrum Center (JSC)	7	7,295	7,588		U
172	0303150F	Global Command and Control System	7			13,675	U
173	0303152F	World-Wide Military Command and Control Systems	7	7,277	6,741		U
174	0303601F	Milstar Satellite Communications System (SPACE)	7	21,752	11,450	2,352	U
175	0304111F	Special Activities	7				

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
176	0304311F	Selected Activities	7		2,902	3,000	U
177	0305099F	Global Air Traffic Management (GATM)	7			27,056	U
178	0305110F	Satellite Control Network (SPACE)	7	67,804	73,496	56,622	U
179	0305111F	Weather Service	7	4,801	8,411	10,649	U
180	0305114F	Air Traffic Control, Approach, and Landing System	7	7,337	5,928	4,729	U
181	0305119F	Medium Launch Vehicles (SPACE)	7	10,999	5,130	7,375	U
182	0305128F	Security and Investigative Activities	7	275	3,325	458	U
183	0305137F	National Airspace System (NAS) Plan	7	11,818	11,917	1,881	U
184	0305138F	Inertial Upper Stage (IUS)	7	1,505	3,150	558	U
185	0305142F	Applied Technology and Integration	7				
186	0305144F	Titan Space Launch Vehicles (SPACE)	7	77,702	70,483	87,443	U
187	0305145F	Arms Control Implementation	7	27,795			U
188	0305154F	Defense Airborne Reconnaissance Program	7	4,742			U
189	0305158F	Tactical Terminal	7	2,794	243	237	U
190	0305160F	Defense Meteorological Satellite Program (SPACE)	7	17,618	12,425	20,432	U
191	0305164F	NAVSTAR Global Positioning System (User	7	33,760	43,627	67,238	U
192	0305165F	NAVSTAR Global Positioning System (Space and Control Segments	7	40,875	25,146	21,155	U
193	0305172F	Combined Advanced Applications	7				
194	0305182F	Eastern Space Launch Facility (ESLF) (SPACE)	7	33,900	32,018	24,578	U
195	0305205F	Endurance Unmanned Aerial Vehicles	7		14,147	4,307	U

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Date: FEB 1998

Line No	Program Element Number	Item	Thousands of Dollars				S e c
			Act	FY 1997	FY 1998	FY 1999	
196	0305207F	Manned Reconnaissance Systems	7		11,360		U
197	0305906F	NCMC - TW/AA System	7	26,717	6,726	7,878	U
198	0305910F	SPACETRACK (SPACE)	7	32,794	38,432	39,532	U
199	0305911F	Defense Support Program (SPACE)	7	24,668	20,689	12,037	U
200	0305913F	NUDET Detection System (SPACE)	7	12,818	13,360	13,314	U
201	0305917F	Space Architect	7		13,480	13,714	U
202	0305953F	Evolved Expendable Launch Vehicle (EELV) (Space)	7			3,316	U
203	0308601F	Modeling and Simulation Support	7			1,093	U
204	0401119F	C-5 Airlift Squadrons	7	1,122	9,160	47,940	U
205	0401130F	C-17 Aircraft	7	71,365	104,568	123,069	U
206	0401214F	Air Cargo Material Handling (463-L) (Non-IF)	7	3,100	5,610	512	U
207	0401218F	KC-135s	7	714	1,863	11,093	U
208	0404102F	Aerospace Rescue and Recovery	7	3,165			U
209	0702207F	Depot Maintenance (Non-IF)	7	1,375	1,397	1,500	U
210	0708011F	Industrial Preparedness	7	48,615	45,020	50,997	U
211	0708026F	Productivity, Reliability, Availability, Maintain. Prog Ofc	7	15,856	21,764	970	U
212	0708071F	Joint Logistics Program - Ammunition Standard	7	13,780		16,086	U
213	0708611F	Support Systems Development	7	25,329	3,404	23,010	U
214	0804734F	Cryptologic/SIGINT-Related Skill Training	7	1,778	1,258		U
215	0901218F	Civilian Compensation Program	7	6,261	6,285	6,756	U

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Date: FEB 1998

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			Thousands of Dollars				
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	c
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216	1001004F	International Activities	7	3,548			U
217	1001018F	NATO Joint STARS	7	5,975	24,091		U
Operational Systems Development				6,410,667	6,551,341	6,839,032	
Total Research Development Test & Eval AF				14,089,834	13,982,255	13,598,093	



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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Summary

Date: FEB 1998

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Thousands of Dollars  
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	FY 1997	FY 1998	FY 1999
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Summary Recap of Budget Activities			
-----			
Basic Research	329,469	326,202	338,393
Applied Research	1,130,113	1,280,559	1,401,820
Advanced Technology Development	2,070,700	2,164,209	1,726,555
Demonstration and Validation	2,584,713	2,545,936	2,408,913
Engineering and Manufacturing Development	716,135	656,631	903,132
RDT&E Management Support	286,001	223,970	246,410
Operational Systems Development	2,195,458	2,298,726	2,289,442
	-----	-----	-----
Total Research Development Test & Eval Defwide	9,312,589	9,496,233	9,314,665
Summary Recap of FYDP Programs			
-----			
General Purpose Forces	26,575	26,853	28,143
Intelligence and Communications	2,007,774	2,074,151	2,052,347
Research and Development	7,128,310	7,183,982	7,015,692
Central Supply and Maintenance	6,101	26,013	26,231
Administration and Assoc Activities	2,198	32,348	34,392
Support of Other Nations			1,957
Special Operations Forces	141,631	152,886	155,903
	-----	-----	-----
Total Research Development Test & Eval Defwide	9,312,589	9,496,233	9,314,665

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Defensewide  
FY 1999 RDT&E Program

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Summary

Date: FEB 1998

Thousands of Dollars

	FY 1997	FY 1998	FY 1999
Summary Recap of Defensewide			
Special Operations Command	141,631	152,886	155,903
Chemical and Biological Defense Program	301,792	344,722	336,365
National Imagery And Mapping Agency			360,890
Def Threat Red & Treaty Compln Agency			3,178,940
Ballistic Missile Defense Organization	3,360,278	3,281,730	3,178,940
Office of Secretary/Defense	1,569,611	1,588,611	1,407,556
Defense Advanced Research Projects Agcy	2,069,971	2,040,819	2,039,722
National Security Agency			
Defense Special Weapons Agency	214,511	284,550	
Defense Support Project Office	78,039	50,804	40,504
Joint Chiefs of Staff	38,520	53,976	69,495
Defense Information Systems Agency	62,668	52,934	128,042
Defense Intelligence Agency			
Defense Logistics Agency	88,619	155,959	63,277
Defense Security Assistance Agency			14,360
Undistributed	-38,000		
Defense Security Service	411	406	418
Total Research Development Test & Eval Defwide	9,312,589	9,496,233	9,314,665

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## UNCLASSIFIED

Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
1	0601101D8Z	In-House Laboratory Independent Research	1	3,074	1,513	2,173	U
2	0601101E	Defense Research Sciences	1	89,365	68,332	65,102	U
3	0601103D8Z	University Research Initiatives	1	208,656	222,628	216,320	U
4	0601105D8Z	Gulf War Illness	1			19,646	U
5	0601111D8Z	Government/Industry Cosponsorship of University	1		7,393	9,870	U
6	0601384BP	Chemical and Biological Defense Program	1	28,374	26,336	25,282	U
		Basic Research		329,469	326,202	338,393	
7	0602110E	Next Generation Internet	2		40,453	40,000	U
8	0602173C	Support Technologies - Applied Research	2	122,176	109,628	86,866	U
9	0602227D8Z	Medical Free Electron Laser	2	19,432	20,103	9,706	U
10	0602228D8Z	Historically Black Colleges and Universities	2	10,594	11,080		U
11	0602234D8Z	Lincoln Laboratory Research Program	2	19,561	17,708	19,641	U
12	0602301E	Computing Systems and Communications Technology	2	304,766	309,037	417,723	U
13	0602383E	Biological Warfare Defense	2		60,805	88,000	U
14	0602384BP	Chemical and Biological Defense Program	2	70,829	72,181	57,683	U
15	0602702E	Tactical Technology	2	123,523	148,331	188,995	U
16	0602708E	Integrated Command and Control Technology	2	58,824	45,695	34,000	U
17	0602712E	Materials and Electronics Technology	2	203,887	231,353	244,408	U
18	0602715BR	WMD Related Technologies	2			203,598	U

## UNCLASSIFIED

Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
19	0602715H	Defense Special Weapons Agency	2	186,726	203,642		U
20	0602787D8Z	Medical Technology	2	7,981	8,669	9,239	U
21	0305108K	Command and Control Research	2	1,814	1,874	1,961	U
		Applied Research		1,130,113	1,280,559	1,401,820	
22	0603002D8Z	Medical Advanced Technology	3	3,187	2,672	2,136	U
23	0603104D8Z	Explosives Demilitarization Technology	3	11,189	11,711	11,650	U
24	0603120D8Z	Demining	3	13,256	15,918		U
25	0603121D8Z	Alternative to Landmines	3		2,856	4,753	U
26	0603122D8Z	Counterterrorism Technical Support	3	24,599	39,036	35,813	U
27	0603160BR	Counterproliferation Support - Adv Dev	3			70,611	U
28	0603160D8Z	Counterproliferation Support - Adv Dev	3	61,840	65,212		U
29	0603173C	Support Technologies - Advanced Technology	3	248,011	299,788	166,676	U
30	0603225D8Z	Joint DoD-DoE Munitions Technology Development	3	17,261	16,909	13,447	U
31	0603232D8Z	Automatic Target Recognition	3	4,391	6,487	5,081	U
32	0603384BP	Chemical and Biological Defense Program	3	59,408	48,349	42,762	U
33	0603704D8Z	Special Technical Support	3	16,785	11,224	11,337	U
34	0603711BR	Verification Technology Demonstration	3			63,052	U
35	0603711H	Verification Technology Demonstration	3	27,785	80,908		U
36	0603712S	Generic Logistics R&D Technology Demonstrations	3	19,220	21,554	17,788	U

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
37	0603716D8Z	Strategic Environmental Research Program	3	52,770	57,115		U
38	0603727D8Z	Joint Warfighting Program	3		8,761	23,700	U
39	0603728D8Z	Agile Port Demonstration	3	4,500	4,778		U
40	0603729D8Z	Rocket Launch Facility Upgrades	3	9,433			U
41	0603730D8Z	Airfield Surface Traffic Monitoring	3	1,382			U
42	0603738D8Z	Cooperative DoD/VA Medical Research	3	23,809	14,421		U
43	0603739E	Advanced Electronics Technologies	3	342,243	281,909	244,737	U
44	0603746E	Maritime Technology	3	47,347	36,030	15,000	U
45	0603747E	Electric Vehicles	3	14,693	14,522		U
46	0603750D8Z	Advanced Concept Technology Demonstrations	3	57,070	77,455	116,330	U
47	0603752D8Z	Commercial Technology Insertion Program	3	9,500	19,105		U
48	0603753S	Electronic Commerce Resource Centers	3		46,421		U
49	0603755D8Z	High Performance Computing Modernization Program	3	119,092	143,176	140,927	U
50	0603760E	Command, Control and Communications Systems	3	98,840	150,010	200,100	U
51	0603761E	Communication and Simulation Technology	3	124,961	74,212	56,114	U
52	0603762E	Sensor and Guidance Technology	3	104,299	167,184	213,154	U
53	0603763E	Marine Technology	3	41,185	19,626	24,788	U
54	0603764E	Land Warfare Technology	3	62,381	80,924	108,490	U
55	0603765E	Classified DARPA Programs	3	172,895	129,411	55,500	U
56	0603800E	Joint Strike Fighter (JSF) - Dem/Val	3	70,261	23,019		U

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
57	0603805E	Dual Use Applications Programs	3	123,168	120,395		U
58	0603805S	Dual Use Application Programs	3	5,000		6,000	U
59	0603832D8Z	Joint Wargaming Simulation Management Office	3	56,945	61,460	70,696	U
60	0303132G	Global Grid Communications	3				
61	0304211G	National Activities	3				
62	0305166G	Special Development	3				
		Advanced Technology Development		2,070,700	2,164,209	1,726,555	
63	0603228D8Z	Physical Security Equipment	4	23,095	17,939	31,792	U
64	0603708D8Z	Integrated Diagnostics	4	9,255	6,257	3,436	U
65	0603709D8Z	Joint Robotics Program	4	27,972	27,085	16,217	U
66	0603714D8Z	Advanced Sensor Applications Program	4	24,683	17,655	15,147	U
67	0603736D8Z	CALS Initiative	4	15,105	5,525	1,863	U
68	0603790D8Z	NATO Research and Development	4	9,312	8,245		U
69	0603790T	NATO Research and Development	4			10,762	U
70	0603851D8Z	Environmental Security Technical Certification	4	21,021	14,566	17,051	U
71	0603857J	All Service Combat Identification Evaluation Team	4			13,014	U
72	0603861C	Theater High-Altitude Area Defense System - TMD	4	549,579	390,785	497,752	U
73	0603867C	Navy Area	4	157,028			U
74	0603868C	Navy Theater Wide	4	304,171	419,414	190,446	U

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
75	0603869C	Meads Concepts - Dem/Val	4	58,825	46,144	43,027	U
76	0603870C	Boost Phase Intercept Theater Missile Defense	4	22,755	15,766		U
77	0603871C	National Missile Defense - Dem/Val	4	811,416	941,142	950,473	U
78	0603872C	Joint Theater Missile Defense - Dem/Val	4	493,429	582,000	176,846	U
79	0603873C	Family-of Systems Engineering and Integration	4			96,915	U
80	0603874C	BMD Technical Operations	4			190,147	U
81	0603875C	International Cooperative Programs	4			50,676	U
82	0603876C	Threat and Countermeasures	4			22,113	U
83	0603884BP	Chemical and Biological Defense Program - Dem/Val	4	45,133	53,413	60,404	U
84	0603892D8Z	ASAT	4	48,736			U
85	0603920D8Z	Humanitarian Demining	4			17,234	U
86	0605104T	Technical Studies, Support and Analysis	4			980	U
87	0605110T	Critical Technology Support	4			2,618	U
88	0208043J	ISLAND SUN	4	1,198			U
89	0904901U	Undistributed Adjustments	4	-38,000			U
		Demonstration and Validation		2,584,713	2,545,936	2,408,913	
90	0604160D8Z	Counterproliferation Support - EMD	5	2,300			U
91	0604384BP	Chemical and Biological Defense Program - EMD	5	78,709	126,302	125,312	U
92	0604709D8Z	Joint Robotics Program - Eng Dev	5			11,307	U

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

				-----S				
				Thousands of Dollars				
Line	Program	Element	Item	Act	FY 1997	FY 1998	FY 1999	c
No	No	Number		-----	-----	-----	-----	
93	0604764K		Advanced IT Services Joint Program Office (AITS-	5			15,588	U
94	0604771D8Z		Joint Tactical Information Distribution System	5	42,238	53,266	30,512	U
95	0604805D8Z		Commercial Operations and Support Savings	5			13,410	U
96	0604861C		Theater High-Altitude Area Defense System - TMD	5	66,737		323,942	U
97	0604865C		Patriot PAC-3 Theater Missile Defense Acquisition	5	382,808	198,273	137,265	U
98	0604867C		Navy Area Theater Missile Defense - EMD	5	143,343	278,790	245,796	U
			Engineering and Manufacturing Development		716,135	656,631	903,132	
99	0603858D8Z		Unexploded Ordnance Detection and Clearance	6			1,273	U
100	0604942D8Z		Assessments and Evaluations	6		4,655	3,916	U
101	0605104D8Z		Technical Studies, Support and Analysis	6	29,583	29,178	30,021	U
102	0605110D8Z		USD(A&T)--Critical Technology Support	6	2,608	2,584		U
103	0605114E		BLACK LIGHT	6	4,518	4,532	5,000	U
104	0605117D8Z		Foreign Material Acquisition and Exploitation	6	39,300	35,996	35,035	U
105	0605122D8Z		Industrial Capabilities Assessments	6			2,937	U
106	0605126J		Joint Theater Air and Missile Defense Organizatio	6		14,374	17,423	U
107	0605128BR		Classified Programs	6			13,755	U
108	0605128D8Z		Classified Program USD(P)	6	10,822	8,720		U
109	0605160BR		Counterproliferation Support	6			9,874	U
110	0605160D8Z		Counterproliferation Support	6	8,346	6,768		U



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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Program	Item	Act	FY 1997	FY 1998	FY 1999	c
No	Element						
	Number						
111	0605384BP	Chemical and Biological Defense Program	6	19,339	18,141	24,922	U
112	0605502D8Z	Small Business Innovative Research	6	26,667			U
113	0605502E	Small Business Innovative Research	6	45,660			U
114	0605710D8Z	Classified Programs - C3I	6	2,164	343	439	U
115	0605790D8Z	Small Business Innovation Research Administration	6	1,541	1,669	1,820	U
116	0605798S	Defense Technology Analysis	6	13,096	8,542	5,010	U
117	0605801K	Defense Technical Information Services (DTIC)	6			46,469	U
118	0605801S	Defense Technical Information Center	6	43,315	45,413		U
119	0605803S	R&D in Support of DoD Enlistment, Testing	6	1,887	8,016	8,248	U
120	0605898E	Management Headquarters (Research and Development	6	35,340	35,039	38,611	U
121	0305190D8Z	C3I Intelligence Programs	6			1,657	U
122	0909900E	Financing for Expired Account Adjustments	6	1,815			U
		RDT&E Management Support		286,001	223,970	246,410	
123	0208045K	C3 Interoperability	7	24,391	24,913	26,296	U
124	0208052J	Joint Analytical Model Improvement Program	7	986	1,940	1,847	U
125	0301011G	Cryptologic Activities	7				
126	0301301L	General Defense Intelligence Program	7				
127	0302016K	National Military Command System-Wide Support	7	1,950	1,688	1,189	U
128	0302019K	Defense Info Infrastructure Engineering	7	4,531	4,119	4,975	U

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
129	0303126K	Long-Haul Communications (DCS)	7	22,613	13,693	11,561	U
130	0303127K	Support of the National Communications System	7	3,808	4,405	4,428	U
131	0303129K	Defense Message System	7	1,353			U
132	0303131K	Minimum Essential Emergency Communications	7	2,208	2,242	3,061	U
133	0303140G	Information Systems Security Program	7	202,080	243,177	239,081	U
134	0303149J	C4I for the Warrior	7	2,502	2,506	2,819	U
135	0303149K	C4I for the Warrior	7			3,675	U
136	0303153K	Joint Spectrum Center	7			8,839	U
137	0304345BQ	National Imagery and Mapping Program	7				
138	0305102BQ	Defense Imagery and Mapping Program	7	101,988	115,468	114,417	U
139	0305127V	Foreign Counterintelligence Activities	7	411	406	418	U
140	0305154D8Z	Defense Airborne Reconnaissance Program	7	454,411			U
141	0305154G	Defense Airborne Reconnaissance Program	7	3,459			U
142	0305159I	Defense Reconnaissance Support Activities (SPACE)	7	78,039	50,804	40,504	U
143	0305188J	Joint C4ISR Battle Center (JBC)	7	2,829	2,808		U
144	0305190D8Z	C3I Intelligence Programs	7	6,767	5,978	8,015	U
145	0305204D8Z	Tactical Unmanned Aerial Vehicles	7		52,148	37,192	U
146	0305205D8Z	Endurance Unmanned Aerial Vehicles	7		184,380	178,668	U
147	0305206D8Z	Airborne Reconnaissance Systems	7		188,445	162,666	U
148	0305207D8Z	Manned Reconnaissance Systems	7		26,581	10,840	U

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
149	0305207G	Manned Reconnaissance Systems	7		4,256	4,085	U
150	0305208D8Z	Distributed Common Ground Systems	7		36,022	34,985	U
151	0305209D8Z	DARP Integration and Support	7		7,216	15,701	U
152	0305884L	Intelligence Planning and Review Activities	7				
153	0305885G	Tactical Cryptologic Activities	7	99,987	92,660	104,510	U
154	0305889G	Counterdrug Intelligence Support	7	9,054			U
155	0305898L	Management Headquarters (Auxiliary Forces)	7	1,849	1,864		U
156	0708011S	Industrial Preparedness	7	6,101	26,013	26,231	U
157	0902298J	Management Headquarters (OJCS)	7	9,985	8,905	9,617	U
158	0902740J	Joint Simulation System	7	21,020	23,443	24,775	U
159	0909999D8Z	Financing for Cancelled Account Adjustments	7	7,378			U
160	1001017D8Z	Partnership for Peace Activities	7			1,957	U
161	1160279BB	Small Business Innovative Research/Small Bus Tech	7	3,017	3,147		U
162	1160401BB	Special Operations Technology Development	7	5,743	3,917	4,026	U
163	1160402BB	Special Operations Advanced Technology Developmen	7	7,536	8,140	8,020	U
164	1160404BB	Special Operations Tactical Systems Development	7	92,153	99,654	106,238	U
165	1160405BB	Special Operations Intelligence Systems	7	2,092	10,305	1,805	U
166	1160407BB	SOF Medical Technology Development	7	1,789	1,883	2,015	U
167	1160408BB	SOF Operational Enhancements	7	29,301	25,840	33,799	U
Operational Systems Development				2,195,458	2,298,726	2,289,442	
Total Research Development Test & Eval Defwide				9,312,589	9,496,233	9,314,665	

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Summary

Date: FEB 1998

Thousands of Dollars

	FY 1997	FY 1998	FY 1999
Summary Recap of Budget Activities			
-----			
RDT&E Management Support	275,792	245,725	251,106
	-----	-----	-----
Total Developmental Test & Eval, Defense	275,792	245,725	251,106
Summary Recap of FYDP Programs			
-----			
Research and Development	275,792	245,725	251,106
	-----	-----	-----
Total Developmental Test & Eval, Defense	275,792	245,725	251,106

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0450 D Developmental Test & Eval, Defense

Date: FEB 1998

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			Thousands of Dollars				
Line	Program	Item	Act	FY 1997	FY 1998	FY 1999	e
No	Element		-----	-----	-----	-----	c
	Number						
1	0604940D8Z	Central Test and Evaluation Investment	6	142,809	118,718	122,169	U
2	0605130D8Z	Foreign Comparative Testing	6	32,851	32,657	32,684	U
3	0605804D8Z	Development Test and Evaluation	6	100,132	94,350	96,253	U
		RDT&E Management Support		275,792	245,725	251,106	
		Total Developmental Test & Eval, Defense		275,792	245,725	251,106	

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Defensewide  
FY 1999 RDT&E Program

Exhibit R-1

Summary

Date: FEB 1998

Thousands of Dollars

	FY 1997	FY 1998	FY 1999
Summary Recap of Budget Activities			
-----			
RDT&E Management Support	24,219	29,794	25,245
	-----	-----	-----
Total Operational Test & Evaluation, Defense	24,219	29,794	25,245
Summary Recap of FYDP Programs			
-----			
Research and Development	24,219	29,794	25,245
	-----	-----	-----
Total Operational Test & Evaluation, Defense	24,219	29,794	25,245

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Defensewide  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0460 D Operational Test & Evaluation, Defense

Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Program	Item	Act	FY 1997	FY 1998	FY 1999	e
No	Number		---	-----	-----	-----	c
1	0605118D8Z	Operational Test and Evaluation	6	11,437	16,154	15,311	U
2	0605131D8Z	Live Fire Testing	6	12,782	13,640	9,934	U
		RDT&E Management Support		24,219	29,794	25,245	
Total	Operational Test & Evaluation, Defense			24,219	29,794	25,245	

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Special Operations Command  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

				Thousands of Dollars			
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se c
161	1160279BB	Small Business Innovative Research/Small Bus Tech	7	3,017	3,147		U
162	1160401BB	Special Operations Technology Development	7	5,743	3,917	4,026	U
163	1160402BB	Special Operations Advanced Technology Developmen	7	7,536	8,140	8,020	U
164	1160404BB	Special Operations Tactical Systems Development	7	92,153	99,654	106,238	U
165	1160405BB	Special Operations Intelligence Systems	7	2,092	10,305	1,805	U
166	1160407BB	SOF Medical Technology Development	7	1,789	1,883	2,015	U
167	1160408BB	SOF Operational Enhancements	7	29,301	25,840	33,799	U
Operational Systems Development				141,631	152,886	155,903	
Total Special Operations Command				141,631	152,886	155,903	



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Chemical and Biological Defense Program  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

Line No	Element Number	Program Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
6	0601384BP	Chemical and Biological Defense Program	1	28,374	26,336	25,282	U
		Basic Research		28,374	26,336	25,282	
14	0602384BP	Chemical and Biological Defense Program	2	70,829	72,181	57,683	U
		Applied Research		70,829	72,181	57,683	
32	0603384BP	Chemical and Biological Defense Program	3	59,408	48,349	42,762	U
		Advanced Technology Development		59,408	48,349	42,762	
83	0603884BP	Chemical and Biological Defense Program - Dem/Val	4	45,133	53,413	60,404	U
		Demonstration and Validation		45,133	53,413	60,404	
91	0604384BP	Chemical and Biological Defense Program - EMD	5	78,709	126,302	125,312	U
		Engineering and Manufacturing Development		78,709	126,302	125,312	
111	0605384BP	Chemical and Biological Defense Program	6	19,339	18,141	24,922	U
		RDT&E Management Support		19,339	18,141	24,922	
Total Chemical and Biological Defense Program				301,792	344,722	336,365	

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National Imagery And Mapping Agency  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			Thousands of Dollars				
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se
137	0304345BQ	National Imagery and Mapping Program	7				
138	0305102BQ	Defense Imagery and Mapping Program	7	101,988	115,468	114,417	U
		Operational Systems Development					
Total National Imagery And Mapping Agency							

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Def Threat Red & Treaty Compln Agency  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

				Thousands of Dollars			
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Source
18	0602715BR	WMD Related Technologies	2			203,598	U
		Applied Research				203,598	
27	0603160BR	Counterproliferation Support - Adv Dev	3			70,611	U
34	0603711BR	Verification Technology Demonstration	3			63,052	U
		Advanced Technology Development				133,663	
107	0605128BR	Classified Programs	6			13,755	U
109	0605160BR	Counterproliferation Support	6			9,874	U
		RDT&E Management Support				23,629	
Total		Def Threat Red & Treaty Compln Agency				360,890	

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Ballistic Missile Defense Organization  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
8	0602173C	Support Technologies - Applied Research	2	122,176	109,628	86,866	U
		Applied Research		122,176	109,628	86,866	
29	0603173C	Support Technologies - Advanced Technology	3	248,011	299,788	166,676	U
		Advanced Technology Development		248,011	299,788	166,676	
72	0603861C	Theater High-Altitude Area Defense System - TMD	4	549,579	390,785	497,752	U
73	0603867C	Navy Area	4	157,028			U
74	0603868C	Navy Theater Wide	4	304,171	419,414	190,446	U
75	0603869C	Meads Concepts - Dem/Val	4	58,825	46,144	43,027	U
76	0603870C	Boost Phase Intercept Theater Missile Defense	4	22,755	15,766		U
77	0603871C	National Missile Defense - Dem/Val	4	811,416	941,142	950,473	U
78	0603872C	Joint Theater Missile Defense - Dem/Val	4	493,429	582,000	176,846	U
79	0603873C	Family-of Systems Engineering and Integration	4			96,915	U
80	0603874C	BMD Technical Operations	4			190,147	U
81	0603875C	International Cooperative Programs	4			50,676	U
82	0603876C	Threat and Countermeasures	4			22,113	U
		Demonstration and Validation		2,397,203	2,395,251	2,218,395	
96	0604861C	Theater High-Altitude Area Defense System - TMD	5	66,737		323,942	U
97	0604865C	Patriot PAC-3 Theater Missile Defense Acquisition	5	382,808	198,273	137,265	U

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Ballistic Missile Defense Organization  
 FY 1999 RDT&E Program

Exhibit R-1

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Date: FEB 1998

			Thousands of Dollars				
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se c
98	0604867C	Navy Area Theater Missile Defense - EMD	5	143,343	278,790	245,796	U
		Engineering and Manufacturing Development		592,888	477,063	707,003	
Total Ballistic Missile Defense Organization				3,360,278	3,281,730	3,178,940	

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Office of Secretary/Defense  
FY 1999 RDT&E Program

Exhibit R-1

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Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
1	0601101D8Z	In-House Laboratory Independent Research	1	3,074	1,513	2,173	U
3	0601103D8Z	University Research Initiatives	1	208,656	222,628	216,320	U
4	0601105D8Z	Gulf War Illness	1			19,646	U
5	0601111D8Z	Government/Industry Cosponsorship of University	1		7,393	9,870	U
		Basic Research		211,730	231,534	248,009	
9	0602227D8Z	Medical Free Electron Laser	2	19,432	20,103	9,706	U
10	0602228D8Z	Historically Black Colleges and Universities	2	10,594	11,080		U
11	0602234D8Z	Lincoln Laboratory Research Program	2	19,561	17,708	19,641	U
20	0602787D8Z	Medical Technology	2	7,981	8,669	9,239	U
		Applied Research		57,568	57,560	38,586	
22	0603002D8Z	Medical Advanced Technology	3	3,187	2,672	2,136	U
23	0603104D8Z	Explosives Demilitarization Technology	3	11,189	11,711	11,650	U
24	0603120D8Z	Demining	3	13,256	15,918		U
25	0603121D8Z	Alternative to Landmines	3		2,856	4,753	U
26	0603122D8Z	Counterterrorism Technical Support	3	24,599	39,036	35,813	U
28	0603160D8Z	Counterproliferation Support - Adv Dev	3	61,840	65,212		U
30	0603225D8Z	Joint DoD-DoE Munitions Technology Development	3	17,261	16,909	13,447	U
31	0603232D8Z	Automatic Target Recognition	3	4,391	6,487	5,081	U
33	0603704D8Z	Special Technical Support	3	16,785	11,224	11,337	U

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Office of Secretary/Defense  
FY 1999 RDT&E Program

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Line No	Element Number	Program Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
37	0603716D8Z	Strategic Environmental Research Program	3	52,770	57,115		U
38	0603727D8Z	Joint Warfighting Program	3		8,761	23,700	U
39	0603728D8Z	Agile Port Demonstration	3	4,500	4,778		U
40	0603729D8Z	Rocket Launch Facility Upgrades	3	9,433			U
41	0603730D8Z	Airfield Surface Traffic Monitoring	3	1,382			U
42	0603738D8Z	Cooperative DoD/VA Medical Research	3	23,809	14,421		U
46	0603750D8Z	Advanced Concept Technology Demonstrations	3	57,070	77,455	116,330	U
47	0603752D8Z	Commercial Technology Insertion Program	3	9,500	19,105		U
49	0603755D8Z	High Performance Computing Modernization Program	3	119,092	143,176	140,927	U
59	0603832D8Z	Joint Wargaming Simulation Management Office	3	56,945	61,460	70,696	U
		Advanced Technology Development		487,009	558,296	435,870	
63	0603228D8Z	Physical Security Equipment	4	23,095	17,939	31,792	U
64	0603708D8Z	Integrated Diagnostics	4	9,255	6,257	3,436	U
65	0603709D8Z	Joint Robotics Program	4	27,972	27,085	16,217	U
66	0603714D8Z	Advanced Sensor Applications Program	4	24,683	17,655	15,147	U
67	0603736D8Z	CALS Initiative	4	15,105	5,525	1,863	U
68	0603790D8Z	NATO Research and Development	4	9,312	8,245		U
70	0603851D8Z	Environmental Security Technical Certification	4	21,021	14,566	17,051	U
84	0603892D8Z	ASAT	4	48,736			U
85	0603920D8Z	Humanitarian Demining	4			17,234	U
		Demonstration and Validation		179,179	97,272	102,740	

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Office of Secretary/Defense  
FY 1999 RDT&E Program

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Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
90	0604160D8Z	Counterproliferation Support - EMD	5	2,300			U
92	0604709D8Z	Joint Robotics Program - Eng Dev	5			11,307	U
94	0604771D8Z	Joint Tactical Information Distribution System	5	42,238	53,266	30,512	U
95	0604805D8Z	Commercial Operations and Support Savings	5			13,410	U
		Engineering and Manufacturing Development		44,538	53,266	55,229	
99	0603858D8Z	Unexploded Ordnance Detection and Clearance	6			1,273	U
100	0604942D8Z	Assessments and Evaluations	6		4,655	3,916	U
101	0605104D8Z	Technical Studies, Support and Analysis	6	29,583	29,178	30,021	U
102	0605110D8Z	USD(A&T)--Critical Technology Support	6	2,608	2,584		U
104	0605117D8Z	Foreign Material Acquisition and Exploitation	6	39,300	35,996	35,035	U
105	0605122D8Z	Industrial Capabilities Assessments	6			2,937	U
108	0605128D8Z	Classified Program USD(P)	6	10,822	8,720		U
110	0605160D8Z	Counterproliferation Support	6	8,346	6,768		U
112	0605502D8Z	Small Business Innovative Research	6	26,667			U
114	0605710D8Z	Classified Programs - C3I	6	2,164	343	439	U
115	0605790D8Z	Small Business Innovation Research Administration	6	1,541	1,669	1,820	U
121	0305190D8Z	C3I Intelligence Programs	6			1,657	U
		RDT&E Management Support		121,031	89,913	77,098	
140	0305154D8Z	Defense Airborne Reconnaissance Program	7	454,411			U

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Office of Secretary/Defense  
FY 1999 RDT&E Program

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Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Program Element No Number	Item	Act	FY 1997	FY 1998	FY 1999	c
			---	-----	-----	-----	
144	0305190D8Z	C3I Intelligence Programs	7	6,767	5,978	8,015	U
145	0305204D8Z	Tactical Unmanned Aerial Vehicles	7		52,148	37,192	U
146	0305205D8Z	Endurance Unmanned Aerial Vehicles	7		184,380	178,668	U
147	0305206D8Z	Airborne Reconnaissance Systems	7		188,445	162,666	U
148	0305207D8Z	Manned Reconnaissance Systems	7		26,581	10,840	U
150	0305208D8Z	Distributed Common Ground Systems	7		36,022	34,985	U
151	0305209D8Z	DARP Integration and Support	7		7,216	15,701	U
159	0909999D8Z	Financing for Cancelled Account Adjustments	7	7,378			U
160	1001017D8Z	Partnership for Peace Activities	7			1,957	U
Operational Systems Development				468,556	500,770	450,024	
Total Office of Secretary/Defense				1,569,611	1,588,611	1,407,556	

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Defense Advanced Research Projects Agency  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
2	0601101E	Defense Research Sciences	1	89,365	68,332	65,102	U
		Basic Research		89,365	68,332	65,102	
7	0602110E	Next Generation Internet	2		40,453	40,000	U
12	0602301E	Computing Systems and Communications Technology	2	304,766	309,037	417,723	U
13	0602383E	Biological Warfare Defense	2		60,805	88,000	U
15	0602702E	Tactical Technology	2	123,523	148,331	188,995	U
16	0602708E	Integrated Command and Control Technology	2	58,824	45,695	34,000	U
17	0602712E	Materials and Electronics Technology	2	203,887	231,353	244,408	U
		Applied Research		691,000	835,674	1,013,126	
43	0603739E	Advanced Electronics Technologies	3	342,243	281,909	244,737	U
44	0603746E	Maritime Technology	3	47,347	36,030	15,000	U
45	0603747E	Electric Vehicles	3	14,693	14,522		U
50	0603760E	Command, Control and Communications Systems	3	98,840	150,010	200,100	U
51	0603761E	Communication and Simulation Technology	3	124,961	74,212	56,114	U
52	0603762E	Sensor and Guidance Technology	3	104,299	167,184	213,154	U
53	0603763E	Marine Technology	3	41,185	19,626	24,788	U
54	0603764E	Land Warfare Technology	3	62,381	80,924	108,490	U
55	0603765E	Classified DARPA Programs	3	172,895	129,411	55,500	U
56	0603800E	Joint Strike Fighter (JSF) - Dem/Val	3	70,261	23,019		U

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Defense Advanced Research Projects Agency  
 FY 1999 RDT&E Program

Exhibit R-1

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Date: FEB 1998

			Thousands of Dollars				
Line No	Program Element Number	Item	Act	FY 1997	FY 1998	FY 1999	Se c
57	0603805E	Dual Use Applications Programs	3	123,168	120,395		U
		Advanced Technology Development		1,202,273	1,097,242	917,883	
103	0605114E	BLACK LIGHT	6	4,518	4,532	5,000	U
113	0605502E	Small Business Innovative Research	6	45,660			U
120	0605898E	Management Headquarters (Research and Development	6	35,340	35,039	38,611	U
122	0909900E	Financing for Expired Account Adjustments	6	1,815			U
		RDT&E Management Support		87,333	39,571	43,611	
Total Defense Advanced Research Projects Agency				2,069,971	2,040,819	2,039,722	

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National Security Agency  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Program Element No Number	Item	Act	FY 1997	FY 1998	FY 1999	c
			----	-----	-----	-----	
60	0303132G	Global Grid Communications	3				
61	0304211G	National Activities	3				
62	0305166G	Special Development	3				
		Advanced Technology Development		21,994	11,651	5,913	
125	0301011G	Cryptologic Activities	7				
133	0303140G	Information Systems Security Program	7	202,080	243,177	239,081	U
141	0305154G	Defense Airborne Reconnaissance Program	7	3,459			U
149	0305207G	Manned Reconnaissance Systems	7		4,256	4,085	U
153	0305885G	Tactical Cryptologic Activities	7	99,987	92,660	104,510	U
154	0305889G	Counterdrug Intelligence Support	7	9,054			U
		Operational Systems Development					
Total	National Security Agency						

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Defense Special Weapons Agency  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Element	Program	Act	FY 1997	FY 1998	FY 1999	c
No	Number	Item	---	-----	-----	-----	
19	0602715H	Defense Special Weapons Agency	2	186,726	203,642		U
		Applied Research		186,726	203,642		
35	0603711H	Verification Technology Demonstration	3	27,785	80,908		U
		Advanced Technology Development		27,785	80,908		
Total Defense Special Weapons Agency				214,511	284,550		

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Defense Support Project Office  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

				Thousands of Dollars			
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se c
142	0305159I	Defense Reconnaissance Support Activities (SPACE)	7	78,039	50,804	40,504	U
		Operational Systems Development		78,039	50,804	40,504	
Total Defense Support Project Office				78,039	50,804	40,504	

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Joint Chiefs of Staff  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

				Thousands of Dollars			
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Source
71	0603857J	All Service Combat Identification Evaluation Team	4			13,014	U
88	0208043J	ISLAND SUN	4	1,198			U
		Demonstration and Validation		1,198		13,014	
106	0605126J	Joint Theater Air and Missile Defense Organizatio	6		14,374	17,423	U
		RDT&E Management Support			14,374	17,423	
124	0208052J	Joint Analytical Model Improvement Program	7	986	1,940	1,847	U
134	0303149J	C4I for the Warrior	7	2,502	2,506	2,819	U
143	0305188J	Joint C4ISR Battle Center (JBC)	7	2,829	2,808		U
157	0902298J	Management Headquarters (OJCS)	7	9,985	8,905	9,617	U
158	0902740J	Joint Simulation System	7	21,020	23,443	24,775	U
		Operational Systems Development		37,322	39,602	39,058	
Total Joint Chiefs of Staff				38,520	53,976	69,495	

## UNCLASSIFIED

Defense Information Systems Agency  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test &amp; Eval Defwide

Date: FEB 1998

Line No	Program Element Number	Item	Act	Thousands of Dollars			S e c
				FY 1997	FY 1998	FY 1999	
21	0305108K	Command and Control Research	2	1,814	1,874	1,961	U
		Applied Research		1,814	1,874	1,961	
93	0604764K	Advanced IT Services Joint Program Office	5			15,588	U
		Engineering and Manufacturing Development				15,588	
117	0605801K	Defense Technical Information Services (DTIC)	6			46,469	U
		RDT&E Management Support				46,469	
123	0208045K	C3 Interoperability	7	24,391	24,913	26,296	U
127	0302016K	National Military Command System-Wide Support	7	1,950	1,688	1,189	U
128	0302019K	Defense Info Infrastructure Engineering and	7	4,531	4,119	4,975	U
129	0303126K	Long-Haul Communications (DCS)	7	22,613	13,693	11,561	U
130	0303127K	Support of the National Communications System	7	3,808	4,405	4,428	U
131	0303129K	Defense Message System	7	1,353			U
132	0303131K	Minimum Essential Emergency Communications	7	2,208	2,242	3,061	U
135	0303149K	C4I for the Warrior	7			3,675	U
136	0303153K	Joint Spectrum Center	7			8,839	U
		Operational Systems Development		60,854	51,060	64,024	
Total	Defense Information Systems Agency			62,668	52,934	128,042	



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Defense Intelligence Agency  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Element	Program	Act	FY 1997	FY 1998	FY 1999	c
No	Number	Item	-----	-----	-----	-----	
126	0301301L	General Defense Intelligence Program	7				
152	0305884L	Intelligence Planning and Review Activities	7				
155	0305898L	Management Headquarters (Auxiliary Forces)	7	1,849	1,864		U
		Operational Systems Development		-----	-----	-----	
		Total Defense Intelligence Agency		-----	-----	-----	

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Defense Logistics Agency  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			Thousands of Dollars				
Line No	Program Element Number	Item	Act	FY 1997	FY 1998	FY 1999	Se c
36	0603712S	Generic Logistics R&D Technology Demonstrations	3	19,220	21,554	17,788	U
48	0603753S	Electronic Commerce Resource Centers	3		46,421		U
58	0603805S	Dual Use Application Programs	3	5,000		6,000	U
Advanced Technology Development				24,220	67,975	23,788	
116	0605798S	Defense Technology Analysis	6	13,096	8,542	5,010	U
118	0605801S	Defense Technical Information Center	6	43,315	45,413		U
119	0605803S	R&D in Support of DoD Enlistment, Testing	6	1,887	8,016	8,248	U
RDT&E Management Support				58,298	61,971	13,258	
156	0708011S	Industrial Preparedness	7	6,101	26,013	26,231	U
Operational Systems Development				6,101	26,013	26,231	
Total Defense Logistics Agency				88,619	155,959	63,277	

UNCLASSIFIED

Defense Security Assistance Agency  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			Thousands of Dollars				
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se c
69	0603790T	NATO Research and Development	4			10,762	U
86	0605104T	Technical Studies, Support and Analysis	4			980	U
87	0605110T	Critical Technology Support	4			2,618	U
Demonstration and Validation						14,360	
Total Defense Security Assistance Agency						14,360	

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Undistributed  
FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			-----S				
			Thousands of Dollars				
Line	Element	Program	Act	FY 1997	FY 1998	FY 1999	c
No	Number	Item	---	-----	-----	-----	
89	0904901U	Undistributed Adjustments	4	-38,000			U
		Demonstration and Validation		-38,000			
Total	Undistributed			-38,000			

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Defense Security Service  
 FY 1999 RDT&E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1998

			Thousands of Dollars				
Line No	Element Number	Program Item	Act	FY 1997	FY 1998	FY 1999	Se c
139	0305127V	Foreign Counterintelligence Activities	7	411	406	418	U
		Operational Systems Development		411	406	418	
Total Defense Security Service				411	406	418	