

# RDT&E PROGRAMS (R-1)



*Department of Defense Budget  
for Fiscal Years 1998/1999*

*February 1997*

## **Preface**

**The R. D. T. & E. Programs (R-1) exhibit is derived from and consistent with the DoD Future Years Defense Program R. D. T. & E. Annex data base.**

**The R-1 is provided annually to the DoD oversight committees of the Congress coincident with the transmittal by the President of the Budget of the United States Government. This document is also provided to OASD (PA) for use by non-DoD activities.**

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

**UNCLASSIFIED**

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Department of Defense  
FY 1998/1999 R D T & E Program

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## Summary

Date: FEB 1997

Thousands of Dollars

|  | FY 1996    | FY 1997    | FY 1998    | FY 1999    |
|--|------------|------------|------------|------------|
|  | -----      | -----      | -----      | -----      |
| Summary By Appropriation                       |            |            |            |            |
| -----  |            |            |            |            |
| Research Development Test & Eval Army          | 4,757,412  | 4,930,628  | 4,510,843  | 4,496,724  |
| Research Development Test & Eval Navy          | 8,471,501  | 7,855,754  | 7,611,022  | 7,756,314  |
| Research Development Test & Eval AF            | 12,512,814 | 14,068,836 | 14,451,379 | 13,799,985 |
| Research Development Test & Eval Defwide       | 9,192,442  | 9,438,171  | 9,069,680  | 8,689,353  |
| Developmental Test & Eval, Defense             | 247,082    | 275,792    | 268,183    | 278,767    |
| Operational Test & Evaluation, Defense         | 22,587     | 24,219     | 23,384     | 23,447     |
|  | -----      | -----      | -----      | -----      |
| Total Research, Development, Test & Evaluation | 35,203,838 | 36,593,400 | 35,934,491 | 35,044,590 |

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Date: FEB 1997

Thousands of Dollars

|  | FY 1996    | FY 1997    | FY 1998    | FY 1999    |
|--|------------|------------|------------|------------|
|  | -----      | -----      | -----      | -----      |
| Summary Recap of Budget Activities             |            |            |            |            |
| -----  |            |            |            |            |
| Basic Research                                 | 1,099,189  | 1,079,789  | 1,163,672  | 1,212,090  |
| Applied Research                               | 2,835,891  | 2,873,082  | 2,814,085  | 3,025,018  |
| Advanced Technology Development                | 3,609,005  | 3,799,612  | 3,414,173  | 3,455,652  |
| Demonstration and Validation                   | 5,197,372  | 5,668,774  | 5,567,376  | 5,200,038  |
| Engineering and Manufacturing Development      | 8,644,875  | 8,848,988  | 8,548,760  | 7,954,040  |
| RDT&E Management Support                       | 3,654,292  | 3,164,235  | 3,085,282  | 3,071,144  |
| Operational Systems Development                | 10,163,214 | 11,158,920 | 11,341,143 | 11,126,608 |
| -----  |            |            |            |            |
| Total Research, Development, Test & Evaluation | 35,203,838 | 36,593,400 | 35,934,491 | 35,044,590 |
| Summary Recap of FYDP Programs                 |            |            |            |            |
| -----  |            |            |            |            |
| Strategic Forces                               | 131,793    | 126,563    | 191,190    | 245,009    |
| General Purpose Forces                         | 3,206,041  | 3,021,715  | 2,904,427  | 2,570,930  |
| Intelligence and Communications                | 6,365,128  | 7,663,948  | 8,019,315  | 7,814,633  |
| Mobility Forces                                | 16,826     | 79,923     | 133,295    | 218,774    |
| Research and Development (FYDP Program 6)      | 25,112,583 | 25,302,037 | 24,362,526 | 23,772,257 |
| Central Supply and Maintenance                 | 191,374    | 214,755    | 107,646    | 146,376    |
| Training Medical and Other                     | 1,009      | 1,781      | 1,427      |            |
| Administration and Assoc Activities            | 14,718     | 36,859     | 40,853     | 41,741     |
| Support of Other Nations                       | 17,364     | 3,554      | 55,269     | 118,530    |
| Special Operations Forces                      | 147,002    | 142,265    | 118,543    | 116,340    |
| -----  |            |            |            |            |
| Total Research, Development, Test & Evaluation | 35,203,838 | 36,593,400 | 35,934,491 | 35,044,590 |

Department of the Army  
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Date: FEB 1997

Thousands of Dollars

|   | FY 1996   | FY 1997   | FY 1998   | FY 1999   |
|---|-----------|-----------|-----------|-----------|
|   | -----     | -----     | -----     | -----     |
| Summary Recap of Budget Activities          |           |           |           |           |
| -----                                       |           |           |           |           |
| Basic Research                              | 181,722   | 179,059   | 198,854   | 210,349   |
| Applied Research                            | 450,837   | 551,558   | 462,935   | 493,665   |
| Advanced Technology Development             | 580,033   | 677,676   | 418,322   | 431,696   |
| Demonstration and Validation                | 454,454   | 558,250   | 523,395   | 445,831   |
| Engineering and Manufacturing Development   | 1,124,738 | 1,141,159 | 1,107,393 | 1,162,925 |
| RDT&E Management Support                    | 1,234,657 | 1,072,165 | 1,136,576 | 1,108,382 |
| Operational Systems Development             | 730,971   | 750,761   | 663,368   | 643,876   |
|   | -----     | -----     | -----     | -----     |
| Total Research Development Test & Eval Army | 4,757,412 | 4,930,628 | 4,510,843 | 4,496,724 |
| Summary Recap of FYDP Programs              |           |           |           |           |
| -----                                       |           |           |           |           |
| Strategic Forces                            | 4,000     | 26,376    | 86,193    | 134,298   |
| General Purpose Forces                      | 560,107   | 541,129   | 403,355   | 354,129   |
| Intelligence and Communications             | 64,814    | 72,633    | 89,316    | 68,413    |
| Research and Development (FYDP Program 6)   | 4,094,970 | 4,242,671 | 3,874,153 | 3,874,693 |
| Central Supply and Maintenance              | 23,699    | 47,819    | 44,326    | 50,086    |
| Administration and Assoc Activities         | 322       |           |           |           |
| Support of Other Nations                    | 9,500     |           | 13,500    | 15,105    |
|   | -----     | -----     | -----     | -----     |
| Total Research Development Test & Eval Army | 4,757,412 | 4,930,628 | 4,510,843 | 4,496,724 |

Department of the Army  
FY 1998/1999 R D T & E Program

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

Date: FEB 1997

|                |                                 |   | Thousands of Dollars |         |         |         |         |             |
|----------------|---------------------------------|---|----------------------|---------|---------|---------|---------|-------------|
| Line           | Program<br>Element<br>No Number | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
|                |                                 |   | ---                  | -----   | -----   | -----   | -----   |             |
| 1              | 0601101A                        | In-House Laboratory Independent Research          | 1                    | 13,657  | 14,393  | 15,113  | 15,828  | U           |
| 2              | 0601102A                        | Defense Research Sciences                         | 1                    | 121,822 | 119,739 | 138,165 | 141,555 | U           |
| 3              | 0601104A                        | University and Industry Research Centers          | 1                    | 46,243  | 44,927  | 45,576  | 52,966  | U           |
| Basic Research |                                 |   |                      | -----   | -----   | -----   | -----   |             |
|                |                                 |   |                      | 181,722 | 179,059 | 198,854 | 210,349 |             |
| 4              | 0602104A                        | TRACTOR ROSE                                      | 2                    | 2,484   | 3,065   |         |         | U           |
| 5              | 0602105A                        | Materials Technology                              | 2                    | 9,858   | 14,530  | 9,811   | 10,979  | U           |
| 6              | 0602120A                        | Sensors and Electronic Survivability              | 2                    | 26,675  | 19,351  | 19,294  | 19,682  | U           |
| 7              | 0602122A                        | TRACTOR HIP                                       | 2                    | 5,603   | 7,981   | 7,242   | 8,170   | U           |
| 8              | 0602211A                        | Aviation Technology                               | 2                    | 17,853  | 21,898  | 27,282  | 30,281  | U           |
| 9              | 0602270A                        | EW Technology                                     | 2                    | 14,651  | 15,510  | 16,528  | 18,151  | U           |
| 10             | 0602303A                        | Missile Technology                                | 2                    | 17,535  | 29,144  | 22,335  | 24,002  | U           |
| 11             | 0602308A                        | Modeling and Simulation Technology                | 2                    | 19,466  | 20,652  | 21,059  | 24,287  | U           |
| 12             | 0602601A                        | Combat Vehicle and Automotive Technology          | 2                    | 35,040  | 34,312  | 33,112  | 33,360  | U           |
| 13             | 0602618A                        | Ballistics Technology                             | 2                    | 34,647  | 39,913  | 33,317  | 37,598  | U           |
| 14             | 0602622A                        | Chemical, Smoke and Equipment Defeating Technolog | 2                    | 1,728   | 2,259   | 4,739   | 6,691   | U           |
| 15             | 0602623A                        | Joint Service Small Arms Program                  | 2                    | 4,857   | 4,497   | 4,786   | 5,204   | U           |
| 16             | 0602624A                        | Weapons and Munitions Technology                  | 2                    | 24,297  | 22,246  | 26,980  | 30,613  | U           |
| 17             | 0602705A                        | Electronics and Electronic Devices                | 2                    | 21,134  | 24,351  | 20,192  | 22,374  | U           |
| 18             | 0602709A                        | Night Vision Technology                           | 2                    | 16,442  | 16,636  | 17,304  | 19,213  | U           |

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

Date: FEB 1997

|      |                  |  | Thousands of Dollars |         |         |         |         |   |
|------|------------------|--|----------------------|---------|---------|---------|---------|---|
| Line | Program Element  | Item   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No   | Number           |  | ---                  | -----   | -----   | -----   | -----   | e |
|      |                  |  |                      |         |         |         |         | c |
| 19   | 0602712A         | Countermines Systems                                 | 2                    |         | 7,372   | 10,598  | 10,715  | U |
| 20   | 0602716A         | Human Factors Engineering Technology                 | 2                    | 15,445  | 15,968  | 14,256  | 15,626  | U |
| 21   | 0602720A         | Environmental Quality Technology                     | 2                    | 25,537  | 55,178  | 17,519  | 13,869  | U |
| 22   | 0602782A         | Command, Control, Communications Technology          | 2                    | 13,130  | 14,976  | 16,838  | 18,180  | U |
| 23   | 0602783A         | Computer and Software Technology                     | 2                    | 3,843   | 6,500   | 679     | 337     | U |
| 24   | 0602784A         | Military Engineering Technology                      | 2                    | 33,734  | 38,060  | 36,422  | 40,112  | U |
| 25   | 0602785A         | Manpower/Personnel/Training Technology               | 2                    | 7,254   | 9,329   | 9,014   | 9,019   | U |
| 26   | 0602786A         | Logistics Technology                                 | 2                    | 26,995  | 21,319  | 17,689  | 18,565  | U |
| 27   | 0602787A         | Medical Technology                                   | 2                    | 70,575  | 104,332 | 74,684  | 75,307  | U |
| 28   | 0602789A         | ARMY Artificial Intelligence Technology              | 2                    | 2,054   | 2,179   | 1,255   | 1,330   | U |
|      | Applied Research |  |                      | 450,837 | 551,558 | 462,935 | 493,665 |   |
| 29   | 0603001A         | Logistics Advanced Technology                        | 3                    | 38,820  | 22,724  | 35,469  | 32,197  | U |
| 30   | 0603002A         | Medical Advanced Technology                          | 3                    | 90,591  | 201,198 | 10,677  | 10,959  | U |
| 31   | 0603003A         | Aviation Advanced Technology                         | 3                    | 48,320  | 56,165  | 31,330  | 29,921  | U |
| 32   | 0603004A         | Weapons and Munitions Advanced Technology            | 3                    | 29,119  | 29,122  | 18,255  | 29,717  | U |
| 33   | 0603005A         | Combat Vehicle and Automotive Advanced Technology    | 3                    | 26,363  | 28,811  | 32,685  | 59,573  | U |
| 34   | 0603006A         | Command, Control, Communications Advanced Technology | 3                    | 29,323  | 29,379  | 19,688  | 20,911  | U |
| 35   | 0603007A         | Manpower, Personnel and Training Advanced Technology | 3                    | 4,576   | 4,406   | 3,003   | 3,006   | U |
| 36   | 0603009A         | TRACTOR HIKE   | 3                    | 23,016  | 16,791  | 14,350  | 9,574   | U |



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|------|---------------------------------|---|----------------------|---------|---------|---------|---------|-------------|
| Line | Program<br>Element<br>No Number | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 37   | 0603013A                        | TRACTOR DIRT  | 3                    | 1,713   | 3,265   | 3,393   | 2,448   | U           |
| 38   | 0603017A                        | TRACTOR RED   | 3                    | 5,369   | 8,445   | 5,572   | 4,953   | U           |
| 39   | 0603020A                        | TRACTOR ROSE  | 3                    | 4,731   | 4,971   | 9,204   | 9,111   | U           |
| 40   | 0603105A                        | Military HIV Research   | 3                    | 2,795   | 17,544  | 2,713   | 3,162   | U           |
| 41   | 0603238A                        | Global Surveillance/Air Defense/Precision Strike<br>Technology Demonstratio | 3                    | 37,630  | 22,009  | 11,664  | 4,926   | U           |
| 42   | 0603270A                        | EW Technology   | 3                    | 3,818   | 6,651   | 8,182   | 11,754  | U           |
| 43   | 0603313A                        | Missile and Rocket Advanced Technology                                      | 3                    | 109,972 | 99,819  | 117,139 | 89,542  | U           |
| 44   | 0603322A                        | TRACTOR CAGE  | 3                    | 8,088   | 8,651   | 6,412   | 5,353   | U           |
| 45   | 0603606A                        | Landmine Warfare and Barrier Advanced Technology                            | 3                    | 25,006  | 27,629  | 19,332  | 19,778  | U           |
| 46   | 0603607A                        | Joint Service Small Arms Program  | 3                    | 4,516   | 9,049   | 4,754   | 5,148   | U           |
| 47   | 0603654A                        | Line-Of-Sight Technology Demonstration                                      | 3                    | 13,396  | 9,791   | 13,000  | 20,000  | U           |
| 48   | 0603710A                        | Night Vision Advanced Technology  | 3                    | 31,142  | 29,761  | 19,299  | 19,250  | U           |
| 49   | 0603734A                        | Military Engineering Advanced Technology                                    | 3                    | 14,544  | 20,213  | 12,231  | 17,334  | U           |
| 50   | 0603772A                        | Advanced Tactical Computer Science and Sensor<br>Technology                 | 3                    | 27,185  | 21,282  | 19,970  | 23,079  | U           |
|      | Advanced Technology Development |   |                      | 580,033 | 677,676 | 418,322 | 431,696 |             |
| 51   | 0603018A                        | TRACTOR TREAD   | 4                    | 14,158  | 2,329   |         |         | U           |
| 52   | 0603308A                        | Army Missile Defense Systems Integration (Dem/Val                           | 4                    | 23,443  | 66,462  | 24,138  | 12,637  | U           |
| 53   | 0603619A                        | Landmine Warfare and Barrier - Adv Dev                                      | 4                    | 35,768  | 27,860  | 18,882  | 11,214  | U           |
| 54   | 0603627A                        | Smoke, Obscurant and Target Defeating Sys-Adv Dev                           | 4                    | 2,623   | 6,246   |         |         | U           |

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|                                      |          |  | -----S<br>Thousands of Dollars<br>-----c |                  |                  |                  |         |   |
|--------------------------------------|----------|--|--|------------------|------------------|------------------|---------|---|
| Program<br>Line Element<br>No Number | Item     | Act<br>---   | FY 1996<br>-----                         | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |         |   |
| 55                                   | 0603639A | Armament Enhancement Initiative                                  | 4  | 58,227           | 63,240           | 40,313           | 18,982  | U |
| 56                                   | 0603640A | Artillery Propellant Development                                 | 4  | 20,811           | 8,322            | 8,521            |         | U |
| 57                                   | 0603645A | Armored System Modernization - Adv Dev                           | 4  | 181,647          | 7,803            | 2,007            | 2,008   | U |
| 58                                   | 0603649A | Engineer Mobility Equipment Advanced Development                 | 4  | 13,591           |                  |                  |         | U |
| 59                                   | 0603653A | Advanced Tank Armament System (ATAS)                             | 4  | 9,335            | 11,395           | 8,982            | 8,928   | U |
| 60                                   | 0603713A | Army Data Distribution System                                    | 4  | 6,360            | 23,170           | 21,214           | 10,049  | U |
| 61                                   | 0603745A | Tactical Electronic Support Systems - Adv Dev                    | 4  | 5,630            | 3,941            |                  |         | U |
| 62                                   | 0603747A | Soldier Support and Survivability                                | 4  | 6,709            | 6,541            | 7,557            | 7,680   | U |
| 63                                   | 0603766A | Tactical Electronic Surveillance System - Adv Dev                | 4  | 26,796           | 25,354           | 20,920           | 23,714  | U |
| 64                                   | 0603774A | Night Vision Systems Advanced Development                        | 4  | 3,167            | 2,769            | 2,939            | 2,893   | U |
| 65                                   | 0603790A | NATO Research and Development                                    | 4  |                  | 9,755            | 13,168           | 11,169  | U |
| 66                                   | 0603801A | Aviation - Adv Dev   | 4  | 12,893           | 13,104           | 7,132            | 7,450   | U |
| 67                                   | 0603802A | Weapons and Munitions - Adv Dev                                  | 4  | 949              |                  |                  |         | U |
| 68                                   | 0603804A | Logistics and Engineer Equipment - Adv Dev                       | 4  | 5,587            | 7,433            | 6,783            | 6,833   | U |
| 69                                   | 0603805A | Combat Service Support Control System Evaluation<br>and Analysis | 4  | 13,228           | 12,689           | 7,673            | 7,783   | U |
| 70                                   | 0603807A | Medical Systems - Adv Dev  | 4  | 9,878            | 9,996            | 6,765            | 8,700   | U |
| 71                                   | 0603851A | TRACTOR CAGE (Dem/Val)   | 4  | 3,234            | 3,001            | 1,948            | 1,627   | U |
| 72                                   | 0603854A | Artillery Systems - Dem/Val                                      | 4  |                  | 238,590          | 324,380          | 294,495 | U |
| 73                                   | 0603856A | SCAMP Block II Dem/Val   | 4  |                  | 8,250            | 73               | 9,669   | U |
| 74                                   | 0603889A | Counterdrug RDT&E Projects                                       | 4  | 420              |                  |                  |         | U |
| Demonstration and Validation         |          |  |  | 454,454          | 558,250          | 523,395          | 445,831 |   |

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|------|---------------------------------|---|----------------------|---------|---------|---------|---------|-------------|
| Line | Program<br>Element<br>No Number | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 75   | 0604201A                        | Aircraft Avionics                                 | 5                    | 20,073  | 14,694  | 21,669  | 12,729  | U           |
| 76   | 0604220A                        | Armed, Deployable OH-58D                          | 5                    | 688     | 1,130   |         |         | U           |
| 77   | 0604223A                        | Comanche  | 5                    | 284,131 | 331,424 | 282,009 | 371,927 | U           |
| 78   | 0604270A                        | EW Development                                    | 5                    | 62,250  | 73,886  | 66,212  | 51,490  | U           |
| 79   | 0604321A                        | All Source Analysis System                        | 5                    | 49,912  | 39,308  | 24,045  | 26,228  | U           |
| 80   | 0604325A                        | Follow-on to TOW                                  | 5                    | 944     | 5,479   | 13,949  | 50,884  | U           |
| 81   | 0604328A                        | TRACTOR CAGE                                      | 5                    |         | 1,524   | 11      | 303     | U           |
| 82   | 0604604A                        | Medium Tactical Vehicles                          | 5                    | 2,923   | 5,874   | 3,729   |         | U           |
| 83   | 0604609A                        | Smoke, Obscurant and Target Defeating Sys-Eng Dev | 5                    | 1,915   |         |         | 703     | U           |
| 84   | 0604611A                        | JAVELIN   | 5                    | 2,249   | 6,014   | 8,018   | 5,277   | U           |
| 85   | 0604619A                        | Landmine Warfare                                  | 5                    | 29,453  | 26,288  | 19,800  | 23,075  | U           |
| 86   | 0604622A                        | Family of Heavy Tactical Vehicles                 | 5                    | 2,605   | 1,958   |         |         | U           |
| 87   | 0604633A                        | Air Traffic Control                               | 5                    | 5,073   | 7,377   | 1,705   | 1,729   | U           |
| 88   | 0604640A                        | Advanced Command and Control Vehicle (AC2V)       | 5                    | 17,306  | 7,734   | 8,867   |         | U           |
| 89   | 0604641A                        | Tactical Unmanned Ground Vehicle (TUGV)           | 5                    |         | 2,823   | 2,687   | 2,663   | U           |
| 90   | 0604642A                        | Light Tactical Wheeled Vehicles                   | 5                    | 3,970   | 2,937   | 9,909   | 39,919  | U           |
| 91   | 0604645A                        | Armored Systems Modernization (ASM)-Eng. Dev.     | 5                    | 32,425  | 6,585   |         |         | U           |
| 92   | 0604649A                        | Engineer Mobility Equipment Development           | 5                    | 19,114  | 46,705  | 56,196  | 63,069  | U           |
| 93   | 0604710A                        | Night Vision Systems - Eng Dev                    | 5                    | 37,658  | 34,870  | 33,456  | 21,255  | U           |
| 94   | 0604713A                        | Combat Feeding, Clothing, and Equipment           | 5                    | 16,049  | 76,428  | 55,964  | 43,539  | U           |

Department of the Army  
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| Program |          | Thousands of Dollars   |     |         |         |         |         |   |
|---------|----------|--|-----|---------|---------|---------|---------|---|
| Line    | Element  | Item   | Act | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number   |  | --- | -----   | -----   | -----   | -----   | e |
| 95      | 0604715A | Non-System Training Devices - Eng Dev                                | 5   | 50,140  | 48,788  | 76,749  | 73,048  | U |
| 96      | 0604716A | Terrain Information - Eng Dev  | 5   | 8,509   | 7,144   | 2,942   | 2,686   | U |
| 97      | 0604726A | Integrated Meteorological Support System                             | 5   |         |         | 1,946   | 1,931   | U |
| 98      | 0604739A | Integrated Broadcast Service   | 5   |         | 4,765   | 4,499   | 4,447   | U |
| 99      | 0604740A | Tactical Surveillance System - Eng Dev                               | 5   | 2,954   |         |         |         | U |
| 100     | 0604741A | Air Defense Command, Control and Intelligence - Eng Dev              | 5   | 21,810  | 20,031  | 18,350  | 6,698   | U |
| 101     | 0604746A | Automatic Test Equipment Development                                 | 5   | 10,648  | 9,575   | 2,582   | 2,533   | U |
| 102     | 0604760A | Distributive Interactive Simulations (DIS) - Engineering Development | 5   |         | 15,631  | 20,895  | 9,242   | U |
| 103     | 0604766A | Tactical Exploitation of National Capabilities - EMD (TIARA)         | 5   | 23,266  | 15,235  | 19,113  | 19,531  | U |
| 104     | 0604768A | Brilliant Anti-Armor Submunition (BAT)                               | 5   | 190,472 | 161,816 | 202,302 | 129,466 | U |
| 105     | 0604770A | Joint Surveillance/Target Attack Radar System                        | 5   | 15,302  | 9,624   | 6,940   | 5,670   | U |
| 106     | 0604778A | Positioning Systems Development (SPACE)                              | 5   | 436     | 428     | 419     | 409     | U |
| 107     | 0604780A | Combined Arms Tactical Trainer (CATT)                                | 5   | 56,282  | 26,110  | 2,823   | 2,866   | U |
| 108     | 0604801A | Aviation - Eng Dev   | 5   | 4,885   | 5,403   | 5,109   | 6,067   | U |
| 109     | 0604802A | Weapons and Munitions - Eng Dev                                      | 5   | 14,845  | 23,661  | 3,577   | 24,865  | U |
| 110     | 0604804A | Logistics and Engineer Equipment - Eng Dev                           | 5   | 19,132  | 19,903  | 28,039  | 26,932  | U |
| 111     | 0604805A | Command, Control, Communications Systems - Eng Dev                   | 5   | 16,740  | 9,556   | 11,052  | 16,395  | U |
| 112     | 0604807A | Medical Materiel/Medical Biological Defense Equipment - Eng Dev      | 5   | 4,644   | 4,693   | 4,483   | 5,408   | U |
| 113     | 0604808A | Landmine Warfare/Barrier - Eng Dev                                   | 5   | 6,802   | 7,556   | 22,605  | 44,133  | U |
| 114     | 0604814A | Sense and Destroy Armament Missile - Eng Dev                         | 5   | 15,764  | 9,934   | 22,372  | 20,813  | U |

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| Line No                                   | Element Number | Program Item  | Act | Thousands of Dollars |           |           |           | S e c |
|---|----------------|---|-----|----------------------|-----------|-----------|-----------|-------|
|   |                |   |     | FY 1996              | FY 1997   | FY 1998   | FY 1999   |       |
| 115                                       | 0604816A       | Longbow - Eng Dev                                   | 5   | 21,969               | 10,644    |           |           | U     |
| 116                                       | 0604817A       | Combat Identification                               | 5   | 23,669               | 16,411    | 19,784    | 13,379    | U     |
| 117                                       | 0604818A       | Army Tactical Command & Control Hardware & Software | 5   | 27,231               | 15,780    | 20,022    | 18,697    | U     |
| 118                                       | 0604820A       | Radar Development                                   | 5   | 500                  |           |           |           | U     |
| 119                                       | 0604823A       | Firefinder  | 5   |                      | 2,496     | 2,564     | 12,022    | U     |
| 120                                       | 0604854A       | Artillery Systems - EMD                             | 5   |                      | 2,937     |           | 897       | U     |
| Engineering and Manufacturing Development |                |   |     | 1,124,738            | 1,141,159 | 1,107,393 | 1,162,925 |       |
| 121                                       | 0604256A       | Threat Simulator Development                        | 6   | 13,705               | 11,383    | 14,004    | 11,877    | U     |
| 122                                       | 0604258A       | Target Systems Development                          | 6   | 13,557               | 9,916     | 11,688    | 13,063    | U     |
| 123                                       | 0604759A       | Major T&E Investment                                | 6   | 62,154               | 40,833    | 40,449    | 33,407    | U     |
| 124                                       | 0605103A       | Rand Arroyo Center                                  | 6   | 17,895               | 21,108    | 17,576    | 18,040    | U     |
| 125                                       | 0605301A       | Army Kwajalein Atoll                                | 6   | 140,930              | 143,789   | 138,769   | 142,125   | U     |
| 126                                       | 0605502A       | Small Business Innovative Research                  | 6   | 85,919               |           |           |           | U     |
| 127                                       | 0605601A       | Army Test Ranges and Facilities                     | 6   | 142,694              | 130,222   | 122,117   | 128,919   | U     |
| 128                                       | 0605602A       | Army Technical Test Instrumentation and Targets     | 6   | 25,422               | 21,944    | 33,184    | 32,976    | U     |
| 129                                       | 0605604A       | Survivability/Lethality Analysis                    | 6   | 32,250               | 30,675    | 32,330    | 30,678    | U     |
| 130                                       | 0605605A       | DOD High Energy Laser Test Facility                 | 6   | 33,231               | 29,974    | 14,952    | 14,976    | U     |
| 131                                       | 0605606A       | Aircraft Certification                              | 6   | 2,821                | 2,840     | 2,919     | 2,924     | U     |
| 132                                       | 0605702A       | Meteorological Support to RDT&E Activities          | 6   | 6,458                | 6,348     | 6,434     | 6,658     | U     |

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|         |              |   | -----S               |           |           |           |           |   |
|---------|--------------|---|----------------------|-----------|-----------|-----------|-----------|---|
|         |              |   | Thousands of Dollars |           |           |           |           |   |
| Program | Line Element | Item  | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | c |
| No      | Number       |   | ---                  | -----     | -----     | -----     | -----     |   |
| 133     | 0605706A     | Materiel Systems Analysis                           | 6                    | 17,241    | 14,126    | 29,707    | 28,675    | U |
| 134     | 0605709A     | Exploitation of Foreign Items                       | 6                    | 8,413     | 7,193     | 7,762     | 4,349     | U |
| 135     | 0605712A     | Support of Operational Testing                      | 6                    | 41,078    | 49,614    | 81,672    | 68,949    | U |
| 136     | 0605801A     | Programwide Activities                              | 6                    | 64,859    | 59,708    | 86,208    | 85,604    | U |
| 137     | 0605802A     | International Cooperative Research and Developmen   | 6                    | 1,555     | 1,534     | 1,581     | 1,581     | U |
| 138     | 0605803A     | Technical Information Activities                    | 6                    | 13,549    | 16,552    | 15,451    | 15,872    | U |
| 139     | 0605805A     | Munitions Standardization, Effectiveness and Safety | 6                    | 16,692    | 3,211     | 6,317     | 5,895     | U |
| 140     | 0605853A     | Environmental Conservation                          | 6                    | 2,493     | 1,723     | 1,778     | 2,977     | U |
| 141     | 0605854A     | Pollution Prevention                                | 6                    | 11,004    | 13,602    | 5,353     | 4,681     | U |
| 142     | 0605856A     | Environmental Compliance                            | 6                    | 65,985    | 54,251    | 51,378    | 47,604    | U |
| 143     | 0605876A     | Minor Construction (RPM) - RDT&E                    | 6                    | 6,035     | 4,229     | 4,393     | 4,537     | U |
| 144     | 0605878A     | Maintenance and Repair (RPM) - RDT&E                | 6                    | 86,907    | 68,580    | 85,119    | 74,681    | U |
| 145     | 0605879A     | Real Property Services (RPS) - RDT&E                | 6                    |           | 90,457    | 88,945    | 88,936    | U |
| 146     | 0605896A     | Base Operations - RDT&E                             | 6                    | 306,481   | 219,946   | 231,653   | 233,633   | U |
| 147     | 0605898A     | Management Headquarters (Research and Development   | 6                    | 15,007    | 18,407    | 4,837     | 4,765     | U |
| 148     | 0909999A     | Financing for Cancelled Account Adjustments         | 6                    | 322       |           |           |           | U |
|         |              | RDT&E Management Support                            |                      | 1,234,657 | 1,072,165 | 1,136,576 | 1,108,382 |   |
| 149     | 0603778A     | MLRS Product Improvement Program                    | 7                    | 68,851    | 62,804    | 26,678    | 21,845    | U |
| 150     | 0102419A     | Aerostat Joint Project Office                       | 7                    | 4,000     | 26,376    | 86,193    | 134,298   | U |

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|       |                                       |  | -----S<br>Thousands of Dollars<br>e<br>c |                  |                  |                  |                  |
|-------|---------------------------------------|--|--|------------------|------------------|------------------|------------------|
| Line  | Program<br>Element<br>No Number       | Item   | Act<br>---                               | FY 1996<br>----- | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |
| 151   | 0203726A                              | Adv Field Artillery Tactical Data System                           | 7  | 36,973           | 38,512           | 39,039           | 34,939 U         |
| 152   | 0203735A                              | Combat Vehicle Improvement Programs                                | 7  | 206,625          | 206,816          | 136,520          | 69,443 U         |
| 153   | 0203740A                              | Maneuver Control System  | 7  | 48,302           | 27,888           | 25,641           | 23,932 U         |
| 154   | 0203744A                              | Aircraft Modifications/Product Improvement Programs                | 7  | 4,288            | 22,386           | 2,609            | 28,791 U         |
| 155   | 0203752A                              | Aircraft Engine Component Improvement Program                      | 7  | 3,703            | 3,834            | 2,940            | 2,933 U          |
| 156   | 0203758A                              | Digitization   | 7  | 110,583          | 137,078          | 156,960          | 149,015 U        |
| 157   | 0203801A                              | Missile/Air Defense Product Improvement Program                    | 7  | 59,199           | 64,557           | 17,412           | 11,431 U         |
| 158   | 0203802A                              | Other Missile Product Improvement Programs                         | 7  | 64,920           | 9,874            | 1,255            | 17,011 U         |
| 159   | 0203806A                              | TRACTOR RUT  | 7  | 3,346            | 3,112            | 2,111            | U                |
| 160   | 0203808A                              | TRACTOR CARD   | 7  | 9,521            | 6,766            | 6,690            | 6,693 U          |
| 161   | 0208010A                              | Joint Tactical Communications Program (TRI-TAC)                    | 7  | 12,647           | 18,229           | 8,983            | 9,941 U          |
| 162   | 0208053A                              | Joint Tactical Ground System                                       | 7  |                  | 2,077            | 3,195            | U                |
| 163   | 0301359A                              | Special Army Program   | 7  | 8,538            | 10,185           | 5,547            | 4,551 U          |
| 164   | 0303140A                              | Information Systems Security Program                               | 7  | 3,455            | 3,161            | 9,647            | 3,826 U          |
| 165   | 0303142A                              | SATCOM Ground Environment (SPACE)                                  | 7  | 52,821           | 39,421           | 57,827           | 44,288 U         |
| 166   | 0303150A                              | WWMCCS/Global Command and Control System                           | 7  |                  | 19,389           | 15,045           | 14,793 U         |
| 167   | 0305114A                              | Traffic Control, Approach and Landing System-FY 1987 and Prior (H) | 7  |                  |                  | 750              | U                |
| 168   | 0305128A                              | Security and Investigative Activities                              | 7  |                  | 477              | 500              | 955 U            |
| 169   | 0708045A                              | End Item Industrial Preparedness Activities                        | 7  | 23,699           | 47,819           | 44,326           | 50,086 U         |
| 170   | 1001018A                              | NATO Joint STARS   | 7  | 9,500            |                  | 13,500           | 15,105 U         |
|       |                                       | Operational Systems Development                                    |  | 730,971          | 750,761          | 663,368          | 643,876          |
| Total | Research Development Test & Eval Army |  |  | 4,757,412        | 4,930,628        | 4,510,843        | 4,496,724        |

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## Summary

Date: FEB 1997

Thousands of Dollars

|   | FY 1996   | FY 1997   | FY 1998   | FY 1999   |
|---|-----------|-----------|-----------|-----------|
|   | -----     | -----     | -----     | -----     |
| Summary Recap of Budget Activities          |           |           |           |           |
| -----                                       |           |           |           |           |
| Basic Research                              | 371,516   | 352,146   | 382,117   | 399,633   |
| Applied Research                            | 537,711   | 534,805   | 490,273   | 539,070   |
| Advanced Technology Development             | 472,184   | 501,133   | 433,305   | 470,528   |
| Demonstration and Validation                | 1,712,926 | 1,930,143 | 2,135,069 | 2,233,510 |
| Engineering and Manufacturing Development   | 2,344,798 | 2,143,869 | 2,085,768 | 2,032,475 |
| RDT&E Management Support                    | 684,676   | 538,596   | 595,265   | 613,180   |
| Operational Systems Development             | 2,347,690 | 1,855,062 | 1,489,225 | 1,467,918 |
|   | -----     | -----     | -----     | -----     |
| Total Research Development Test & Eval Navy | 8,471,501 | 7,855,754 | 7,611,022 | 7,756,314 |
| Summary Recap of FYDP Programs              |           |           |           |           |
| -----                                       |           |           |           |           |
| Strategic Forces                            | 87,453    | 70,880    | 75,203    | 90,662    |
| General Purpose Forces                      | 1,499,568 | 1,071,894 | 881,398   | 768,667   |
| Intelligence and Communications             | 677,530   | 627,411   | 532,624   | 573,241   |
| Research and Development (FYDP Program 6)   | 6,122,434 | 6,000,692 | 6,121,797 | 6,288,396 |
| Central Supply and Maintenance              | 83,139    | 84,877    |           | 35,348    |
| Administration and Assoc Activities         | 1,377     |           |           |           |
|   | -----     | -----     | -----     | -----     |
| Total Research Development Test & Eval Navy | 8,471,501 | 7,855,754 | 7,611,022 | 7,756,314 |



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| Program |          | Thousands of Dollars                                      |     |         |         |         |         |   |
|---------|----------|---|-----|---------|---------|---------|---------|---|
| Line    | Element  | Item  | Act | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number   |   | --- | -----   | -----   | -----   | -----   | e |
|         |          |   |     |         |         |         |         | c |
| 1       | 0601152N | In-House Independent Laboratory Research                  | 1   | 15,004  | 14,683  | 15,834  | 16,236  | U |
| 2       | 0601153N | Defense Research Sciences                                 | 1   | 356,512 | 337,463 | 366,283 | 383,397 | U |
|         |          | Basic Research  |     | 371,516 | 352,146 | 382,117 | 399,633 |   |
| 3       | 0602111N | Surface/Aerospace Surveillance and Weapons Technology     | 2   | 46,015  | 31,921  | 32,273  | 38,833  | U |
| 4       | 0602121N | Surface Ship Technology                                   | 2   | 61,717  | 51,399  | 46,859  | 47,353  | U |
| 5       | 0602122N | Aircraft Technology                                       | 2   | 28,672  | 23,750  | 23,590  | 22,860  | U |
| 6       | 0602131M | Marine Corps Landing Force Technology                     | 2   | 16,871  | 16,374  | 13,043  | 14,535  | U |
| 7       | 0602232N | Command, Control, and Communications Technology           | 2   | 56,534  | 54,735  | 65,566  | 71,426  | U |
| 8       | 0602233N | Readiness, Training, and Environmental Quality Technology | 2   | 47,773  | 47,561  | 31,762  | 33,120  | U |
| 9       | 0602234N | Materials, Electronics and Computer Technology            | 2   | 78,105  | 84,724  | 76,653  | 87,445  | U |
| 10      | 0602270N | Electronic Warfare Technology                             | 2   | 17,133  | 21,535  | 22,810  | 24,707  | U |
| 11      | 0602314N | Undersea Surveillance Weapon Technology                   | 2   | 52,057  | 47,967  | 51,033  | 57,875  | U |
| 12      | 0602315N | Mine Countermeasures, Mining and Special Warfare          | 2   | 43,553  | 44,602  | 42,737  | 44,575  | U |
| 13      | 0602435N | Oceanographic and Atmospheric Technology                  | 2   | 57,260  | 73,416  | 48,211  | 58,037  | U |
| 14      | 0602633N | Undersea Warfare Weaponry Technology                      | 2   | 32,021  | 36,821  | 35,736  | 38,304  | U |
|         |          | Applied Research  |     | 537,711 | 534,805 | 490,273 | 539,070 |   |
| 15      | 0603217N | Air Systems and Weapons Advanced Technology               | 3   | 64,938  | 36,749  | 35,093  | 37,541  | U |
| 16      | 0603238N | Precision Strike and Air Defense                          | 3   | 57,471  | 57,903  | 43,320  | 48,094  | U |
| 17      | 0603270N | Advanced Electronic Warfare Technology                    | 3   | 14,005  | 14,469  | 18,144  | 18,738  | U |

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|         |          |  | Thousands of Dollars |         |         |         |         |   |
|---------|----------|--|----------------------|---------|---------|---------|---------|---|
| Program |          |  |                      |         |         |         |         |   |
| Line    | Element  | Item   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number   |  | ---                  | -----   | -----   | -----   | -----   | e |
|         |          |  |                      |         |         |         |         | c |
| 18      | 0603508N | Ship Propulsion System                                     | 3                    | 17,734  | 32,185  | 39,737  | 46,297  | U |
| 19      | 0603640M | Marine Corps Advanced Technology Demonstration<br>(ATD)    | 3                    | 26,148  | 61,127  | 34,178  | 39,617  | U |
| 20      | 0603706N | Medical Development  | 3                    | 60,185  | 58,928  | 18,332  | 17,043  | U |
| 21      | 0603707N | Manpower, Personnel and Training Adv Tech Dev              | 3                    | 15,772  | 18,490  | 18,812  | 21,641  | U |
| 22      | 0603712N | Environmental Quality and Logistics Advanced<br>Technology | 3                    | 21,971  | 39,294  | 18,249  | 20,072  | U |
| 23      | 0603747N | Undersea Warfare Advanced Technology                       | 3                    | 46,430  | 44,099  | 54,785  | 61,844  | U |
| 24      | 0603782N | Shallow Water MCM Demos                                    | 3                    | 47,786  | 40,807  | 41,602  | 44,492  | U |
| 25      | 0603792N | Advanced Technology Transition                             | 3                    | 76,503  | 69,052  | 87,285  | 97,269  | U |
| 26      | 0603794N | C3 Advanced Technology                                     | 3                    | 23,241  | 28,030  | 23,768  | 17,880  | U |
|         |          | Advanced Technology Development                            |                      | 472,184 | 501,133 | 433,305 | 470,528 |   |
| 27      | 0603207N | Air/Ocean Tactical Applications                            | 4                    | 19,004  | 17,740  | 16,017  | 20,350  | U |
| 28      | 0603208N | Training System Aircraft                                   | 4                    | 2,927   | 2,292   |         |         | U |
| 29      | 0603216N | Aviation Survivability                                     | 4                    | 15,636  | 14,865  | 7,859   | 10,323  | U |
| 30      | 0603254N | ASW Systems Development                                    | 4                    | 28,860  | 20,928  | 22,869  | 24,879  | U |
| 31      | 0603261N | Tactical Airborne Reconnaissance                           | 4                    | 21,669  | 23,082  | 10,607  | 1,458   | U |
| 32      | 0603382N | Advanced Combat Systems Technology                         | 4                    | 2,657   | 3,700   | 5,232   | 8,823   | U |
| 33      | 0603451N | Tactical Space Operations                                  | 4                    | 911     |         |         |         | U |
| 34      | 0603502N | Surface and Shallow Water Mine Countermeasures             | 4                    | 54,626  | 84,851  | 58,231  | 67,922  | U |
| 35      | 0603504N | Advanced Submarine Combat Systems Development              | 4                    | 26,826  | 37,291  | 61,122  | 70,321  | U |

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|         |          |   | Thousands of Dollars |         |         |         |         |   |
|---------|----------|---|----------------------|---------|---------|---------|---------|---|
| Program |          |   |                      |         |         |         |         |   |
| Line    | Element  | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number   |   | ---                  | -----   | -----   | -----   | -----   | e |
|         |          |   |                      |         |         |         |         | c |
| 36      | 0603506N | Surface Ship Torpedo Defense                  | 4                    | 9,060   | 5,491   |         |         | U |
| 37      | 0603512N | Carrier Systems Development                   | 4                    | 12,286  | 12,210  | 98,587  | 111,273 | U |
| 38      | 0603513N | Shipboard System Component Development        | 4                    | 16,636  | 17,982  | 19,194  | 30,961  | U |
| 39      | 0603514N | Ship Combat Survivability                     | 4                    | 11,167  | 8,188   | 7,050   | 7,768   | U |
| 40      | 0603525N | PILOT FISH                                    | 4                    | 75,242  | 90,066  | 118,728 | 119,960 | U |
| 41      | 0603528N | Non-Acoustic Anti-Submarine Warfare (ASW)     | 4                    | 9,448   |         |         |         | U |
| 42      | 0603536N | RETRACT JUNIPER                               | 4                    | 9,657   | 9,974   | 9,776   | 11,315  | U |
| 43      | 0603542N | Radiological Control                          | 4                    | 3,084   | 2,769   | 3,030   | 3,677   | U |
| 44      | 0603553N | Surface ASW                                   | 4                    | 6,012   | 3,781   | 5,704   | 4,717   | U |
| 45      | 0603561N | Advanced Submarine System Development         | 4                    | 53,378  | 63,684  | 59,067  | 65,385  | U |
| 46      | 0603562N | Submarine Tactical Warfare Systems            | 4                    | 8,052   | 4,342   | 4,931   | 5,739   | U |
| 47      | 0603563N | Ship Concept Advanced Design                  | 4                    | 54,946  | 13,242  | 16,198  | 22,254  | U |
| 48      | 0603564N | Ship Preliminary Design & Feasibility Studies | 4                    | 10,034  | 12,377  | 38,682  | 45,075  | U |
| 49      | 0603570N | Advanced Nuclear Power Systems                | 4                    | 138,412 | 126,563 | 125,357 | 119,934 | U |
| 50      | 0603573N | Advanced Surface Machinery Systems            | 4                    | 80,993  | 66,055  | 49,741  | 52,089  | U |
| 51      | 0603576N | CHALK EAGLE                                   | 4                    | 109,593 | 142,946 | 137,442 | 124,734 | U |
| 52      | 0603582N | Combat System Integration                     | 4                    | 6,078   | 3,645   | 7,739   | 9,793   | U |
| 53      | 0603609N | Conventional Munitions                        | 4                    | 34,150  | 28,278  | 34,190  | 40,208  | U |
| 54      | 0603610N | Advanced Warhead Development (MK-50)          | 4                    | 2,893   | 1,270   | 2,012   | 2,820   | U |
| 55      | 0603611M | Marine Corps Assault Vehicles                 | 4                    | 34,039  | 61,318  | 60,134  | 106,245 | U |

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| Program |          | Thousands of Dollars                                |     |         |         |         | S<br>e<br>c |
|---------|----------|---|-----|---------|---------|---------|-------------|
| Line    | Element  | Item  | Act | FY 1996 | FY 1997 | FY 1998 |             |
| No      | Number   |   | --- | -----   | -----   | -----   | -----       |
| 56      | 0603612M | Marine Corps Mine/Countermeasures Systems - Adv Dev | 4   | 1,652   | 529     |         | 1,985 U     |
| 57      | 0603635M | Marine Corps Ground Combat/Support System           | 4   | 52,595  | 42,348  | 36,464  | 35,850 U    |
| 58      | 0603654N | Joint Service Explosive Ordnance Development        | 4   | 8,278   | 5,844   | 10,701  | 11,758 U    |
| 59      | 0603658N | Cooperative Engagement                              | 4   |         |         | 139,229 | 87,556 U    |
| 60      | 0603711N | Fleet Tactical Development                          | 4   | 4,024   | 3,261   |         | U           |
| 61      | 0603713N | Ocean Engineering Technology Development            | 4   | 5,074   | 8,256   | 12,658  | 9,596 U     |
| 62      | 0603721N | Environmental Protection                            | 4   | 58,635  | 46,424  | 52,401  | 58,181 U    |
| 63      | 0603724N | Navy Energy Program                                 | 4   | 1,914   | 2,955   | 4,159   | 4,629 U     |
| 64      | 0603725N | Facilities Improvement                              | 4   | 1,746   | 2,149   | 1,720   | 2,020 U     |
| 65      | 0603734N | CHALK CORAL   | 4   | 68,782  | 74,448  | 94,358  | 100,154 U   |
| 66      | 0603746N | RETRACT MAPLE                                       | 4   | 82,645  | 80,369  | 120,033 | 153,238 U   |
| 67      | 0603748N | LINK PLUMERIA                                       | 4   | 20,695  | 34,463  | 29,433  | 16,760 U    |
| 68      | 0603751N | RETRACT ELM   | 4   | 31,545  | 23,972  | 21,822  | 11,950 U    |
| 69      | 0603755N | Ship Self Defense - Dem/Val                         | 4   | 309,901 | 280,381 | 9,961   | 12,501 U    |
| 70      | 0603785N | Combat Systems Oceanographic Performance Assessment | 4   | 15,219  | 13,079  | 11,706  | 17,668 U    |
| 71      | 0603787N | Special Processes                                   | 4   | 69,793  | 88,536  | 81,439  | 83,675 U    |
| 72      | 0603790N | NATO Research and Development                       | 4   |         | 9,528   | 13,330  | 11,267 U    |
| 73      | 0603795N | Land Attack Technology                              | 4   | 32,205  | 50,067  | 37,809  | 52,985 U    |
| 74      | 0603800N | Joint Strike Fighter (JSF) - Dem/Val                | 4   | 79,981  | 246,076 | 448,855 | 443,522 U   |
| 75      | 0603851M | Nonlethal Weapons - Dem/Val                         | 4   | 4,590   | 9,591   | 16,807  | 23,515 U    |

Department of the Navy  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |          |   | Thousands of Dollars |           |           |           |           |   |
|---------|----------|---|----------------------|-----------|-----------|-----------|-----------|---|
| Program |          |   |                      |           |           |           |           |   |
| Line    | Element  | Item  | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | S |
| No      | Number   |   | ---                  | -----     | -----     | -----     | -----     | e |
|         |          |   |                      |           |           |           |           | c |
| 76      | 0603852N | Arensal Ship  | 4                    |           | 23,977    |           |           | U |
| 77      | 0603860N | Joint Precision Approach and Landing System - Dem Val                   | 4                    |           |           | 2,993     |           | U |
| 78      | 0604327N | Hardened Target Munitions   | 4                    |           |           | 4,987     |           | U |
| 79      | 0604707N | Space and Electronic Warfare (SEW) Architecture/<br>Engineering Support | 4                    | 5,376     | 4,960     | 4,705     | 6,677     | U |
|         |          | Demonstration and Validation  |                      | 1,712,926 | 1,930,143 | 2,135,069 | 2,233,510 |   |
| 80      | 0603208N | Training System Aircraft  | 5                    | -604      |           | 403       | 613       | U |
| 81      | 0603266N | AH-1T Composite Rotor Blade (H)   | 5                    | 10,995    | 69,986    |           |           | U |
| 82      | 0604212N | Other Helo Development  | 5                    | 76,289    | 62,674    | 73,354    | 219,570   | U |
| 83      | 0604214N | AV-8B Aircraft - Eng Dev  | 5                    | 25,479    | 16,089    | 11,034    | 11,230    | U |
| 84      | 0604215N | Standards Development   | 5                    | 12,936    | 25,367    | 36,297    | 45,295    | U |
| 85      | 0604217N | S-3 Weapon System Improvement   | 5                    | 12,013    | 9,553     | 4,735     | 24,049    | U |
| 86      | 0604218N | Air/Ocean Equipment Engineering   | 5                    | 5,868     | 5,376     | 6,129     | 7,759     | U |
| 87      | 0604221N | P-3 Modernization Program   | 5                    | 16,045    | 7,703     | 3,191     | 3,023     | U |
| 88      | 0604231N | Tactical Command System   | 5                    | 24,194    | 28,654    | 31,518    | 53,116    | U |
| 89      | 0604245N | H-1 Upgrades  | 5                    |           |           | 80,735    | 90,264    | U |
| 90      | 0604261N | Acoustic Search Sensors   | 5                    | 9,219     | 13,981    | 16,947    | 30,147    | U |
| 91      | 0604262N | V-22A   | 5                    | 717,336   | 552,082   | 529,495   | 272,716   | U |
| 92      | 0604264N | Air Crew Systems Development  | 5                    | 16,725    | 26,083    | 12,111    | 14,126    | U |
| 93      | 0604270N | EW Development  | 5                    | 87,436    | 121,431   | 101,803   | 127,853   | U |

Department of the Navy  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |          |   | Thousands of Dollars |         |         |         |         |   |
|---------|----------|---|----------------------|---------|---------|---------|---------|---|
| Program |          |   |                      |         |         |         |         |   |
| Line    | Element  | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number   |   | ---                  | -----   | -----   | -----   | -----   | e |
|         |          |   |                      |         |         |         |         | c |
| 94      | 0604307N | Surface Combatant Combat System Engineering | 5                    | 87,999  | 88,367  | 87,934  | 115,643 | U |
| 95      | 0604310N | Arsenal Ship                                | 5                    |         |         | 102,994 | 139,499 | U |
| 96      | 0604311N | LPD-17 Class Systems Integration            | 5                    |         | 4,098   | 471     | 1,662   | U |
| 97      | 0604312N | Tri-Service Standoff Attack Missile         | 5                    |         |         | 9,644   | 17,730  | U |
| 98      | 0604366N | Standard Missile Improvements               | 5                    | 21,404  | 9,240   | 549     | 1,329   | U |
| 99      | 0604373N | Airborne MCM                                | 5                    | 30,462  | 31,141  | 16,503  | 19,937  | U |
| 100     | 0604503N | SSN-688 and Trident Modernization           | 5                    | 66,191  | 58,638  | 42,294  | 47,914  | U |
| 101     | 0604504N | Air Control                                 | 5                    | 7,438   | 10,294  | 9,298   | 6,417   | U |
| 102     | 0604507N | Enhanced Modular Signal Processor           | 5                    | 14,076  | 21,740  | 3,462   | 3,224   | U |
| 103     | 0604512N | Shipboard Aviation Systems                  | 5                    | 10,938  | 6,285   | 9,225   | 10,494  | U |
| 104     | 0604516N | Ship Survivability                          | 5                    | 4,712   | 3,883   | 6,081   | 7,088   | U |
| 105     | 0604518N | Combat Information Center Conversion        | 5                    | 15,154  | 9,848   | 11,325  | 9,781   | U |
| 106     | 0604524N | Submarine Combat System                     | 5                    | 40,906  | 17,828  | 23,701  | 18,584  | U |
| 107     | 0604558N | New Design SSN                              | 5                    | 324,302 | 372,217 | 311,076 | 210,363 | U |
| 108     | 0604561N | SSN-21 Developments                         | 5                    | 79,411  | 87,524  | 49,542  | 27,731  | U |
| 109     | 0604562N | Submarine Tactical Warfare System           | 5                    | 35,457  | 21,837  | 45,663  | 32,376  | U |
| 110     | 0604567N | Ship Contract Design/ Live Fire T&E         | 5                    | 20,881  | 6,804   | 75,713  | 125,904 | U |
| 111     | 0604574N | Navy Tactical Computer Resources            | 5                    | 13,501  | 28,961  | 4,794   | 5,026   | U |
| 112     | 0604601N | Mine Development                            | 5                    | 2,946   | 2,381   | 2,815   | 3,650   | U |
| 113     | 0604603N | Unguided Conventional Air-Launched Weapons  | 5                    | 50,826  | 30,991  | 28,890  | 5,167   | U |

Department of the Navy  
FY 1998/1999 R D T & E Program

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

Date: FEB 1997

|      |                                 |  | Thousands of Dollars |           |           |           |           |             |
|------|---------------------------------|--|----------------------|-----------|-----------|-----------|-----------|-------------|
| Line | Program<br>Element<br>No Number | Item   | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | S<br>e<br>c |
|      |                                 |  | ---                  | -----     | -----     | -----     | -----     |             |
| 114  | 0604610N                        | Lightweight Torpedo Development                        | 5                    | 19,947    | 10,832    | 17,290    | 8,129     | U           |
| 115  | 0604612M                        | Marine Corps Mine Countermeasures Systems - Eng<br>Dev | 5                    | 1,317     | 3,588     | 950       | 3,907     | U           |
| 116  | 0604618N                        | Joint Direct Attack Munition                           | 5                    | 27,873    | 33,461    | 12,714    | 11,853    | U           |
| 117  | 0604654N                        | Joint Service Explosive Ordnance Development           | 5                    | 5,213     | 5,609     | 6,613     | 6,975     | U           |
| 118  | 0604703N                        | Personnel, Training, Simulation, and Human Factor      | 5                    | 1,002     | 972       | 1,022     | 1,252     | U           |
| 119  | 0604710N                        | Navy Energy Program                                    | 5                    | 2,518     | 1,903     | 2,088     | 2,535     | U           |
| 120  | 0604719M                        | Marine Corps Command/Control/Communications<br>Systems | 5                    | 10,812    |           |           |           | U           |
| 121  | 0604721N                        | Battle Group Passive Horizon Extension System          | 5                    | 7,860     | 4,478     | 4,531     | 5,975     | U           |
| 122  | 0604727N                        | Joint Standoff Weapon Systems                          | 5                    | 79,901    | 82,488    | 71,526    | 78,828    | U           |
| 123  | 0604755N                        | Ship Self Defense - EMD                                | 5                    | 194,715   | 144,144   | 132,270   | 102,790   | U           |
| 124  | 0604771N                        | Medical Development                                    | 5                    | 3,258     | 3,021     | 3,620     | 4,397     | U           |
| 125  | 0604777N                        | Navigation/ID System                                   | 5                    | 52,684    | 46,837    | 50,370    | 57,931    | U           |
| 126  | 0604784N                        | Distributed Surveillance System                        | 5                    | 97,163    | 55,480    | 33,048    | 38,623    | U           |
|      |                                 | Engineering and Manufacturing Development              |                      | 2,344,798 | 2,143,869 | 2,085,768 | 2,032,475 |             |
| 127  | 0604256N                        | Threat Simulator Development                           | 6                    | 28,234    | 22,574    | 12,860    | 15,010    | U           |
| 128  | 0604258N                        | Target Systems Development                             | 6                    | 23,202    | 29,686    | 48,308    | 54,766    | U           |
| 129  | 0604759N                        | Major T&E Investment                                   | 6                    | 48,872    | 38,950    | 33,236    | 18,000    | U           |
| 130  | 0605152N                        | Studies and Analysis Support - Navy                    | 6                    | 7,558     | 6,679     | 8,755     | 9,264     | U           |
| 131  | 0605154N                        | Center for Naval Analyses                              | 6                    | 42,903    | 38,608    | 43,476    | 44,794    | U           |

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|      |                                 |   | Thousands of Dollars |         |         |         |         |             |
|------|---------------------------------|---|----------------------|---------|---------|---------|---------|-------------|
| Line | Program<br>Element<br>No Number | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 132  | 0605155N                        | Fleet Tactical Development                                  | 6                    | 2,464   | 2,861   | 2,747   | 3,654   | U           |
| 133  | 0605502N                        | Small Business Innovative Research                          | 6                    | 111,340 |         |         |         | U           |
| 134  | 0605804N                        | Technical Information Services                              | 6                    | 2,293   | 4,533   | 8,763   | 8,950   | U           |
| 135  | 0605853N                        | Management, Technical & International Support               | 6                    | 17,500  | 19,672  | 24,305  | 26,911  | U           |
| 136  | 0605856N                        | Strategic Technical Support                                 | 6                    | 2,890   | 1,907   | 2,110   | 2,238   | U           |
| 137  | 0605861N                        | RDT&E Science and Technology Management                     | 6                    | 60,140  | 55,961  | 57,591  | 56,663  | U           |
| 138  | 0605862N                        | RDT&E Instrumentation Modernization                         | 6                    | 11,509  | 5,946   | 8,546   | 8,544   | U           |
| 139  | 0605863N                        | RDT&E Ship and Aircraft Support                             | 6                    | 59,706  | 48,253  | 48,596  | 55,613  | U           |
| 140  | 0605864N                        | Test and Evaluation Support                                 | 6                    | 235,938 | 233,908 | 263,934 | 272,624 | U           |
| 141  | 0605865N                        | Operational Test and Evaluation Capability                  | 6                    | 5,974   | 7,358   | 9,107   | 9,154   | U           |
| 142  | 0605866N                        | Navy Space and Electronic Warfare (SEW) Support             | 6                    | 2,970   | 2,753   | 2,783   | 4,170   | U           |
| 143  | 0605867N                        | SEW Surveillance/Reconnaissance Support                     | 6                    | 11,675  | 11,488  | 11,941  | 13,941  | U           |
| 144  | 0605871M                        | Marine Corps Tactical Exploitation of National Capabilities | 6                    | 2,753   |         |         |         | U           |
| 145  | 0605873M                        | Marine Corps Program Wide Support                           | 6                    | 5,378   | 7,459   | 8,207   | 8,884   | U           |
| 146  | 0909999N                        | Financing for Cancelled Account Adjustments                 | 6                    | 1,377   |         |         |         | U           |
|      |                                 | RDT&E Management Support                                    |                      | 684,676 | 538,596 | 595,265 | 613,180 |             |
| 147  | 0101221N                        | Strategic Sub & Weapons System Support                      | 7                    | 34,666  | 40,082  | 44,419  | 52,124  | U           |
| 148  | 0101224N                        | SSBN Security Technology Program                            | 7                    | 28,572  | 23,250  | 24,726  | 30,190  | U           |
| 149  | 0101226N                        | Submarine Acoustic Warfare Development                      | 7                    | 7,479   | 7,548   | 6,058   | 8,348   | U           |



Department of the Navy  
FY 1998/1999 R D T & E Program

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

Date: FEB 1997

|                                      |   |            | -----S<br>Thousands of Dollars<br>e<br>-----c |                  |                  |                  |   |
|--------------------------------------|---|------------|---|------------------|------------------|------------------|---|
| Program<br>Line Element<br>No Number | Item  | Act<br>--- | FY 1996<br>-----                              | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |   |
| 150 0101402N                         | Navy Strategic Communications                           | 7          | 16,736  |                  |                  |                  | U |
| 151 0204136N                         | F/A-18 Squadrons  | 7          | 857,265                                       | 422,715          | 316,976          | 198,891          | U |
| 152 0204152N                         | E-2 Squadrons   | 7          | 59,620  | 62,012           | 64,852           | 48,147           | U |
| 153 0204163N                         | Fleet Telecommunications (Tactical)                     | 7          | 21,160  | 19,138           | 19,336           | 23,289           | U |
| 154 0204229N                         | Tomahawk and Tomahawk Mission Planning Center<br>(TMPC) | 7          | 157,745                                       | 140,365          | 93,359           | 67,253           | U |
| 155 0204311N                         | Integrated Surveillance System                          | 7          | 30,559  | 34,608           | 9,882            | 24,377           | U |
| 156 0204413N                         | Amphibious Tactical Support Units                       | 7          | 4,074   | 1,459            | 672              | 3,210            | U |
| 157 0204571N                         | Consolidated Training Systems Development               | 7          | 65,092  | 48,978           | 58,956           | 47,563           | U |
| 158 0204575N                         | Electronic Warfare (EW) Readiness Support               | 7          |   | 1,583            | 1,626            | 3,766            | U |
| 159 0205601N                         | HARM Improvement  | 7          | 3,355   | 36,774           | 6,169            | 8,436            | U |
| 160 0205604N                         | Tactical Data Links                                     | 7          | 42,567  | 35,574           | 41,375           | 45,441           | U |
| 161 0205620N                         | Surface ASW Combat System Integration                   | 7          | 9,522   | 6,503            | 7,991            | 7,190            | U |
| 162 0205632N                         | MK-48 ADCAP   | 7          | 21,310  | 12,242           | 10,786           | 19,543           | U |
| 163 0205633N                         | Aviation Improvements                                   | 7          | 63,269  | 52,742           | 60,025           | 69,517           | U |
| 164 0205658N                         | Navy Science Assistance Program                         | 7          | 6,663   | 12,533           |                  |                  | U |
| 165 0205667N                         | F-14 Upgrade  | 7          | 19,816  | 9,437            | 11,704           | 14,839           | U |
| 166 0205675N                         | Operational Nuclear Power Systems                       | 7          | 56,571  | 53,590           | 55,998           | 54,909           | U |
| 167 0206313M                         | Marine Corps Communications Systems                     | 7          | 6,804   | 52,853           | 38,296           | 41,174           | U |
| 168 0206623M                         | Marine Corps Ground Combat/Supporting Arms System       | 7          | 14,439  | 8,495            | 12,568           | 15,470           | U |
| 169 0206624M                         | Marine Corps Combat Services Support                    | 7          | 6,131   | 5,681            | 5,048            | 4,757            | U |

Department of the Navy  
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Exhibit R-1

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

Date: FEB 1997

|       |                                       |   | Thousands of Dollars |                  |                  |                  |                  |             |
|-------|---------------------------------------|---|----------------------|------------------|------------------|------------------|------------------|-------------|
| Line  | Program<br>Element<br>No Number       | Item  | Act<br>---           | FY 1996<br>----- | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- | S<br>e<br>c |
| 170   | 0206625M                              | Marine Corps Intelligence/Electronics Warfare Systems | 7                    | 6,185            |                  |                  |                  | U           |
| 171   | 0206626M                              | Marine Corps Command/Control/Communications Systems   | 7                    | 15,012           |                  |                  |                  | U           |
| 172   | 0207161N                              | Tactical AIM Missiles                                 | 7                    | 28,103           | 52,463           | 60,079           | 66,040           | U           |
| 173   | 0207163N                              | Advanced Medium Range Air-to-Air Missile (AMRAAM)     | 7                    | 4,306            | 2,149            | 5,700            | 4,855            | U           |
| 174   | 0301303N                              | Maritime Intelligence                                 | 7                    |                  |                  |                  |                  |             |
| 175   | 0301327N                              | Technical Reconnaissance and Surveillance             | 7                    |                  |                  |                  |                  |             |
| 176   | 0303109N                              | Satellite Communications (SPACE)                      | 7                    | 33,851           | 36,360           | 17,026           | 27,408           | U           |
| 177   | 0303140N                              | Information Systems Security Program                  | 7                    | 21,383           | 25,525           | 20,291           | 25,301           | U           |
| 178   | 0303150N                              | WWMCCS/Global Command and Control System              | 7                    |                  |                  | 498              | 508              | U           |
| 179   | 0304111N                              | Special Activities                                    | 7                    |                  |                  |                  |                  |             |
| 180   | 0305154N                              | Defense Airborne Reconnaissance Program               | 7                    |                  | 7,939            |                  |                  | U           |
| 181   | 0305160N                              | Defense Meteorological Satellite Program (SPACE)      | 7                    | 25,271           | 13,134           | 3,165            | 9,135            | U           |
| 182   | 0305192N                              | Joint Military Intelligence Programs                  | 7                    |                  |                  | 2,412            | 2,293            | U           |
| 183   | 0305207N                              | Manned Reconnaissance Systems                         | 7                    |                  |                  | 344              | 342              | U           |
| 184   | 0305889N                              | Counterdrug Intelligence Support                      | 7                    | 30,162           |                  |                  |                  | U           |
| 185   | 0305927N                              | Naval Space Surveillance                              | 7                    | 712              | 677              | 399              | 529              | U           |
| 186   | 0708011N                              | Industrial Preparedness                               | 7                    | 83,139           | 84,877           |                  | 35,348           | U           |
|       |                                       | Operational Systems Development                       |                      | 2,347,690        | 1,855,062        | 1,489,225        | 1,467,918        |             |
| Total | Research Development Test & Eval Navy |   |                      | 8,471,501        | 7,855,754        | 7,611,022        | 7,756,314        |             |

Department of the Air Force  
 FY 1998/1999 R D T & E Program

Exhibit R-1

## Summary

Date: FEB 1997

Thousands of Dollars

|   | FY 1996    | FY 1997    | FY 1998    | FY 1999    |
|---|------------|------------|------------|------------|
| -----                                     |            |            |            |            |
| Summary Recap of Budget Activities        |            |            |            |            |
| -----                                     |            |            |            |            |
| Basic Research                            | 216,348    | 210,763    | 226,832    | 230,210    |
| Applied Research                          | 627,055    | 653,892    | 593,354    | 619,463    |
| Advanced Technology Development           | 517,219    | 473,072    | 402,314    | 431,811    |
| Demonstration and Validation              | 545,720    | 828,397    | 1,149,365  | 1,223,026  |
| Engineering and Manufacturing Development | 4,585,123  | 4,520,611  | 4,444,276  | 3,712,356  |
| RDT&E Management Support                  | 1,046,970  | 1,041,600  | 821,300    | 808,925    |
| Operational Systems Development           | 4,974,379  | 6,340,501  | 6,813,938  | 6,774,194  |
| -----                                     | -----      | -----      | -----      | -----      |
| Total Research Development Test & Eval AF | 12,512,814 | 14,068,836 | 14,451,379 | 13,799,985 |
|   |            |            |            |            |
| Summary Recap of FYDP Programs            |            |            |            |            |
| -----                                     |            |            |            |            |
| Strategic Forces                          | 40,340     | 29,307     | 29,794     | 20,049     |
| General Purpose Forces                    | 1,120,298  | 1,381,535  | 1,591,818  | 1,419,603  |
| Intelligence and Communications           | 3,613,731  | 4,932,826  | 5,200,153  | 5,114,802  |
| Mobility Forces                           | 16,826     | 79,923     | 133,295    | 218,774    |
| Research and Development (FYDP Program 6) | 7,622,978  | 7,558,159  | 7,394,019  | 6,866,357  |
| Central Supply and Maintenance            | 80,748     | 75,958     | 54,600     | 52,210     |
| Training Medical and Other                | 1,009      | 1,781      | 1,427      |            |
| Administration and Assoc Activities       | 9,020      | 5,793      | 6,497      | 6,756      |
| Support of Other Nations                  | 7,864      | 3,554      | 39,776     | 101,434    |
| -----                                     | -----      | -----      | -----      | -----      |
| Total Research Development Test & Eval AF | 12,512,814 | 14,068,836 | 14,451,379 | 13,799,985 |

Department of the Air Force  
FY 1998/1999 R D T & E Program

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

Date: FEB 1997

|         |              |   | Thousands of Dollars |         |         |         |         |   |
|---------|--------------|---|----------------------|---------|---------|---------|---------|---|
| Program | Line Element | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number       |   | ---                  | -----   | -----   | -----   | -----   | e |
|         |              |   |                      |         |         |         |         | c |
| 1       | 0601102F     | Defense Research Sciences                   | 1                    | 216,348 | 210,763 | 226,832 | 230,210 | U |
|         |              | Basic Research                              |                      | 216,348 | 210,763 | 226,832 | 230,210 |   |
| 2       | 0602102F     | Materials                                   | 2                    | 71,142  | 77,877  | 70,224  | 74,503  | U |
| 3       | 0602201F     | Aerospace Flight Dynamics                   | 2                    | 60,363  | 62,934  | 60,509  | 65,039  | U |
| 4       | 0602202F     | Armstrong Lab Exploratory Development       | 2                    | 81,171  | 86,382  | 76,102  | 77,002  | U |
| 5       | 0602203F     | Aerospace Propulsion                        | 2                    | 71,766  | 72,221  | 69,303  | 68,416  | U |
| 6       | 0602204F     | Aerospace Avionics                          | 2                    | 64,747  | 65,360  | 69,401  | 70,469  | U |
| 7       | 0602269F     | Hypersonic Technology Program               | 2                    | 12,624  | 7,153   | 9,840   | 12,984  | U |
| 8       | 0602601F     | Phillips Lab Exploratory Development        | 2                    | 130,112 | 147,712 | 111,136 | 123,514 | U |
| 9       | 0602602F     | Conventional Munitions                      | 2                    | 42,886  | 41,038  | 40,772  | 42,999  | U |
| 10      | 0602702F     | Command Control and Communications          | 2                    | 92,244  | 93,215  | 86,067  | 84,537  | U |
|         |              | Applied Research                            |                      | 627,055 | 653,892 | 593,354 | 619,463 |   |
| 11      | 0603106F     | Logistics Systems Technology                | 3                    | 16,372  | 17,467  | 15,338  | 17,775  | U |
| 12      | 0603108F     | Integrated Data Systems                     | 3                    | 14,406  | 17,332  | 19,753  | 19,706  | U |
| 13      | 0603112F     | Advanced Materials for Weapon Systems       | 3                    | 29,817  | 25,136  | 20,596  | 21,429  | U |
| 14      | 0603202F     | Aerospace Propulsion Subsystems Integration | 3                    | 31,111  | 27,031  | 30,564  | 31,434  | U |
| 15      | 0603203F     | Advanced Avionics for Aerospace Vehicles    | 3                    | 29,432  | 27,475  | 26,507  | 28,206  | U |
| 16      | 0603205F     | Flight Vehicle Technology                   | 3                    | 10,034  | 8,052   | 5,766   | 6,442   | U |
| 17      | 0603211F     | Aerospace Structures                        | 3                    | 12,033  | 9,945   | 15,032  | 17,745  | U |

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|                                 |          |  | Thousands of Dollars |         |         |         |         |   |
|---------------------------------|----------|--|----------------------|---------|---------|---------|---------|---|
| Program                         |          |  |                      |         |         |         |         |   |
| Line                            | Element  | Item   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No                              | Number   |  | ---                  | -----   | -----   | -----   | -----   | e |
|                                 |          |  |                      |         |         |         |         | c |
| 18                              | 0603216F | Aerospace Propulsion and Power Technology              | 3                    | 39,365  | 36,506  | 37,014  | 39,836  | U |
| 19                              | 0603227F | Personnel, Training and Simulation Technology          | 3                    | 8,509   | 7,420   | 6,147   | 7,182   | U |
| 20                              | 0603231F | Crew Systems and Personnel Protection Technology       | 3                    | 21,684  | 21,442  | 17,204  | 17,966  | U |
| 21                              | 0603238F | Global Surveillance and Communication Technology       | 3                    | 2,367   | 2,191   |         |         | U |
| 22                              | 0603245F | Flight Vehicle Technology Integration                  | 3                    | 11,379  | 6,132   | 7,795   | 9,828   | U |
| 23                              | 0603253F | Advanced Avionics Integration                          | 3                    | 16,636  | 14,809  | 12,716  | 14,218  | U |
| 24                              | 0603270F | Electronic Combat Technology                           | 3                    | 21,301  | 26,414  | 25,621  | 26,765  | U |
| 25                              | 0603302F | Space and Missile Rocket Propulsion                    | 3                    | 18,162  | 22,353  | 16,247  | 22,037  | U |
| 26                              | 0603311F | Ballistic Missile Technology                           | 3                    | 8,041   | 2,699   |         |         | U |
| 27                              | 0603401F | Advanced Spacecraft Technology                         | 3                    | 72,456  | 73,215  | 40,846  | 44,679  | U |
| 28                              | 0603410F | Space Systems Environmental Interactions<br>Technology | 3                    | 3,187   | 2,793   | 3,151   | 3,527   | U |
| 29                              | 0603601F | Conventional Weapons Technology                        | 3                    | 31,719  | 23,754  | 26,227  | 23,712  | U |
| 30                              | 0603605F | Advanced Weapons Technology                            | 3                    | 73,277  | 54,027  | 41,238  | 41,660  | U |
| 31                              | 0603707F | Weather Systems Technology                             | 3                    | 4,194   | 3,273   | 2,036   | 2,056   | U |
| 32                              | 0603723F | Environmental Engineering Technology                   | 3                    | 8,421   | 7,520   | 4,084   | 4,857   | U |
| 33                              | 0603726F | C3I Subsystem Integration                              | 3                    | 11,157  | 8,390   | 9,922   | 10,566  | U |
| 34                              | 0603728F | Advanced Computing Technology                          | 3                    | 10,327  | 8,089   | 5,613   | 6,684   | U |
| 35                              | 0603789F | C3 Advanced Development                                | 3                    | 11,832  | 10,389  | 12,897  | 13,501  | U |
| 36                              | 0305176F | Combat Survivor Evader Locator                         | 3                    |         | 9,218   |         |         | U |
| Advanced Technology Development |          |  |                      | 517,219 | 473,072 | 402,314 | 431,81  |   |

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|      |                                 |  | Thousands of Dollars |         |         |           |           |             |
|------|---------------------------------|--|----------------------|---------|---------|-----------|-----------|-------------|
| Line | Program<br>Element<br>No Number | Item   | Act                  | FY 1996 | FY 1997 | FY 1998   | FY 1999   | S<br>e<br>c |
| 37   | 0603260F                        | Intelligence Advanced Development  | 4                    | 4,680   | 4,686   | 4,738     | 4,709     | U           |
| 38   | 0603319F                        | Airborne Laser Technology  | 4                    | 20,360  | 54,227  | 157,136   | 296,596   | U           |
| 39   | 0603430F                        | Advanced MILSATCOM (SPACE)   | 4                    | 29,155  | 30,453  | 41,448    | 59,507    | U           |
| 40   | 0603432F                        | Polar Adjunct (SPACE)  | 4                    | 58,458  | 59,537  | 29,585    | 30,643    | U           |
| 41   | 0603434F                        | National Polar-orbiting Operational Environmental<br>Satellite Sys (SPACE) | 4                    | 17,371  | 27,668  | 51,504    | 113,234   | U           |
| 42   | 0603441F                        | Space Based Infrared Architecture (SPACE) - Dem/<br>Val                    | 4                    | 249,436 | 237,532 | 222,401   | 126,485   | U           |
| 43   | 0603617F                        | Command, Control, and Communication Applications                           | 4                    | 6,041   | 4,179   | 7,650     | 7,926     | U           |
| 44   | 0603742F                        | Combat Identification Technology   | 4                    | 2,833   | 4,059   | 1,395     | 6,401     | U           |
| 45   | 0603790F                        | NATO Research and Development  | 4                    |         | 9,783   | 13,433    | 11,341    | U           |
| 46   | 0603800F                        | Joint Strike Fighter (JSF) - Dem/Val                                       | 4                    | 81,303  | 252,043 | 458,052   | 465,611   | U           |
| 47   | 0603851F                        | Intercontinental Ballistic Missile - Dem/Val                               | 4                    | 19,690  | 46,037  | 32,837    | 31,951    | U           |
| 48   | 0603852F                        | C-130J - Dem/Val   | 4                    |         |         | 3,968     |           | U           |
| 49   | 0603853F                        | Evolved Expendable Launch Vehicle Program (SPACE)<br>Dem/Val               | 4                    | 36,894  | 42,333  | 63,260    |           | U           |
| 50   | 0603854F                        | Global Broadcast Service   | 4                    | 14,000  | 43,565  | 56,977    | 62,678    | U           |
| 51   | 0603855F                        | Space Architect Office   | 4                    | 5,499   | 10,957  |           |           | U           |
| 52   | 0604237F                        | Variable Stability In-Flight Simulator Test<br>Aircraft                    | 4                    |         | 1,338   |           |           | U           |
| 53   | 0604327F                        | Hardened Target Munitions  | 4                    |         |         | 4,981     |           | U           |
| 54   | 0208030F                        | War Reserve Materiel - Ammunition  | 4                    |         |         |           | 5,944     | U           |
|      |                                 | Demonstration and Validation   |                      | 545,720 | 828,397 | 1,149,365 | 1,223,026 |             |

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| Program |          | Thousands of Dollars                             |     |           |           |           | S<br>e<br>c |
|---------|----------|--|-----|-----------|-----------|-----------|-------------|
| Line    | Element  | Item   | Act | FY 1996   | FY 1997   | FY 1998   |             |
| 55      | 0604201F | Integrated Avionics Planning and Development     | 5   | 14,745    | 17,726    | 16,494    | 7,884 U     |
| 56      | 0604218F | Engine Model Derivative Program (EMDP)           | 5   | 714       | 675       | 741       | 767 U       |
| 57      | 0604222F | Nuclear Weapons Support                          | 5   | 4,516     | 5,655     | 4,782     | 5,005 U     |
| 58      | 0604226F | B-1B   | 5   | 186,940   | 207,930   | 216,886   | 199,718 U   |
| 59      | 0604227F | Training Systems Development                     | 5   | 7,961     | 4,247     | 4,305     | 4,422 U     |
| 60      | 0604231F | C-17 Program                                     | 5   | 71,956    |           |           | U           |
| 61      | 0604233F | Specialized Undergraduate Pilot Training         | 5   | 59,089    | 75,680    | 80,238    | 67,183 U    |
| 62      | 0604239F | F-22 EMD   | 5   | 2,154,196 | 1,818,462 | 2,071,234 | 1,464,782 U |
| 63      | 0604240F | B-2 Advanced Technology Bomber                   | 5   | 587,538   | 595,496   | 355,750   | 44,894 U    |
| 64      | 0604243F | Manpower, Personnel and Training Development     | 5   | 4,953     | 4,689     | 4,534     | 4,230 U     |
| 65      | 0604249F | Night/Precision Attack                           | 5   | 6,521     |           |           | U           |
| 66      | 0604268F | Aircraft Engine Component Improvement Program    | 5   | 96,107    |           |           | U           |
| 67      | 0604270F | EW Development                                   | 5   | 48,674    | 97,458    | 78,465    | 87,889 U    |
| 68      | 0604321F | Combat Intelligence System -EMD                  | 5   | 3,619     | 2,791     |           | U           |
| 69      | 0604441F | Space Based Infrared Architecture (SPACE) - EMD  | 5   | 165,171   | 189,638   | 338,413   | 580,298 U   |
| 70      | 0604479F | Milstar LDR/MDR Satellite Communications (SPACE) | 5   | 533,613   | 683,685   | 676,690   | 555,050 U   |
| 71      | 0604480F | Global Positioning System Block IIF (SPACE)      | 5   | 18,530    | 35,406    | 71,094    | 67,853 U    |
| 72      | 0604600F | Munitions Dispenser Development                  | 5   | 50,005    | 53,631    | 18,076    | 7,711 U     |
| 73      | 0604602F | Armament/Ordnance Development                    | 5   | 7,600     | 3,483     | 1,597     | 135 U       |
| 74      | 0604604F | Submunitions                                     | 5   | 4,843     | 4,769     | 4,956     | 4,902 U     |

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|---|----------------|---|-----|----------------------|-----------|-----------|-----------|--------|
|   |                |   |     | FY 1996              | FY 1997   | FY 1998   | FY 1999   |        |
| 75  | 0604617F       | Air Base Operability  | 5   | 8,881                | 2,781     | 1,424     | 2,553     | U      |
| 76  | 0604618F       | Joint Direct Attack Munition  | 5   | 80,555               | 36,993    | 19,553    | 12,450    | U      |
| 77  | 0604703F       | Aeromedical/Chemical Defense Systems                                    | 5   | 5,873                | 5,707     | 4,354     | 2,057     | U      |
| 78  | 0604704F       | Common Support Equipment Development                                    | 5   | 1,310                |           |           |           | U      |
| 79  | 0604706F       | Life Support Systems  | 5   | 4,518                | 10,391    | 3,726     | 3,819     | U      |
| 80  | 0604708F       | Civil, Fire, Environmental, Shelter Engineering                         | 5   | 2,580                | 2,617     | 2,698     | 2,770     | U      |
| 81  | 0604711F       | Systems Survivability (Nuclear Effects)                                 | 5   | 35                   | 35        |           |           | U      |
| 82  | 0604727F       | Joint Standoff Weapons Systems  | 5   | 41,828               | 22,463    | 24,676    | 23,139    | U      |
| 83  | 0604735F       | Combat Training Ranges  | 5   | 12,744               | 21,926    | 20,331    | 14,875    | U      |
| 84  | 0604740F       | Computer Resource Technology Transition (CRTT)                          | 5   | 8,688                | 1,862     | 1,459     | 1,485     | U      |
| 85  | 0604750F       | Intelligence Equipment  | 5   | 1,256                | 1,167     | 1,287     | 1,326     | U      |
| 86  | 0604754F       | Joint Tactical Information Distribution System (JTIDS)                  | 5   | 9,077                | 29,321    | 8,557     | 8,616     | U      |
| 87  | 0604770F       | Joint Surveillance/Target Attack Radar System (JSTARS)                  | 5   | 154,939              | 215,210   |           |           | U      |
| 88  | 0604779F       | Joint Interoperability of Tactical Command & Control Systems (JINTACCS) | 5   | 5,771                | 5,606     | 5,929     | 5,940     | U      |
| 89  | 0604851F       | Intercontinental Ballistic Missile - EMD                                | 5   | 179,685              | 202,153   | 137,944   | 86,990    | U      |
| 90  | 0604853F       | Evolved Expendable Launch Vehicle Program (SPACE) - EMD                 | 5   |                      |           | 28,376    | 293,950   | U      |
| 91  | 0207320F       | Sensor Fused Weapons  | 5   |                      |           | 19,804    | 3,622     | U      |
| 92  | 0207325F       | Joint Air-to-Surface Standoff Missile (JASSM)                           | 5   | 27,600               | 160,958   | 203,321   | 135,542   | U      |
| 93  | 0207414F       | Combat Intelligence System  | 5   |                      |           | 12,267    | 10,499    | U      |
| 94  | 0303606F       | UHF Satellite Communications  | 5   | 12,492               |           |           |           | U      |
| 95  | 0305176F       | Combat Survivor Evader Locator  | 5   |                      |           | 4,315     |           | U      |
| Engineering and Manufacturing Development |                |   |     | 4,585,123            | 4,520,611 | 4,444,276 | 3,712,356 |        |



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| Program<br>Line Element<br>No Number | Item                                      | Act<br>--- | Thousands of Dollars |                  |                  |                  | S<br>e<br>c |
|--------------------------------------|---|------------|----------------------|------------------|------------------|------------------|-------------|
|                                      |   |            | FY 1996<br>-----     | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |             |
| 96 0603402F                          | Space Test Program (SPACE)                | 6          | 44,731               | 43,439           | 42,241           | 56,157           | U           |
| 97 0604256F                          | Threat Simulator Development              | 6          | 57,046               | 53,496           | 51,846           | 36,238           | U           |
| 98 0604258F                          | Target Systems Development                | 6          | 5,049                | 4,762            | 4,780            | 4,818            | U           |
| 99 0604759F                          | Major T&E Investment                      | 6          | 38,446               | 32,340           | 47,336           | 43,809           | U           |
| 100 0605101F                         | RAND Project Air Force                    | 6          | 23,862               | 21,061           | 21,768           | 21,594           | U           |
| 101 0605306F                         | Ranch Hand II Epidemiology Study          | 6          | 3,006                | 8,842            | 10,933           | 4,488            | U           |
| 102 0605502F                         | Small Business Innovation Research        | 6          | 174,857              | 212,854          |                  |                  | U           |
| 103 0605704F                         | Theater Air Defense BMC4I                 | 6          | 12,362               | 12,010           |                  |                  | U           |
| 104 0605712F                         | Initial Operational Test & Evaluation     | 6          | 22,948               | 21,454           | 28,319           | 25,035           | U           |
| 105 0605807F                         | Test and Evaluation Support               | 6          | 436,454              | 414,901          | 389,348          | 389,527          | U           |
| 106 0605808F                         | Development Planning                      | 6          | 6,437                | 6,194            | 6,049            | 6,197            | U           |
| 107 0605853F                         | Environmental Conservation                | 6          | 8,194                | 10,429           | 11,914           | 12,752           | U           |
| 108 0605854F                         | Pollution Prevention                      | 6          | 13,397               | 19,756           | 5,880            | 4,314            | U           |
| 109 0605856F                         | Environmental Compliance                  | 6          | 26,053               | 21,865           | 17,126           | 21,705           | U           |
| 110 0605860F                         | Rocket Systems Launch Program (SPACE)     | 6          | 36,900               | 32,218           | 8,013            | 8,023            | U           |
| 111 0605876F                         | Minor Construction (RPM) - RDT&E          | 6          |                      |                  | 1,853            | 1,941            | U           |
| 112 0605878F                         | Maintenance and Repair (RPM) - RDT&E      | 6          |                      |                  | 55,200           | 57,503           | U           |
| 113 0605879F                         | Real Property Services (RPS) - RDT&E      | 6          |                      |                  | 49,614           | 47,809           | U           |
| 114 0605896F                         | Base Operations - RDT&E                   | 6          | 134,232              | 125,979          | 65,365           | 63,188           | U           |
| 115 0909900F                         | Financing for Expired Account Adjustments | 6          | 2,996                |                  |                  |                  | U           |

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|------|---------------------------------|---|----------------------|-----------|-----------|---------|---------|-------------|
| Line | Program<br>Element<br>No Number | Item  | Act                  | FY 1996   | FY 1997   | FY 1998 | FY 1999 | S<br>e<br>c |
| 116  | 1001004F                        | International Activities  | 6                    |           |           | 3,715   | 3,827   | U           |
|      |                                 | RDT&E Management Support  |                      | 1,046,970 | 1,041,600 | 821,300 | 808,925 |             |
| 117  | 0603107F                        | Technical Evaluation System                                     | 7                    |           |           |         |         |             |
| 118  | 0603110F                        | Special Evaluation System                                       | 7                    |           |           |         |         |             |
| 119  | 0101113F                        | B-52 Squadrons  | 7                    | 19,870    | 10,612    | 3,427   | 3,765   | U           |
| 120  | 0101120F                        | Advanced Cruise Missile   | 7                    | 6,743     | 1,107     | 2,393   |         | U           |
| 121  | 0102325F                        | Joint Surveillance System                                       | 7                    | 6,050     | 12,626    | 2,020   | 2,219   | U           |
| 122  | 0102326F                        | Region/Sector Operation Control Center<br>Modernization Program | 7                    |           |           | 20,512  | 14,065  | U           |
| 123  | 0102411F                        | North Atlantic Defense System                                   | 7                    | 6,702     | 4,962     | 1,442   |         | U           |
| 124  | 0102412F                        | North Warning System (NWS)                                      | 7                    | 975       |           |         |         | U           |
| 125  | 0207129F                        | F-111 Squadrons   | 7                    | 564       |           |         |         | U           |
| 126  | 0207131F                        | A-10 Squadrons  | 7                    |           |           |         | 2,358   | U           |
| 127  | 0207133F                        | F-16 Squadrons  | 7                    | 146,114   | 126,228   | 100,233 | 100,491 | U           |
| 128  | 0207134F                        | F-15E Squadrons   | 7                    | 160,917   | 150,981   | 137,538 | 109,798 | U           |
| 129  | 0207136F                        | Manned Destructive Suppression                                  | 7                    | 10,208    | 11,821    | 13,561  | 2,492   | U           |
| 130  | 0207141F                        | F-117A Squadrons  | 7                    | 3,647     | 11,797    | 9,520   | 5,251   | U           |
| 131  | 0207161F                        | Tactical AIM Missiles   | 7                    | 18,982    | 31,798    | 53,171  | 54,031  | U           |
| 132  | 0207163F                        | Advanced Medium Range Air-to-Air Missile (AMRAAM)               | 7                    | 44,202    | 24,745    | 50,781  | 45,985  | U           |
| 133  | 0207217F                        | Podded Reconnaissance System                                    | 7                    | 3,000     | 6,438     | 299     |         | U           |

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|---------|------------------------|---|-----|----------------------|---------|---------|---------|-------------|
|         |                        |   |     | FY 1996              | FY 1997 | FY 1998 | FY 1999 |             |
| 134     | 0207247F               | AF TENCAP   | 7   | 20,556               | 19,102  | 15,251  | 16,277  | U           |
| 135     | 0207248F               | Special Evaluation Program                                      | 7   | 82,539               | 35,629  | 73,107  | 82,212  | U           |
| 136     | 0207268F               | Aircraft Engine Component Improvement Program                   | 7   |                      | 92,704  | 93,122  | 93,921  | U           |
| 137     | 0207320F               | Sensor Fused Weapons  | 7   | 9,517                | 18,695  |         |         | U           |
| 138     | 0207323F               | AGM-86C Conventional Air-Launched Cruise Missile System         | 7   |                      | 2,875   |         | 22,091  | U           |
| 139     | 0207412F               | Theater Air Control Systems                                     | 7   | 535                  | 590     | 393     | 440     | U           |
| 140     | 0207417F               | Airborne Warning and Control System (AWACS)                     | 7   | 88,843               | 78,635  | 46,807  | 29,266  | U           |
| 141     | 0207419F               | Tactical Airborne Command and Control Systems                   | 7   | 1,910                | 325     |         |         | U           |
| 142     | 0207423F               | Advanced Communications Systems                                 | 7   | 1,821                | 1,646   | 2,966   | 2,895   | U           |
| 143     | 0207424F               | Evaluation and Analysis Program                                 | 7   | 75,129               | 81,623  | 74,917  | 86,728  | U           |
| 144     | 0207431F               | Combat Air Intelligence System Activities                       | 7   |                      | 7,385   |         |         | U           |
| 145     | 0207433F               | Advanced Program Technology                                     | 7   | 140,350              | 66,355  | 95,056  | 65,609  | U           |
| 146     | 0207438F               | Theater Battle Management (TBM) C4I                             | 7   | 27,403               | 32,766  | 24,013  | 35,341  | U           |
| 147     | 0207579F               | Advanced Systems Improvements                                   | 7   | 56,571               |         |         |         | U           |
| 148     | 0207581F               | Joint Surveillance and Target Attack Radar System (Joint STARS) | 7   |                      |         | 119,189 | 84,458  | U           |
| 149     | 0207590F               | Seek Eagle  | 7   | 13,654               | 15,075  | 17,716  | 19,146  | U           |
| 150     | 0207591F               | Advanced Program Evaluation                                     | 7   | 135,724              | 181,725 | 214,011 | 165,007 | U           |
| 151     | 0207601F               | USAF Modeling and Simulation                                    | 7   | 6,025                | 25,107  | 21,718  | 24,919  | U           |
| 152     | 0208006F               | Mission Planning Systems  | 7   | 19,067               | 17,635  | 16,526  | 17,434  | U           |
| 153     | 0208021F               | Information Warfare Support                                     | 7   |                      |         |         |         |             |

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|---------|------------------------|---|-----|----------------------|---------|---------|---------|-------------|
|         |                        |   |     | FY 1996              | FY 1997 | FY 1998 | FY 1999 |             |
| 154     | 0208060F               | Theater Missile Defenses  | 7   | 24,059               | 30,585  | 29,182  | 31,682  | U           |
| 155     | 0208160F               | Technical Evaluation System   | 7   |                      | 107,983 | 105,645 | 112,413 | U           |
| 156     | 0208161F               | Special Evaluation System   | 7   |                      | 39,054  | 40,344  | 52,348  | U           |
| 157     | 0301310F               | Foreign Technology Division   | 7   |                      |         |         |         |             |
| 158     | 0301313F               | Defense Dissemination Program                                       | 7   |                      |         |         |         |             |
| 159     | 0301315F               | Missile and Space Technical Collection                              | 7   |                      |         |         |         |             |
| 160     | 0301324F               | FOREST GREEN  | 7   |                      |         |         |         |             |
| 161     | 0301398F               | Management Headquarters GDIP  | 7   |                      |         | 1,360   | 1,288   | U           |
| 162     | 0303110F               | Defense Satellite Communications System (SPACE)                     | 7   | 33,477               | 27,279  | 10,547  | 17,589  | U           |
| 163     | 0303131F               | Minimum Essential Emergency Communications Network (MEECN)          | 7   | 13,068               | 20,842  | 34,409  | 29,019  | U           |
| 164     | 0303140F               | Information Systems Security Program                                | 7   | 10,381               | 6,548   | 5,298   | 6,589   | U           |
| 165     | 0303141F               | Global Combat Support System  | 7   |                      |         | 20,894  | 18,334  | U           |
| 166     | 0303144F               | Electromagnetic Compatibility Analysis Center (ECAC)                | 7   | 1,500                | 7,307   | 7,844   | 7,973   | U           |
| 167     | 0303152F               | World-Wide Military Command and Control Systems, Information System | 7   |                      | 7,299   | 6,820   | 6,650   | U           |
| 168     | 0303601F               | Milstar Satellite Communications System (SPACE)                     | 7   | 40,678               | 19,289  | 12,871  | 8,799   | U           |
| 169     | 0304111F               | Special Activities  | 7   |                      |         |         |         |             |
| 170     | 0304311F               | Selected Activities   | 7   |                      |         | 3,000   | 3,000   | U           |
| 171     | 0305110F               | Satellite Control Network (SPACE)                                   | 7   | 74,896               | 82,640  | 80,011  | 104,061 | U           |
| 172     | 0305111F               | Weather Service   | 7   | 5,321                | 4,919   | 9,057   | 8,424   | U           |
| 173     | 0305114F               | Air Traffic Control, Approach, and Landing System (ATCALs)          | 7   | 5,440                | 7,643   | 6,571   | 925     | U           |

Department of the Air Force  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

| Line No | Program Element Number | Item   | Act | Thousands of Dollars |         |         |         | S<br>e<br>c |
|---------|------------------------|--|-----|----------------------|---------|---------|---------|-------------|
|         |                        |  |     | FY 1996              | FY 1997 | FY 1998 | FY 1999 |             |
| 174     | 0305119F               | Medium Launch Vehicles (SPACE)                                 | 7   | 16,614               | 12,720  | 5,719   | 14,623  | U           |
| 175     | 0305128F               | Security and Investigative Activities                          | 7   | 282                  | 275     | 530     | 467     | U           |
| 176     | 0305137F               | National Airspace System (NAS) Plan                            | 7   | 12,140               | 11,858  | 12,830  | 1,919   | U           |
| 177     | 0305138F               | Upper Stage Space Vehicles (SPACE)                             | 7   | 2,931                | 3,010   | 3,337   | 3,369   | U           |
| 178     | 0305142F               | Applied Technology and Integration                             | 7   |                      |         |         |         |             |
| 179     | 0305144F               | Titan Space Launch Vehicles (SPACE)                            | 7   | 128,942              | 97,487  | 82,384  | 137,602 | U           |
| 180     | 0305145F               | Arms Control Implementation                                    | 7   | 948                  | 27,841  |         |         | U           |
| 181     | 0305154F               | Defense Airborne Reconnaissance Program                        | 7   | 29,558               | 4,750   |         |         | U           |
| 182     | 0305158F               | Tactical Terminal  | 7   | 2,872                | 2,799   | 258     | 242     | U           |
| 183     | 0305160F               | Defense Meteorological Satellite Program (SPACE)               | 7   | 18,221               | 14,769  | 14,076  | 19,143  | U           |
| 184     | 0305164F               | NAVSTAR Global Positioning System (User Equipment) (SPACE)     | 7   | 16,314               | 29,810  | 46,300  | 68,590  | U           |
| 185     | 0305165F               | NAVSTAR Global Positioning System (Space and Control Segments) | 7   | 25,257               | 40,442  | 26,685  | 21,580  | U           |
| 186     | 0305172F               | Combined Advanced Applications                                 | 7   |                      |         |         |         |             |
| 187     | 0305182F               | Eastern Space Launch Facility (ESLF)(SPACE)                    | 7   | 47,943               | 33,956  | 34,186  | 33,472  | U           |
| 188     | 0305906F               | NCMC - TW/AA System  | 7   | 56,712               | 29,466  | 7,362   | 5,036   | U           |
| 189     | 0305910F               | SPACETRACK (SPACE)   | 7   | 54,334               | 31,851  | 28,573  | 14,147  | U           |
| 190     | 0305911F               | Defense Support Program (SPACE)                                | 7   | 33,969               | 25,009  | 23,193  | 39,946  | U           |
| 191     | 0305913F               | NUDET Detection System (SPACE)                                 | 7   | 12,064               | 13,018  | 14,145  | 14,982  | U           |
| 192     | 0305917F               | Space Architect  | 7   |                      |         | 14,590  | 14,590  | U           |
| 193     | 0305953F               | Evolved Expendable Launch Vehicle (EELV) (Space)               | 7   |                      |         |         | 3,383   | U           |

Department of the Air Force  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|       |                                     |   | Thousands of Dollars |            |            |            |            |             |
|-------|-------------------------------------|---|----------------------|------------|------------|------------|------------|-------------|
| Line  | Program<br>Element<br>No Number     | Item  | Act                  | FY 1996    | FY 1997    | FY 1998    | FY 1999    | S<br>e<br>c |
| 194   | 0308610F                            | Information Management-Automation-Program 3                             | 7                    | 9,790      | 14,543     |            |            | U           |
| 195   | 0401119F                            | C-5 Airlift Squadrons   | 7                    |            | 1,124      | 9,751      | 14,204     | U           |
| 196   | 0401130F                            | C-17 Aircraft   | 7                    |            | 71,774     | 113,605    | 202,344    | U           |
| 197   | 0401214F                            | Air Cargo Material Handling (463-L) (Non-IF)                            | 7                    |            | 3,145      | 7,947      | 522        | U           |
| 198   | 0401218F                            | KC-135s   | 7                    | 11,729     | 715        | 1,992      | 1,704      | U           |
| 199   | 0404102F                            | Aerospace Rescue and Recovery   | 7                    | 5,097      | 3,165      |            |            | U           |
| 200   | 0702207F                            | Depot Maintenance (Non-IF)  | 7                    | 1,414      | 1,377      | 1,482      | 1,530      | U           |
| 201   | 0708011F                            | Industrial Preparedness   | 7                    | 57,040     | 50,632     | 48,429     | 45,923     | U           |
| 202   | 0708026F                            | Productivity, Reliability, Availability,<br>Maintain. Prog Ofc (PRAMPO) | 7                    | 16,840     | 15,842     | 1,032      | 990        | U           |
| 203   | 0708611F                            | Support Systems Development   | 7                    | 5,454      | 8,107      | 3,657      | 3,767      | U           |
| 204   | 0804734F                            | Cryptologic/SIGINT-Related Skill Training                               | 7                    | 1,009      | 1,781      | 1,427      |            | U           |
| 205   | 0901218F                            | Civilian Compensation Program   | 7                    | 6,024      | 5,793      | 6,497      | 6,756      | U           |
| 206   | 1001004F                            | International Activities  | 7                    | 3,583      | 3,554      |            |            | U           |
| 207   | 1001018F                            | NATO Joint STARS  | 7                    | 4,281      |            | 36,061     | 97,607     | U           |
| 208   | 0207137F                            | Classified Program  | 7                    |            |            |            |            |             |
|       |                                     | Operational Systems Development   |                      | 4,974,379  | 6,340,501  | 6,813,938  | 6,774,194  |             |
| Total | Research Development Test & Eval AF |   |                      | 12,512,814 | 14,068,836 | 14,451,379 | 13,799,985 |             |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

## Summary

Date: FEB 1997

Thousands of Dollars

|  | FY 1996   | FY 1997   | FY 1998   | FY 1999   |
|--|-----------|-----------|-----------|-----------|
| -----  |           |           |           |           |
| Summary Recap of Budget Activities             |           |           |           |           |
| -----  |           |           |           |           |
| Basic Research                                 | 329,603   | 337,821   | 355,869   | 371,898   |
| Applied Research                               | 1,220,288 | 1,132,827 | 1,267,523 | 1,372,820 |
| Advanced Technology Development                | 2,039,569 | 2,147,731 | 2,160,232 | 2,121,617 |
| Demonstration and Validation                   | 2,484,272 | 2,351,984 | 1,759,547 | 1,297,671 |
| Engineering and Manufacturing Development      | 590,216   | 1,043,349 | 911,323   | 1,046,284 |
| RDT&E Management Support                       | 418,320   | 211,863   | 240,574   | 238,443   |
| Operational Systems Development                | 2,110,174 | 2,212,596 | 2,374,612 | 2,240,620 |
| -----  |           |           |           |           |
| Total Research Development Test & Eval Defwide | 9,192,442 | 9,438,171 | 9,069,680 | 8,689,353 |
| -----  |           |           |           |           |
| Summary Recap of FYDP Programs                 |           |           |           |           |
| -----  |           |           |           |           |
| General Purpose Forces                         | 26,068    | 27,157    | 27,856    | 28,531    |
| Intelligence and Communications                | 2,009,053 | 2,031,078 | 2,197,222 | 2,058,177 |
| Research and Development (FYDP Program 6)      | 7,002,532 | 7,200,504 | 6,680,990 | 6,440,597 |
| Central Supply and Maintenance                 | 3,788     | 6,101     | 8,720     | 8,732     |
| Administration and Assoc Activities            | 3,999     | 31,066    | 34,356    | 34,985    |
| Support of Other Nations                       |           |           | 1,993     | 1,991     |
| Special Operations Forces                      | 147,002   | 142,265   | 118,543   | 116,340   |
| -----  |           |           |           |           |
| Total Research Development Test & Eval Defwide | 9,192,442 | 9,438,171 | 9,069,680 | 8,689,353 |
| -----  |           |           |           |           |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

## Summary

Date: FEB 1997

Thousands of Dollars

|  | FY 1996   | FY 1997   | FY 1998   | FY 1999   |
|--|-----------|-----------|-----------|-----------|
| Summary Recap of Defensewide                   |           |           |           |           |
| Defense Mapping Agency                         | 71,685    |           |           |           |
| Special Operations Command                     | 147,002   | 142,265   | 118,543   | 116,340   |
| Chemical and Biological Defense Program        | 253,491   | 302,602   | 320,846   | 312,552   |
| National Imagery And Mapping Agency            |           |           |           |           |
| Ballistic Missile Defense Organization         | 3,045,181 | 3,373,391 | 2,581,944 | 2,272,589 |
| Office of Secretary/Defense                    | 1,745,197 | 1,564,779 | 1,804,816 | 1,665,898 |
| Defense Advanced Research Projects Agcy        | 2,269,202 | 2,140,436 | 2,206,403 | 2,271,934 |
| National Security Agency                       |           |           |           |           |
| Defense Special Weapons Agency                 | 259,628   | 217,783   | 295,341   | 271,934   |
| Defense Support Project Office                 | 54,769    | 78,280    | 49,403    | 41,854    |
| Joint Chiefs of Staff                          | 5,526     | 35,836    | 67,189    | 59,924    |
| Defense Information Systems Agency             | 60,630    | 65,802    | 55,845    | 57,980    |
| Defense Intelligence Agency                    |           |           |           |           |
| Central Imagery Office                         |           |           |           |           |
| Defense Logistics Agency                       | 74,479    | 83,848    | 102,166   | 89,157    |
| Defense Investigative Service                  | 402       | 412       | 419       | 418       |
| Total Research Development Test & Eval Defwide | 9,192,442 | 9,438,171 | 9,069,680 | 8,689,353 |



Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                                      |   |     | -----<br>Thousands of Dollars<br>----- |         |         |         |             |  |
|--------------------------------------|---|-----|--|---------|---------|---------|-------------|--|
| Program<br>Line Element<br>No Number | Item  | Act | FY 1996                                | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |  |
|                                      |   |     | -----                                  | -----   | -----   | -----   |             |  |
| 1                                    | 0601101D In-House Laboratory Independent Research                                 | 1   | 3,368                                  | 3,099   | 2,169   | 2,212   | U           |  |
| 2                                    | 0601101E Defense Research Sciences  | 1   | 76,459                                 | 90,701  | 76,009  | 80,936  | U           |  |
| 3                                    | 0601103D University Research Initiatives  | 1   | 214,876                                | 214,696 | 237,788 | 247,188 | U           |  |
| 4                                    | 0601110D Focused Research Initiatives   | 1   | 8,372                                  |         |         |         | U           |  |
| 5                                    | 0601111D Government/Industry Cosponsorship of University Research                 | 1   |  |         | 14,713  | 15,544  | U           |  |
| 6                                    | 0601384BP Chemical and Biological Defense Program                                 | 1   | 26,528                                 | 29,325  | 25,190  | 26,018  | U           |  |
| Basic Research                       |   |     | -----                                  | -----   | -----   | -----   |             |  |
|                                      |   |     | 329,603                                | 337,821 | 355,869 | 371,898 |             |  |
| 7                                    | 0602110E Next Generation Internet   | 2   |  |         | 40,000  | 40,000  | U           |  |
| 8                                    | 0602160D Counterproliferation Support   | 2   | 13,599                                 |         |         |         | U           |  |
| 9                                    | 0602173C Support Technologies - Applied Research                                  | 2   | 96,092                                 | 102,510 | 101,932 | 95,488  | U           |  |
| 10                                   | 0602227D Medical Free Electron Laser  | 2   | 24,344                                 | 19,934  | 20,841  | 21,640  | U           |  |
| 11                                   | 0602228D Historically Black Colleges and Universities (HBCU) Science and Engineer | 2   | 13,572                                 | 10,876  | 11,485  | 14,664  | U           |  |
| 12                                   | 0602234D Lincoln Laboratory Research Program                                      | 2   | 13,730                                 | 19,554  | 20,474  | 21,147  | U           |  |
| 13                                   | 0602301E Computing Systems and Communications Technology                          | 2   | 361,528                                | 314,969 | 341,752 | 371,471 | U           |  |
| 14                                   | 0602383E Biological Warfare Defense   | 2   |  |         | 61,600  | 61,800  | U           |  |
| 15                                   | 0602384BP Chemical and Biological Defense Program                                 | 2   | 68,565                                 | 67,852  | 60,023  | 58,360  | U           |  |
| 16                                   | 0602702E Tactical Technology  | 2   | 120,440                                | 121,520 | 157,329 | 177,995 | U           |  |
| 17                                   | 0602708E Integrated Command and Control Technology                                | 2   | 44,395                                 | 59,672  | 37,000  | 40,000  | U           |  |
| 18                                   | 0602712E Materials and Electronics Technology                                     | 2   | 227,848                                | 213,843 | 192,192 | 236,730 | U           |  |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |              |  | -----<br>Thousands of Dollars<br>----- |           |           |           |           |             |
|---------|--------------|--|--|-----------|-----------|-----------|-----------|-------------|
| Program | Line Element | Item   | Act                                    | FY 1996   | FY 1997   | FY 1998   | FY 1999   | S<br>e<br>c |
| No      | Number       |  | ---                                    | -----     | -----     | -----     | -----     |             |
| 19      | 0602715H     | Defense Special Weapons Agency                                 | 2                                      | 227,320   | 192,298   | 211,971   | 221,702   | U           |
| 20      | 0602787D     | Medical Technology   | 2                                      | 7,150     | 7,985     | 8,987     | 9,810     | U           |
| 21      | 0305108K     | Command and Control Research                                   | 2                                      | 1,705     | 1,814     | 1,937     | 2,013     | U           |
|         |              | Applied Research   |  | 1,220,288 | 1,132,827 | 1,267,523 | 1,372,820 |             |
| 22      | 0603002D     | Medical Advanced Technology                                    | 3                                      | 3,899     | 3,276     | 2,778     | 2,191     | U           |
| 23      | 0603104D     | Explosives Demilitarization Technology                         | 3                                      | 14,265    | 11,754    | 12,259    | 12,541    | U           |
| 24      | 0603105D     | Military HIV Research  | 3                                      | 18,589    |           |           |           | U           |
| 25      | 0603120D     | Demining   | 3                                      |           | 14,369    | 7,663     | 7,592     | U           |
| 26      | 0603121D     | Alternative to Landmines                                       | 3                                      |           |           | 2,990     | 4,977     | U           |
| 27      | 0603122D     | Counterterror Technical Support                                | 3                                      | 16,656    | 21,098    | 34,863    | 37,057    | U           |
| 28      | 0603160D     | Counterproliferation Support - Adv Dev                         | 3                                      | 61,680    | 57,108    | 58,264    | 57,496    | U           |
| 29      | 0603173C     | Support Technologies - Advanced Technology Development         | 3                                      | 130,611   | 251,294   | 147,557   | 144,902   | U           |
| 30      | 0603225D     | Joint DoD-DoE Munitions Technology Development                 | 3                                      | 20,675    | 17,743    | 16,141    | 16,354    | U           |
| 31      | 0603226E     | Experimental Evaluation of Major Innovative Technologies       | 3                                      | 580,359   |           |           |           | U           |
| 32      | 0603232D     | Automatic Target Recognition                                   | 3                                      |           | 4,716     | 4,789     | 4,746     | U           |
| 33      | 0603384BP    | Chemical and Biological Defense Program - Advanced Development | 3                                      | 26,896    | 43,092    | 41,223    | 40,581    | U           |
| 34      | 0603569E     | Advanced Submarine Technology                                  | 3                                      | 30,797    |           |           |           | U           |
| 35      | 0603570E     | Defense Reinvestment   | 3                                      | 177,852   |           |           |           | U           |
| 36      | 0603704D     | Special Technical Support                                      | 3                                      | 16,895    | 17,252    | 11,750    | 11,896    | U           |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |              |  | -----S<br>Thousands of Dollars<br>----- |         |         |         |         |   |
|---------|--------------|--|---|---------|---------|---------|---------|---|
| Program | Line Element | Item   | Act                                     | FY 1996 | FY 1997 | FY 1998 | FY 1999 | c |
| No      | Number       |  | ---                                     | -----   | -----   | -----   | -----   |   |
| 37      | 0603711H     | Verification Technology Demonstration            | 3                                       | 32,308  | 25,485  | 83,370  | 50,232  | U |
| 38      | 0603712S     | Generic Logistics R&D Technology Demonstrations  | 3                                       | 13,883  | 19,357  | 17,267  | 17,788  | U |
| 39      | 0603716D     | Strategic Environmental Research Program         | 3                                       | 54,436  | 53,475  | 54,874  | 57,185  | U |
| 40      | 0603726D     | Joint Technology Insertion Program               | 3                                       | 3,228   |         |         |         | U |
| 41      | 0603727D     | Joint Warfighting Program                        | 3                                       |         |         | 14,172  | 22,833  | U |
| 42      | 0603728D     | Agile Port Demonstration                         | 3                                       |         | 4,897   |         |         | U |
| 43      | 0603729D     | Rocket Launch Facility Upgrades                  | 3                                       |         | 9,795   |         |         | U |
| 44      | 0603730D     | Airfield Surface Traffic Monitoring              | 3                                       |         | 1,959   |         |         | U |
| 45      | 0603738D     | Cooperative DoD/VA Medical Research              | 3                                       | 23,283  | 21,334  |         |         | U |
| 46      | 0603739E     | Advanced Electronics Technologies                | 3                                       | 389,610 | 360,288 | 277,044 | 282,668 | U |
| 47      | 0603744E     | Advanced Simulation                              | 3                                       | 4,809   |         |         |         | U |
| 48      | 0603745E     | Semiconductor Manufacturing Technology           | 3                                       | 85,014  |         |         |         | U |
| 49      | 0603746E     | Maritime Technology                              | 3                                       | 46,351  | 49,021  | 37,408  | 12,592  | U |
| 50      | 0603747E     | Electric Vehicles                                | 3                                       | 14,694  | 14,707  |         |         | U |
| 51      | 0603750D     | Advanced Concept Technology Demonstrations       | 3                                       | 37,438  | 56,972  | 121,076 | 139,458 | U |
| 52      | 0603752D     | Commercial Technology Insertion Program          | 3                                       |         | 9,744   | 47,889  | 47,457  | U |
| 53      | 0603753S     | Electronic Commerce Resource Centers             | 3                                       |         |         | 14,972  |         | U |
| 54      | 0603755D     | High Performance Computing Modernization Program | 3                                       | 111,620 | 122,900 | 126,211 | 148,852 | U |
| 55      | 0603760E     | Command, Control and Communications Systems      | 3                                       |         | 102,996 | 163,800 | 172,600 | U |
| 56      | 0603761E     | Communication and Simulation Technology          | 3                                       |         | 127,080 | 75,938  | 72,114  | U |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                                 |                                 |   | Thousands of Dollars |           |           |           |           |             |
|---------------------------------|---------------------------------|---|----------------------|-----------|-----------|-----------|-----------|-------------|
| Line                            | Program<br>Element<br>No Number | Item  | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | S<br>e<br>c |
|                                 |                                 |   | ---                  | -----     | -----     | -----     | -----     |             |
| 57                              | 0603762E                        | Sensor and Guidance Technology                            | 3                    |           | 108,360   | 166,855   | 200,582   | U           |
| 58                              | 0603763E                        | Marine Technology   | 3                    |           | 40,976    | 69,143    | 88,788    | U           |
| 59                              | 0603764E                        | Land Warfare Technology                                   | 3                    |           | 63,222    | 82,580    | 96,898    | U           |
| 60                              | 0603765E                        | Classified DARPA Programs                                 | 3                    |           | 178,040   | 134,977   | 65,500    | U           |
| 61                              | 0603800E                        | Joint Strike Fighter (JSF) - Dem/Val                      | 3                    | 28,917    | 72,865    | 23,900    |           | U           |
| 62                              | 0603805E                        | Dual Use Applications Programs                            | 3                    |           | 181,184   | 225,000   | 225,000   | U           |
| 63                              | 0603832D                        | Joint Wargaming Simulation Management Office              | 3                    | 72,183    | 59,331    | 71,338    | 74,614    | U           |
| 64                              | 0303132G                        | Global Grid Communications                                | 3                    |           |           |           |           |             |
| 65                              | 0304211G                        | National Activities                                       | 3                    |           |           |           |           |             |
| 66                              | 0305166G                        | Special Development                                       | 3                    |           |           |           |           |             |
| Advanced Technology Development |                                 |   |                      | 2,039,569 | 2,147,731 | 2,160,232 | 2,121,617 |             |
| 67                              | 0603228D                        | Physical Security Equipment                               | 4                    | 19,096    | 23,198    | 31,553    | 32,536    | U           |
| 68                              | 0603708D                        | Integrated Diagnostics                                    | 4                    | 9,540     | 9,492     | 6,514     | 6,650     | U           |
| 69                              | 0603709D                        | Joint Robotics Program                                    | 4                    | 21,038    | 29,159    | 23,196    | 24,694    | U           |
| 70                              | 0603714D                        | Advanced Sensor Applications Program                      | 4                    | 24,539    | 24,937    | 15,379    | 15,744    | U           |
| 71                              | 0603736D                        | CALS Initiative   | 4                    | 24,476    | 15,527    | 1,916     | 1,899     | U           |
| 72                              | 0603790D                        | NATO Research and Development                             | 4                    | 21,840    | 9,744     | 13,584    | 11,262    | U           |
| 73                              | 0603851D                        | Environmental Security Technical Certification Program    | 4                    | 25,257    | 21,587    | 15,164    | 17,422    | U           |
| 74                              | 0603861C                        | Theater High-Altitude Area Defense System - TMD - Dem/Val | 4                    | 565,818   | 341,307   | 294,647   | 16,778    | U           |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

| Program                      |           | Thousands of Dollars  |     |         |           |           | S<br>e<br>c |           |
|------------------------------|-----------|---|-----|---------|-----------|-----------|-------------|-----------|
| Line                         | Element   | Item  | Act | FY 1996 | FY 1997   | FY 1998   |             | FY 1999   |
| 75                           | 0603863C  | HAWK System BM/C3 - Dem/Val   | 4   | 22,819  |           |           |             | U         |
| 76                           | 0603864C  | Theater Missile Defense BM/C3 - Dem/Val                             | 4   | 27,147  |           |           |             | U         |
| 77                           | 0603867C  | Navy Area Theater Missile Defense - Dem/Val                         | 4   | 277,565 | 59,315    |           |             | U         |
| 78                           | 0603868C  | Navy Theater Wide Missile Defense - Dem/Val                         | 4   | 200,442 | 304,171   | 194,898   | 192,073     | U         |
| 79                           | 0603869C  | Meads Concepts - Dem/Val  | 4   | 20,123  | 56,232    | 47,956    | 9,509       | U         |
| 80                           | 0603870C  | Boost Phase Intercept Theater Missile Defense Acquisition - Dem/Val | 4   |         | 23,276    | 12,885    |             | U         |
| 81                           | 0603871C  | National Missile Defense - Dem/Val                                  | 4   | 730,656 | 828,864   | 504,091   | 393,085     | U         |
| 82                           | 0603872C  | Joint Theater Missile Defense - Dem/Val                             | 4   | 429,137 | 506,492   | 542,619   | 514,109     | U         |
| 83                           | 0603884BP | Chemical and Biological Defense Program - Dem/Val                   | 4   | 34,889  | 48,492    | 55,145    | 61,910      | U         |
| 84                           | 0603892D  | ASAT  | 4   | 28,534  | 48,975    |           |             | U         |
| 85                           | 0208043J  | ISLAND SUN  | 4   | 1,356   | 1,216     |           |             | U         |
| Demonstration and Validation |           |   |     |         | 2,484,272 | 2,351,984 | 1,759,547   | 1,297,671 |
| 86                           | 0604160D  | Counterproliferation Support - EMD                                  | 5   | 2,647   | 2,583     |           |             | U         |
| 87                           | 0604384BP | Chemical and Biological Defense Program - EMD                       | 5   | 89,606  | 97,476    | 120,535   | 108,006     | U         |
| 88                           | 0604771D  | Joint Tactical Information Distribution System (JTIDS)              | 5   | 57,886  | 43,360    | 55,429    | 31,633      | U         |
| 89                           | 0604861C  | Theater High-Altitude Area Defense System - TMD - EMD               | 5   |         | 277,508   | 261,480   | 578,467     | U         |
| 90                           | 0604864C  | Theater Missile Defense BM/C3 - EMD                                 | 5   | 10,118  |           |           |             | U         |
| 91                           | 0604865C  | Patriot PAC-3 Theater Missile Defense Acquisition - EMD             | 5   | 352,547 | 381,092   | 206,057   | 101,430     | U         |
| 92                           | 0604866C  | PAC-3 Risk Reduction - EMD  | 5   | 23,358  |           |           |             | U         |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|   |           |   | Thousands of Dollars |         |           |         |           |   |
|---|-----------|---|----------------------|---------|-----------|---------|-----------|---|
| Program                                   |           |   |                      |         |           |         |           |   |
| Line                                      | Element   | Item  | Act                  | FY 1996 | FY 1997   | FY 1998 | FY 1999   | S |
| No  | Number    |   | ---                  | -----   | -----     | -----   | -----     | e |
|   |           |   |                      |         |           |         |           | c |
| 93  | 0604867C  | Navy Area Theater Missile Defense - EMD                           | 5                    |         | 241,330   | 267,822 | 226,748   | U |
| 94  | 0305106LC | Consolidated Imagery Activities                                   | 5                    |         |           |         |           |   |
| 95  | 0305107LC | Tactical Imagery Activities                                       | 5                    |         |           |         |           |   |
| 96  | 0305889D  | Counterdrug Intelligence Support                                  | 5                    | 12,614  |           |         |           | U |
| Engineering and Manufacturing Development |           |   |                      | 590,216 | 1,043,349 | 911,323 | 1,046,284 |   |
| 97  | 0605104D  | Technical Studies, Support and Analysis                           | 6                    | 30,251  | 30,447    | 38,376  | 40,355    | U |
| 98  | 0605110D  | Technical Support to USD(A)--Critical Technology                  | 6                    | 2,464   | 2,673     | 2,690   | 2,777     | U |
| 99  | 0605114E  | BLACK LIGHT   | 6                    | 4,623   | 4,638     | 4,683   | 5,000     | U |
| 100                                       | 0605117D  | Foreign Material Acquisition and Exploitation                     | 6                    | 43,772  | 39,707    | 37,474  | 38,380    | U |
| 101                                       | 0605126J  | Joint Theater Air and Missile Defense Organizatio                 | 6                    |         |           | 23,100  | 17,850    | U |
| 102                                       | 0605128D  | Classified Program USD(P)   | 6                    | 3,700   | 11,108    | 5,979   | 1,692     | U |
| 103                                       | 0605160D  | Counterproliferation Support                                      | 6                    | 6,322   | 8,343     | 7,047   | 8,508     | U |
| 104                                       | 0605218C  | Ballistic Missile Defense RDT&E Program<br>Management and Support | 6                    | 158,748 |           |         |           | U |
| 105                                       | 0605384BP | Chemical and Biological Defense Program                           | 6                    | 7,007   | 16,365    | 18,730  | 17,677    | U |
| 106                                       | 0605502D  | Small Business Innovative Research                                | 6                    | 27,239  |           |         |           | U |
| 107                                       | 0605502E  | Small Business Innovative Research                                | 6                    | 42,390  |           |         |           | U |
| 108                                       | 0605710D  | Classified Programs - C3I   | 6                    | 424     | 2,252     | 357     | 448       | U |
| 109                                       | 0605790D  | Small Business Innovative Research Administration                 | 6                    | 1,456   | 1,586     | 1,738   | 1,859     | U |
| 110                                       | 0605798S  | Defense Support Activities  | 6                    | 16,858  | 13,121    | 5,992   | 6,056     | U |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                                      |  |            | -----S<br>Thousands of Dollars<br>e<br>c |                  |                  |                  |
|--------------------------------------|--|------------|--|------------------|------------------|------------------|
| Program<br>Line Element<br>No Number | Item   | Act<br>--- | FY 1996<br>-----                         | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |
| 111 0605801S                         | Defense Technical Information Center                             | 6          | 39,950                                   | 43,382           | 46,930           | 48,171 U         |
| 112 0605803S                         | R&D in Support of DoD Enlistment, Testing and<br>Evaluation      | 6          |  | 1,887            | 8,285            | 8,410 U          |
| 113 0605898E                         | Management Headquarters (Research and Development                | 6          | 33,116                                   | 36,354           | 39,193           | 41,260 U         |
|                                      | RDT&E Management Support   |            | 418,320                                  | 211,863          | 240,574          | 238,443          |
| 114 0208045K                         | C3 Interoperability  | 7          | 24,712                                   | 24,941           | 25,670           | 26,648 U         |
| 115 0208052J                         | Joint Analytical Model Improvement Program                       | 7          |  | 1,000            | 2,186            | 1,883 U          |
| 116 0301011G                         | Cryptologic Activities   | 7          |  |                  |                  |                  |
| 117 0301301L                         | General Defense Intelligence Program                             | 7          |  |                  |                  |                  |
| 118 0302016K                         | National Military Command System-Wide Support                    | 7          | 1,995                                    | 1,978            | 2,064            | 2,099 U          |
| 119 0302019K                         | Joint/Defense Information Systems Engineering and<br>Integration | 7          | 3,622                                    | 4,468            | 4,721            | 4,971 U          |
| 120 0303126K                         | Long-Haul Communications (DCS)                                   | 7          | 17,788                                   | 22,479           | 14,520           | 15,254 U         |
| 121 0303127K                         | Support of the National Communications System                    | 7          | 3,486                                    | 3,808            | 4,552            | 4,545 U          |
| 122 0303129K                         | Defense Message System   | 7          |  | 1,353            |                  | U                |
| 123 0303131K                         | Minimum Essential Emergency Communications<br>Network (MEECN)    | 7          | 2,620                                    | 2,110            | 2,381            | 2,450 U          |
| 124 0303140D                         | Information Systems Security Program                             | 7          | 16,514                                   |                  |                  | U                |
| 125 0303140G                         | Information Systems Security Program                             | 7          | 189,019                                  | 201,895          | 258,593          | 220,301 U        |
| 126 0303149J                         | C4I for the Warrior  | 7          | 171                                      | 2,554            | 5,554            | 3,215 U          |
| 127 0303149K                         | C4I for the Warrior  | 7          |  | 2,851            |                  | U                |
| 128 0303153K                         | Joint Spectrum Center  | 7          | 4,702                                    |                  |                  | U                |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

| Program |           | Thousands of Dollars   |     |         |         |         | S<br>e<br>c |
|---------|-----------|--|-----|---------|---------|---------|-------------|
| Line    | Element   | Item   | Act | FY 1996 | FY 1997 | FY 1998 |             |
| No      | Number    |  | --- | -----   | -----   | -----   | -----       |
| 129     | 0304345BQ | National Imagery and Mapping Program                                     | 7   |         |         |         |             |
| 130     | 0305102BQ | Defense Imagery and Mapping Program                                      | 7   |         | 108,976 | 109,430 | 162,664 U   |
| 131     | 0305127V  | Foreign Counterintelligence Activities                                   | 7   | 402     | 412     | 419     | 418 U       |
| 132     | 0305139B  | DMA Mapping, Charting, and Geodesy (MC&G)<br>Production System Improveme | 7   | 71,685  |         |         | U           |
| 133     | 0305154D  | Defense Airborne Reconnaissance Program                                  | 7   | 600,653 | 469,335 |         | U           |
| 134     | 0305154G  | Defense Airborne Reconnaissance Program                                  | 7   |         | 3,459   | 4,460   | 4,425 U     |
| 135     | 0305159I  | Defense Reconnaissance Support Activities (SPACE)                        | 7   | 54,769  | 78,280  | 49,403  | 41,854 U    |
| 136     | 0305190D  | C3I Intelligence Programs  | 7   | 11,077  | 6,899   | 6,249   | 6,242 U     |
| 137     | 0305204D  | Tactical UAVs  | 7   |         |         | 122,004 | 42,052 U    |
| 138     | 0305205D  | Endurance UAVs   | 7   |         |         | 216,712 | 167,864 U   |
| 139     | 0305206D  | Airborne Reconnaissance Systems  | 7   |         |         | 212,961 | 169,217 U   |
| 140     | 0305207D  | Manned Reconnaissance Systems  | 7   |         |         | 27,784  | 11,133 U    |
| 141     | 0305208D  | Distributed Common Ground Systems  | 7   |         |         | 37,653  | 33,897 U    |
| 142     | 0305209D  | DARP Management Support  | 7   |         |         | 21,543  | 22,180 U    |
| 143     | 0305884L  | Intelligence Planning and Review Activities                              | 7   |         |         |         |             |
| 144     | 0305885G  | Tactical Cryptologic Activities  | 7   | 103,577 | 99,986  | 96,667  | 115,271 U   |
| 145     | 0305889G  | Counterdrug Intelligence Support   | 7   | 11,109  |         |         | U           |
| 146     | 0305898L  | Management Headquarters (Auxiliary Forces)                               | 7   | 10,423  | 1,849   | 1,926   | 1,914 U     |
| 147     | 0708011S  | Industrial Preparedness  | 7   | 3,788   | 6,101   | 8,720   | 8,732 U     |
| 148     | 0902298J  | Management Headquarters (OJCS)   | 7   | 3,999   | 10,012  | 10,035  | 9,806 U     |



Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|  |           |  | -----S<br>Thousands of Dollars<br>e<br>-----c |                  |                  |                  |           |   |
|--|-----------|--|---|------------------|------------------|------------------|-----------|---|
| Program<br>Line Element<br>No Number           | Item      | Act<br>---   | FY 1996<br>-----                              | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |           |   |
| 149  | 0902740J  | Joint Simulation System  | 7   |                  | 21,054           | 24,321           | 25,179    | U |
| 150  | 1001017J  | Partnership for Peace Activities   | 7   |                  |                  | 1,993            | 1,991     | U |
| 151  | 1160279BB | Small Business Innovative Research/Small Bus Tech<br>Transfer Pilot Prog | 7   | 2,239            | 3,017            |                  |           | U |
| 152  | 1160401BB | Special Operations Technology Development                                | 7   | 3,774            | 5,865            | 4,161            | 4,247     | U |
| 153  | 1160402BB | Special Operations Advanced Technology Developmen                        | 7   | 14,515           | 7,602            | 8,009            | 8,171     | U |
| 154  | 1160404BB | Special Operations Tactical Systems Development                          | 7   | 105,201          | 93,855           | 73,073           | 86,216    | U |
| 155  | 1160405BB | Special Operations Intelligence Systems<br>Development                   | 7   | 2,880            | 1,946            | 4,914            | 1,839     | U |
| 156  | 1160407BB | SOF Medical Technology Development                                       | 7   | 1,747            | 1,803            | 2,029            | 2,077     | U |
| 157  | 1160408BB | SOF Operational Enhancements   | 7   | 16,646           | 28,177           | 26,357           | 13,790    | U |
| Operational Systems Development                |           |  |   | 2,110,174        | 2,212,596        | 2,374,612        | 2,240,620 |   |
| Total Research Development Test & Eval Defwide |           |  |   | 9,192,442        | 9,438,171        | 9,069,680        | 8,689,353 |   |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

## Summary

Date: FEB 1997

Thousands of Dollars

|   | FY 1996 | FY 1997 | FY 1998 | FY 1999 |
|---|---------|---------|---------|---------|
|   | -----   | -----   | -----   | -----   |
| Summary Recap of Budget Activities        |         |         |         |         |
| -----                                     |         |         |         |         |
| RDT&E Management Support                  | 247,082 | 275,792 | 268,183 | 278,767 |
|   | -----   | -----   | -----   | -----   |
| Total Developmental Test & Eval, Defense  | 247,082 | 275,792 | 268,183 | 278,767 |
| Summary Recap of FYDP Programs            |         |         |         |         |
| -----                                     |         |         |         |         |
| Research and Development (FYDP Program 6) | 247,082 | 275,792 | 268,183 | 278,767 |
|   | -----   | -----   | -----   | -----   |
| Total Developmental Test & Eval, Defense  | 247,082 | 275,792 | 268,183 | 278,767 |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0450 D Developmental Test &amp; Eval, Defense

Date: FEB 1997

|  |          |   | -----S<br>e<br>c<br>----- |                  |                  |                  |         |   |
|--|----------|---|---------------------------|------------------|------------------|------------------|---------|---|
|  |          |   | Thousands of Dollars      |                  |                  |                  |         |   |
| Program<br>Line Element<br>No Number     | Item     | Act<br>---  | FY 1996<br>-----          | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- | c       |   |
| 1  | 0604940D | Central Test and Evaluation Investment<br>Development (CTEIP) | 6                         | 112,751          | 142,809          | 131,353          | 138,793 | U |
| 2  | 0605130D | Foreign Comparative Testing                                   | 6                         | 32,195           | 32,851           | 33,836           | 33,759  | U |
| 3  | 0605804D | Development Test and Evaluation                               | 6                         | 102,136          | 100,132          | 102,994          | 106,215 | U |
| RDT&E Management Support                 |          |   |                           | 247,082          | 275,792          | 268,183          | 278,767 |   |
| Total Developmental Test & Eval, Defense |          |   |                           | 247,082          | 275,792          | 268,183          | 278,767 |   |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

## Summary

Date: FEB 1997

Thousands of Dollars

|  | FY 1996 | FY 1997 | FY 1998 | FY 1999 |
|--|---------|---------|---------|---------|
|  | -----   | -----   | -----   | -----   |
| Summary Recap of Budget Activities           |         |         |         |         |
| -----  |         |         |         |         |
| RDT&E Management Support                     | 22,587  | 24,219  | 23,384  | 23,447  |
|  | -----   | -----   | -----   | -----   |
| Total Operational Test & Evaluation, Defense | 22,587  | 24,219  | 23,384  | 23,447  |
|  |         |         |         |         |
| Summary Recap of FYDP Programs               |         |         |         |         |
| -----  |         |         |         |         |
| Research and Development (FYDP Program 6)    | 22,587  | 24,219  | 23,384  | 23,447  |
|  | -----   | -----   | -----   | -----   |
| Total Operational Test & Evaluation, Defense | 22,587  | 24,219  | 23,384  | 23,447  |

Defensewide  
FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0460 D Operational Test &amp; Evaluation, Defense

Date: FEB 1997

|  |              |                                 | Thousands of Dollars |         |         |         |         |        |
|--|--------------|---------------------------------|----------------------|---------|---------|---------|---------|--------|
| Program                                      | Line Element | Item                            | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S      |
| No   | Number       |                                 | ---                  | -----   | -----   | -----   | -----   | e      |
|  |              |                                 |                      |         |         |         |         | c      |
| 1  | 0605118D     | Operational Test and Evaluation | 6                    | 12,183  | 11,437  | 13,187  | 13,216  | U      |
| 2  | 0605131D     | Live Fire Testing               | 6                    | 10,404  | 12,782  | 10,197  | 10,231  | U      |
|  |              | RDT&E Management Support        |                      | 22,587  | 24,219  | 23,384  | 23,447  |        |
| Total Operational Test & Evaluation, Defense |              |                                 |                      |         | 22,587  | 24,219  | 23,384  | 23,447 |

Defense Mapping Agency  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|       |                        |  | Thousands of Dollars |         |         |         |         |   |
|-------|------------------------|--|----------------------|---------|---------|---------|---------|---|
| Line  | Element                | Program  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No    | Number                 | Item   | ---                  | -----   | -----   | -----   | -----   | e |
| 132   | 0305139B               | DMA Mapping, Charting, and Geodesy (MC&G)<br>Production System Improveme | 7                    | 71,685  |         |         |         | U |
|       |                        | Operational Systems Development  |                      | 71,685  |         |         |         |   |
| Total | Defense Mapping Agency |  |                      | 71,685  |         |         |         |   |

Special Operations Command  
 FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                                  |                                 |  | Thousands of Dollars |                  |                  |                  |                  |             |
|----------------------------------|---------------------------------|--|----------------------|------------------|------------------|------------------|------------------|-------------|
| Line                             | Program<br>Element<br>No Number | Item   | Act<br>---           | FY 1996<br>----- | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- | S<br>e<br>c |
| 151                              | 1160279BB                       | Small Business Innovative Research/Small Bus Tech<br>Transfer Pilot Prog | 7                    | 2,239            | 3,017            |                  |                  | U           |
| 152                              | 1160401BB                       | Special Operations Technology Development                                | 7                    | 3,774            | 5,865            | 4,161            | 4,247            | U           |
| 153                              | 1160402BB                       | Special Operations Advanced Technology Developmen                        | 7                    | 14,515           | 7,602            | 8,009            | 8,171            | U           |
| 154                              | 1160404BB                       | Special Operations Tactical Systems Development                          | 7                    | 105,201          | 93,855           | 73,073           | 86,216           | U           |
| 155                              | 1160405BB                       | Special Operations Intelligence Systems<br>Development                   | 7                    | 2,880            | 1,946            | 4,914            | 1,839            | U           |
| 156                              | 1160407BB                       | SOF Medical Technology Development                                       | 7                    | 1,747            | 1,803            | 2,029            | 2,077            | U           |
| 157                              | 1160408BB                       | SOF Operational Enhancements   | 7                    | 16,646           | 28,177           | 26,357           | 13,790           | U           |
| Operational Systems Development  |                                 |  |                      | -----            | -----            | -----            | -----            |             |
|                                  |                                 |  |                      | 147,002          | 142,265          | 118,543          | 116,340          |             |
| Total Special Operations Command |                                 |  |                      | -----            | -----            | -----            | -----            |             |
|                                  |                                 |  |                      | 147,002          | 142,265          | 118,543          | 116,340          |             |

Chemical and Biological Defense Program  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |   |   | Thousands of Dollars |         |         |         |         |   |
|---------|---|---|----------------------|---------|---------|---------|---------|---|
| Program |   |   |                      |         |         |         |         |   |
| Line    | Element                                 | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | U |
| No      | Number                                  |   | ---                  | -----   | -----   | -----   | -----   | c |
| 6       | 0601384BP                               | Chemical and Biological Defense Program                           | 1                    | 26,528  | 29,325  | 25,190  | 26,018  | U |
|         |   | Basic Research  |                      | 26,528  | 29,325  | 25,190  | 26,018  |   |
| 15      | 0602384BP                               | Chemical and Biological Defense Program                           | 2                    | 68,565  | 67,852  | 60,023  | 58,360  | U |
|         |   | Applied Research  |                      | 68,565  | 67,852  | 60,023  | 58,360  |   |
| 33      | 0603384BP                               | Chemical and Biological Defense Program -<br>Advanced Development | 3                    | 26,896  | 43,092  | 41,223  | 40,581  | U |
|         |   | Advanced Technology Development                                   |                      | 26,896  | 43,092  | 41,223  | 40,581  |   |
| 83      | 0603884BP                               | Chemical and Biological Defense Program - Dem/Val                 | 4                    | 34,889  | 48,492  | 55,145  | 61,910  | U |
|         |   | Demonstration and Validation                                      |                      | 34,889  | 48,492  | 55,145  | 61,910  |   |
| 87      | 0604384BP                               | Chemical and Biological Defense Program - EMD                     | 5                    | 89,606  | 97,476  | 120,535 | 108,006 | U |
|         |   | Engineering and Manufacturing Development                         |                      | 89,606  | 97,476  | 120,535 | 108,006 |   |
| 105     | 0605384BP                               | Chemical and Biological Defense Program                           | 6                    | 7,007   | 16,365  | 18,730  | 17,677  | U |
|         |   | RDT&E Management Support  |                      | 7,007   | 16,365  | 18,730  | 17,677  |   |
| Total   | Chemical and Biological Defense Program |   |                      | 253,491 | 302,602 | 320,846 | 312,552 |   |



National Imagery And Mapping Agency  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|       |                                     |                                      | Thousands of Dollars |         |         |         |         |   |
|-------|-------------------------------------|--------------------------------------|----------------------|---------|---------|---------|---------|---|
| Line  | Element                             | Program                              | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No    | Number                              | Item                                 | ---                  | -----   | -----   | -----   | -----   | e |
| 129   | 0304345BQ                           | National Imagery and Mapping Program | 7                    |         |         |         |         | c |
| 130   | 0305102BQ                           | Defense Imagery and Mapping Program  | 7                    |         | 108,976 | 109,430 | 162,664 |   |
|       |                                     | Operational Systems Development      |                      | -----   | -----   | -----   | -----   |   |
| Total | National Imagery And Mapping Agency |                                      |                      | -----   | -----   | -----   | -----   |   |

Ballistic Missile Defense Organization  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |          |   | Thousands of Dollars |           |           |           |           |   |
|---------|----------|---|----------------------|-----------|-----------|-----------|-----------|---|
| Program |          |   |                      |           |           |           |           |   |
| Line    | Element  | Item  | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | S |
| No      | Number   |   | ---                  | -----     | -----     | -----     | -----     | e |
|         |          |   |                      |           |           |           |           | c |
| 9       | 0602173C | Support Technologies - Applied Research                             | 2                    | 96,092    | 102,510   | 101,932   | 95,488    | U |
|         |          | Applied Research  |                      | 96,092    | 102,510   | 101,932   | 95,488    |   |
| 29      | 0603173C | Support Technologies - Advanced Technology Development              | 3                    | 130,611   | 251,294   | 147,557   | 144,902   | U |
|         |          | Advanced Technology Development                                     |                      | 130,611   | 251,294   | 147,557   | 144,902   |   |
| 74      | 0603861C | Theater High-Altitude Area Defense System - TMD - Dem/Val           | 4                    | 565,818   | 341,307   | 294,647   | 16,778    | U |
| 75      | 0603863C | HAWK System BM/C3 - Dem/Val   | 4                    | 22,819    |           |           |           | U |
| 76      | 0603864C | Theater Missile Defense BM/C3 - Dem/Val                             | 4                    | 27,147    |           |           |           | U |
| 77      | 0603867C | Navy Area Theater Missile Defense - Dem/Val                         | 4                    | 277,565   | 59,315    |           |           | U |
| 78      | 0603868C | Navy Theater Wide Missile Defense - Dem/Val                         | 4                    | 200,442   | 304,171   | 194,898   | 192,073   | U |
| 79      | 0603869C | Meads Concepts - Dem/Val  | 4                    | 20,123    | 56,232    | 47,956    | 9,509     | U |
| 80      | 0603870C | Boost Phase Intercept Theater Missile Defense Acquisition - Dem/Val | 4                    |           | 23,276    | 12,885    |           | U |
| 81      | 0603871C | National Missile Defense - Dem/Val                                  | 4                    | 730,656   | 828,864   | 504,091   | 393,085   | U |
| 82      | 0603872C | Joint Theater Missile Defense - Dem/Val                             | 4                    | 429,137   | 506,492   | 542,619   | 514,109   | U |
|         |          | Demonstration and Validation  |                      | 2,273,707 | 2,119,657 | 1,597,096 | 1,125,554 |   |
| 89      | 0604861C | Theater High-Altitude Area Defense System - TMD - EMD               | 5                    |           | 277,508   | 261,480   | 578,467   | U |
| 90      | 0604864C | Theater Missile Defense BM/C3 - EMD                                 | 5                    | 10,118    |           |           |           | U |
| 91      | 0604865C | Patriot PAC-3 Theater Missile Defense Acquisition - EMD             | 5                    | 352,547   | 381,092   | 206,057   | 101,430   | U |
| 92      | 0604866C | PAC-3 Risk Reduction - EMD  | 5                    | 23,358    |           |           |           | U |

Ballistic Missile Defense Organization  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|       |  |  | Thousands of Dollars |           |           |           |           |        |
|-------|--|--|----------------------|-----------|-----------|-----------|-----------|--------|
| Line  | Element                                | Program  | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | -----S |
| No    | Number                                 | Item   | ---                  | -----     | -----     | -----     | -----     | e      |
|       |  |  |                      |           |           |           |           | c      |
| 93    | 0604867C                               | Navy Area Theater Missile Defense - EMD                        | 5                    |           | 241,330   | 267,822   | 226,748   | U      |
|       |  | Engineering and Manufacturing Development                      |                      | 386,023   | 899,930   | 735,359   | 906,645   |        |
| 104   | 0605218C                               | Ballistic Missile Defense RDT&E Program Management and Support | 6                    | 158,748   |           |           |           | U      |
|       |  | RDT&E Management Support                                       |                      | 158,748   |           |           |           |        |
| Total | Ballistic Missile Defense Organization |  |                      | 3,045,181 | 3,373,391 | 2,581,944 | 2,272,589 |        |

Office of Secretary/Defense  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                  |                                 |  | Thousands of Dollars |         |         |         |         |             |
|------------------|---------------------------------|--|----------------------|---------|---------|---------|---------|-------------|
| Line             | Program<br>Element<br>No Number | Item   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 1                | 0601101D                        | In-House Laboratory Independent Research                                 | 1                    | 3,368   | 3,099   | 2,169   | 2,212   | U           |
| 3                | 0601103D                        | University Research Initiatives  | 1                    | 214,876 | 214,696 | 237,788 | 247,188 | U           |
| 4                | 0601110D                        | Focused Research Initiatives   | 1                    | 8,372   |         |         |         | U           |
| 5                | 0601111D                        | Government/Industry Cosponsorship of University Research                 | 1                    |         |         | 14,713  | 15,544  | U           |
| Basic Research   |                                 |  |                      | 226,616 | 217,795 | 254,670 | 264,944 |             |
| 8                | 0602160D                        | Counterproliferation Support   | 2                    | 13,599  |         |         |         | U           |
| 10               | 0602227D                        | Medical Free Electron Laser  | 2                    | 24,344  | 19,934  | 20,841  | 21,640  | U           |
| 11               | 0602228D                        | Historically Black Colleges and Universities (HBCU) Science and Engineer | 2                    | 13,572  | 10,876  | 11,485  | 14,664  | U           |
| 12               | 0602234D                        | Lincoln Laboratory Research Program                                      | 2                    | 13,730  | 19,554  | 20,474  | 21,147  | U           |
| 20               | 0602787D                        | Medical Technology   | 2                    | 7,150   | 7,985   | 8,987   | 9,810   | U           |
| Applied Research |                                 |  |                      | 72,395  | 58,349  | 61,787  | 67,261  |             |
| 22               | 0603002D                        | Medical Advanced Technology  | 3                    | 3,899   | 3,276   | 2,778   | 2,191   | U           |
| 23               | 0603104D                        | Explosives Demilitarization Technology                                   | 3                    | 14,265  | 11,754  | 12,259  | 12,541  | U           |
| 24               | 0603105D                        | Military HIV Research  | 3                    | 18,589  |         |         |         | U           |
| 25               | 0603120D                        | Demining   | 3                    |         | 14,369  | 7,663   | 7,592   | U           |
| 26               | 0603121D                        | Alternative to Landmines   | 3                    |         |         | 2,990   | 4,977   | U           |
| 27               | 0603122D                        | Counterterror Technical Support  | 3                    | 16,656  | 21,098  | 34,863  | 37,057  | U           |
| 28               | 0603160D                        | Counterproliferation Support - Adv Dev                                   | 3                    | 61,680  | 57,108  | 58,264  | 57,496  | U           |
| 30               | 0603225D                        | Joint DoD-DoE Munitions Technology Development                           | 3                    | 20,675  | 17,743  | 16,141  | 16,354  | U           |

Office of Secretary/Defense  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

| Line No | Element Number | Program Item                                     | Act | Thousands of Dollars |         |         |         | S<br>e<br>c |
|---------|----------------|--|-----|----------------------|---------|---------|---------|-------------|
|         |                |  |     | FY 1996              | FY 1997 | FY 1998 | FY 1999 |             |
| 32      | 0603232D       | Automatic Target Recognition                     | 3   |                      | 4,716   | 4,789   | 4,746   | U           |
| 36      | 0603704D       | Special Technical Support                        | 3   | 16,895               | 17,252  | 11,750  | 11,896  | U           |
| 39      | 0603716D       | Strategic Environmental Research Program         | 3   | 54,436               | 53,475  | 54,874  | 57,185  | U           |
| 40      | 0603726D       | Joint Technology Insertion Program               | 3   | 3,228                |         |         |         | U           |
| 41      | 0603727D       | Joint Warfighting Program                        | 3   |                      |         | 14,172  | 22,833  | U           |
| 42      | 0603728D       | Agile Port Demonstration                         | 3   |                      | 4,897   |         |         | U           |
| 43      | 0603729D       | Rocket Launch Facility Upgrades                  | 3   |                      | 9,795   |         |         | U           |
| 44      | 0603730D       | Airfield Surface Traffic Monitoring              | 3   |                      | 1,959   |         |         | U           |
| 45      | 0603738D       | Cooperative DoD/VA Medical Research              | 3   | 23,283               | 21,334  |         |         | U           |
| 51      | 0603750D       | Advanced Concept Technology Demonstrations       | 3   | 37,438               | 56,972  | 121,076 | 139,458 | U           |
| 52      | 0603752D       | Commercial Technology Insertion Program          | 3   |                      | 9,744   | 47,889  | 47,457  | U           |
| 54      | 0603755D       | High Performance Computing Modernization Program | 3   | 111,620              | 122,900 | 126,211 | 148,852 | U           |
| 63      | 0603832D       | Joint Wargaming Simulation Management Office     | 3   | 72,183               | 59,331  | 71,338  | 74,614  | U           |
|         |                | Advanced Technology Development                  |     | 454,847              | 487,723 | 587,057 | 645,249 |             |
| 67      | 0603228D       | Physical Security Equipment                      | 4   | 19,096               | 23,198  | 31,553  | 32,536  | U           |
| 68      | 0603708D       | Integrated Diagnostics                           | 4   | 9,540                | 9,492   | 6,514   | 6,650   | U           |
| 69      | 0603709D       | Joint Robotics Program                           | 4   | 21,038               | 29,159  | 23,196  | 24,694  | U           |
| 70      | 0603714D       | Advanced Sensor Applications Program             | 4   | 24,539               | 24,937  | 15,379  | 15,744  | U           |
| 71      | 0603736D       | CALS Initiative                                  | 4   | 24,476               | 15,527  | 1,916   | 1,899   | U           |

Office of Secretary/Defense  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|      |                                 |  | Thousands of Dollars |         |         |         |         |             |
|------|---------------------------------|--|----------------------|---------|---------|---------|---------|-------------|
| Line | Program<br>Element<br>No Number | Item   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 72   | 0603790D                        | NATO Research and Development                          | 4                    | 21,840  | 9,744   | 13,584  | 11,262  | U           |
| 73   | 0603851D                        | Environmental Security Technical Certification Program | 4                    | 25,257  | 21,587  | 15,164  | 17,422  | U           |
| 84   | 0603892D                        | ASAT   | 4                    | 28,534  | 48,975  |         |         | U           |
|      |                                 | Demonstration and Validation                           |                      | 174,320 | 182,619 | 107,306 | 110,207 |             |
| 86   | 0604160D                        | Counterproliferation Support - EMD                     | 5                    | 2,647   | 2,583   |         |         | U           |
| 88   | 0604771D                        | Joint Tactical Information Distribution System (JTIDS) | 5                    | 57,886  | 43,360  | 55,429  | 31,633  | U           |
| 96   | 0305889D                        | Counterdrug Intelligence Support                       | 5                    | 12,614  |         |         |         | U           |
|      |                                 | Engineering and Manufacturing Development              |                      | 73,147  | 45,943  | 55,429  | 31,633  |             |
| 97   | 0605104D                        | Technical Studies, Support and Analysis                | 6                    | 30,251  | 30,447  | 38,376  | 40,355  | U           |
| 98   | 0605110D                        | Technical Support to USD(A)--Critical Technology       | 6                    | 2,464   | 2,673   | 2,690   | 2,777   | U           |
| 100  | 0605117D                        | Foreign Material Acquisition and Exploitation          | 6                    | 43,772  | 39,707  | 37,474  | 38,380  | U           |
| 102  | 0605128D                        | Classified Program USD(P)                              | 6                    | 3,700   | 11,108  | 5,979   | 1,692   | U           |
| 103  | 0605160D                        | Counterproliferation Support                           | 6                    | 6,322   | 8,343   | 7,047   | 8,508   | U           |
| 106  | 0605502D                        | Small Business Innovative Research                     | 6                    | 27,239  |         |         |         | U           |
| 108  | 0605710D                        | Classified Programs - C3I                              | 6                    | 424     | 2,252   | 357     | 448     | U           |
| 109  | 0605790D                        | Small Business Innovative Research Administration      | 6                    | 1,456   | 1,586   | 1,738   | 1,859   | U           |
|      |                                 | RDT&E Management Support                               |                      | 115,628 | 96,116  | 93,661  | 94,019  |             |
| 124  | 0303140D                        | Information Systems Security Program                   | 7                    | 16,514  |         |         |         | U           |

Office of Secretary/Defense  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|       |                             |   | Thousands of Dollars |           |           |           |           |   |
|-------|-----------------------------|---|----------------------|-----------|-----------|-----------|-----------|---|
| Line  | Element                     | Program                                 | Act                  | FY 1996   | FY 1997   | FY 1998   | FY 1999   | S |
| No    | Number                      | Item                                    | ---                  | -----     | -----     | -----     | -----     | e |
| 133   | 0305154D                    | Defense Airborne Reconnaissance Program | 7                    | 600,653   | 469,335   |           |           | U |
| 136   | 0305190D                    | C3I Intelligence Programs               | 7                    | 11,077    | 6,899     | 6,249     | 6,242     | U |
| 137   | 0305204D                    | Tactical UAVs                           | 7                    |           |           | 122,004   | 42,052    | U |
| 138   | 0305205D                    | Endurance UAVs                          | 7                    |           |           | 216,712   | 167,864   | U |
| 139   | 0305206D                    | Airborne Reconnaissance Systems         | 7                    |           |           | 212,961   | 169,217   | U |
| 140   | 0305207D                    | Manned Reconnaissance Systems           | 7                    |           |           | 27,784    | 11,133    | U |
| 141   | 0305208D                    | Distributed Common Ground Systems       | 7                    |           |           | 37,653    | 33,897    | U |
| 142   | 0305209D                    | DARP Management Support                 | 7                    |           |           | 21,543    | 22,180    | U |
|       |                             | Operational Systems Development         |                      | 628,244   | 476,234   | 644,906   | 452,585   |   |
| Total | Office of Secretary/Defense |   |                      | 1,745,197 | 1,564,779 | 1,804,816 | 1,665,898 |   |

Defense Advanced Research Projects Agency  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                                      |  |            | -----S<br>Thousands of Dollars<br>-----c |                  |                  |                  |   |
|--------------------------------------|--|------------|--|------------------|------------------|------------------|---|
| Program<br>Line Element<br>No Number | Item   | Act<br>--- | FY 1996<br>-----                         | FY 1997<br>----- | FY 1998<br>----- | FY 1999<br>----- |   |
| 2 0601101E                           | Defense Research Sciences                                | 1          | 76,459                                   | 90,701           | 76,009           | 80,936           | U |
|                                      | Basic Research   |            | 76,459                                   | 90,701           | 76,009           | 80,936           |   |
| 7 0602110E                           | Next Generation Internet                                 | 2          |  |                  | 40,000           | 40,000           | U |
| 13 0602301E                          | Computing Systems and Communications Technology          | 2          | 361,528                                  | 314,969          | 341,752          | 371,471          | U |
| 14 0602383E                          | Biological Warfare Defense                               | 2          |  |                  | 61,600           | 61,800           | U |
| 16 0602702E                          | Tactical Technology                                      | 2          | 120,440                                  | 121,520          | 157,329          | 177,995          | U |
| 17 0602708E                          | Integrated Command and Control Technology                | 2          | 44,395                                   | 59,672           | 37,000           | 40,000           | U |
| 18 0602712E                          | Materials and Electronics Technology                     | 2          | 227,848                                  | 213,843          | 192,192          | 236,730          | U |
|                                      | Applied Research   |            | 754,211                                  | 710,004          | 829,873          | 927,996          |   |
| 31 0603226E                          | Experimental Evaluation of Major Innovative Technologies | 3          | 580,359                                  |                  |                  |                  | U |
| 34 0603569E                          | Advanced Submarine Technology                            | 3          | 30,797                                   |                  |                  |                  | U |
| 35 0603570E                          | Defense Reinvestment                                     | 3          | 177,852                                  |                  |                  |                  | U |
| 46 0603739E                          | Advanced Electronics Technologies                        | 3          | 389,610                                  | 360,288          | 277,044          | 282,668          | U |
| 47 0603744E                          | Advanced Simulation                                      | 3          | 4,809                                    |                  |                  |                  | U |
| 48 0603745E                          | Semiconductor Manufacturing Technology                   | 3          | 85,014                                   |                  |                  |                  | U |
| 49 0603746E                          | Maritime Technology                                      | 3          | 46,351                                   | 49,021           | 37,408           | 12,592           | U |
| 50 0603747E                          | Electric Vehicles  | 3          | 14,694                                   | 14,707           |                  |                  | U |
| 55 0603760E                          | Command, Control and Communications Systems              | 3          |  | 102,996          | 163,800          | 172,600          | U |
| 56 0603761E                          | Communication and Simulation Technology                  | 3          |  | 127,080          | 75,938           | 72,114           | U |



Defense Advanced Research Projects Agcy  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|   |          |   | -----S<br>Thousands of Dollars<br>e |           |           |           |           |   |
|---|----------|---|-------------------------------------|-----------|-----------|-----------|-----------|---|
| Line  | Element  | Item  | Act                                 | FY 1996   | FY 1997   | FY 1998   | FY 1999   | c |
| No  | Number   |   | ---                                 | -----     | -----     | -----     | -----     |   |
| 57  | 0603762E | Sensor and Guidance Technology                    | 3                                   |           | 108,360   | 166,855   | 200,582   | U |
| 58  | 0603763E | Marine Technology                                 | 3                                   |           | 40,976    | 69,143    | 88,788    | U |
| 59  | 0603764E | Land Warfare Technology                           | 3                                   |           | 63,222    | 82,580    | 96,898    | U |
| 60  | 0603765E | Classified DARPA Programs                         | 3                                   |           | 178,040   | 134,977   | 65,500    | U |
| 61  | 0603800E | Joint Strike Fighter (JSF) - Dem/Val              | 3                                   | 28,917    | 72,865    | 23,900    |           | U |
| 62  | 0603805E | Dual Use Applications Programs                    | 3                                   |           | 181,184   | 225,000   | 225,000   | U |
| Advanced Technology Development               |          |   |                                     | 1,358,403 | 1,298,739 | 1,256,645 | 1,216,742 |   |
| 99  | 0605114E | BLACK LIGHT                                       | 6                                   | 4,623     | 4,638     | 4,683     | 5,000     | U |
| 107   | 0605502E | Small Business Innovative Research                | 6                                   | 42,390    |           |           |           | U |
| 113   | 0605898E | Management Headquarters (Research and Development | 6                                   | 33,116    | 36,354    | 39,193    | 41,260    | U |
| RDT&E Management Support                      |          |   |                                     | 80,129    | 40,992    | 43,876    | 46,260    |   |
| Total Defense Advanced Research Projects Agcy |          |   |                                     | 2,269,202 | 2,140,436 | 2,206,403 | 2,271,934 |   |

National Security Agency  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|                                 |                                 |   | Thousands of Dollars |         |         |         |         |             |
|---------------------------------|---------------------------------|---|----------------------|---------|---------|---------|---------|-------------|
| Line                            | Program<br>Element<br>No Number | Item                                    | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 64                              | 0303132G                        | Global Grid Communications              | 3                    |         |         |         |         |             |
| 65                              | 0304211G                        | National Activities                     | 3                    |         |         |         |         |             |
| 66                              | 0305166G                        | Special Development                     | 3                    |         |         |         |         |             |
| Advanced Technology Development |                                 |   |                      |         |         |         |         |             |
| 116                             | 0301011G                        | Cryptologic Activities                  | 7                    |         |         |         |         |             |
| 125                             | 0303140G                        | Information Systems Security Program    | 7                    | 189,019 | 201,895 | 258,593 | 220,301 | U           |
| 134                             | 0305154G                        | Defense Airborne Reconnaissance Program | 7                    | 3,450   | 3,459   | 4,460   | 4,425   | U           |
| 144                             | 0305885G                        | Tactical Cryptologic Activities         | 7                    | 103,577 | 99,986  | 96,667  | 115,271 | U           |
| 145                             | 0305889G                        | Counterdrug Intelligence Support        | 7                    | 11,109  |         |         |         | U           |
| Operational Systems Development |                                 |   |                      |         |         |         |         |             |
| Total National Security Agency  |                                 |   |                      |         |         |         |         |             |

Defense Special Weapons Agency  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|       |          |                                       | Thousands of Dollars |         |         |         |         |   |
|-------|----------|---------------------------------------|----------------------|---------|---------|---------|---------|---|
| Line  | Element  | Program                               | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No    | Number   | Item                                  | ---                  | -----   | -----   | -----   | -----   | e |
| 19    | 0602715H | Defense Special Weapons Agency        | 2                    | 227,320 | 192,298 | 211,971 | 221,702 | U |
|       |          | Applied Research                      |                      | 227,320 | 192,298 | 211,971 | 221,702 |   |
| 37    | 0603711H | Verification Technology Demonstration | 3                    | 32,308  | 25,485  | 83,370  | 50,232  | U |
|       |          | Advanced Technology Development       |                      | 32,308  | 25,485  | 83,370  | 50,232  |   |
| Total |          | Defense Special Weapons Agency        |                      | 259,628 | 217,783 | 295,341 | 271,934 |   |

Defense Support Project Office  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

| Program |                                | Thousands of Dollars                              |     |         |         |         |         |   |
|---------|--------------------------------|---|-----|---------|---------|---------|---------|---|
| Line    | Element                        |   |     |         |         |         |         |   |
| No      | Number                         | Item  | Act | FY 1996 | FY 1997 | FY 1998 | FY 1999 | c |
| 135     | 0305159I                       | Defense Reconnaissance Support Activities (SPACE) | 7   | 54,769  | 78,280  | 49,403  | 41,854  | U |
|         |                                | Operational Systems Development                   |     | 54,769  | 78,280  | 49,403  | 41,854  |   |
| Total   | Defense Support Project Office |   |     | 54,769  | 78,280  | 49,403  | 41,854  |   |

Joint Chiefs of Staff  
 FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|         |                       |   | Thousands of Dollars |         |         |         |         |   |
|---------|-----------------------|---|----------------------|---------|---------|---------|---------|---|
| Program |                       |   |                      |         |         |         |         |   |
| Line    | Element               | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No      | Number                |   | ---                  | -----   | -----   | -----   | -----   | e |
|         |                       |   |                      |         |         |         |         | c |
| 85      | 0208043J              | ISLAND SUN  | 4                    | 1,356   | 1,216   |         |         | U |
|         |                       | Demonstration and Validation                      |                      | 1,356   | 1,216   |         |         |   |
| 101     | 0605126J              | Joint Theater Air and Missile Defense Organizatio | 6                    |         |         | 23,100  | 17,850  | U |
|         |                       | RDT&E Management Support                          |                      |         |         | 23,100  | 17,850  |   |
| 115     | 0208052J              | Joint Analytical Model Improvement Program        | 7                    |         | 1,000   | 2,186   | 1,883   | U |
| 126     | 0303149J              | C4I for the Warrior                               | 7                    | 171     | 2,554   | 5,554   | 3,215   | U |
| 148     | 0902298J              | Management Headquarters (OJCS)                    | 7                    | 3,999   | 10,012  | 10,035  | 9,806   | U |
| 149     | 0902740J              | Joint Simulation System                           | 7                    |         | 21,054  | 24,321  | 25,179  | U |
| 150     | 1001017J              | Partnership for Peace Activities                  | 7                    |         |         | 1,993   | 1,991   | U |
|         |                       | Operational Systems Development                   |                      | 4,170   | 34,620  | 44,089  | 42,074  |   |
| Total   | Joint Chiefs of Staff |   |                      | 5,526   | 35,836  | 67,189  | 59,924  |   |

Defense Information Systems Agency  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|  |                                 |   | Thousands of Dollars |         |         |         |         |             |
|--|---------------------------------|---|----------------------|---------|---------|---------|---------|-------------|
| Line                                     | Program<br>Element<br>No Number | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
|  |                                 |   | ---                  | -----   | -----   | -----   | -----   |             |
| 21                                       | 0305108K                        | Command and Control Research                                  | 2                    | 1,705   | 1,814   | 1,937   | 2,013   | U           |
|  |                                 | Applied Research  |                      | 1,705   | 1,814   | 1,937   | 2,013   |             |
| 114                                      | 0208045K                        | C3 Interoperability   | 7                    | 24,712  | 24,941  | 25,670  | 26,648  | U           |
| 118                                      | 0302016K                        | National Military Command System-Wide Support                 | 7                    | 1,995   | 1,978   | 2,064   | 2,099   | U           |
| 119                                      | 0302019K                        | Joint/Defense Information Systems Engineering and Integration | 7                    | 3,622   | 4,468   | 4,721   | 4,971   | U           |
| 120                                      | 0303126K                        | Long-Haul Communications (DCS)                                | 7                    | 17,788  | 22,479  | 14,520  | 15,254  | U           |
| 121                                      | 0303127K                        | Support of the National Communications System                 | 7                    | 3,486   | 3,808   | 4,552   | 4,545   | U           |
| 122                                      | 0303129K                        | Defense Message System  | 7                    |         | 1,353   |         |         | U           |
| 123                                      | 0303131K                        | Minimum Essential Emergency Communications Network (MEECN)    | 7                    | 2,620   | 2,110   | 2,381   | 2,450   | U           |
| 127                                      | 0303149K                        | C4I for the Warrior   | 7                    |         | 2,851   |         |         | U           |
| 128                                      | 0303153K                        | Joint Spectrum Center   | 7                    | 4,702   |         |         |         | U           |
|  |                                 | Operational Systems Development                               |                      | 58,925  | 63,988  | 53,908  | 55,967  |             |
| Total Defense Information Systems Agency |                                 |   |                      | 60,630  | 65,802  | 55,845  | 57,980  |             |

Defense Intelligence Agency  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|       |                             |   | Thousands of Dollars |         |         |         |         |        |
|-------|-----------------------------|---|----------------------|---------|---------|---------|---------|--------|
| Line  | Element                     | Item  | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | -----S |
| No    | Number                      |   | ---                  | -----   | -----   | -----   | -----   | e      |
|       |                             |   |                      |         |         |         |         | c      |
| 117   | 0301301L                    | General Defense Intelligence Program        | 7                    |         |         |         |         |        |
| 143   | 0305884L                    | Intelligence Planning and Review Activities | 7                    |         |         |         |         |        |
| 146   | 0305898L                    | Management Headquarters (Auxiliary Forces)  | 7                    | 10,423  | 1,849   | 1,926   | 1,914   | U      |
|       |                             | Operational Systems Development             |                      | -----   | -----   | -----   | -----   |        |
|       |                             |   |                      | -----   | -----   | -----   | -----   |        |
| Total | Defense Intelligence Agency |   |                      |         |         |         |         |        |

Central Imagery Office  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|      |           |   | Thousands of Dollars |         |         |         |         |   |
|------|-----------|---|----------------------|---------|---------|---------|---------|---|
| Line | Element   | Program                                   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No   | Number    | Item                                      | ---                  | -----   | -----   | -----   | -----   | e |
| 94   | 0305106LC | Consolidated Imagery Activities           | 5                    |         |         |         |         |   |
| 95   | 0305107LC | Tactical Imagery Activities               | 5                    |         |         |         |         |   |
|      |           | Engineering and Manufacturing Development |                      | -----   | -----   | -----   | -----   |   |
|      |           | Total Central Imagery Office              |                      | -----   | -----   | -----   | -----   | c |



Defense Logistics Agency  
FY 1998/1999 R D T & E Program

Exhibit R-1

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

Date: FEB 1997

|                                |                                 |  | Thousands of Dollars |         |         |         |         |             |
|--------------------------------|---------------------------------|--|----------------------|---------|---------|---------|---------|-------------|
| Line                           | Program<br>Element<br>No Number | Item   | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S<br>e<br>c |
| 38                             | 0603712S                        | Generic Logistics R&D Technology Demonstrations          | 3                    | 13,883  | 19,357  | 17,267  | 17,788  | U           |
| 53                             | 0603753S                        | Electronic Commerce Resource Centers                     | 3                    |         |         | 14,972  |         | U           |
|                                |                                 | Advanced Technology Development                          |                      | 13,883  | 19,357  | 32,239  | 17,788  |             |
| 110                            | 0605798S                        | Defense Support Activities                               | 6                    | 16,858  | 13,121  | 5,992   | 6,056   | U           |
| 111                            | 0605801S                        | Defense Technical Information Center                     | 6                    | 39,950  | 43,382  | 46,930  | 48,171  | U           |
| 112                            | 0605803S                        | R&D in Support of DoD Enlistment, Testing and Evaluation | 6                    |         | 1,887   | 8,285   | 8,410   | U           |
|                                |                                 | RDT&E Management Support                                 |                      | 56,808  | 58,390  | 61,207  | 62,637  |             |
| 147                            | 0708011S                        | Industrial Preparedness                                  | 7                    | 3,788   | 6,101   | 8,720   | 8,732   | U           |
|                                |                                 | Operational Systems Development                          |                      | 3,788   | 6,101   | 8,720   | 8,732   |             |
| Total Defense Logistics Agency |                                 |  |                      | 74,479  | 83,848  | 102,166 | 89,157  |             |

Defense Investigative Service  
 FY 1998/1999 R D T & E Program

Exhibit R-1

Appropriation: 0400 D Research Development Test & Eval Defwide

Date: FEB 1997

|       |                               |  | Thousands of Dollars |         |         |         |         |   |
|-------|-------------------------------|--|----------------------|---------|---------|---------|---------|---|
| Line  | Element                       | Program                                | Act                  | FY 1996 | FY 1997 | FY 1998 | FY 1999 | S |
| No    | Number                        | Item                                   | ---                  | -----   | -----   | -----   | -----   | e |
| 131   | 0305127V                      | Foreign Counterintelligence Activities | 7                    | 402     | 412     | 419     | 418     | U |
|       |                               | Operational Systems Development        |                      | 402     | 412     | 419     | 418     |   |
| Total | Defense Investigative Service |  |                      | 402     | 412     | 419     | 418     |   |