CONGRESSIONAL BUDGET OFFICE
U.S. CONGRESS
WASHINGTON, D.C. 20515

Robert D. Reischauer
Director

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MEMORANDUM FOR THE RECORD

From: Mick Miller
Bill Myers
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Subject: Annual SAR Review

The Selected Acquisition Reports (SARs) were submitted to Congress on March 10, 1989 in support of the fiscal year 1990/1991 budget request. As part of our continued efforts to assist the Congressional staff, we have examined these reports in detail. Our examination indicates that the Department of Defense (DoD) projects total program costs about 8 percent above levels of a year ago, but cost projections for individual systems vary widely.

This memorandum presents the results of our analysis, highlighting aggregate cost changes and individual weapons system program changes. All costs are in current budget authority, unless otherwise noted.

AGGREGATE COST CHANGES

The total program costs provided in the SARs include research and development, procurement, military construction, and operation and maintenance appropriations. Total program costs reflect actual and projected costs of selected weapon systems from the development phase through the final buy. This year, the SARs cover 98 programs that have been reported previously and nine additional reports being submitted for the first time, for a total of 107 systems. The systems costs represent nearly 50 percent of the Administration's 1990 request for weapons procurement. Excluding systems that were first included in the SARs in the past year, our analysis shows that DoD projections of total program costs have increased by about 8 percent ($61.7 billion) over the past year, unadjusted for inflation and quantity changes.

The Defense Department reports projected cost changes in seven basic categories. The categories and their contribution to this year's cost changes are as follows:

- Economic changes are cost changes resulting from a difference between actual and previously projected price growth, and from differences between past and current economic projections. These two differences combine to decrease projected cost in the SARs by about $4.7 billion.

- o Quantity changes refer to changes in the quantity of weapons to be procured. The SARs show that the planned quantity changes increase costs by $46.4 billion.

- o Schedule changes are changes in procurement delivery schedules, production completion date, or intermediate development or production milestones. These changes combine to increase costs by nearly $2.9 billion.

- o Engineering changes are changes in the physical or functional characteristics of the system, which this year increase costs by $7.7 billion.

- o Estimating changes are changes in total program cost due to a correction of error in preparing the original estimate, refinement of a previous estimate, or a change in program or cost-estimating assumptions and techniques not provided for in the other cost-change categories. For these reasons, DoD has increased its previous cost estimates by $7.5 billion.

- o Support changes are cost changes associated with training and training equipment, peculiar support equipment, activation of an operational site, and initial spares and repair parts. These changes raise costs by $2.1 billion.

- o Other changes are changes in program cost not provided for in the other cost variance categories. These changes lower costs by $0.2 billion.

Excluding the economic and quantity cost changes results in an aggregate cost increase of $20.0 billion, or less than three percent. Army systems would grow nearly 6 percent or $6.0 billion, Navy systems would increase less than 2 percent or $6.0 billion, and Air Force systems would increase about 3 percent or $8.0 billion. Although these results indicate that there was some cost growth from the previous year, the analysis should be interpreted with three points in mind. First, because the costs reported in the SARs include DoD's projections of future costs, the accuracy of these projections will not be known until all of the weapons have been produced and delivered. Second, because the SAR data cover a limited part of the Department's spending for weapons acquisition, there may be increases or offsetting cost reductions in other programs. Third, the SARs do not include any of the changes in the Administration's amended budget request, dated April 1989.

Nevertheless, the information contained in the SARs is very valuable. The SARs are useful for monitoring cost changes and other developments in weapons acquisition programs, and for providing rough indicators of overall cost growth in procurement programs.

COST CHANGES FOR INDIVIDUAL WEAPONS

Congressional staff have found certain data from past reviews to be especially useful in helping them cope with the volumes of data contained in the SARs. These data are highlighted in the summary tables provided in this memorandum. The Army, Navy, and Air Force data are presented in Tables 1 through 3, respectively, and include:

- o unit cost changes based on procurement and total program funding,
- o program status relative to established milestones and weapons deliveries,
- o effects of production rate changes,
- o expected contract overruns and underruns, and
- o excluded costs.

Unit Cost Growth

The SARs reveal that six systems violate the thresholds enacted into law to help Congress cope with its cost growth concerns. Current law requires that Congress be notified when projections of either total program acquisition unit costs or current fiscal year procurement unit costs are more than 15 percent higher than the baseline for a particular program. (The projected costs in the December SAR of the preceding fiscal year or in the first SAR submitted on the program is the baseline). Costs for one system, the Air Force's Tacit Rainbow missile, exceed the procurement threshold by 253 percent. Five other systems exceed the total program threshold -- the Army's AHIP helicopter (17 percent), the Army's JSTARS radar (39 percent), the Air Force's Tactical Air Reconnaissance System (TARS) (850 percent), the Air Force's JTIDS communication system (16 percent), and the Air Force's WWMCCS information system (49 percent). The amended budget would terminate the Army's AHIP helicopter. The TARS system breached the threshold because no production funds were included in the 1990/1991 budget request. The WWMCCS system program cost, a joint program, increased only 14 percent when all services estimates are included in the calculation. Three Navy systems came very near to breaching the threshold -- the basic antisubmarine warfare AN/SQQ-89 system (14 percent), V-22 aircraft (13 percent), and Standard missile (12 percent). The amended budget would terminate the V-22 program.

Schedule Performance

Unit cost increases might be anticipated in systems that are behind in completing key program milestones. The status of major milestones, such as completion of testing, production deliveries, and contract award dates, are indicators of overall program execution, and, specifically acquisition costs. For example, a delay caused by technical, material, or manpower problems may require additional funds to resolve, but other delays may not involve additional costs. Tables 1 through 3 show

that about 40 percent of all SAR systems are behind in at least one milestone and that only a few are ahead.

Another measure of schedule performance is the degree to which contractors are meeting the planned delivery schedules. According to the SARs, most of the systems remain on or ahead of delivery plans, with about 17 percent behind schedule.

Effects of Production Rates on Costs

Unit costs are also affected by changes to the production rates which can occur for many reasons, including material or labor shortages, production line changes, changes in technology, or budgetary ceilings that result in reallocating dollars to fewer systems. When production rates are stepped-up, savings generally occur because the use of facilities comes closer to their capacities and the work force becomes more efficient. For this reason, DoD's management initiatives include economic production rates. The SARs show that costs have been reduced by about $900 million due to production rate changes for nine systems, most notably the Army's M-1 tank ($223.4 million), the Navy's DDG-51 destroyer ($128.3 million), and the Air Force's IR Maverick missile ($204.4 million) and F-15 aircraft ($195.7 million). In contrast, the SARs also provide evidence that the production rates for 31 programs have been slowed, raising costs by about $3.9 billion.

Contract Cost Performance

Under current law, DoD must report contractor cost information for the six largest (in dollar value) contracts in each program. Of the contracts affected by this reporting requirement, program managers estimate four times as many contract cost overruns as underruns (99 versus 26). The unclassified estimates that are published in the SARs show that expected overruns would cost about $5.5 billion compared to $300 million in savings from expected underruns.

However, this picture of contractor cost performance is incomplete because limiting the report to six contracts may exclude other large contracts. While six contracts may include a major portion of the contract effort of a small program like the Army's TOW-2 missile, this is not the case with large programs like the Air Force's MX missile or the Navy's Trident submarine. In these cases, the reporting requirement effectively limits the inclusion of cost performance of several large contracts.

Costs Excluded

The SARs are most useful when they accurately describe the total costs of individual systems. Failure to report certain costs clouds measurement of unit costs, comparisons of total costs between periods, and cost growth calculations. Tables 1 through 3 provide the excluded costs we were able to find by comparing the SARs with the Congressional Data Sheets and other budget justification materials. For example, the Army's M-1 tank costs were understated by $779.3 million. At least

part of this understatement occurs because the costs exclude planned improvements to the M-1 tank. Several Navy ship programs excluded advance procurement in the current plan for ships to be procured beyond 1994, as well as the procurement costs for those ships. Since the budget justification materials did not identify the procurement costs, we estimated these costs based on historical data. Based on these estimates, for example, the SSN-21 submarine program excluded the procurement costs for 3 ships each in 1995 and 1996, totaling about $9.8 billion, the DDG-51 destroyer program excluded the procurement costs for 5 ships in 1995, totaling about $3.9 billion, and the Trident submarine program excluded the procurement cost for the 22nd and 23rd ships, totaling $2.9 billion. The Air Force excluded all MX costs prior to April 1983, or nearly $4.7 billion. In addition, the SAR for JTIDS communication system excluded unspecified costs for 14 terminals for the Army, Marine Corps, and Air Force.

We estimate that $24.9 billion in costs are excluded from the program costs for 17 systems. Tables 1 through 3 identify the amount and the percent increase that would result if these costs were included in the current program.

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TABLE 1. DECEMBER 1988 SELECTED ACQUISITION REPORT (SAR) REVIEW SUMMARY, ARMY

SYSTEM NAME	NUNN-McCURDY AMENDMENT UNIT COST CHANGES (PERCENT)		SCHEDULE PERFORMANCE				EFFECTS OF PRODUCTION RATE CHANGES			EXPECTED CONTRACT OVERRUNS			EXPECTED CONTRACT UNDERRUNS			COSTS EXCLUDED FROM SARS	
			NUMBER OF MILESTONES		DELIVERY STATUS												
	1989 PROCUREMENT	TOTAL PROGRAM	AHEAD	BEHIND	% AHEAD	% BEHIND	COSTS ($M)	SAVINGS ($M)	PERCENT OF DEC 87 ESTIMATE	NUMBER OF CONTRACTS	% OVER TARGET PRICES	TOTAL AMOUNT OF OVERRUN ($M)	NUMBER OF CONTRACTS	% UNDER TARGET PRICES	TOTAL AMOUNT OF UNDERRUN ($M)	AMOUNT ($M)	PERCENT OF CURRENT ESTIMATE
Army Tactical Command and Control Systems	a/	a/	---	---	b/	b/	---	---	---	---	---	---	---	---	---	---	---
Army Data Distribution System (ADDS)	a/	-5.4%	---	3	a/	a/	---	---	---	---	---	---	---	---	---	---	---
AH-64 Helicopter	1.0%	-3.9%	---	---	0.2%	---	---	---	---	---	---	---	---	---	---	---	---
All Source Analysis System (ASAS)	d/	d/	---	---	b/	b/	---	---	---	---	---	---	---	---	---	---	---
Army Tactical Missile System (ATACMS)	---	-34.2%	1	2	---	---	---	---	---	2	4.7%	13.1	---	---	---	---	---
Joint Tactical Missile Defense (JTMD/ATM)	a/	a/	---	---	a/	a/	---	---	---	e/	e/	e/	e/	e/	e/	---	---
Bradley Fighting Vehicle System (BFVS)	---	-1.2%	---	4	f/	---	9.2	---	0.1%	---	---	---	---	---	---	---	---
CH-47D Helicopter	---	1.1%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Copperhead Projectile	a/	f/	---	---	j/	j/	---	---	---	---	---	---	---	---	---	---	---
Forward Area Air Defense Systems (FAADS):																	
Command, Control, and Intelligence	a/	a/	---	4	a/	a/	---	---	---	1	14.6%	11.9	---	---	---	---	---
Air Defense System Heavy (LOS-F-H)	---	-25.4%	---	---	---	---	---	---	---	---	---	---	---	---	---	20.2	0.3%
Pedestal Mounted Stinger (LOS-R)	0.2%	-0.8%	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---
Fiber Optic Guided Missile (NLOS)	a/	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Palletized Load System (PLS/FMTV)	a/	i/	---	---	---	---	---	---	---	e/	e/	e/	e/	e/	e/	---	---
Family of Medium Tactical Vehicles (FMTV)	a/	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Hellfire Modular Missile System (HMMMS)	---	-5.1%	---	---	---	16.1%	68.6	---	3.3%	---	---	---	---	---	---	102.5	3.8%
Light Helicopter Program (LHX)	g/	g/	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
M1 Tank	---	1.2%	1	1	0.5%	---	---	223.4	1.1%	---	---	---	---	---	---	779.3	3.0%
Multiple Launch Rocket System (MLRS)	---	0.1%	---	---	5.4%	---	---	---	---	---	---	---	---	---	---	5.0	0.1%
MLRS Terminal Guidance Warhead (TGW)	g/	g/	---	---	a/	a/	---	---	---	1	7.2%	13.4	---	---	---	---	---
Mobile Subscriber Equipment (MSE)	---	-0.2%	---	1	a/	a/	---	---	---	---	---	---	---	---	---	---	---
AHIP Helicopter (OH-58)	---	16.9%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Patriot Missile	---	-1.3%	---	---	2.5%	---	---	---	---	---	---	---	3	4.8%	54.3	681.5	5.5%
Sense and Destroy Armor (SADARM)	a/	d/	---	---	---	---	---	---	---	1	25.0%	17.7	---	---	---	---	---
SINCGARS Radio	---	-10.5%	---	---	---	15.0%	101.3	---	2.0%	---	---	---	---	---	---	---	---
Stinger Missile	---	-17.2%	---	2	---	22.7%	---	---	---	1	4.6%	10.7	1	2.0%	4.7	---	---
TOW 2 Missile	---	-3.2%	---	---	---	13.4%	---	---	---	---	---	---	1	0.3%	0.1	---	---
UH-60A Helicopter	---	8.2%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
JSTARS Radar	a/	39.3%	included under Air Force JSTARS.														

NOTES:
a/ Not applicable.
b/ Classified data.
c/ No Congressional data sheet.
d/ To be determined data.
e/ No contract has been awarded as of this date.
f/ Less than one-tenth of one percent (.1%).
g/ Total program costs include only research and development effort.
h/ Data was not reported.
i/ Comparison not possible.
j/ Program was terminated.
k/ Excludes unspecified costs of 14 JTIDS terminals.

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TABLE 2. DECEMBER 1988 SELECTED ACQUISITION REPORT (SAR) REVIEW SUMMARY, NAVY

SYSTEM NAME	NUNN-McCURDY AMENDMENT UNIT COST CHANGES (PERCENT)		SCHEDULE PERFORMANCE				EFFECTS OF PRODUCTION RATE CHANGES			EXPECTED CONTRACT OVERRUNS			EXPECTED CONTRACT UNDERRUNS			COSTS EXCLUDED FROM SARS	
			NUMBER OF MILESTONES		DELIVERY STATUS												
	1989 PROCUREMENT	TOTAL PROGRAM	AHEAD	BEHIND	% AHEAD	% BEHIND	COSTS ($M)	SAVINGS ($M)	PERCENT OF DEC 87 ESTIMATE	NUMBER OF CONTRACTS	% OVER TARGET PRICES	TOTAL AMOUNT OF OVERRUN ($M)	NUMBER OF CONTRACTS	% UNDER TARGET PRICES	TOTAL AMOUNT OF UNDERRUN ($M)	AMOUNT ($M)	PERCENT OF CURRENT ESTIMATE
A-6E Aircraft	a/	-4.8%	---	---	j/	j/	---	---	---	2	17.6%	59.5	---	---	---	20.4	0.4%
AMRAAM Missile	---	-3.7%	included under Air Force AMRAAM.														
AN/BSY-1 Submarine Combat System	a/	a/	---	1	a/	a/	---	---	---	1	2.2%	23.2	---	---	---	---	---
AN/BSY-2 Submarine Combat System	a/	a/	---	1	a/	a/	---	---	---	1	3.7%	35.9	---	---	---	---	---
AN/SQQ-89 Surface Ship ASW Combat System:			---	4	---	---				1	32.0%	40.8	4	7.6%	36.4		
Basic AN/SQQ-89	a/	13.7%	above	above	above	above	171.6	---	5.8%	above	above	above	above	above	above	---	---
Improved AN/SQQ-89	a/	d/	above	above	above	above	---	---	---	above	above	above	above	above	above	---	---
AOE-6 Fast Combat Support Ship	---	---	---	---	a/	a/	---	---	---	1	4.6%	23.2	---	---	---	---	---
Airborne Self-protection Jammer (ASPJ)	g/	g/	---	1	a/	a/	---	---	---	1	46.1%	91.4	---	---	---	---	---
AV-8B Aircraft	---	6.6%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Battleship Reactivation	a/	-2.6%	---	---	a/	a/	---	---	---	---	---	---	---	---	---	---	---
C/MH-53E Helicopter	---	-3.1%	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CG 47 AEGIS Cruiser	a/	-0.6%	---	---	a/	a/	---	---	---	4	8.4%	221.0	2	3.9%	30.0	---	---
SH-60F Helicopter (CV Helo)	---	-1.7%	---	---	---	---	---	4.3	0.1%	1	2.2%	5.3	---	---	---	---	---
CVN Aircraft Carriers:	a/	a/															
CVN-72/73 Carriers	a/	3.4%	---	2	a/	a/	---	---	---	1	1.5%	50.0	---	---	---	---	---
CVN-74/75 Carriers	a/	0.9%	---	---	a/	a/	---	---	---	---	---	---	---	---	---	---	---
DDG 51 Destroyer	-1.7%	-7.2%	---	1	a/	a/	---	128.3	0.7%	6	24.1%	621.0	---	---	---	3,915.0	14.5%
E-2C Aircraft	---	-6.0%	---	---	---	---	17.7	---	0.3%	---	---	---	---	---	---	---	---
E-6A Aircraft	---	4.0%	---	3	---	---	---	---	---	---	---	---	---	---	---	---	---
EA-6B Aircraft	---	0.2%	---	1	---	---	257.4	---	6.2%	---	---	---	---	---	---	0.0	---
F-14D Aircraft	---	8.8%	---	1	---	---	77.0	---	0.4%	---	---	---	---	---	---	0.0	---
F/A-18 Aircraft	-2.5%	0.9%	---	---	0.8%	---	---	29.9	0.1%	---	---	---	---	---	---	---	---
Fixed Distributed System (FDS)	g/	g/	b/	b/	a/	a/	---	---	---	a/	a/	a/	a/	a/	a/	---	---
HARM Missile	---	-9.5%	2	2	1.2%	---	---	---	---	---	---	---	---	---	---	---	---
Harpoon Missile	---	5.0%	---	1	---	11.2%	341.0	---	9.9%	---	---	---	---	---	---	---	---
LAMPS MK III System	---	1.8%	---	---	---	---	37.3	---	0.7%	---	---	---	---	---	---	---	---
Landing Craft Air Cushion (LCAC)	---	-1.5%	---	---	---	6.3%	---	---	---	---	---	---	---	---	---	330.4	11.5%
LHD 1 Amphibious Assault Ship	---	-1.3%	---	---	a/	a/	27.1	---	0.5%	4	5.3%	116.8	---	---	---	983.9	16.2%
LRAACA Aircraft	a/	---	---	---	---	---	---	---	---	a/	a/	a/	a/	a/	a/	---	---
LSD 41 Dock Landing Ship	a/	-0.5%	---	---	a/	a/	---	---	---	3	5.0%	40.6	---	---	---	---	---
LSD 41 (Cargo Variant) Dock Landing Ship	a/	-13.7%	---	1	a/	a/	39.3	---	2.5%	1	9.5%	14.0	---	---	---	---	---
MCM 1 Mine Countermeasures Ship	a/	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MK 48 ADCAP Torpedo	b/	b/	---	1	---	---	723.5	---	14.7%	3	0.7%	3.8	1	0.1%	0.1	---	---
MK 50 Torpedo	---	b/	---	1	---	13.0%	---	---	---	1	1.0%	6.6	---	---	---	---	---
NATO Anti-Air Warfare System (NAAWS)	g/	g/	---	---	a/	a/	---	---	---	---	---	---	---	---	---	---	---
P-3C Aircraft	a/	-3.2%	---	---	---	---	---	---	---	a/	a/	a/	a/	a/	a/	---	---
Phalanx CIWS System	---	-0.3%	---	---	---	---	---	35.1	1.5%	2	11.2%	44.8	---	---	---	---	---
Phoenix Missile	---	2.4%	---	1	---	2.7%	88.8	---	2.5%	---	---	---	---	---	---	---	---
Sea Lance ASW Standoff Weapon	a/	b/	---	1	---	---	103.4	---	6.6%	---	---	---	---	---	---	---	---
Supersonic Low Altitude Target (SLAT)	g/	g/	---	---	a/	a/	---	---	---	1	42.7%	54.8	---	---	---	---	---
Sparrow Missile	---	-2.0%	---	---	---	11.0%	---	---	---	---	---	---	---	---	---	---	---
SSN 21 Submarine	---	-15.0%	---	2	a/	a/	---	---	---	4	36.6%	344.6	---	---	---	9,829.3	52.1%
SSN 688 Submarine	---	-2.3%	1	---	---	4.9%	---	---	---	6	11.9%	707.5	---	---	---	---	---
Standard Missile (SM-2 MR/ER)	---	12.2%	---	---	---	---	118.2	---	1.5%	1	11.7%	34.0	---	---	---	---	---
T45TS Training Aircraft	---	6.8%	---	4	---	---	---	---	---	---	---	---	---	---	---	---	---
T-AO 187 Fleet Oiler	---	-1.7%	1	1	a/	a/	---	65.9	2.4%	---	---	---	1	0.1%	0.5	---	---
Tomahawk Missile	---	-5.9%	---	---	---	5.6%	314.4	---	3.5%	---	---	---	---	---	---	---	---
Trident II Missile	---	-4.6%	---	---	---	---	278.8	---	1.1%	3	4.6%	60.1	---	---	---	292.0	0.8%
Trident II Submarine	---	-8.0%	1	---	a/	a/	---	---	---	3	1.0%	29.9	1	4.2%	71.4	2,946.0	16.5%
UHF Follow-on Communication Satellite	a/	---	---	---	a/	a/	---	---	---	---	---	---	---	---	---	---	---
V-22 Aircraft	a/	13.4%	---	---	---	---	239.1	---	1.1%	1	5.6%	96.7	---	---	---	---	---

NOTES:
a/ Not applicable.
b/ Classified data.
c/ No Congressional data sheet.
d/ To be determined data.
e/ No contract has been awarded as of this date.
f/ Less than one-tenth of one percent (.1%).
g/ Total program costs include only research and development effort.
h/ Data was not reported.
i/ Comparison not possible.
j/ Program was terminated.
k/ Excludes unspecified costs of 14 JTIDS terminals.

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TABLE 3. DECEMBER 1988 SELECTED ACQUISITION REPORT (SAR) REVIEW SUMMARY, AIR FORCE

SYSTEM NAME	NUNN-McCURDY AMENDMENT UNIT COST CHANGES (PERCENT)		SCHEDULE PERFORMANCE				EFFECTS OF PRODUCTION RATE CHANGES			EXPECTED CONTRACT OVERRUNS			EXPECTED CONTRACT UNDERRUNS			COSTS EXCLUDED FROM SARS	
			NUMBER OF MILESTONES		DELIVERY STATUS												
	1989 PROCUREMENT	TOTAL PROGRAM	AHEAD	BEHIND	% AHEAD	% BEHIND	COSTS ($M)	SAVINGS ($M)	PERCENT OF DEC 87 ESTIMATE	NUMBER OF CONTRACTS	% OVER TARGET PRICES	TOTAL AMOUNT OF OVERRUN ($M)	NUMBER OF CONTRACTS	% UNDER TARGET PRICES	TOTAL AMOUNT OF UNDERRUN ($M)	AMOUNT ($M)	PERCENT OF CURRENT ESTIMATE
AMRAAM Missile	f/	6.0%	---	1	---	27.3%	22.5	---	0.2%	2	2.7%	5.7	---	---	---	---	---
ATARS Tactical Air Reconnaissance System										---	---	---	---	---	---		
Tactical ARS (TARS)	a/	849.8%	---	---	---	---	---	---	---	above	above	above	above	above	above	---	---
Unmanned ARS (UARS)	a/	a/	a/	a/	a/	a/	---	---	---	above	above	above	above	above	above	---	---
Advanced Tactical Fighter	g/	g/	---	1	a/	a/	---	---	---	---	---	---	---	---	---	---	---
B-1B Aircraft	a/	1.5%	1	2	---	---	---	---	---	3	4.3%	811.0	2	1.1%	30.7	---	---
C-5B Aircraft	a/	-0.6%	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---
C-17A Aircraft	---	4.9%	---	2	---	---	---	---	---	1	12.5%	604.4	---	---	---	---	---
Mark XV IFF System	g/	g/	---	2	a/	a/	---	---	---	---	---	---	---	---	---	---	---
Common Strategic Rotary Launcher (CSRL)	7.6%	0.3%	---	---	---	---	---	---	---	---	---	---	1	4.2%	6.4	---	---
DMSP Satellite Program	---	-2.9%	---	3	h/	h/	1.9	---	0.1%	2	3.5%	3.7	2	7.2%	19.7	---	---
DSCS III Satellite	a/	-0.6%	b/	b/	h/	h/	5.5	---	0.4%	---	---	---	---	---	---	---	---
Defense Support Program	---	0.3%	b/	b/	h/	h/	18.3	---	0.3%	4	6.5%	61.3	2	0.5%	6.0	---	---
F-15 Aircraft	---	-4.9%	---	2	---	2.3%	---	195.7	0.6%	4	12.9%	198.2	---	---	---	12.0	f/
F-16 Aircraft	-3.8%	2.7%	---	---	0.3%	---	45.2	---	0.1%	3	0.7%	25.2	---	---	---	---	---
GLCM Missile	j/	-4.6%	j/	j/	j/	j/	---	---	---	a/	a/	a/	a/	a/	a/	---	---
IR Maverick Missile	---	8.3%	---	---	3.3%	---	---	204.4	2.7%	1	2.1%	3.2	---	---	---	---	---
Inertial Upper Stage (IUS) Rocket Booster	a/	-12.4%	---	---	h/	h/	---	---	---	1	2.0%	16.8	1	4.9%	17.0	---	---
JSTARS Radar	a/	-8.6%	---	1	---	---	---	---	---	2	40.4%	314.4	---	---	---	290.2	4.3%
JTIDS Information System	g/	g/	2	3	---	4.2%	---	---	---	1	1.9%	4.5	---	---	---	k/	k/
KC-135R Aircraft Modernization Program	-3.9%	1.1%	---	---	---	---	104.2	---	0.9%	---	---	---	---	---	---	---	---
LANTIRN Navigation & Targeting System	---	8.9%	1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Microwave Landing System (MLS)	---	-78.6%	---	---	a/	a/	5.4	---	2.3%	a/	a/	a/	a/	a/	a/	---	---
Navstar Global Positioning System (GPS):	a/	a/								2	8.6%	27.8	---	---	---		
Air Force Satellite	a/	-5.6%	---	1	---	28.6%	---	12.4	0.4%	above	above	above	above	above	above	---	---
Tri-service User Equipment	---	6.3%	---	2	---	20.6%	75.2	---	2.7%	above	above	above	above	above	above	---	---
OTH-B Radar	---	-3.1%	---	1	a/	a/	---	---	---	1	8.7%	7.5	---	---	---	---	---
Peacekeeper Missile	---	7.0%	---	---	---	---	124.9	---	0.8%	1	6.7%	15.7	4	1.5%	16.7	4,684.8	19.9%
Peacekeeper Rail Garrison Equipment	a/	-19.2%	---	1	a/	a/	88.8	---	1.8%	2	4.9%	19.9	---	---	---	0.4	f/
Sensor Fuzed Weapon (SFW)	a/	-0.1%	---	4	---	96.3%	54.2	---	1.8%	1	56.2%	50.0	---	---	---	---	---
Small ICBM	g/	g/	---	---	a/	a/	---	---	---	6	11.8%	223.3	---	---	---	---	---
SRAM II Missile	a/	0.2%	---	---	---	---	---	---	---	1	10.2%	29.3	---	---	---	8.7	0.4%
Tacit Rainbow Missile	a/	b/	---	1	---	90.0%	293.9	---	8.2%	a/	a/	a/	a/	a/	a/	---	---
Titan IV Missile	---	-4.1%	---	1	---	---	---	---	---	1	5.9%	294.0	---	---	---	---	---
TRI-TAC Communications Program	a/	a/								---	---	---	---	---	---		
Communications Nodal Control Element	a/	---	1	---	---	---	---	---	---	above	above	above	above	above	above	---	---
Troposcatter Radio Terminal	---	-9.0%	---	---	---	---	0.2	---	f/	above	above	above	above	above	above	---	---
Support Systems Integration/Other	d/	d/	h/	h/	h/	h/	---	---	---	above	above	above	above	above	above	---	---
WWMCCS Information System (WIS)			---	3	a/	a/	---	---	---	2	14.8%	22.9	---	---	---	---	---
All Services	a/	14.2%	above	above	above	above	above	above	above	above	above	above	above	above	above	above	above
Air Force only	a/	46.6%	above	above	above	above	above	above	above	above	above	above	above	above	above	above	above

NOTES:
a/ Not applicable.
b/ Classified data.
c/ No Congressional data sheet.
d/ To be determined data.
e/ No contract has been awarded as of this date.
f/ Less than one-tenth of one percent (.1%).
g/ Total program costs include only research and development effort.
h/ Data was not reported.
i/ Comparison not possible.
j/ Program was terminated.
k/ Excludes unspecified costs of 14 JTIDS terminals.