



Association of the United States Army

Army Budget Fiscal Year 1996

An Analysis

May 1995

Institute of Land Warfare





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Compiled by AUSA's
Institute of Land Warfare

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GLOSSARY

AAWS-M	Advanced Antitank Weapon System-Medium	CHAMPUS	Civilian Health and Medical Program of the Uniformed Services
ABCS	Army Battle Command System	CINC	Commander in Chief
AC ² V	Advanced Command and Control Vehicle	CLU	Command Launch Unit
ACR	Armored Cavalry Regiment	CONUS	Continental United States
AD	Armored Division	Corps SAM	Corps Surface-to-Air Missile
AFAS	Advanced Field Artillery System	COSCOM	Corps Support Command
AFATDS	Advanced Field Artillery Tactical Data System	CTC	Combat Training Center
AFH	Army Family Housing	DA	Department of the Army
AFQT	Armed Forces Qualification Test	DBOF	Defense Business Operations Fund
AGS	Armored Gun System	DoD	Department of Defense
ARNG	Army National Guard	DoE	Department of Energy
ASAS	All Source Analyses System	DSCS	Defense Satellite Communications System
ASM	Armored System Modernization	ED	Engineering Development
ATACMS	(or Army TACMS) Army Tactical Missile System	ERINT	Extended Range Interceptor
ATCCS	Army Tactical Command and Control System	ER-MLRS	Extended Range Multiple Launch Rocket System
BA	Budget Authority	FAAD	Forward Area Air Defense
BA1	Budget Activity 1	FARV	Future Armored Resupply Vehicle
BA2	Budget Activity 2	FARV-A	Future Armored Resupply Vehicle Ammunition
BA3	Budget Activity 3	FMTV	Family of Medium Tactical Vehicles
BA4	Budget Activity 4	FY	Fiscal Year
BAT	Brilliant Antiarmor Submunition	FYDP	Future Years Defense Program
BCTP	Battle Command Training Program	GAO	Government Accounting Office
BFVS	Bradley Fighting Vehicle System	GBS	Ground Based Sensor
BMD	Ballistic Missile Defense	GDP	Gross Domestic Product
BMDO	Ballistic Missile Defense Organization	GPS	Global Positioning System
BRAC	Base Realignment and Closure	GSM	Ground Station Module
BUR	Bottom-Up Review	HMMWV	(Humvee) High Mobility Multipurpose Wheeled Vehicle
C ²	Command and Control	HIV	Human Immunodeficiency Virus
C ³	Command, Control and Communication	HSDG	High School Diploma Graduate
C ⁴ I	Command, Control, Communications, Computers and Intelligence	ICBM	Intercontinental Ballistic Missile
CATT	Combined Arms Tactical Trainer	ID	Infantry Division
CBO	Congressional Budget Office	ID(L)	Infantry Division (Light)
CCTT	Close Combat Tactical Trainer	ID(M)	Infantry Division (Mechanized)
CFP	Contingency Force Pool	IRR	Individual Ready Reserve
		JCS	Joint Chiefs of Staff
		JSTARS	(or Joint STARS) Joint Surveillance Target Attack Radar System

LCR	Light Cavalry Regiment	RC	Reserve Components
LMSR	Large Medium-speed Roll-on/Roll-off Ships	RCAS	Reserve Component Automation System
MCA	Military Construction, Army	RDA	Research, Development and Acquisition
MCAR	Military Construction, Army Reserve	RDT&E	Research, Development, Test and Evaluation
MCARNG	Military Construction, Army National Guard	RO/RO	Roll-on/Roll-off
MEPS	Military Entrance Processing Station	RO/RU	Roundout/Roundup
MILCON	Military Construction	ROTC	Reserve Officer Training Corps
MILES	Multiple Integrated Laser Engagement System	RPM	Real Property Maintenance
MILPERS	Military Personnel	RRF	Ready Reserve Fleet
MLRS	Multiple Launch Rocket System	SADARM	Sense and Destroy Armor
MILSTAR	Military Strategic/Tactical Relay	S&T	Science and Technology
MPS	Maritime Prepositioning Ship	SATCOM	Satellite Communications
MSE	Mobile Subscriber Equipment	SAW	Squad Automatic Weapon
MYP	Multiyear Procurement	SERB	Selective Early Retirement Board
NFIP	National Foreign Intelligence Program	SINGARS	Single Channel Ground and Airborne Radio System
NMD	National Missile Defense	SOF	Special Operations Forces
NPR	Nuclear Posture Review	TAV	Total Army Visibility
NTC	National Training Center	TDP	Total Distribution Program
O&M	Operation and Maintenance	THAAD	Theater High Altitude Area Defense
OMAR	Operation and Maintenance, Army Reserve	TMD	Theater Missile Defense
OOTW	Operations Other Than War	TOA	Total Obligational Authority
OPA	Other Procurement, Army	USAR	United States Army Reserve
OPTEMPO	Operating Tempo	USASOC	United States Army Special Operations Command
OSD	Office of the Secretary of Defense	USASSDC	United States Army Space and Strategic Defense Command
PAC-3	Patriot Advanced Capability-3	USSOCOM	United States Special Operations Command
PIP	Product Improvement Program	WTCV	Weapons and Tracked Combat Vehicles
POMCUS	Prepositioning of Materiel Configured to Unit Sets		

INTRODUCTION

The FY 1996 budget is an important benchmark. In many respects it accepts the Cold War transition (and downsizing) as essentially complete, except for some tidying up. The focus is toward the future, murky as it may be. Serious military debates have turned to potential threats, changed missions and visions of what the military forces should be in the next century. The real-life question before us is how much to pay for defense.

The previously touted peace dividend of a few years ago has been absorbed in the downsizing since FY 1989, along with the 31 percent in defense real budget costs and 30 percent drawdown in DoD active military strength.

The public, perhaps begrudgingly, seems to understand that it is a changed environment, that the world is unpredictable and dangerous, and that the United States has vital interests with a big role to play. The public has confidence in their military forces, as evidenced by recent public polls. They want and expect a well-trained and competent military capable of almost any requirement directed, but they don't want to pay a lot for it.

Funding is the big central issue. It is not so much that 16 percent of federal outlays for defense in FY 1996 is excessive — about equal to the interest on the federal debt — but that fiscal prudence with respect to all costs is essential. The overarching issue is deficit control.

This is the climate DoD faces in its present budget presentations. It must rationalize its requirements for the future and justify the costs that go with them. It does not have a hostile audience. Both the Congress reviewing the budget and the public, in general, want a strong and effective military — enough, but not too much — and they want good management of resources. It is going to be a tightfisted climate in terms of money, with more trade-offs than add-ons.

Moving to the FY 1996 budget itself, Secretary of Defense William Perry emphasized in his initial guidance to the services that force readiness was the top priority, even if something else had to be curtailed. In fact, modernization funding was constrained across the board. Also, Perry said that this budget was to be people-oriented, with attention to quality-of-life issues. This was confirmed by his initiatives to do something positive about improving both barracks conditions and family housing over the long term.

While acknowledging that modernization had to be deferred because of today's funding limits, Perry confirmed the need and intent to turn this around in future years. It is not clear yet how the additional funding for this will be obtained. Expectations that this will come from improvements in acquisition reform, along with the positive payback from base closures and continued reductions in civilian employment, is somewhat like waiting for eggs to hatch. It also may be far short of providing the necessary funding between now and the end of the decade.

Focusing on the Army budget both now and into the next century, the most pressing problem is the lack of funding for modernization. The recognition of its readiness needs for FY 1996 and the renewed attention to quality-of-life issues are by themselves encouraging. But present Army research, development and acquisition levels reflected in this budget, unless increased by at least \$3 billion a year, will not permit the Army to move into the 21st century with even the contingency corps fully modernized. There is already pressure to further reduce Army active strength and possibly structure. This would be purely a funding ploy and not

a wise thing to do from a mission viewpoint. The fact is that the Army is simply underresourced for its future missions, and slashing strength as a balancing move is not the answer.

Congress is now addressing the FY 1996 defense funding as part of its overall look at federal spending. The Republican-dominated Congress has, in general, endorsed strong support for defense, so we can assume there will be no raid on defense coffers. At the same time, the cost of defense is a substantial part of estimated federal costs for FY 1996. With reduction of deficit spending the number one priority, it is unlikely that significant additions to the DoD budget can be expected. The best guess is that Congress will provide resources equal to or somewhat more than requested by the president, but any sizable increase would be indigestible in light of the deficit reduction goals.

It would also be helpful if Congress could do something to solve the problem of the continuing force commitment for overseas contingencies without budget provisions. Supplemental appropriations (the current procedure) invariably lag, causing undesirable curtailment of CONUS activities. Even when supplemental appropriations are passed, large offsets are expected to come from within the services. This in effect becomes a budget cut. There must be a better mechanism, particularly when contingency commitments seem to be a continuing reality in this unpredictable world.

A handwritten signature in black ink, appearing to read 'J. N. Merritt', with a long horizontal stroke extending to the right.

JACK N. MERRITT
General, USA Retired
President, AUSA

May 1995

THE FEDERAL BUDGET

GENERAL

The fiscal year 1996 (FY1996) federal budget presented to Congress on February 6 requested a total of \$1.614 trillion in budget authority (the authority to obligate funds) with estimated outlays of \$1.612 trillion (actual payments to be made during the year).

While these numbers are remarkably similar in amount, they represent two different things. Budget authority is the authority to obligate and spend. It includes both entitlements and new appropriations by Congress. Outlays, on the other hand, represent the payments made during the year, some of which come from prior year commitments. Both are important in managing the budget. For example, about 23 percent of total budget authority for FY1996 will lead to outlays in future years. Outlays minus receipts translate to federal deficits, and control of outlays is a matter of great public concern.

About one-third of the budget is subject to annual appropriations by Congress and is categorized as discretionary. The rest falls into fixed categories

that include entitlements (such as Social Security, Medicare, Medicaid and certain others) and interest on the national debt. The discretionary package includes national defense, international affairs, and domestic discretionary spending (essentially the cost of the rest of the federal government). This is illustrated in figure 1.

Even with the discretionary portion, flexibility is very limited in the near term because we are dealing with the ongoing mission of national security and the operations of the entire federal government. A good portion of dollars associated with discretionary programs goes for salaries, where savings of any significance are not possible in the year of execution.

The outlay picture for FY1996 with extensions through FY2000 is reflected in table 1. This shows the stream of anticipated outlays, receipts and resulting annual deficits through the year 2000. With a gross federal debt at the end of FY1994 of \$4.64 trillion, deficit spending has become a primary focus of public and congressional concern. Key economic

Fig 1. FY 96 Federal Outlays — \$1.612 Trillion

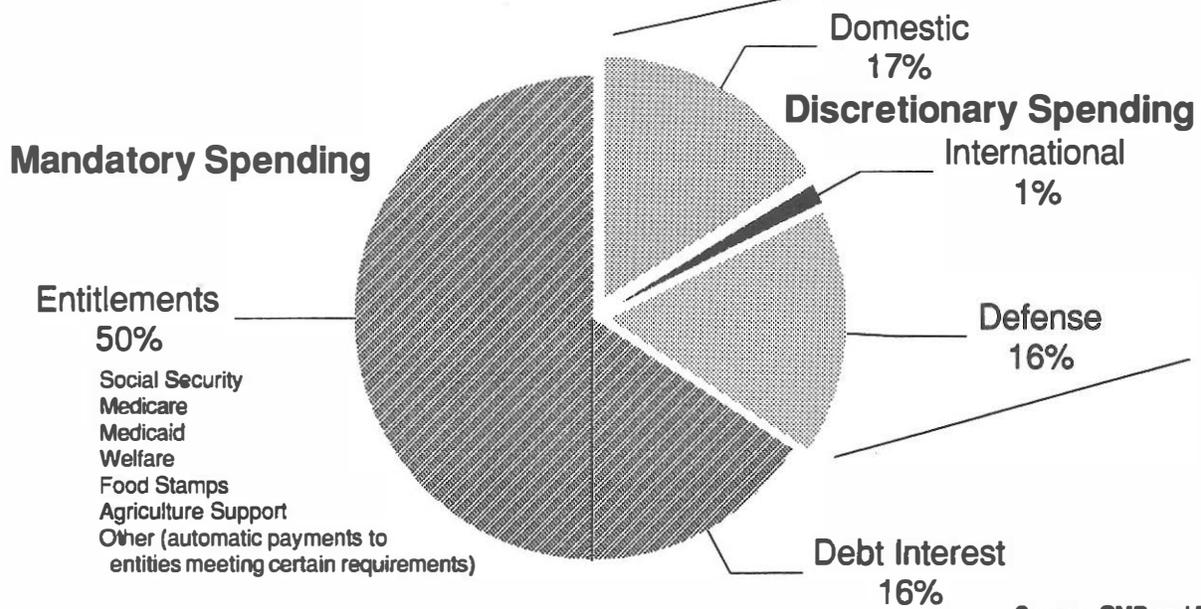


Table 1

OUTLAYS, RECEIPTS AND DEFICITS
(\$ billions*)

	FY94	FY95	FY96	FY97	FY98	FY99	FY 00
Outlays	1,461	1,539	1,612	1,685	1,745	1,822	1,905
Discretionary	(546)	(554)	(549)	(548)	(540)	(543)	(550)
Mandatory	(712)	(751)	(806)	(867)	(922)	(982)	(1,046)
Interest	(203)	(234)	(257)	(270)	(283)	(297)	(310)
Receipts	1,258	1,346	1,416	1,472	1,549	1,625	1,711
Deficit	203	193	197	213	196	197	194

*Numbers may not add due to rounding.

Source: Budget of the United States FY 1996

assumptions on which these calculations are based include a consumer price index in the range of 3.1 to 3.2 percent; unemployment rates of about 5.8 percent; and annual growth rates of 2.5 percent of the Gross Domestic Product (GDP).

This is the framework on which federal spending is projected through the rest of the decade. The big problem remains the deficit. Easy solutions are not readily available with the small portion of expenditure (currently about one-third) in the discretionary category, and this ratio is getting even smaller as mandatory spending continues to increase and defense spending continues to decrease as a percentage of total outlays. This is illustrated in figure 2.

Congress is now deeply involved in the FY1996 budget process. With the new Republican-dominated House and Senate, it is difficult to predict the outcome, but there are serious efforts under way to reduce the federal budget and deficit over this period.

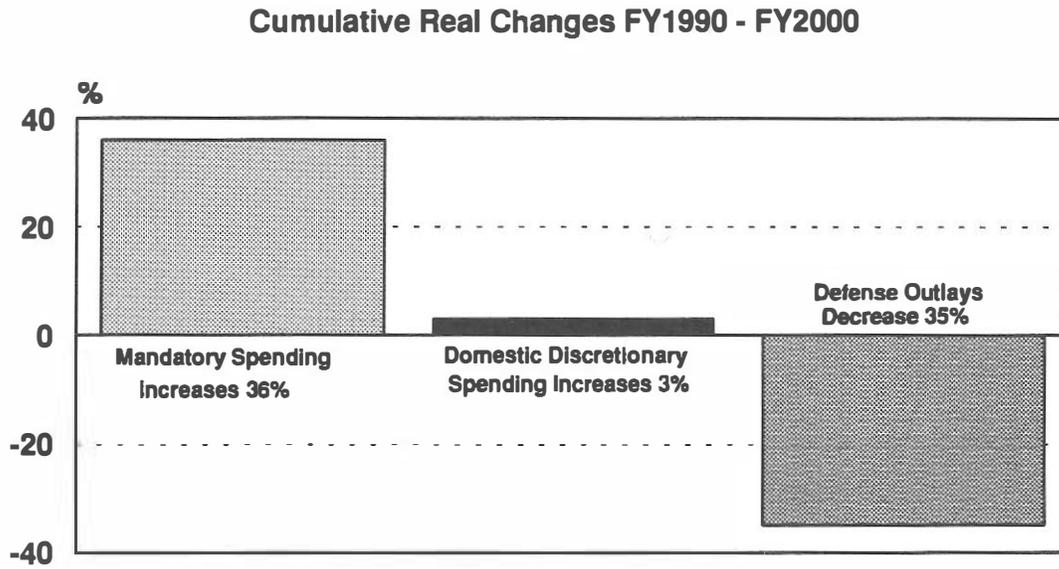
The prescribed sequence of congressional actions on the annual budget is first a budget resolution that establishes funding levels in total and by

functional area. This is followed by authorization and appropriation processes. The budget resolution is a directive to Congress itself, but does not require presidential signature. This should be completed in May and represents the constraints within which further committee actions are taken. Then come authorization and appropriation actions. The approved budget is provided by a series of appropriation bills that require presidential signature. This should be completed before the end of the fiscal year. If not, the government must operate on an interim basis with a Congressional Continuing Resolution.

FRAMEWORK FOR DEFENSE

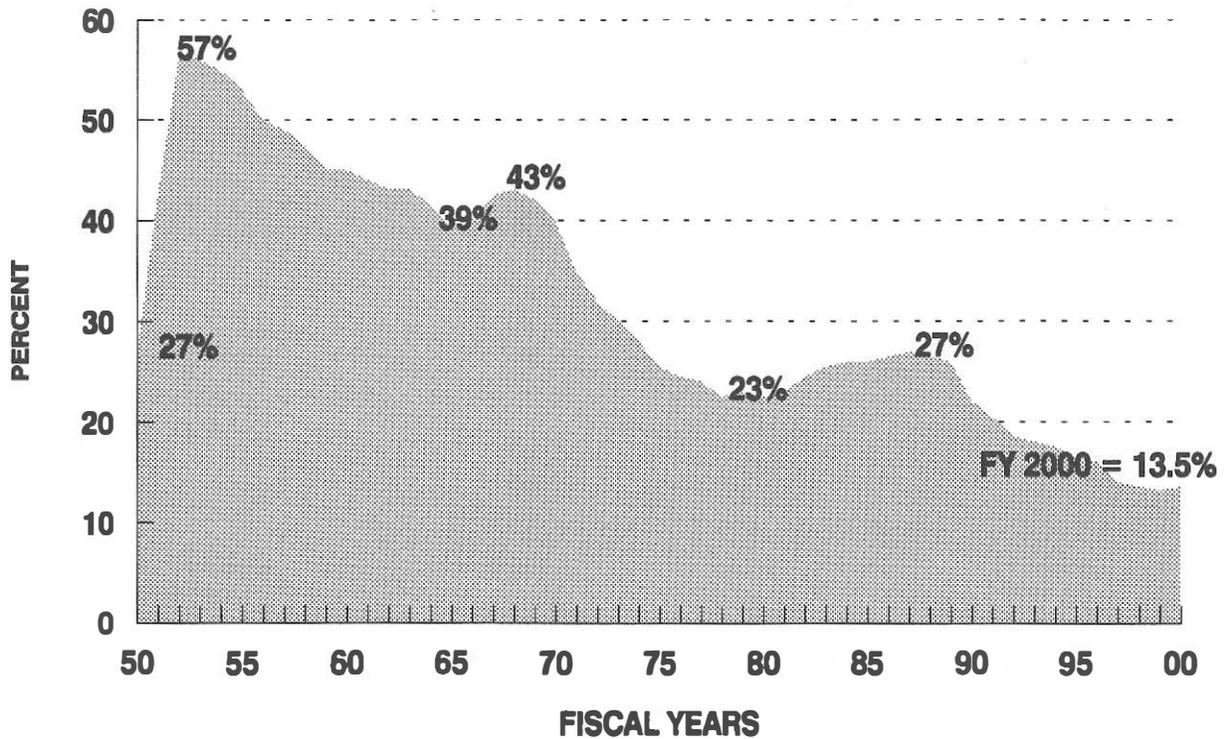
National Defense spending both in real terms and as a percentage of the federal budget has dropped steadily since 1985. Defense outlays as a percentage of federal outlays projected through the year 2000 are shown in figure 3. This represents approximately 16 percent for FY1996, decreasing to about 13.5 percent by the year 2000.

Fig 2. Domestic Discretionary, Defense and Mandatory Outlays



Source: DoD

Fig 3. Defense Outlays as a Share of Federal Outlays

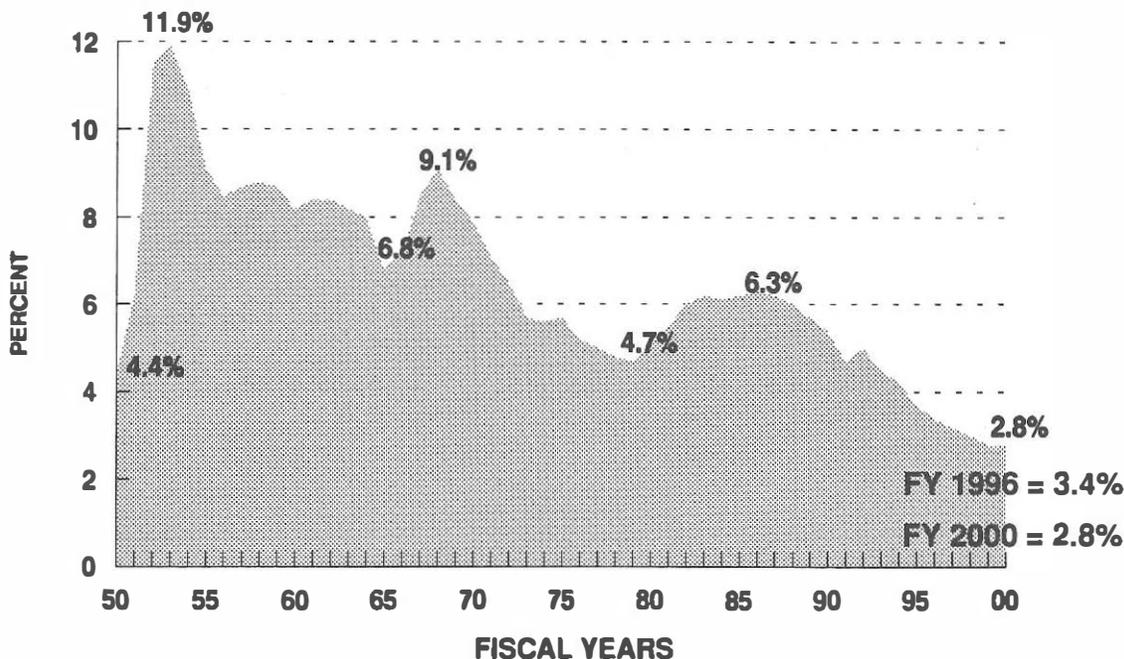


Source: DoD

Figure 4 shows national defense as a percentage of the GDP. The overall title of national defense includes the Department of Defense (DoD) budget plus funding for defense-related activities (primarily weapons activities and related support) of the Department of Energy (DoE) and some miscellaneous

military activities of other federal agencies. The DoD budget, often referred to as the military budget, is slightly more than 95 percent of total national defense spending. The DoD or military budget will be the focus of the next section.

Fig 4. Defense Outlays as a Share of GDP



Source: DoD

THE DEPARTMENT OF DEFENSE BUDGET

The Department of Defense (DoD) budget is a little more than 95 percent of total national defense funding. The balance goes to the Department of Energy (DoE) for military nuclear programs and to other agencies for military-related activities. Of significance is that \$6 billion of the DoE military funding is for environmental cleanup at nuclear facilities.

Table 2 shows defense top line dollar figures for both national defense and Department of Defense with projections through FY2001. This section of the paper will deal with the DoD segment (the Pentagon budget), focusing on FY1996, which is the budget now before Congress. Unless otherwise indicated, dollar figures will be expressed in terms of budget authority.

The DoD FY1996 request is for \$246 billion, a real decrease of about 5 percent from the preceding year. Outlays for FY1996 are estimated at \$250 billion.

The DoD budget was actually submitted on a two-year basis for both fiscal years 1996 and 1997. While Congress may address some items in the FY1997 column for authorization purposes, all appropriation actions will be directed to FY1996. Another formal submission will be required for FY1997.

BUDGET ALLOCATION

A breakout of the DoD numbers by title for FY1996 and beyond is shown in table 3.

Table 2

DEFENSE TOP LINE
(current \$ billions*)

	FY95**	FY96	FY97	FY98	FY99	FY00	FY01
Budget Authority							
Department of Defense	252.6	246.0	242.8	249.7	256.3	266.2	276.6
DoE and other agencies, military functions	10.9	11.8	10.6	9.9	9.9	9.9	9.9
Total National Defense	263.5	257.8	253.4	259.6	266.3	276.0	286.5
Percentage real change from previous year ***	-1.9	-5.3	-4.1	-0.1	-0.2	+1.1	+1.2
Outlays							
Department of Defense	260.2	250.0	246.1	244.2	249.6	257.9	261.6
DoE and other agencies, military functions	11.4	11.4	10.9	10.3	10.0	9.9	9.9
Total National Defense	271.6	261.4	257.0	254.5	259.7	267.8	271.5
Percentage real change from previous year ***	-5.4	-6.6	-4.4	-3.6	-0.6	+0.6	-1.2

* Numbers may not add due to rounding.

** Assumes FY95 supplemental.

*** Percentages are calculated in constant dollars, taking into account the effects of anticipated future inflation.

Source: DoD

Table 3

DOD BUDGET AUTHORITY BY TITLE
(current \$ billions*)

	FY96	FY97	FY98	FY99	FY00	FY01
Military Personnel	\$ 68.7	\$ 67.5	\$ 68.2	\$ 69.6	\$ 70.9	\$ 72.3
Operation and Maintenance	91.9	90.6	89.9	92.7	94.8	98.1
Procurement	39.4	43.5	51.4	54.2	62.3	67.3
Research, Development, Test and Evaluation	34.3	32.7	31.7	30.9	30.2	30.6
Military Construction	6.6	4.5	4.6	4.4	3.7	3.9
Family Housing	4.1	4.3	4.1	4.4	4.5	4.6
Other	0.9	-0.2	-0.2	0.1	-0.2	-0.1
Total	246.0	242.8	249.7	256.3	266.2	276.6

* Numbers may not add due to rounding.

** Other covers net of revolving and management funds and offsetting receipts

Source: DoD

It is apparent that expenditures for Operation and Maintenance (O&M) and Military Personnel outweigh everything else. Procurement and Research, Development, Test and Evaluation (RDT&E) combined are only 30 percent of the total for FY1996 and Military Construction a very small 4 percent. The National Guard and Reserve appropriations are embedded in the above. About \$18.8 billion is included in separate National Guard and Reserve appropriations for FY1996 under Military Personnel, Operation and Maintenance and Military Construction headings. The reserve components do not have separate procurement or RDT&E appropriations except as specifically inserted by Congress.

Military pay costs are identified under a separate heading in table 3. Civilians are paid primarily from O&M, but their pay is also charged against other categories. Personnel costs (military and civilian) make up 46 percent of the total, and this does not include service contracts.

A breakout of the budget by component, comparing FY1996 with FY1989 (pre-Desert Storm), is shown in table 4.

Table 4

DOD BUDGET BY COMPONENT
(\$ billions* and percentages)

	FY89		FY96	
	\$ B	%	\$ B	%
Army	78.1	26.8	59.3	24.1
Navy	97.7	33.6	75.6	30.7
Air Force	94.7	32.6	72.6	29.5
Defensewide	20.4	7.0	38.5	15.7
Total	290.8	100	246.0	100

* Numbers may not add due to rounding.

Source: DoD

Table 4 shows the effect of the consolidation of functions at the DoD level and the expanded use of defense agencies. Added supply functions of the Defense Logistics Agency, the consolidation of health care funding at DoD, management of the Defense Business Operations Fund (DBOF), base realignment costs, environmental restoration costs and the consolidated Ballistic Missile Defense Office program are all examples of this growth in the Defensewide segment of the budget.

A similar comparison by title categories is shown in table 5.

Table 5

DOD BUDGET COMPARISON BY TITLE
(percentages)

	FY89	FY96
Military Personnel	27.0	27.9
Operation & Maintenance	29.6	37.4
Research, Development and Acquisition (Procurement plus RDT&E)	40.2	30.0
Military Construction and Family Housing	3.1	4.3
Other	0.1	0.4

Source: DoD

The message is clear. As the budget and the force size have decreased, O&M spending has not gone down proportionately and has therefore become a larger share of the total. At the same time, Procurement and RDT&E have been squeezed badly. In addition to the readiness requirements which must be maintained for projection forces under the Bottom-Up Review (BUR) concept, the apparently high level of O&M can be attributed to transition costs, the movement of forces back from Europe and lag in being able to adjust infrastructure requirements, increased environmental costs and unprogrammed contingency costs.

BACKGROUND, GUIDELINES AND PRIORITIES

The underlying strategy on which the extended budget is based is covered in the president's February 1995 statement, *A National Security Strategy of Engagement and Enlargement*, which incorporates the military strategy of the Bottom-Up Review. This strategy calls for a capability to successfully handle two major regional conflicts almost simultaneously. It visualizes a forward overseas presence tailored to present needs along with a power projection capa-

bility to any part of the world when needed. In addition, it recognizes the need to be able to handle other minor contingencies and situations short of war.

This strategy was the basis for the force configuration shown in the budget. In finalizing the FY1996 budget, Secretary of Defense William Perry acknowledged a funding shortfall of about \$49 billion in the DoD program through FY2001. The president added \$25 billion to the budget in December; however, \$15 billion of this was allocated to the last two years of the cycle, leaving only \$10 billion to be spread over the years FY1996 to FY1999. The rest of the shortfall was to be accommodated by more favorable inflation estimates and further cuts or slippages in equipment modernization.

This fix may be only the tip of the iceberg. The gap between fiscal guidance and requirements may be far more severe. In a January 1995 report the Congressional Budget Office (CBO), in assessing the defense program from 1995 through 1999, acknowledged a significant shortfall the magnitude of which was difficult to pin down because of circumstances that may or may not occur — but suggested a rough order of magnitude of about \$65 billion. This did not reflect the \$25 billion added by the president. In addition, the CBO report predicted that DoD would likely need substantial increases in funding beyond 1999 in order to replace or modernize the forces.

In an even more pessimistic outlook, the General Accounting Office (GAO) in a recent report concluded that either the multiyear program as now defined is significantly underfunded or mission requirements are overloaded. GAO, in its worst-case scenario, says this shortfall could be as high as \$150 billion.

Clearly, fiscal constraints are limiting factors in trying to match resources to requirements. Soon after the FY1996 budget was delivered to Congress, DoD submitted a FY1995 supplemental request to cover unbudgeted costs not covered in FY1995 for contingency operations in Somalia, Rwanda, Bosnia, Southwest Asia, Haiti and Cuba. The lack of reimbursement to the services during 1994 caused a significant drawdown in the fourth quarter for training and other flexible O&M funding.

To avoid a repeat of last year's problem, it was necessary to have recoupment by the middle of the current fiscal year for ongoing contingency costs. The request was for \$2.6 billion. Congress has since acted on this request and settled on a \$3.04 billion supplemental bill to replenish the accounts drained by unplanned contingencies as well as money to cover the FY1995 pay raise for military personnel and increased overseas stationing allowance. In the process, Congress took \$2.26 billion from other lower priority defense programs, so it is essentially being absorbed by program cuts within DoD.

Unplanned contingency requirements are still not covered or provided for in budgets. When they do occur, they drain other funding. Anytime this happens, supplemental funding is needed and if not provided by the middle of the fiscal year, training and other activities must be cut back during the second half of the year with resultant adverse effects on training or maintenance readiness. To avoid this becoming an annual crisis, the Secretary of Defense has proposed a special legislative authority called the "readiness preservation authority." This would allow for the diversion of money from accounts other than those that are readiness-related, providing a safety net to protect readiness-related activities until proper reprogramming actions can be worked out.

Secretary of Defense Perry has made it clear that readiness is the top priority, with quality-of-life issues for soldiers and their families high on the list. Modernization and the need for recapitalization are very important to future readiness, but people must come first. In his guidance to the services, Perry said that "readiness of the force is your first priority and you may trade off any other objective that I give you in order to achieve that readiness." This language is pretty clear.

In explaining the budget, Perry emphasized three basic challenges, which he defined as managing the drawdown, managing the use of military forces in the current (post-Cold War) era and preventing the reemergence of the nuclear threat. In regard to drawdown management, he emphasized the fact that structure and personnel strength cuts are nearing completion, thus providing a less turbulent situation beyond 1996.

FORCE STRUCTURE AND MANPOWER

The national security strategy and the Bottom-Up Review were the basic guidelines for force structure covered by the budget. Highlights are outlined in table 6.

Table 6

BOTTOM-UP REVIEW FORCE STRUCTURE

	Cold War Base 1990	1996	Projected Goal
Land Forces			
Army active divisions	18	10	10
Reserve component brigades	57	47 *	42 *
Marine Corps divisions (3 active/1 reserve)	4	4	4
Navy			
Battle force ships	546	365	346
Aircraft carriers			
Active	15	11	11
Reserve	1	1	1
Navy carrier wings			
Active	13	10	10
Reserve	2	1	1
Air Force			
Active fighter wings	24	13	13
Reserve fighter wings	12	7	7

* Includes 15 enhanced readiness brigades

Source: DoD

DoD personnel reductions are reflected in table 7, with end state to be achieved on or after FY1997.

From the FY1990 base, active military would go down by 30 percent, selected reserves by 21 percent and civilian employees by 32 percent. Military strength will pretty much level out by FY1997, but civilian strength will continue to decline throughout the period to year 2001.

As for personnel compensation, the budget includes pay raises for both military and civilians of 2.4 percent in FY1996 and 3.1 percent in FY1997.

Table 7

PERSONNEL PLAN
(end strength, thousands)

	FY90	FY95	FY96	End state
Active military	2,069	1,523	1,485	1,446
Selected reserves	1,128	965	927	893
Civilians	1,073	867	829	729

Source: DoD

READINESS

Readiness is the number one requirement, but it is a difficult concept to define precisely and even more difficult to measure. Essentially, readiness is a combination of all those things that produce a winning team. From the military perspective it is the ability of a unit to perform its mission effectively and well on short notice. It depends on quality people and top-notch leadership. It requires the right equipment and weapons in a high state of maintenance. It must have effective sustaining support and it requires a large measure of the right kind of training.

What is formally reported is generally what can be measured and quantified, and that represents only half a loaf. The rest of the equation is largely subjective.

Operating tempo (OPTEMPO) has been used as a convenient surrogate for field training. The concept of track miles per year, flying hours per month, or steaming hours per quarter is a basis on which overall training costs can be estimated, but it is a crude tool for trying to apply dollars to readiness.

FY1996 fully funds the OPTEMPO for operational training based on the following criteria:

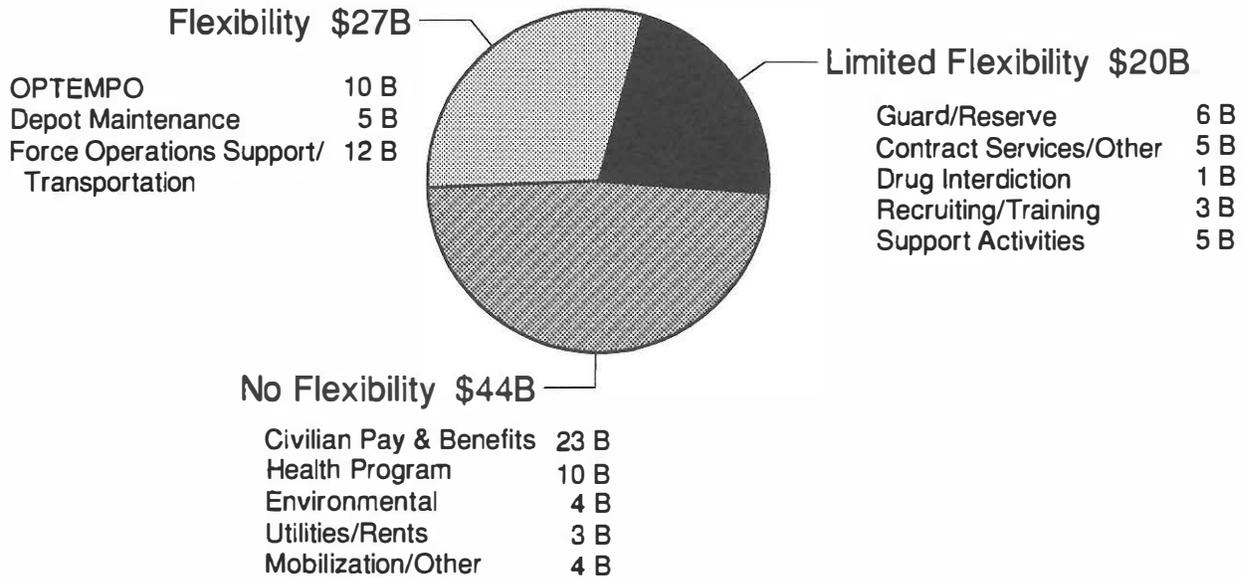
Air Force	19.7	Flying hours per month for fighter/attack aircraft
Army	14.5	Flying hours per crew per month for helicopters
	800	Annual track miles for combat vehicles
Navy	24	Flying hours per month for combat aircraft
	50.5	Steaming days per quarter for the deployed fleet
	29	Steaming days per quarter for the nondeployed fleet

Readiness is closely associated with the Operation and Maintenance appropriations in the budget because most of the readiness-related actions are funded by O&M. O&M, which at \$91.9 billion for FY1996 is the largest segment of the DoD budget, also covers many other things such as civilian pay and base support costs, so there is no direct linear relationship of O&M with readiness.

A view of O&M funding for FY1995 by function is shown in figure 5. The amounts and relative balance are essentially the same for FY1996. This is used to illustrate the scope and coverage of O&M. It also shows that most of the O&M budget is not very flexible. When unfunded contingencies have to be covered, this erodes the flexible portion and most likely that portion dealing with field training. Unless replaced in a timely manner, the loss of field training has a direct and adverse impact on unit readiness.

O&M provides the salaries for a large portion of civilian employees. It operates and maintains facilities and provides support, maintenance and services to the force.

Fig 5. FY 95 O&M Budget — \$91 Billion * (\$ billions)



*As appropriated; does not include FY 95 supplemental.

Source: DoD

MODERNIZATION

For programming and budgeting purposes, modernization covers those things relating directly to the research, development and acquisition (RDA) process and is reflected by funding in the budget under the Procurement and RDT&E appropriations. DoD discusses the acquisition of equipment and weapons as recapitalization.

Modernization funding for FY1996 is at a low ebb across DoD, having absorbed reductions to support force readiness. Comparative figures over time speak for themselves. Using FY1985 as a base point, the DoD procurement request for FY1996 at \$39.4 billion is a 71 percent drop in real (inflation-adjusted) terms and RDT&E, while more stable, is down 22 percent. Another statistical red light is the fact that the ratio of Procurement to RDT&E, which under normal circumstances should be almost 3:1, is now approaching 1.15:1. This portends a modernization gap.

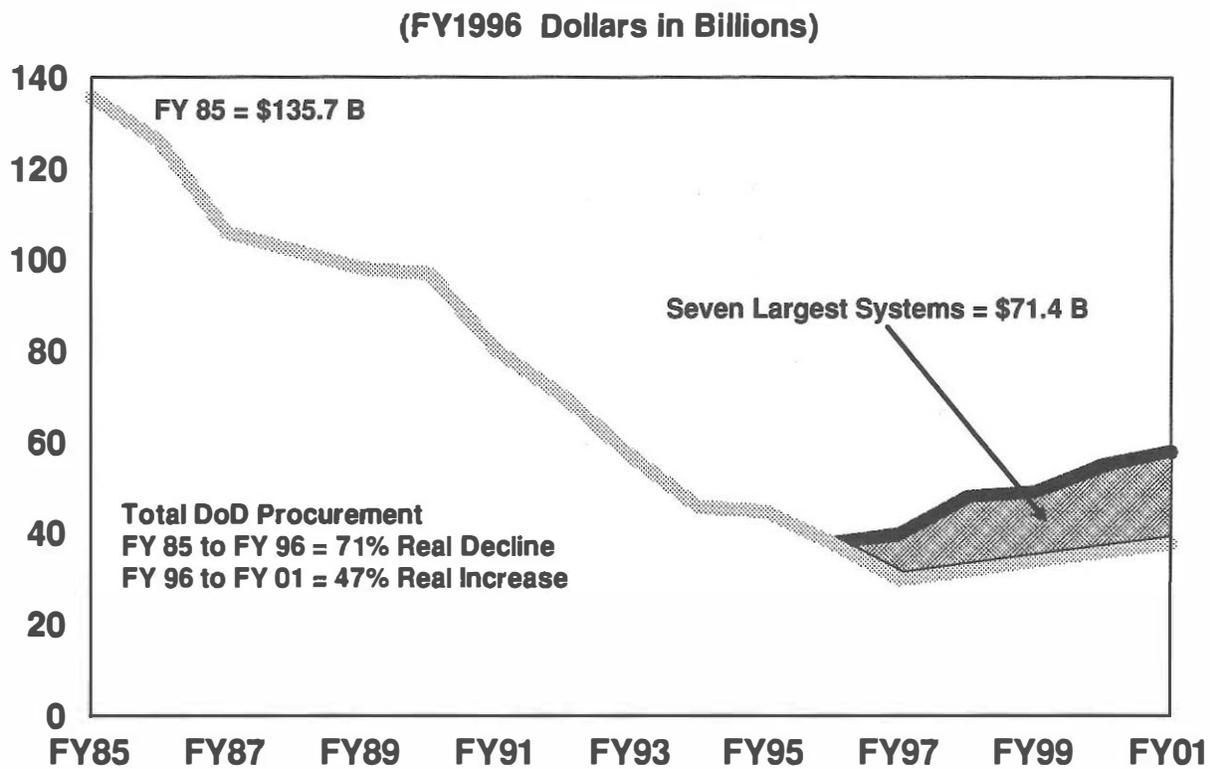
Dollar figures for these appropriations in the current budget are shown in table 8.

Title	FY95	FY96	FY97
Procurement	44.4	39.4	43.5
RDT&E	35.4	34.3	32.7

Source: DoD

Secretary of Defense Perry recognized the very lean status of these appropriations when he stated in his budget presentation that future recapitalization was a major priority and that real increases would start in FY1997 and continue through the rest of the FYDP period. The program as now projected would provide a 47 percent real increase in procurement through FY2001. See figure 6.

Fig 6. Defense Procurement Recapitalization



Source: DoD

The rationale on procurement cutbacks and delays is that of acceptable risk. During the draw-down, forces are being reduced and less equipment is actually required. As older (or obsolete) equipment is being phased out first, the average age of some equipment in use decreases for a period. Also, with improved technology, modernization plans do not necessarily mean a one-for-one replacement.

This delay in modernizing the armed forces is acceptable only for a brief span, however.

The Bottom-Up Review is based on smaller forces with specific enablers to ensure technical superiority while continuing to have the ability to support the national strategy. If modernization does not get the funding needed over the next few years, the total equation will not come into balance. A key question is the source of dollars to

fund recapitalization within the constraints of existing budget caps.

Some of the expectations for fund sources cited by Secretary Perry in a February 6, 1995 news briefing are the payback from acquisition reform, the beginning of positive return on previous base closures, and the continued reduction of civilian strength throughout the FYDP period. None of these sources is certain.

Turning to programs in the FY1996 budget, much of the emphasis is currently focused on the upgrading of existing weapon systems and support systems. Selected systems included in the budget, with dollar figures for Procurement and RDT&E, are listed in table 9. The largest single RDT&E line is for Ballistic Missile Defense (BMD), which will be discussed in more detail in a later section.

Table 9

**SELECTED PROCUREMENT AND RDT&E SYSTEMS
IN THE DOD FY96 AND FY97 BUDGETS**
(\$ millions)

Item	Procurement		RDT&E	
	FY96	FY97	FY96	FY97
Army Longbow Apache Aircraft and Longbow Hellfire Missile (combined)	552	672	24	4
Army Comanche Helicopter	—	—	199	299
Navy F/A-18 E/F	237	2,325	845	304
Navy V-22 Osprey	48	693	763	581
Air Force C-17 Airlift Aircraft	2,520	156	86	16
Air Force E-8A Aircraft, Joint Surveillance Target Attack Radar System (Joint STARS)	556	586	170	200
Air Force F-22 Advanced Tactical Fighter	—	91	2,139	1,957
Navy Aegis Destroyer	2,320	2,978	106	94
Navy Attack Submarine	705	300	455	512
Seawolf Attack Submarine	1,526	36	127	114
Army Abrams Tank Modernization	490	490	39	49
Army Armored System Modernization	—	—	202	268
Air Force MILSTAR	—	—	692	754
Ballistic Missile Defense	454	546	2,442	2,484

Procurement total includes initial spares.

FACILITIES

The FY1996 budget contains \$10.7 billion as the total of Military Construction and Family Housing appropriations. It should be noted that these appropriations are contained in a separate military construction bill passed by Congress while the rest of the appropriations are contained in the regular Department of Defense appropriations bill.

Summary budget numbers for Construction and Family Housing are shown in table 10.

Focusing on the FY1996 Military Construction portion, well over half (\$3.9 billion) goes for base realignment costs, including \$785 million to begin implementation of Base Realignment and Closure (BRAC) 95 when the BRAC commission's recommendations are approved. Considering that \$179 million is intended for NATO infrastructure and about \$300 million for planning and design, this leaves only about \$2.4 billion for basic construction, a very meager level of funding considering the size and complexity of defense real estate holdings.

Priority goes primarily to troop barracks in support of quality-of-life initiatives and for important operational requirements. Noteworthy are those

projects which will enhance strategic mobility capabilities from bases in the United States to overseas, to include deployment staging areas, base infrastructure improvements and improved port facilities.

New real estate investments are being held down intentionally during the transition period, but the investments being proposed in this budget and projected through the FYDP period do not remotely approach normal reconstitution needs on even a 50-year-plus replacement basis.

Funding for family housing is budgeted on a fairly stable basis throughout the period. About a fourth of the Family Housing account has traditionally been designated for construction. The rest goes for operating costs, to include debt payments. Much of the family housing inventory needs upgrading and the increasing backlog of maintenance and repair is an endemic problem.

William Perry, Secretary of Defense, announced May 8 a series of initiatives designed to improve family housing through more active partnerships with both the mortgage market and developers. While these initiatives may cost the government up to \$1 billion from fiscal year 1997 through 2002, there is no appropriation needed in this budget request. The bulk of the money to improve family housing will come from the private sector. Congress, how-

Table 10

MILITARY CONSTRUCTION AND FAMILY HOUSING (\$ billions)

	FY94	FY95	FY96	FY97
Military Construction (Separate appropriations for Army, Navy, Air Force, Defensewide and each reserve component by service)	6.0	5.5	6.6	4.5
Family Housing (Separate appropriations for Army, Navy, Air Force, Defensewide and Home Owners Assistance)	3.5	3.4	4.1	4.3
Construction	(.8)	(.7)	(.8)	(1.2)
Operations	(2.7)	(2.7)	(3.3)	(3.1)
Total Military Construction	9.5	8.9	10.7	8.8

Source: DoD

ever, must approve the authorization of the Military Family Housing Act, which will clear away existing regulations and laws barring such partnerships between the private sector and the Department of Defense.

Another major factor in the whole military installations and facilities equation is the impact of realignments and closures. This process has been taking place since 1988 and will be operative for at least four or five more years. The BRAC 95 commission is in action at this time, with a new recommended list to be laid on the table by mid-year. More comments on realignment actions are included later in this section.

THE RESERVE COMPONENTS

End strength projections for selected Reserve (all services) and National Guard total 927,000 for FY1996, leveling out to 893,000 by FY1998. ("Selected" includes only the ready reserves, excluding those listed on standby, inactive or retired.) On this basis, the ready reserve is slightly less than 40 percent of the total defense military strength. The ratio is much higher in the Army, where about 55 percent of Army military strength resides in the reserve components (RC).

The RC has separate appropriations for Military Personnel, Operation and Maintenance and Military Construction, but this does not represent the total costs applied to the RC, as support is also provided from other defense appropriations. A summary of RC budget requests for FY1996 is shown in table 11.

Altogether these appropriations, plus miscellaneous items specifically earmarked for the reserve programs, total over \$18 billion.

The reserve components do not budget for procurement. Procurement requests are included in the various service budgets. Congress, however, has provided a procurement line in the budget in recent years directed to the National Guard and the Reserve for selected items. This is not reflected in the numbers cited in table 11.

RESERVE COMPONENT BUDGET REQUESTS	
Title	FY1996 (\$ B)
Military Personnel	
Reserve (Army, Navy, Marine Corps, Air Force)	4.6
National Guard (Army and Air Force)	4.5
Operation and Maintenance	
Reserve	3.5
National Guard	5.0
Military Construction	
Reserve	.08
National Guard	.104
Source: DoD	

In his defense guidance, Secretary of Defense Perry stated a desire for increased use of National Guard and Reserve for peacetime operations. He also emphasized increased readiness of designated forces along with provisions for ready availability. This placed added requirements on both training status and equipment status.

The RC is limited by overall fiscal constraints. Some of the most apparent problems at this time are:

- level of adequate authorization for full-time technicians. Both National Guard and Reserve are caught in the overall reduction of civilian spaces.
- equipping and modernizing of high-priority units such as the 15 National Guard enhanced brigades and high-priority reserve support units for early contingency deployment. This will take time and is paced by the spin-off of equipment from active forces and the very constrained procurement funding for DoD as a whole.
- the minuscule construction funding for the RC. This will have to be faced in the future when overall force structure drawdown and locations are firm. There is a large unfunded construction backlog of billions of dollars.

SPECIAL TOPICS

Nuclear Force Posture

The present policy is based on recommendations of the recently completed Nuclear Posture Review (NPR) conducted by DoD and approved by the president on September 8, 1994.

As part of the special effort to prevent the proliferation of weapons of mass destruction, the United States intends to maintain a capability to deter and prevent their use, and also to protect against such weapons. While major reductions in nuclear forces are planned and under way, the United States will maintain a strong hedge against outside threats.

As a result of the September 1994 review, a basic decision was made to retain the triad of nuclear forces (sea, air and ground-based missiles) with sufficient nuclear force to deter and hold at risk those who might otherwise choose to threaten or challenge the United States. The Nuclear Posture Review did not change the number of warheads to be retained under START II, but it did streamline the forces and reduce the number of platforms that carry the warheads. Under START II the United States and Russia will each be left with between 3,000 and 3,500 strategic nuclear warheads, a reduction of about two-thirds from the Cold War peak.

The U.S. strategic force structure will now be: 450 to 500 Minuteman III missiles, each carrying a single warhead; 14 Trident submarines, each carrying 24 D5 missiles; 66 B-52 bombers carrying air-launched cruise missiles; and 20 B-2 bombers with gravity bombs.

No new strategic nuclear systems are under development or planned at this time. The commitment to NATO is for dual-capable aircraft based in Europe and the continental United States (CONUS) and the deployment of nuclear weapons (gravity bombs only) in Europe. The option of deploying nuclear weapons on carrier-based, dual-capable aircraft as well as the option to carry Tomahawk cruise missiles on surface ships has been eliminated. There are no nuclear weapons in the custody of U.S. ground forces.

Funding for strategic forces included in the FY1996 budget is estimated at \$7.3 billion, down from \$18.4 billion in FY1990.

Ballistic Missile Defense

The Ballistic Missile Defense (BMD) programs are managed by the BMD Office within OSD.

The budget for FY1996 requests \$2.9 billion, of which \$2.5 billion is for RDT&E—about 7 percent of the total DoD RDT&E budget.

Appropriation summaries for BMD programs are shown in table 12.

	FY95	FY96	FY97
RDT&E	2.47	2.44	2.48
Procurement	.27	.45	.55
Military Construction	—	.02	.01
Total	2.74	2.91	3.04

Source: DoD

The program is essentially one of research and development with three major segments: theater missile defense, national missile defense and follow-on technologies.

First priority and the bulk of the funding goes to theater missile defense (TMD) for the protection of forces in theater. Primary elements of TMD in this budget include the Patriot PAC-3 missile system, Theater High Altitude Area Defense (THAAD), Corps Surface-to-Air Missile system (Corps SAM), and the Navy Upper and Lower Tier systems.

Concurrently, technical developments are continuing on a future national missile defense (NMD) system as a hedge against a future strategic missile threat to the United States. About \$370 million is in budget for this program in FY1996. The BMDO director, LTG Malcolm McNeil, said in recent con-

gressional testimony that a system could be in place to defend against a very limited ICBM attack in about six years if funded.

The procurement portion of the budget is largely for the PAC-3 missile acquisition.

Strategic Mobility

Strategic mobility is a vital factor in being able to support projection forces visualized in the Bottom-Up Review and, therefore, execute the national security strategy. If there is a single link whose failure would negate the projection force concept, this is it. It is a budget imperative.

Four key elements are involved: airlift, sealift, prepositioning (both afloat and ashore), and surface transportation along with the ability to deploy and outload in the United States.

Requirements were defined in the Mobility Requirements Study conducted by DoD in 1992. More recently, this was revised to take full cognizance of the Bottom-Up Review. This is the basis for defense planning and budgeting to meet objectives by 1999-2001.

Using the scenario of two nearly simultaneous major regional conflicts, the DoD planning process matched various combinations of events against a four-phase scenario. First was the halt phase to stop the enemy, where speed is of the essence and rapid effective airlift essential; this is followed sequentially by a full military buildup phase, then a counterattack phase and finally the postwar stability phase. Because of the need to move heavy equipment and large tonnages, sealift is essential in the buildup phase and to maintain the force thereafter. Prepositioning, if properly configured and strategically located, can greatly improve the probability of effective and timely response.

The latest version of the Mobility Requirements Study proposes a goal of between 49 million and 52 million ton miles per day of cargo airlift capability. It also recommends additional shipping capacity to preposition equipment for an Army heavy brigade

and to augment surge shipping capability to meet the objective of deploying a ready Army corps within 75 days as established in the BUR.

Airlift requirements are to be met by a combination of C-5, C-141, C-17 and C-130 military aircraft plus use of the Civil Reserve air fleet. Aerial refueling will be provided by KC-135 and KC-10 aircraft. The C-141s, however, are aging rapidly and will have to be phased out of the force. The original plan was for the acquisition of a C-17 fleet of 120 as the successor aircraft. With the C-17 now capped at 40 aircraft, studies are being made to determine if and how commercial aircraft could supplement the C-17. The airlift objective is for about 50 million ton miles per day.

Sealift comes from several sources: government-owned ships, commercial ships under long-term charter to DoD, and ships operating in the commercial trade. The major demand is for roll-on/roll-off (RO/RO) capacity, container capacity and tanker capacity. Break bulk ships can also be used. To meet the projection force timetable called for in contingency plans, RO/RO and similar ships must be available and ready on short notice. The government currently has eight fast sealift ships (high-speed RO/RO) that are funded and operated by DoD. The Mobility Requirements Study proposed a requirement of 36 RO/RO vessels in the Ready Reserve Fleet (RRF), 29 of which are already in the RRF. One was purchased in FY1995, and two more are requested for FY1996. The others will be requested in the future.

Sealift is being managed by DoD through the National Defense Sealift Fund. Starting in FY1996, this will also fund the Ready Reserve Force, formerly budgeted by the Department of Transportation. The budget for the National Sealift Fund shows \$974 million for FY1996 and \$913 million for FY1997.

Prepositioning is an important part of the overall mobility plan. This is a combination of materiel and equipment afloat and prepositioning ashore. This year, DoD is using 31 ships for prepositioning afloat. Of these, 13 are Maritime Prepositioning Ships (MPS) specifically configured for the prepositioning

of Marine Corps equipment and supplies. An additional MPS ship is being acquired with funds provided in FY1995. Eight ships from the Ready Reserve Force are carrying equipment and supplies for an Army armored brigade and selected combat and combat support units. Later these will be replaced by large medium speed roll-on/roll-off ships (LMSRs) now being procured for this purpose. The other 10 carry munitions, medical materiel, fuel and equipment for other units required early in deployment.

The Army is presently restructuring unit equipment prepositioned worldwide. Four heavy brigade sets will be maintained in Central Europe. A fifth set, stored in Italy, is available for use in the Mediterranean area. In Southwest Asia, the battalion of equipment in Kuwait is to be expanded to brigade size. Negotiations are under way to preposition a second brigade set and divisional support equipment. Also, agreement has been reached with the Republic of Korea to preposition equipment for a heavy Army brigade in Korea.

OTHER BUDGET CONSIDERATIONS

Health Care

This is an area with significant budget impact, particularly over the next few years when military health care policies and organizational structures will be the subject of intense review.

Funding for the Defense Health Program is now consolidated at DoD. The FY1996 budget request is for \$10.2 billion — \$9.9 billion for operation and maintenance and \$.3 billion for procurement of capital equipment for military treatment facilities. When the costs of military medical personnel of almost \$5 billion and medical construction of \$.3 billion are added, we are looking at well over \$15 billion being devoted to medical services for both the active forces and eligible beneficiaries.

Of the above, about \$3.8 billion will be needed to cover costs of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS).

The entire military health care system is now being looked at in depth. Military medical readiness and the need to provide for a large number of beneficiaries not on active military duty (this includes the families of active service members as well as retired military beneficiaries and their eligible family members) are separate but related missions.

Pressures are building to find the right long-term answer to military health care. With military downsizing, medical staff and the infrastructure to support the force for military requirements alone will decrease significantly. Other beneficiaries, however, are actually increasing as the number of retirees with family members increases.

DoD is presently inaugurating a program called TRICARE that shifts emphasis to managed care through networks of physicians or health maintenance organizations in the United States. It is aimed at taking care of the large number of beneficiaries — on the order of eight million when all family members are included. For services TRICARE divides the United States into 12 regions. Variants of TRICARE are being introduced into Europe and the Pacific. TRICARE is untested and will undoubtedly have to undergo a hard learning experience, and it has to be tested before it can be fully endorsed. The largest immediate flaw is the fact that it does not include those eligible for Medicare. All 12 regions are to be offering managed care programs by the end of FY1997.

Military health care is and will be the subject of a number of ongoing studies, reviews and audits, for example, the March 1995 GAO report *Defense Health Care*. Whatever Congress does this year with respect to health care policy and health care costs will have a direct bearing. Also, the Roles and Missions Commission will have recommendations on this subject, with its forthcoming report due shortly. Cost is a big factor, and with over \$15 billion at stake, plus all the emotion that goes with health care entitlements, it is going to get a great deal of attention.

Environment

This is a comprehensive program covering cleanup (restoration), compliance, conservation, pollution prevention and technology improvements. Altogether it represents a significant cost element in the DoD budget; approximately \$5 billion is being requested for environmental programs in FY1996. About 25 percent of the up-front money spent on base closures goes for environmental cleanup. As of 1994, DoD still had about 10,400 sites at some 800 military installations requiring a determination of action or actual cleanup. A recent CBO report estimated that overall about \$30 billion would be needed to clean up contaminated sites on military bases, including both those in use and those on the closure list.

Congress is taking a hard look at these costs, particularly those associated with restoration, because of the direct drain on military requirements within established funding limits. There may well be a scaling back or stretching out of restoration actions, but environmental costs are and will remain a significant claimant for defense funding.

Base Realignments and Closures

DoD has progressively reduced overseas facilities. Domestic facilities have gone through a series of actions by a congressionally sanctioned base realignment and closure (BRAC) process to reduce infrastructure.

BRAC commissions provided realignment and closure recommendations in 1988, 1991 and 1993. The president and Congress approved them and the recommendations are in various stages of implementation. A commission currently in session (BRAC 95) will report on a new list of recommendations by July 1.

While savings will be realized in the long run, the up-front closure costs are significant and must be covered in annual budgets. Once BRACs 88, 91 and 93 are complete, annual savings are estimated

to be over \$13 billion. The budget includes FY1996 costs for BRACs 91 and 93 of about \$4 billion. Although the BRAC 95 commission is still in the process of reviewing the current list of new realignments and closures, the FY1996 budget has allocated \$784 million to begin implementing BRAC 95 when approved. After six years, BRAC 95 is expected to have a net savings of about \$4 billion, with annual savings of \$1.8 billion thereafter.

Infrastructure reductions and consolidations have lagged well behind the drawdown of armed forces as well as defense budgets. Even with the approval of BRAC 95 recommendations, infrastructure reductions will only be about 20 percent overall, less than the 30 percent reduction in force strength. It is probable, therefore, that a new commission to consider further closure and realignments will be requested in about three years. The real barrier to speeding up of the program is the heavy up-front costs required.

Acquisition Reform

Acquisition streamlining is one of the main process initiatives of the present administration. Similar efforts in the past have failed because of the complexity of statutes and regulations which made acquisition cumbersome and costly. Also, in the past there was little inclination on the part of the congressional committee structure to relinquish any committee authority.

The climate for change, however, seems more open today, particularly with the intense pressure to make defense acquisition more efficient, faster and less costly. Initial success involved simplifying acquisition procedures for items under \$100,000, which includes well over 95 percent of all contract actions. Also, DoD has issued instructions to use commercial specifications, buy commercial whenever applicable and to use military specifications only when deemed necessary. While savings have not been identified in the FY1996 budget, savings on the order of \$3 billion have been factored into funding for the Future Years Defense Program (FYDP) period that could be applied to modernization.

Roles and Missions

The Commission on Roles and Missions of the Armed Forces, directed by Congress in the Defense Authorization Act for FY 1994, has completed its review; its report was released on May 24, 1995. The report is addressed to Congress, the Secretary of Defense and the chairman of the Joint Chiefs of Staff. The Secretary of Defense and the chairman have 90 days to submit comments to Congress.

Chaired by Dr. John P. White, this 11-person committee of experts focused on strengthening the concepts of the Goldwater-Nichols Defense Reorganization Act of 1986, with greater emphasis on joint coordination and joint planning and control. While focusing on core competencies of the services, it avoided most of the previously raised operational issues where unnecessary redundancies might have existed. The commission specifically cited Army and Marine Corps capabilities as a nonissue and stated, "Army and Marine Corps capabilities are complementary, not redundant."

A summary of the key observations and recommendations include:

- Focus on combined war fighting; emphasize joint doctrine; give the CINCs more influence in determining requirements.
- Privatize many noncombat support functions; outsource more activities to private companies.
- Restructure the planning and budgetary system; adopt a two-year budgeting cycle.
- Give more prominence to peacekeeping, humanitarian assistance and disaster relief as missions.
- Focus on core competencies.
- Size and shape the reserve components more consistently with national needs and eliminate reserves not needed.

It is apparent that this report will lead to a series of internal follow-on studies within DoD, some with significant long-term impact. The report will not directly affect the FY 1996 budget now before Congress but will clearly influence future defense guide-

lines and programs. The White House has announced the president's intention to nominate Dr. White as Deputy Secretary of Defense, a key position in implementing the commission's recommendations. This is just the beginning.

Nontraditional Defense Costs

An issue that surfaced in Congress for the past two budget cycles and is receiving even more attention now is that of nontraditional defense costs included in the DoD budget. The appropriateness of some of these entries is debatable, depending upon how national security is defined. In the past, when defense was not constrained by a budget cap, this was largely academic. Today, when any increase over the cap requires an offset, funding requirements not carrying a national defense label simply push more militarily relevant requirements aside.

The trend to stuff things into the defense budget has not gone unnoticed in numerous analyses on defense spending. In a November 1993 report, the GAO said there was a clear trend of funding civil programs from defense appropriations. A 1994 Congressional Research Service study estimated that DoD was spending almost \$13 billion in FY1994 on projects with limited defense application. In a more recent report in February 1995, the GAO said that Defense plans to spend \$13 billion to \$15 billion annually over the next five years in 13 categories to include environmental cleanup and restoration, defense conversion, basic research, counterdrug efforts, humanitarian and foreign assistance programs and noncombat related medical research.

It is difficult to say which programs are clearly not defense-related or to assess their value to national security. Take for example the Nunn-Lugar Act to assist Russia in disassembling nuclear weapons. This year the Republican Congress is taking a particularly hard look at such costs in the FY1996 budget, with the strong possibility of curtailing some of these items to put the money into weapons modernization. Some of the major FY1996 items under scrutiny for possible offsets include environmental restoration of defense sites, defense conversion and dual-use technology, and the cooperative threat reduction program (Nunn-Lugar Act).

THE ARMY BUDGET

Army top-line budget figures for fiscal years 1995, 1996 and 1997 are shown in table 13.

Table 13			
ARMY BUDGET SUMMARY (\$ billions)			
	FY95*	FY96	FY97
Total Obligational Authority (TOA)	63.0	59.5	58.1
Budget Authority (BA)	62.3	59.3	57.8
Outlays	65.3	59.6	58.8

*Includes assumed FY95 supplemental.

Source: DA

Total obligational authority (TOA) is the value of the direct programs and the basis on which the Army manages budget execution. TOA will be used in this section in discussing the Army budget. (Editor's note: As a practical matter there is very little difference between Army TOA and budget authority, or BA, for all the basic appropriations. In fact, for FY 1996, Army appropriation totals are identical for everything except some adjustments relating to construction.)

The Army budget request of \$59.5 billion (in TOA) represents 24.1 percent of the total DoD budget and about 3.7 percent of total federal outlays. FY 1996 will be the 11th consecutive year in which the Army experiences a real (inflation adjusted) decline with respect to the previous year. The peak post-Vietnam year was FY 1985.

ARMY BUDGET NUMBERS AND TRENDS

The breakdown of the Army budget by title (appropriations groupings) is shown in table 14.

Table 14			
ARMY SUMMARY TOTAL OBLIGATIONAL AUTHORITY (current \$ billions*)			
Appropriation Groupings	FY95 **	FY96	FY97
MILPERS	26.2	25.0	24.7
O&M	22.3	21.6	20.9
Procurement	6.9	6.3	5.9
RDT&E	5.5	4.4	4.2
MILCON	.8	.5	.6
AFHI	.2	1.4	1.4
BRAC***	.1	.3	.3
Total	63.0	59.5	58.1

* Numbers may not add due to rounding.
 ** Includes assumed FY95 supplemental.
 *** BRAC is a DoD appropriation and not a portion of Army appropriations during and after year of execution.

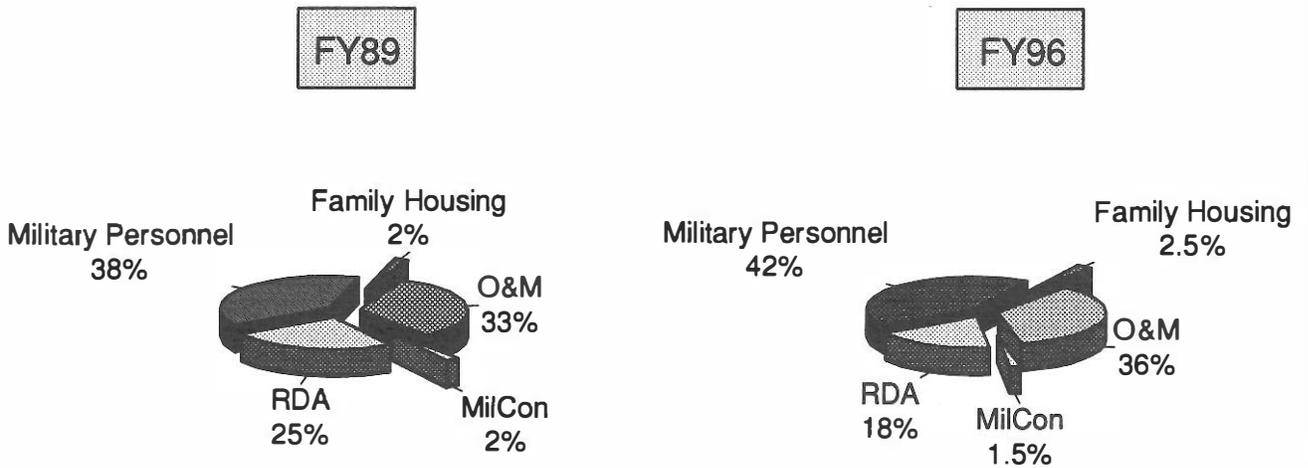
Source: DA

These numbers integrate the funding for the active component with those of the Army National Guard and the Army Reserve, each of which has separate appropriations for Military Personnel, Operation and Maintenance and Military Construction. Specific appropriations will be separately identified in later discussion.

A review of Army program balance and trends over time provides insight into changes in the Army's funding pattern during the transition years since FY 1989 (pre-Desert Storm). There are several ways to look at this. One is the ratio of personnel-related costs, both military and civilian, to all other costs. Another is the relative portion of the budget devoted to operational costs as compared with investment costs.

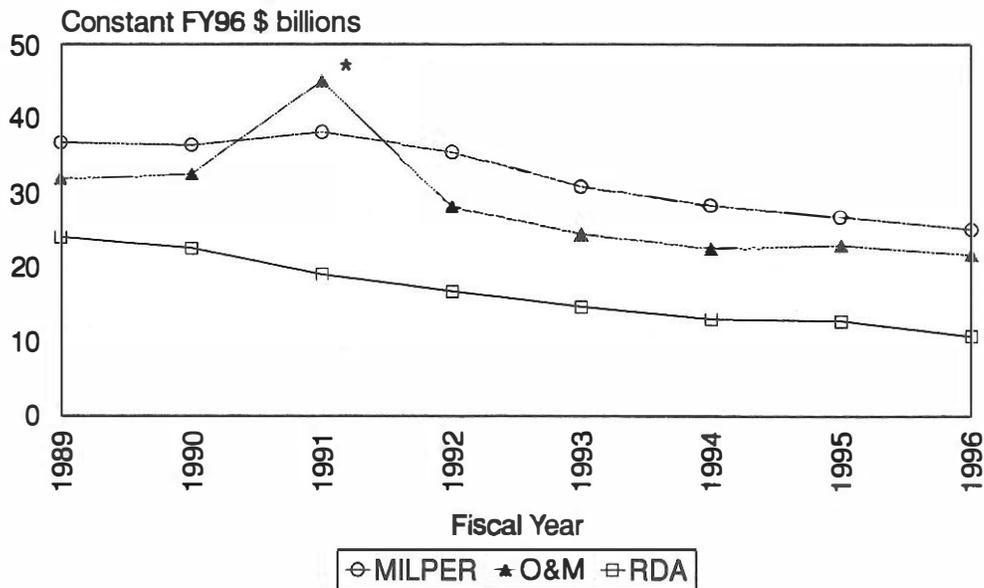
Over the period from FY 1989 to FY 1996, the Army's budget has gone down some 38 percent in real terms, the active military strength by 36 percent, reserve component strength by 22 percent and civilian employees by 36 percent. Concurrently, the Army's program balance has been changing, as illustrated in figures 7 and 8.

Fig 7. Army Program Balance



Source: DA

Fig 8. Army Budget Trends



*Desert Storm

Source: DA

The balance between the cost of personnel (pay and benefits) and everything else in the budget has also changed considerably during this period. Total pay (military and civilian) was 54 percent of the budget in FY 1989 and has now risen to an estimated 66 percent in the FY 1996 budget request. This comes despite the personnel strength reductions during the period in all categories, which means that funding for everything else — all nonpay items — has decreased from 46 percent in FY 1989 to only 34 percent in FY 1996. While military pay can be determined easily from the military pay appropriations, civilian costs are more elusive, since they are embedded in other Army appropriations. By far the largest percentage, however, is covered in O&M appropriations.

Table 14 shows how much the Military Personnel (MILPERS) and Operation and Maintenance (O&M) accounts dominate Army spending at this time. It is not that MILPERS or O&M are off-track in any way — MILPERS covers the real costs of military personnel in the force plus the cost of retired pay accrual. O&M covers a large portion of civilian pay and is the key to the readiness status of the force. Both are essential. However, this demonstrates how constrained the Army has become with respect to equipment modernization and other recapitalization.

STRATEGIC FRAMEWORK

The strategic framework for today's Army missions and force requirements flows from the president's *National Security Strategy of Engagement and Enlargement* and is more precisely defined in the DoD's Bottom-Up Review. This was the basis for defense guidance with respect to military requirements, force structures and strength levels.

The strategic environment has caused the Army to move from the 1989 forward-deployed (Cold War) mode to a 1996 power projection Army using today's power projection strategy, and further projecting it into the 21st century with the Army vision of Force XXI.

Basic missions for today's Army can be summarized as follows:

- power projection as the primary mission with the requirements as outlined in the Bottom-Up Review;
- forward presence in Europe and Asia;
- execution of peace operations, operations other than war, humanitarian assistance and domestic missions.

The overriding requirement is to be capable of responding to major, and almost simultaneous, regional conflicts. This sets the standard for major combat force requirements as well as the sustaining structure and capabilities.

The Army's most demanding projection force requirement is defined by the five-division contingency corps, with force closure times of four days for a leading light brigade, 12 days for a leading division, 30 days for two heavy divisions and 75 days corps(-) with five divisions on the ground. The FY 1996 budget should be measured against these requirements.

ARMY APPROPRIATIONS

The Army obtains its funding in a series of separate appropriations provided by Congress through the appropriations process. A listing of the specific appropriation titles by which funds are appropriated follows. These will be referred to in subsequent discussion.

Army Appropriations

Military Personnel, Army
Reserve Personnel, Army
National Guard Personnel, Army

Operation and Maintenance, Army
Operation and Maintenance, Army Reserve
Operation and Maintenance, Army National Guard

Aircraft Procurement, Army
 Missile Procurement, Army
 Procurement of Weapons and Tracked Combat Vehicles, Army
 Procurement of Ammunition, Army
 Other Procurement, Army

RDT&E, Army

Military Construction, Army
 Military Construction, Army National Guard
 Military Construction, Army Reserve
 Family Housing Construction, Army
 Family Housing Operation and Debt, Army

ARMY STRUCTURE

The total Army consists of the active component, the reserve components (U.S. Army Reserve and U.S. Army National Guard) and the civilian segment.

The combat structure of the Army is a mix of heavy, light and special operations forces. This, along with supporting forces and the Army base structure, also equates to the total Army.

The Army has now shifted most of its forces to the United States, but it will still maintain a forward presence in Europe with a corps of two divisions (of two brigades each) and in Korea with one division (minus).

The active force, which now has 12 divisions, will go to 10 divisions by FY 1996. So instead of the current 12 divisions with five having RC roundout brigades, there will be 10 active divisions with all active brigades.

The National Guard will keep eight division headquarters. It will also have 15 enhanced combat brigades, not part of the eight divisions, to be trained and capable of deployment within 90 days.

FY 1996 total Army end strength for all components is projected to be 495,000 active, 603,000 reserve component and 257,000 civilian personnel.

Table 15 shows the current Army combat force structure and changes for FY 1996.

UNITS	FY95*	DELTA	FY96
Active			
Corps	4	0	4
Divisions	12	-2	10
Mechanized/Armor	8	-2	6
Light/Airborne/Assault	4	0	4
Separate Brigades**	2	0	2
Mechanized/Armor/ACR	1	0	1
Infantry/ Light/ CR	1	0	1
Army National Guard			
Divisions	8	0	8
Mechanized/Armor	5	0	5
Infantry202			
Light/Airborne/Assault	1	0	1
Separate Brigades***	13	-7	6
Mechanized/Armor/ACR	5	-1	4
Infantry	8	-6	2
RO/RU Brigades***	7	-7	0
Mechanized/Armor	6	-6	0
Infantry	1	-1	0
Enhanced Brigades***	0	+15	15
Mechanized/Armor/ACR	0	+8	8
Light Infantry	0	+7	7
United States Army Reserve			
Separate Brigades	0	0	0

* Reflects status at year end.

** Does not include 11th Armored Cavalry Regiment (ACR) at the National Training Center and 3rd Infantry, Military District of Washington's ceremonial Regiment.

*** A total of 15 brigades are transitioning to enhanced status (includes 278th ACR).

Source: DA

Table 16 shows a listing of the corps and divisions, today and for FY 1996.

Table 16	
ARMY CORPS AND DIVISIONS	
As of Today	FY 1996
Corps	
I Corps	I Corps
III Corps	III Corps
V Corps	V Corps
XVIII Corps	XVIII Corps
Active Component Divisions	
2nd ID(M)	2nd ID(M)
25th ID(L)	25th ID(L)
1st ID(M)	1st ID(M)
4th ID(M)	4th ID(M)
2nd AD	
3rd ID(M)	3rd ID(M)
1st AD	1st AD
1st Cav Div	1st Cav Div
24th ID(M)	
82nd Abn Div	82nd Abn Div
101st Abn Div (AA)	101st Abn Div (AA)
10th Mtn (L)	10th Mtn (L)
Reserve Component Divisions	
29th ID(L)	29th ID(L)
38th ID	38th ID
42nd ID(M)	42nd ID(M)
49th ID	49th ID
28th ID(M)	28th ID(M)
35th ID(M)	35th ID(M)
40th ID(M)	40th ID(M)
34th ID	34th ID

Source: DA

The Army's corps structure envisions a Pacific Corps (HQ I Corps at Fort Lewis, Washington), a European Corps (V Corps in Germany), a contingency corps (XVIII Airborne Corps at Fort Bragg, North Carolina) and a reinforcing corps (III Corps at Fort Hood, Texas).

Stationing by the end of FY 1996 is shown in figure 9.

As changes are made to meet the FY 1996 force structure configurations, there will be four brigade realignments between divisions; also, the 194th Armored Brigade (separate) at Fort Knox, Kentucky,

and the 3rd Brigade of the 25th Infantry Division in Hawaii, will be inactivated. The 10-division Army will consist of four light divisions and six heavy divisions. All divisions will consist of three active component brigades and several divisions will have changed number designations. When this is complete, the active Army divisions will appear as follows:

Active Army Divisions - FY 1996

1st Infantry Division (Mechanized) - headquarters and two brigades in Germany, one brigade at Fort Riley, Kansas.

1st Armored Division - headquarters and two brigades in Germany, one brigade at Fort Riley, Kansas.

1st Cavalry Division - headquarters and three brigades at Fort Hood, Texas.

2nd Infantry Division (Mechanized) - headquarters and two brigades in Korea, one brigade at Fort Lewis, Washington.

3rd Infantry Division (Mechanized) - headquarters and two brigades at Fort Stewart, Georgia, one brigade at Fort Benning, Georgia.

4th Infantry Division (Mechanized) - headquarters and two brigades at Fort Hood, Texas, one brigade at Fort Carson, Colorado.

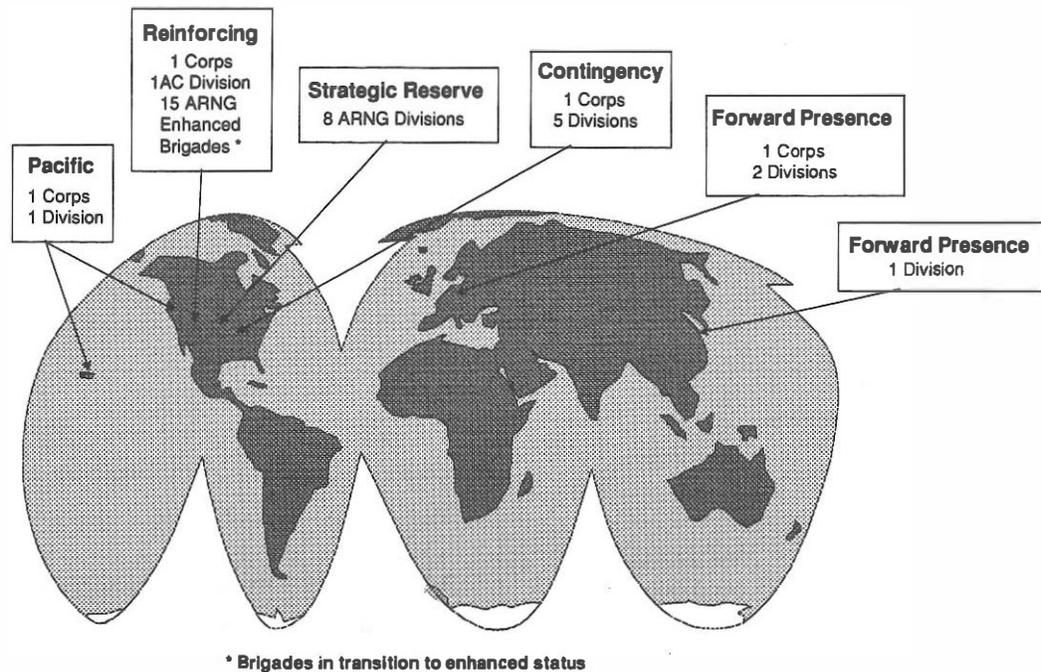
10th Mountain Division (Light Infantry) - headquarters and two brigades at Fort Drum, New York and the 1st Brigade, 6th Infantry Division (Light) at Fort Richardson, Alaska.

25th Infantry Division (Light) - headquarters and two brigades at Schofield Barracks, Hawaii, one brigade at Fort Lewis, Washington.

82nd Airborne Division - headquarters and three brigades at Fort Bragg, North Carolina.

101st Airborne Division (Air Assault) - headquarters and three brigades at Fort Campbell, Kentucky.

Fig 9. Division Stationing by the End of FY96



Source: DA

Special Operations Forces

An important part of the Army's operational forces, not identified in tables 15 and 16, are the Army Special Operations Forces (SOF). These SOF belong to the U.S. Army Special Operations Command (USASOC), which reports to a unified command, the U.S. Special Operations Command (USSOCOM).

The U.S. Army Special Operations Command, headquartered at Fort Bragg, North Carolina, is composed of active and reserve component Army forces, as indicated in figure 10. Total military strength (active and reserve component) is about 26,000.

U.S. Army Special Operations Command is the Army component of the unified command (USSOCOM) and provides trained and ready SOF forces for a variety of missions.

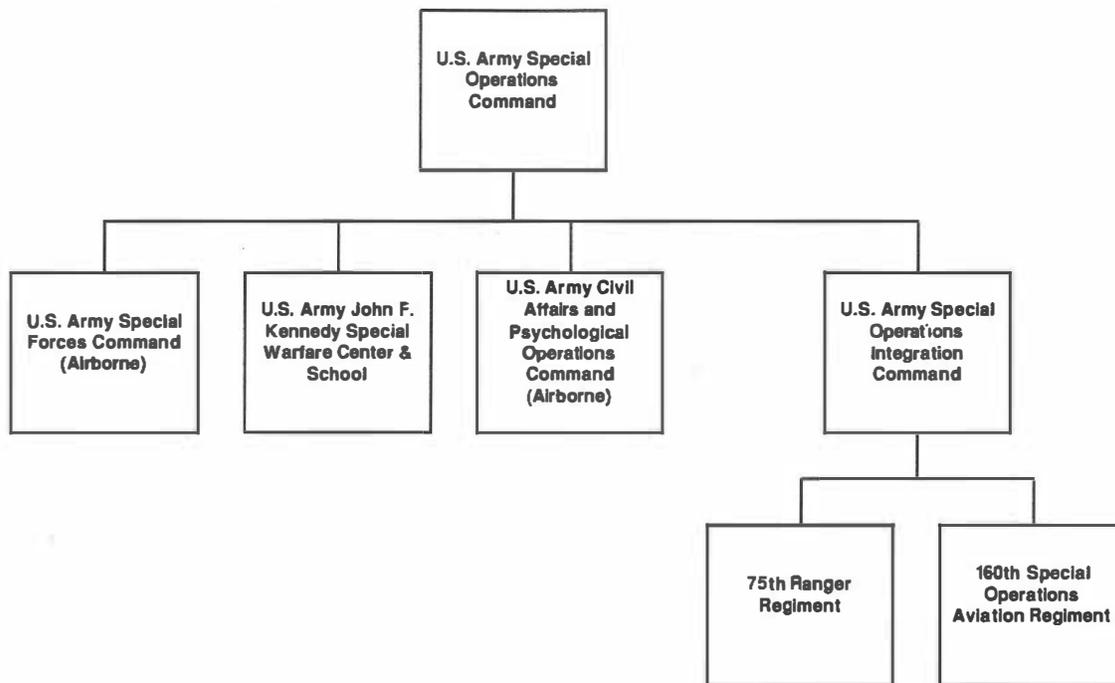
A significant number of the Army's special operations units are in the reserve components, with

97 percent of the Army's civil affairs units and 70 percent of the psychological operations units in the Army Reserve. Special operations units are called upon constantly in military operations other than war. Each Army corps now has a special operations coordination element to integrate SOF and corps plans and training.

On a day-to-day basis, more than 2,000 special operations personnel are employed in more than 20 countries around the world.

While the SOF is an important part of the Army's commitment for trained and ready forces, funding for the Army SOF is independent of the Army budget, except for military personnel pay, training and nonoperational base support costs. Management visibility and control of SOF resources was established by Congress under Major Force Program 11 (Special Operations Forces) with direct budget authority vested in the commander in chief, U.S. Special Operations Command.

Fig 10. U.S Army Special Operations Command



Source: DA

The Army Engaged

In addition to about 125,000 soldiers forward stationed in Korea and Europe, soldiers are being engaged constantly in various contingency actions worldwide. This year the numbers have varied but averaged upward of 20,000 at any one time. Figure 11 shows the status of worldwide engagement as of January 19, 1995.

MANPOWER

Throughout the transition process, personnel strengths in all categories have been decreasing. Figures 12, 13 and 14 show actual and projected strength figures for active and reserve components and civilians from FY 1989 through the end of the FYDP (FY 2001).

Army military manpower figures applicable to this budget are shown in table 17.

The active component is scheduled to reach a steady state of 495,000 by FY 1996. Recent DoD

planning guidance, however, has directed the Army to anticipate a further active strength reduction to 475,000 by FY 1999. The reserve components are

Table 17

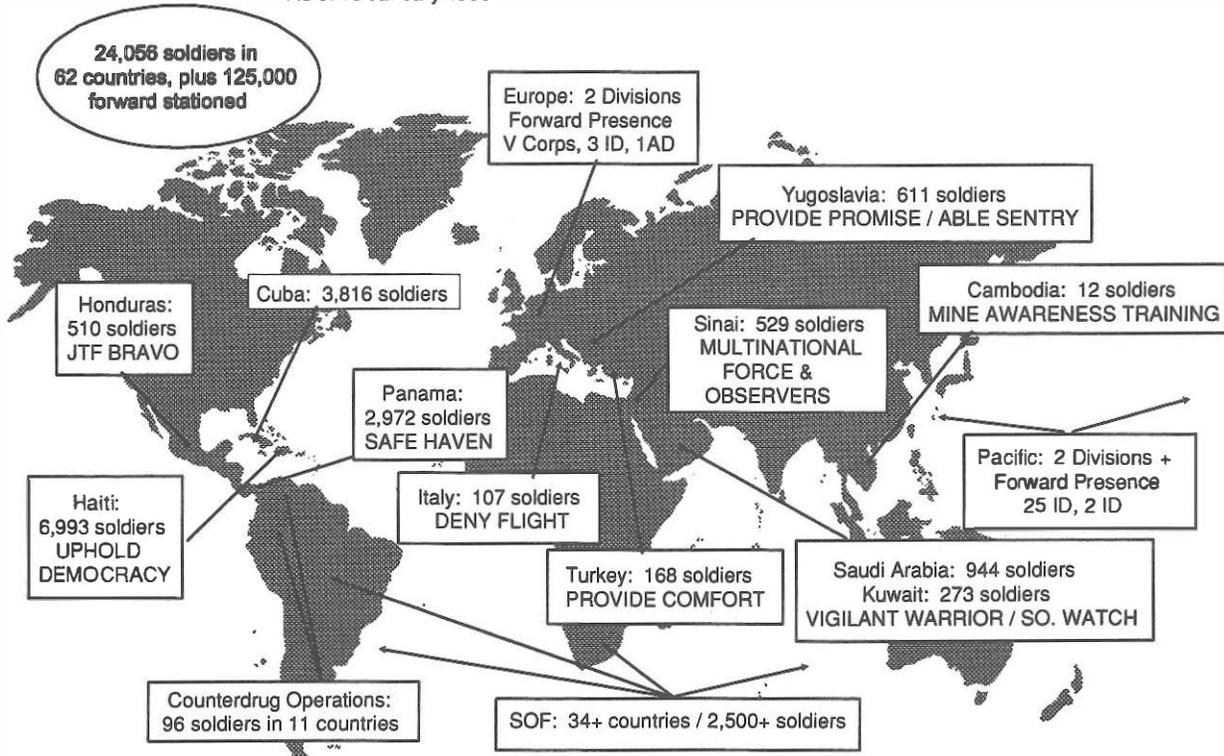
**ARMY MANPOWER
(strength in thousands)**

	FY95	FY96	FY97
Active Component	510.0	495.0	495.0
Officer	(82.3)	(81.3)	(80.3)
Enlisted	(423.7)	(409.7)	(410.7)
Cadet	(4.0)	(4.0)	(4.0)
Reserve Component			
Selected Reserve	629.0	603.0	582.0
USAR	(242.0)	(230.0)	(215.0)
ARNG	(387.0)	(373.0)	(367.0)
Individual	427.3	430.9	421.6
Ready Reserve, USAR			
Individual	10.5	10.5	10.5
National Guard (ING)			

Source: DA

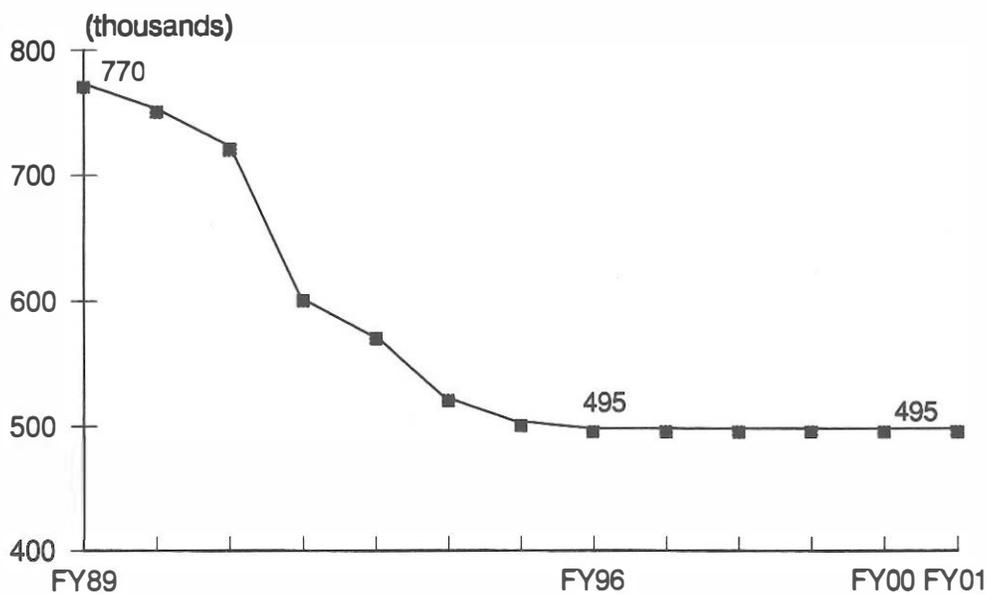
Fig 11. The Army Today -- Engaged Worldwide

As of 19 January 1995



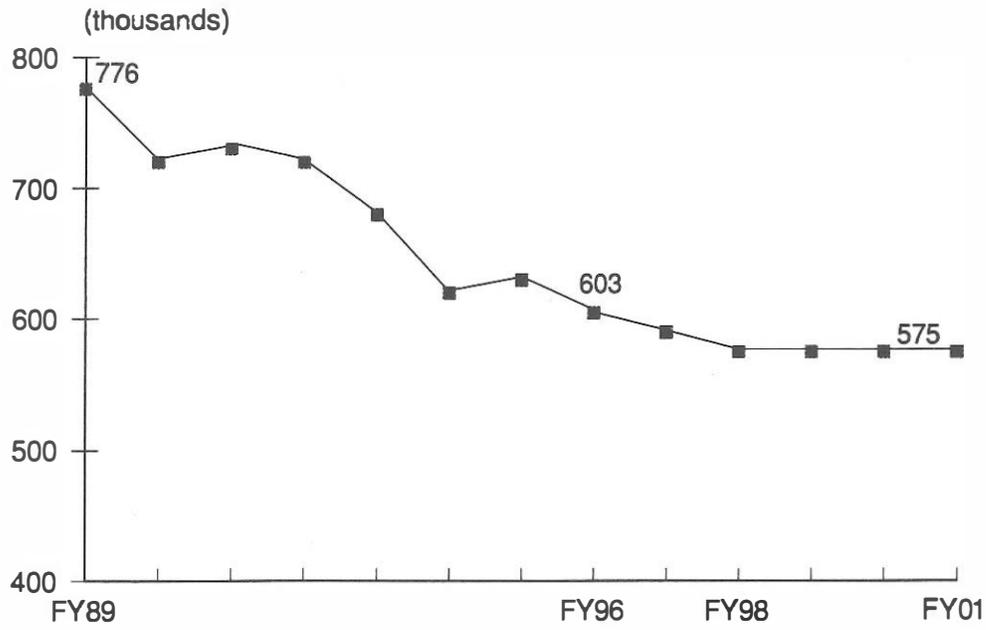
Source: DA

Fig 12. Active Component



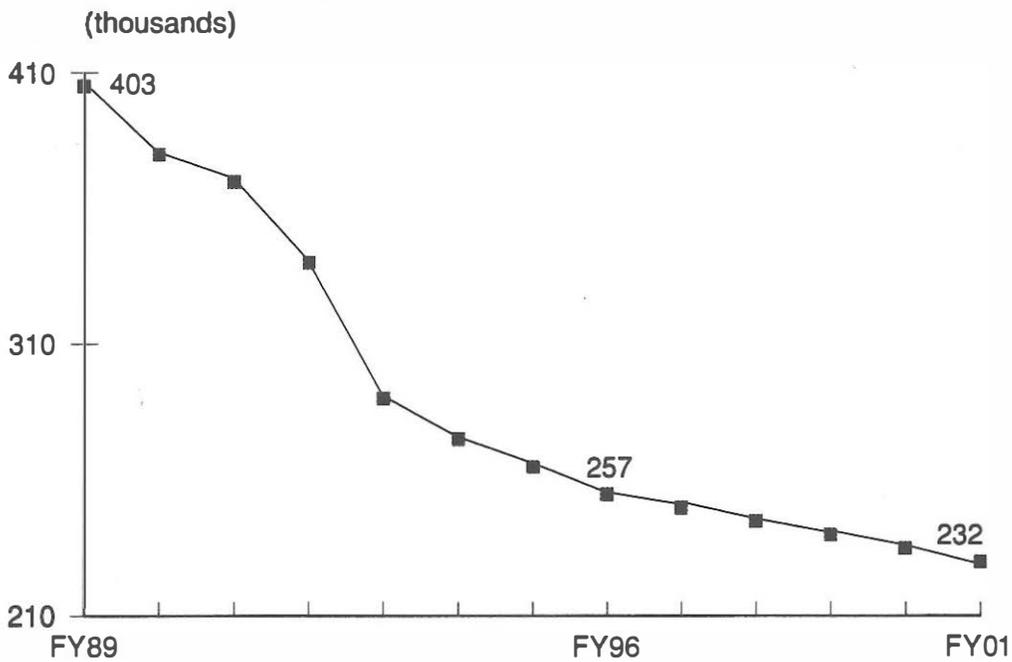
Source: DA

Fig 13. Reserve Components



Source: DA

Fig 14. Civilians*



* Reflects end strength totals as derived from OSD directed work years.

Source: DA

expected to reach their planned end strength by FY 1998. Civilian personnel will continue to decrease through the entire period to an estimated end strength of 232,000 by FY 2001.

Costs related to the pay of people are the largest portion of the total Army budget, at 66 percent for FY 1996. Military pay, provided through three separate appropriations for active, ARNG and USAR, totals \$25 billion or 42 percent of the Army budget for FY 1996.

Civilian pay, about 68 percent of which is covered in the Operation and Maintenance appropriations but also included to a lesser degree in other Army appropriations, adds another 24 percent of personnel costs to the budget. The FY 1996 budget includes pay increases of 2.4 percent for both military and civilian personnel.

Table 18 is a summary of the three military personnel appropriations.

Although the drawdown is now leveling out, the Army is still in transition. To ease this transition, the Army has minimized involuntary separations by using congressionally authorized tools such as the Voluntary Separation Incentive and Special Separation Incentive programs. Also, the Army is using selective early retirement boards (SERBs) to correct grade imbalances. This authorization has been expanded for five years. In addition, temporary early retirement authority provides for early retirement in certain categories, on a very selective basis, for soldiers who have at least 15 but less than 20 years of active federal service.

For civilian employees, civilian separation pay was authorized for DoD employees in the National Defense Authorization Act of 1993 and later extended for coverage through 1999. This has been successful in helping reduce involuntary civilian reductions in the Army.

Costs for transition funding are included in the budget.

Table 18

**ARMY MILITARY PERSONNEL
APPROPRIATIONS***
(\$ billions)

	FY95	FY96	FY97
Military Personnel, Army (MPA)	20.7	19.7	19.5
Military Personnel, ARNG	3.3	3.2	3.2
Military Personnel, USAR	2.2	2.1	2.0

* Includes Retired Pay Accrual

Source: DA

Recruiting

Quality personnel are still the most important ingredient in guaranteeing a quality Army for the future. Acquiring adequate numbers of quality men and women is a major recruiting challenge, demanding effort and resources.

About 40 percent of the force has four years' service or less, which means constant turnover. The personnel distribution curve is very wide at the bottom and narrow at the top. This is driven by force structure and the hierarchical distribution of skills. This means the Army must renew itself with entry-level personnel annually.

Out of every 100 young men and women entering the Army in any given year, only eight will be in the Army and eligible to retire with 20 years' service — and only three will continue to 30 years' service. The largest drop comes between three and eight years' service. This is contrary to public perceptions that most enlistees remain for a longer-term career, when in fact they do not.

The need to constantly infuse new personnel into the Army as a source of future potential soldier leaders and to keep the force physically young and vigorous requires constant recruiting.

To renew itself, the Army will need between 77,000 and 82,000 new recruits in FY 1996, with annual requirements on the order of 90,000 in FY

1997 and beyond. When the reserve component needs are added to this, annual input more than doubles. This means a major recruiting undertaking. An important part of this recruiting effort is in advertising, which has proven to be one of the most effective ways to contact the type of qualified people the Army needs.

Important incentives that need continued support are the Montgomery GI Bill, the Army College Fund and enlistment bonuses for specific military specialties.

Current recruiting standards will not be relaxed. The present Army goals are for 95 percent high school diploma graduates (HSDG), 65 percent AFQT category I-III A (upper-half) and not over 4 percent of AFQT category IV (lowest acceptable). With a decreasing propensity for military service among those graduating from high school and a slightly decreasing eligible peer group from which to draw, the recruiting task will be very challenging.

So far in FY 1995, these standards are being met, but the recruiting is becoming more difficult.

Budget resources for recruiting are covered in the O&M appropriations. The Army recruiting and advertising budget request totals \$211.4 million for FY 1996, plus \$64.3 million to support the Military Entrance Processing Stations (MEPS). This is an increase over the \$159.1 million appropriated for recruiting and advertising in FY 1994, in recognition of the increased need and a tougher recruiting environment.

Quality of Life

Quality of life for the soldier and his or her family is a major factor in retention. Sixty percent of the Army's soldiers are married. Family satisfaction is probably the most important influence on the soldier's decision to reenlist. Attention was given in this budget to quality-of-life considerations that impact on the living environment, family support and compensation.

Some of the quality-of-life items recognized in the budget include:

- pay raise of 2.4 percent, although this still leaves military pay lagging about 12 percent behind the civilian sector;
- closing the basic allowance for quarters to within 15 percent of average housing costs;
- funding the personnel transition and incentive costs for early release;
- funding for the Whole Barracks Renewal Program for improved single soldier living conditions (this is a multiyear project);
- much improved maintenance and repair on family housing; this is also a multiyear undertaking.

Health care is one of the most valued benefits from the standpoint of soldiers and their families, and the future of health care is being watched very carefully. DoD's current initiative is to implement its managed care plan, TRICARE. It is in a test mode and not yet proven. Career soldiers are wary about how it would serve them and are acutely interested in what is happening, or may happen, to care for retired soldiers and their families, as this is a reenlistment decision factor.

TRAINING

A trained and ready force is what the Army must be today and in the future to carry out its range of potential missions from operations short of war to major regional conflicts. To do this, high standards of training are essential and must be maintained. Training is clearly one of the Army's most important priorities and is recognized as such.

The training program incorporates all aspects of individual training, unit training and leadership development.

Funding for training is contained in the O&M appropriations. This is why a raid on the Army's

O&M funds is likely to squeeze training resources and particularly field training, which has some degree of scheduling flexibility.

Training costs for individual training conducted in the schoolhouse or at training centers come under the O&MA account identified as Budget Activity 3: Training and Recruiting. This includes funding for accession training (both enlisted and officer), basic skill training and advanced training. Resources are provided for the operation and maintenance of six Army training centers, 30 Army schools and colleges, and four Department of Defense and joint service schools and colleges, as well as for civilian education and for off-duty military education.

Total funding for this budget activity, excluding recruiting and advertising, is about \$2.85 billion for FY1996. This covers base operation costs for training bases and institutions.

The other part of the training picture is that conducted in units at their home stations, at one of the combat training centers or as part of training exercises. The funding for such training is included under O&MA Budget Activity 1: Operating Forces. For FY1996, \$1.27 billion is included in the budget for force-related training and \$74 million for JCS exercises.

The Army's combat training centers (CTCs) are a very important factor in the overall unit training scheme. These provide the most realistic combat training possible, short of actual combat, and are the best index of unit training readiness. Budgeted FY1996 CTC schedules include:

- National Training Center (NTC), Fort Irwin, California: 33 battalions in 12 rotations.
- Joint Readiness Training Center (JRTC), Fort Polk, Louisiana: 29 battalions in 10 rotations. Scenarios at JRTC include peace enforcement operations, and all rotations at the JRTC include Special Operations Forces.
- Combat Maneuver Training Center (CMTC), Germany: 15 battalions in 15 rotations.

- Battle Command Training Program (BCTP), Fort Leavenworth, Kansas: training for 11 division and three corps commanders and their staffs.

Joint exercises, normally conducted through the chairman, Joint Chiefs of Staff, give Army forces the opportunity to train under the operational control of warfighting commanders in chief (CINCs).

Training funds used by the ARNG and USAR come from their respective O&M appropriations. For FY96, the budgeted amounts for overall training operations are \$1.72 billion for the ARNG and \$573 million for the USAR.

The Army is increasing the use of simulators and simulations to expand training opportunities in terms of both sophistication and scope. Simulations allow the Army to exercise increasingly complex warfighting systems. Live simulations augment field training with realism and provide feedback to commanders. Virtual simulations allow repetitive content training.

The combat training centers are prime examples. They are well instrumented and can accurately simulate the effects of artillery, naval gunfire, mortars, close air support, mines, and nuclear, chemical and biological weapons. The upgraded Multiple Integrated Laser Engagement System (MILES) can provide near-miss indicators and casualty and damage assessment in realtime.

The Combined Arms Tactical Trainer (CATT) will develop virtual, networkable simulators for mechanized infantry, armor, aviation, engineer, field artillery and air defense artillery. Using this system, commanders will be able to synchronize all battle-field operating systems.

The overseas deployment training program is one in which the reserve components can participate. Not only does this provide useful experience for deployment itself, it permits a working experience and relationship with the wartime gaining commander while productive work is also accomplished.

The much-cited OPTEMPO is also a training indicator. It represents an average level of training activity against which resources can be calculated. It is not by itself a readiness measure. Against the OPTEMPO model, costs can be estimated. There are two parts to the OPTEMPO funding estimate. One is for direct OPTEMPO costs such as petroleum consumption, repair parts and depot maintenance; the other is for indirect OPTEMPO-related costs.

OPTEMPO used for this budget is based on active combat force usage of 800 tank miles per year and 14.5 flying hours per month.

READINESS

Force readiness is the primary mission of the Army's combat and supporting forces in peacetime. It connotes the overall ability to man, equip, mobilize, deploy and sustain forces in the accomplishment of their missions.

In short, force readiness of any unit is best defined as the ability to do the job it was designed to do. Readiness assumes special importance in the Army's projection force role where quick response and rapid execution are keys to success.

There are a number of elements contributing to the readiness equation: personnel readiness, equipment readiness, training readiness and leadership. Some of these can be effectively measured and some cannot, leaving an important part of an overall assessment to subjective judgment. Nevertheless, failure to achieve and maintain the necessary standards for any one of these elements will lead to diminished force readiness overall.

Readiness is a perishable asset and needs constant attention and refurbishment. This takes people, effort, time and resources. Readiness is not only a "today" thing. It also incorporates a "future" dimension. For example:

- Equipment readiness requires the right kind of equipment in the hands of troops, with the equipment properly maintained and in condition to fight. Future readiness depends on modernization and upgrading of weapons and equipment.

- Personnel readiness depends on having the right number and right kind of people in place in the unit with the proper skills, fully trained and ready to execute missions. The future depends on the ability to recruit, train and retain quality people, which means a continuing need to focus on recruiting incentives and quality of life issues.
- Force readiness today depends on units organized, equipped and trained to perform the Army's projection missions as well as other missions short of combat. The future will be based on evolutionary changes in doctrine and resulting organizational and equipment changes.

There is no single place in the Army budget that uniquely identifies readiness. With force readiness being the primary mission, resources that pertain directly to force readiness receive the most attention. Operation and Maintenance is generally considered the readiness appropriation, as it funds many of the elements identified with readiness, such as entry, institutional and unit training. It also covers supply not included under procurement, equipment maintenance and base support. The cost of things related to OPTEMPO, discussed earlier under the training section, is O&M funded.

When O&M is eroded for any reason, the accounts that have direct application to readiness will invariably be affected. Both the FY 1994 and FY 1995 supplemental requests to cover unbudgeted contingency costs were examples of this. While supplemental bills were eventually passed, the delay had a negative effect on the readiness status of certain units, and training time could not be recovered.

OPERATION AND MAINTENANCE (O&M)

Operation and Maintenance (O&M) covers a wide band of operational support activities, including the pay for 68 percent of all Army civilians. There are three separate O&M appropriations for the total Army: OMA for the active force, OMARNG for the Army National Guard and OMAR for the Army Reserve. These in turn are broken out by budget activity (as shown in table 19) and provide identification for the areas covered by these appropriations.

Table 19
ARMY OPERATION AND MAINTENANCE
(\$ millions*)

	FY95	FY96	FY97
Operation and Maintenance, Army			
BA1: Operating Forces	10,007	9,321	8,972
BA2: Mobilization	584	697	605
BA3: Training and Recruiting	2,965	3,066	3,143
BA4: Administration and Servicewide Support	5,103	5,101	4,909
Total Active	18,659	18,185	17,628
Operation and Maintenance, ARNG**			
BA1: Operating Forces	2,251	2,110	2,084
BA4: Administration and Servicewide Support	177	194	191
Total ARNG	2,428	2,304	2,274
Operation and Maintenance, USAR**			
BA1: Operating Forces	1,115	959	921
BA4: Administration and Servicewide Support	125	110	113
Total USAR	1,240	1,069	1,034

* May not add due to rounding.

** Training and Recruiting is included in BA1 for the ARNG and the USAR.

Source: DA

The total O&M request of \$21.6 billion for FY 1996 is slightly over 36 percent of the Army budget. This is about a 1.5 percent greater share of the budget than in FY 1995. O&M for FY 1996 was given priority treatment with respect to those things directly affecting near-term readiness, but there are some areas, particularly in base operations, where funding is very austere.

Frequent reference to OPTEMPO with respect to readiness often begs the question of how to identify OPTEMPO in the budget and how to specifically fund it to buy more readiness. The answer is that it can't be done. OPTEMPO is a cost-estimating tool and a crude one at that. One cannot draw a circle around it in the budget, nor is it found in an appropriation line item. OPTEMPO is simply a general measure of training activity. But if the O&M funds are not adequately covered in the budget for

this level of training or if they are later diverted or withdrawn for any reason, then it will force curtailment of training or further erosion of base support.

Those portions of O&M most closely associated with near-term readiness are found under Budget Activity 1 (BA1, Operating Forces) and Budget Activity 3 (BA3, Training and Recruiting). Altogether, these accounts represent about \$15.5 billion or 72 percent of the O&M dollar. All categories of training total about \$6.4 billion or about 30 percent of the O&M total. These statistics include all of the military components.

Budget Activity 2 (BA2, Mobilization) is a fairly new category covering mobilization funding. This involves \$696.8 million for FY 1996, of which the bulk (\$571.4 million or 82 percent) is for mobility operations in line with projection force requirements.

While it deals primarily with strategic mobility, it is carried in the active Army budget and not applicable to RC budgets.

Budget Activity 4 (BA4, Administration and Servicewide Support) is particularly noteworthy because it funds such important support activities as transportation, central supply, servicewide communications and installation base support for its own activities.

Some of the important support activities covered by the O&M budget that affect sustainment and well-being of the support forces are:

- **Depot Maintenance.** Included under BA4, the FY 1996 budget requests \$1,336 million, down \$459 million from the approved FY 1995 level. The current requirement is estimated at \$1,549 million, which leaves a shortfall of about \$213 million, all applicable to end items. This is important because of the need to recycle major equipment from the active inventory into RC units. Much of this is materiel returned from Europe that needs depot overhaul. The backlog is within manageable bounds but has gone up since last year by over \$90 million and is expected to increase even more in FY 1997, based on fund availability.
- **Base Support.** Base support costs are found under all the budget activities that have installation responsibilities. Base support includes, in addition to real property maintenance, funding for such things as laundry and dry-cleaning services, dining facilities, security and counterintelligence operations, child development, youth services, etc. For OMA, base operations for FY 1996 are reflected in the budget at \$5.45 billion, which includes \$1.32 billion for real property maintenance. When audiovisual and base communications are added, total base support rises to \$5.75 billion. In addition, base support costs for the ARNG and USAR under their respective appropriations would add another \$534 million (or \$.53 billion) to this total. Altogether, the Army will devote about 10.6 percent of its FY

1996 budget to base support. This is an area generally considered as chronically underfunded, particularly in the area of real property maintenance.

Infrastructure revitalization is a real need. Facilities are simply going downhill. The Army needs at least another \$400 million in FY 1996 O&M real property maintenance funding for this purpose and similar amounts annually for the next few years. This does not include family housing, which is in a similar condition but falls under a different appropriation.

MODERNIZATION

Modernization connotes future changes and improvements in force capabilities, to include doctrine, structure and tools of the trade, i.e., weapons and equipment — all focused on providing superiority over an assumed threat. This is driven by the melding of several important factors, primarily the threat; the state of technology and the intellectual concept on how best to exploit its use; and, as a practical matter, the real-life constraints of available resources. In today's budgets, the latter factor is playing a very strong hand.

The Army's long-term modernization requirements are being developed and defined for the 21st century. The vision is called Force XXI. It will capitalize on using information-age technology and will be facilitated by the use of a series of battle laboratories to test, evaluate and synchronize for future combat.

Digitization and horizontal integration of all systems are key goals and are part of overall Force XXI development plans. It will be more than simply harnessing technology. As stated by Army Chief of Staff General Gordon R. Sullivan in February 1995, "The most difficult part of these previous 'revolutions' in the conduct of war was not the creation of the technology but rather the intellectual realization that new things could be done and the intellectual working out of how to do them. We are doing that today."

For budget purposes, the concept of modernization focuses on resources for equipment development and acquisition. It encompasses those appropriations to which dollar figures are attached. The general term applied to this grouping within DoD is Research, Development and Acquisition (RDA). It includes the total carried in the budget for the RDT&E appropriation and the individually listed procurement appropriations.

This paper addresses the subject in budget terms, so modernization equals RDA, which is the sum of the RDT&E and the Procurement appropriations.

RDA is the most critical area of concern in the Army's FY 1996 budget. What has taken place over time is reflected in figure 15.

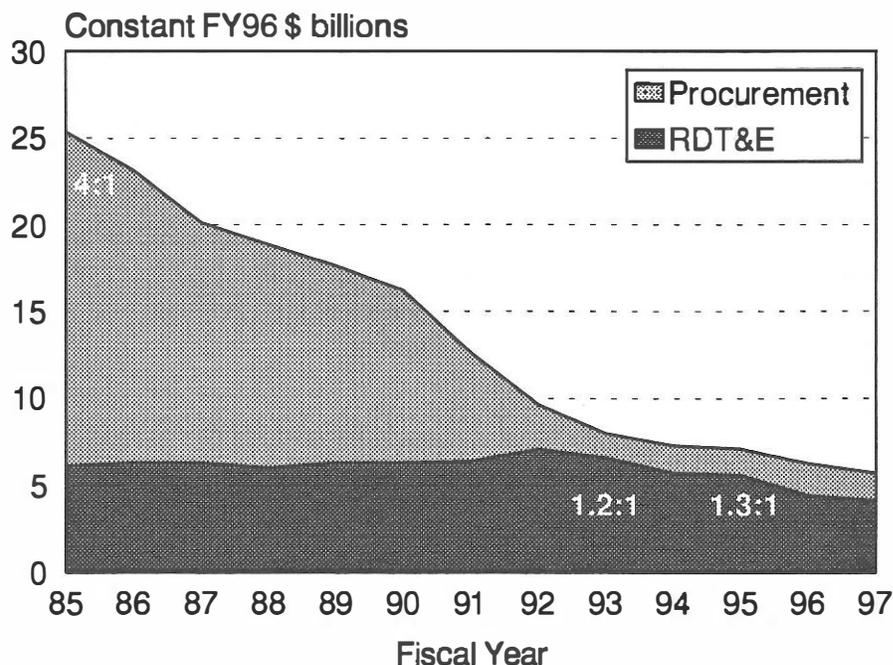
Not only have resources for weapon/equipment development and acquisition gone down drastically in real terms, but the ratios of procurement to re-

search and development have narrowed to the 1:2 to 1:3 range. The normal ratio for healthy renewal would be more on the order of 3:1. This indicates that the Army is not adequately funded to modernize itself in the near term, and unless more RDA resources are pumped into the Army — about \$3 billion a year — the Army will not meet its modernization goals as it moves into the next century.

Only the most critical RDA items are covered in the Army's FY 1996 budget request. The emphasis is on improvements and upgrading, such as for the Bradley Fighting Vehicle and the Abrams tank. The single new weapon system entering production is the Armored Gun System to replace the Sheridan; major new system developments focus on the Crusader advanced field artillery system and the Comanche armed reconnaissance helicopter.

The next two sections discuss in more detail the Army Procurement and RDT&E budgets.

Fig 15. Ratio of Procurement \$ to RDT&E \$



Source:DA

PROCUREMENT

The Army budget includes five separate procurement appropriations listed as: (1) Aircraft, (2) Missiles, (3) Weapons and Tracked Combat Vehicles (WTCV), (4) Ammunition and (5) Other Procurement, Army (OPA).

The funding profile for total procurement from FY 1989 through the current budget submission is shown in both current and constant dollar terms in figure 16. Using FY 1996 constant dollar comparisons, the drop in buying power from FY 1989 through FY 1996 is 65 percent.

The only new weapon system entering production for FY 1996 is the Armored Gun System, which will replace the aging M551 Sheridan. Major procurement emphasis focuses on system improvements and upgrading existing systems to include the Abrams tank upgrade, Longbow Apache modifications, Bradley Fighting Vehicle modifications and Kiowa Warrior modifications.

Procurement funding is being phased out for the UH-60 Black Hawk helicopter in FY 1997 and for

the Family of Medium Tactical Vehicles (FMTV) in FY 1996.

Table 20 shows the budgeted amount for each of the separate Army procurement appropriations for fiscal years 1994 through 1997. This will be followed by a brief description of selected systems under each of the appropriations. A more comprehensive listing is found in Appendix II.

Table 20

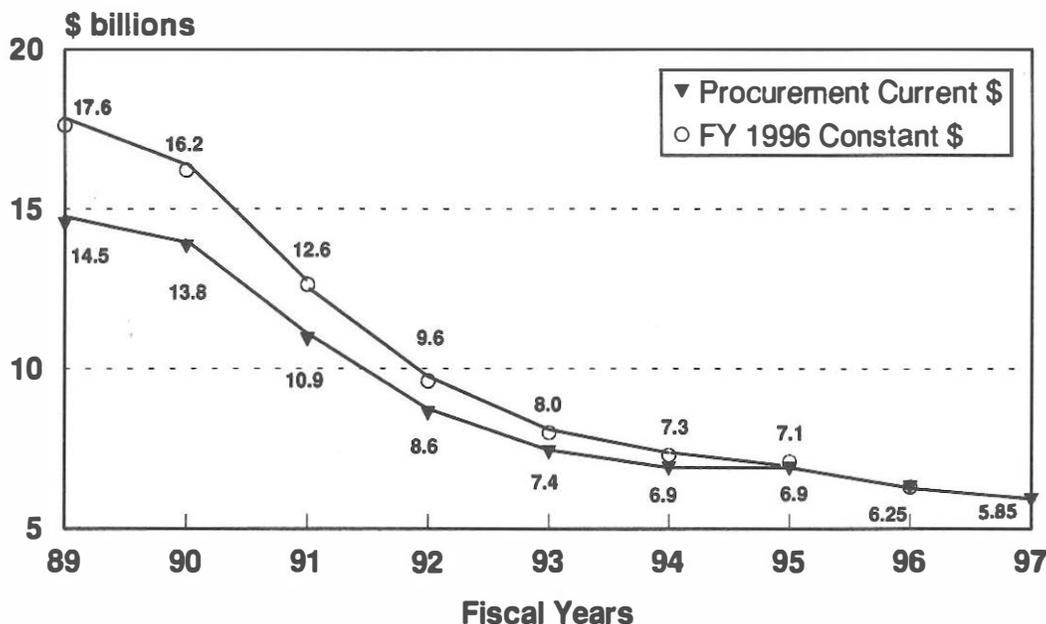
**PROCUREMENT SUMMARY
BY APPROPRIATION
(\$ millions*)**

Appropriation	FY94	FY95	FY96	FY97
Aircraft	1,305	1,056	1,223	843
Missiles	1,080	808	676	718
WTCV	887	1,144	1,299	1,262
Ammunition	727	1,173	795	831
Other Procurement	2,896	2,697	2,257	2,199
Total	6,894	6,878	6,250	5,853

*Numbers may not add due to rounding.

Source: DA

Fig 16. Army Procurement Funding



Source: DA

Aircraft Procurement

This appropriation includes the procurement of aircraft modifications, spares, repair parts and related support equipment and facilities. The Army budget requests \$1.223 billion for FY 1996. The funding profile for aircraft from FY 1989 is shown in figure 17.

The only major new production for aircraft in FY 1996 is for 60 Black Hawk utility helicopters, with funding at \$334.9 million. Other significant items funded are all modifications, the major one being Apache Longbow modifications (\$354.8 million).

The future for aviation modernization is uncertain. The only major system under development is the RAH-66 Comanche armed reconnaissance helicopter, and this has now been designated as a technical demonstration with no decision to enter production in the future. In the meantime, the entire aviation fleet is aging.

Descriptions of selected aviation items follow.

Selected Items Aircraft (\$ millions)

UH-60 Black Hawk Utility Helicopter

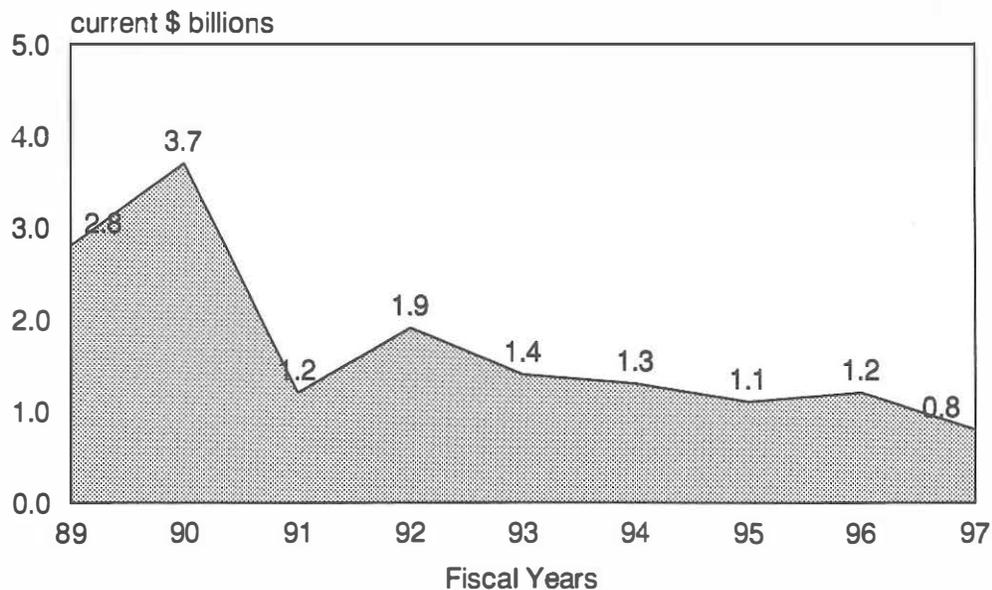
FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
60/316.1	60/334.9	/ 17.7

The Black Hawk, the Army's primary tactical lift and utility helicopter, is used for air assault, air cavalry and aeromedical purposes. With modifications, it serves in command and control, electronic warfare and special operations roles. FY 1996 is the last production year under the multiyear contract.

Apache AH-64 Attack Helicopter (Modifications)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 51.9	/ 53.6	/ 48.0

Fig 17. Aircraft Procurement



Source: DA

The Apache AH-64 is the Army's primary attack helicopter, designed to operate day and night and in adverse weather conditions. It is equipped with a target acquisition designation sight and a pilot night-vision sensor. Modification funds are for improvements on reliability and operational enhancements based on lessons learned from Desert Storm.

**Longbow Apache
(Advanced Procurement)**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 79.4	/ 354.8	/ 395.5

The Longbow Apache will provide Longbow Hellfire (fire-and-forget) capability. It consists of the AH-64 aircraft, modified to effectively integrate the Longbow radar and missile.

Longbow consists primarily of the integration of the mast-mounted control radar and a fire-and-forget Hellfire missile onto the Apache. The Longbow's digitized target acquisition provides automated detection, location, classification, prioritization and target handover.

Armed OH-58 Kiowa Warrior

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/217.2	/ 71.3	/ 10.6

The Kiowa Warrior is the current armed reconnaissance scout helicopter. It has a mast-mounted sight that houses a thermal imaging system, a low-light television and a laser rangefinder designator. Its highly accurate navigation system permits precise target location that can be handed off to other engagement systems or can provide autonomous designation for Hellfire or other laser-guided precision weapons.

Missile Procurement

This appropriation includes missiles, missile modifications, spares and major parts, along with support equipment and facilities.

The FY 1996 budget requests \$676.4 million, primarily for the procurement of Hellfire missiles, the Javelin Advanced Antitank Weapon System (AAWS-M) and the Army Tactical Missile System (ATACMS). The funding profile is shown in figure 18.

Missiles under Theater Missile Defense are funded in the BMDO budget (covered separately) that includes the PAC-3 for the Patriot as well as the development of the Corps SAM and the theater high altitude area defense system (THAAD).

Descriptions of selected items follow.

**Selected Items Missiles
(\$ millions)**

MLRS Rockets

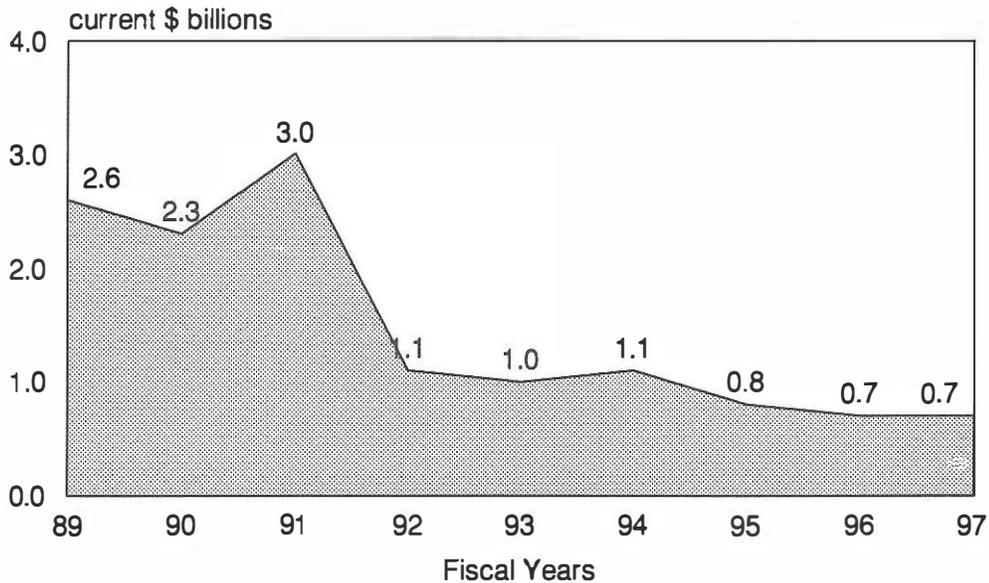
FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 25.9	/ 3.1	834/ 25.4

MLRS Launchers

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
20/143.1	/ 48.2	/ 39.5

MLRS is a free flight artillery rocket system that can provide large volumes of firepower in a short period of time, supplementing cannon artillery fires. A program is now under way to add the extended-range rocket (ER-MLRS). That will extend the current range of the basic rocket from about 32 km to about 50 km. An improved fire control system is also being planned.

Fig 18. Missile Procurement



Source: DA

Army Tactical Missile System (ATACMS)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
148/115.0	91/107.0	95/ 98.7

ATACMS is a ground-launched missile system consisting of a surface-to-surface guided missile with an antipersonnel and antimateriel configuration. ATACMS missiles are fired from modified MLRS launchers. This system can provide deep fires under nearly all weather conditions, day or night, at ranges beyond the capability of cannons and rockets. A product improvement effort will integrate Global Positioning System (GPS) technology into the missile guidance system for more accurate orientation in position and azimuth.

The Hellfire provides heavy antiarmor capability for attack helicopters.

The new Longbow Hellfire system consists of a millimeter-wave radar seeker installed on a Hellfire missile to be launched from the AH-64 Longbow helicopter. This provides a fire-and-forget capability.

Hellfire II is the latest laser directed version that homes on a laser spot that can be projected from ground observers, other aircraft or the launching aircraft itself. It is presently used as the main armament on the AH-64 Apache. The two are complementary.

Javelin Advanced Antitank Weapon System- Medium (AAWS-M)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
872/212.6	557/171.4	994/168.2

Hellfire Missile System

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
245/132.7	352/209.5	1,056/281.4

This is the Army's new man-portable antitank weapon. The system consists of a reusable com-

mand launch unit (CLU) and a sealed missile in a disposable launch tube assembly. The CLU has a day/night sight permitting operation under adverse weather or light conditions. The Javelin, weighing 49.5 lbs, has a range of 2,000 meters and uses fire-and-forget technology.

systems pertains to modifications and upgrade programs. This includes the Abrams tank, the M109AG 155mm howitzer and the Bradley Fighting Vehicle series.

Summary descriptions of selected items under this appropriation follow.

Weapon and Tracked Combat Vehicle Procurement

Weapons and Tracked Combat Vehicles (WTCV) procurement includes tracked and combat vehicles, weapons, other combat vehicles and repair parts.

The Army FY 1996 budget requests a total of \$1.299 billion under this appropriation, the bulk of which (\$1.241 billion) is designated for tracked combat vehicles.

A funding profile since FY 1989 is shown in figure 19.

Production includes the Armored Guns System (AGS), which is just getting started, and the Bradley Base Sustainment. The rest of funding on major

Selected Items Weapons and Tracked Combat Vehicles (WTCV) (\$ millions)

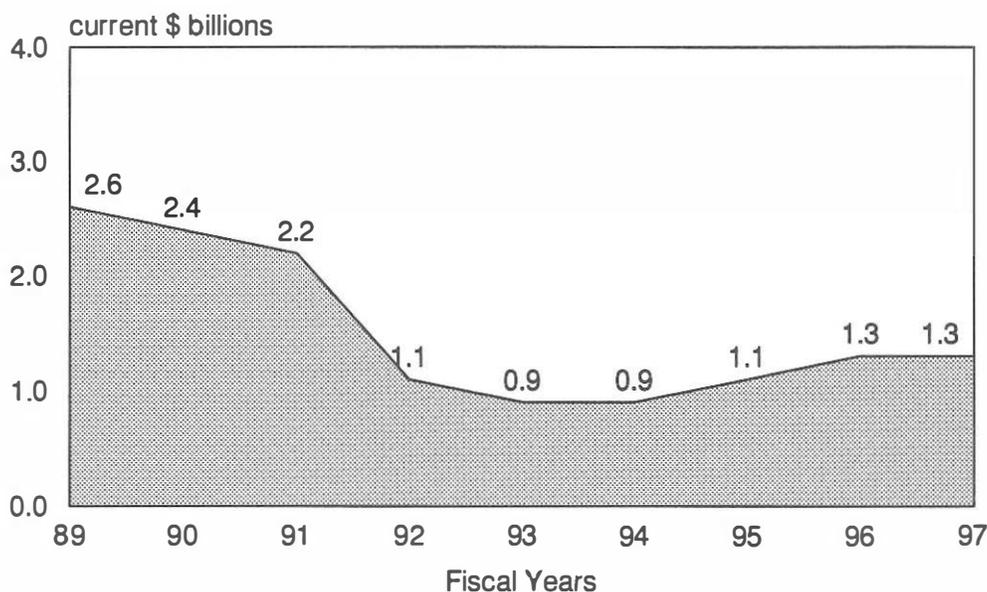
Bradley Base Sustainment Program

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/144.4	/138.3	/131.7

Bradley Series Modification

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 82.2	/ 74.3	/ 86.8

Fig 19. WTCV Procurement



Source: DA

The Bradley Fighting Vehicle System (BFVS) provides mechanized infantry and cavalry units with protected cross-country mobility and mounted firepower. The M2 Bradley is an infantry fighting vehicle, and the M3 is a cavalry fighting vehicle.

The Army is in the process of converting all A1s to the A2 configuration. Modernization includes upgrading first-generation Bradleys to the M2A2 or M3A2 configuration. The Army will retrofit a laser rangefinder, global positioning systems, combat identification, driver's thermal viewer and a missile countermeasure device.

**Howitzer 155mm M109A6 (Paladin)
Modification**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/226.0	/220.2	/ 27.5

The Paladin (M109A6) is a major upgrade of the M109 series 155mm self-propelled howitzer. It includes an on-board ballistic computer and navigation system, secure radio communications, an improved cannon and gun mount, automatic gun positioning, driver's night vision capability and built-in test equipment. The Paladin will provide primary indirect fire support for armored and mechanized infantry divisions.

Armored Gun System (AGS)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ —	26/141.6	42/182.2

The AGS is a lightweight armored vehicle mounting a 105mm main gun. It will replace the existing M551A1 Sheridan and provide direct fire support for light contingency forces and perform other light armor operational requirements. The emphasis is on rapid strategic mobility. The AGS is the Army's only armored vehicle specifically designed for delivery by air.

M1 Abrams Tank Modifications

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 36.0	/ 77.1	/ 53.0

Abrams Upgrade

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 53.0	/133.0	/138.0

M1 Abrams Upgrade Program

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/280.9	/340.8	/330.3

The Abrams tank series provides the main battle tanks for U.S. armor forces.

The modifications are to meet validated needs. They include such programs as the Vehicle Intercommunications System and kits for the Precision Lightweight Ground Positioning System Receiver.

Upgrade programs are to convert M1 tanks to the M1A2 configuration with improved armor, a 120mm gun, a commander's independent thermal viewer, an improved commander's weapon station, position navigation equipment and digitized communications.

**Improved Recovery Vehicle
(M88 Modification)**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/ 36.9	/ 23.5	/ 29.9

This is a product improvement of the existing M88A1 recovery vehicle. The improved recovery

vehicle is designed to provide independent recovery of track vehicles weighing up to 70 tons. It will safely tow, winch and hoist Abrams tanks. It has entered low-rate initial production.

Ammunition Procurement

This appropriation covers funding for the procurement of ammunition end items and ammunition base support.

The funding profile from FY 1989 is shown in figure 20.

The budget request for FY 1996 is for \$795 million. Of this, \$590.4 million is for ammunition itself. The other \$204.6 million is for production base support including \$96.3 million for ammunition demilitarization. A listing of ammunition categories is shown in table 21.

Of the total amounts in FY 1996 for ammunition items, \$412.0 million is for training ammunition and \$164.7 for war reserve stock.

Table 21

ARMY AMMUNITION (\$ millions*)

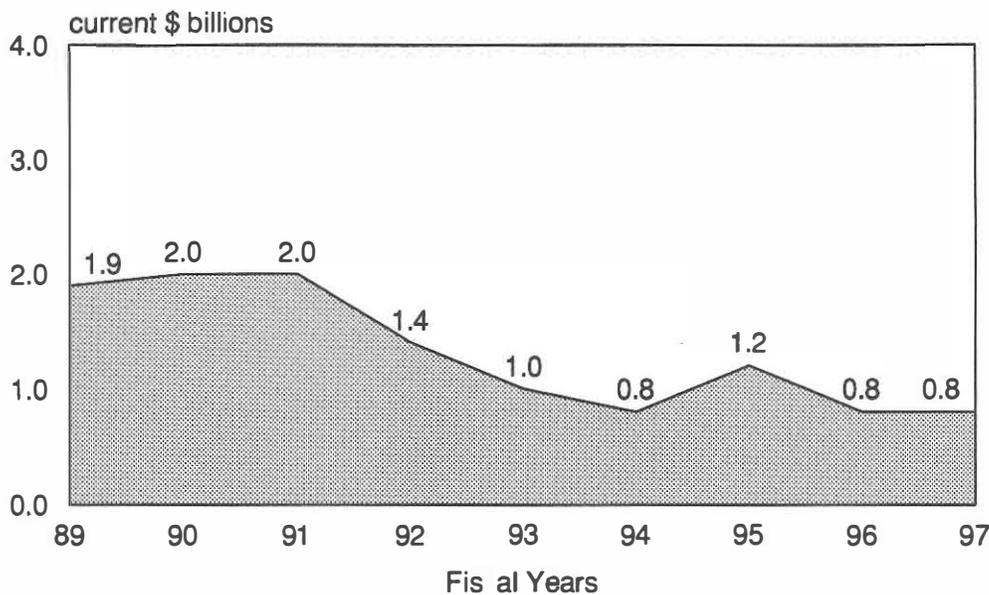
Item	FY95	FY96	FY97
Small Arms	208.1	172.3	187.1
Mortars	69.1	79.5	33.5
Tanks	238.6	120.4	200.4
Artillery	99.7	75.7	98.1
Rockets	114.8	28.1	82.7
Mines/Countermines	49.4	18.9	22.0
Other Ammunition	77.5	95.4	78.3
Production Base Support	315.7	204.6	128.5
Total	1,172.9	795.0	830.6

* Numbers may not add due to rounding.

Source: DA

Of special significance is the start of low-rate production on the Sense and Destroy Armor Munition (SADARM). Procurement funding in the budget includes \$24.8 million for FY1995, \$24.3 million for FY1996 and \$62.4 million for FY1997. SADARM is a fire-and-forget sensor-fuzed submunition designed to detect and destroy armored

Fig 20. Ammunition Procurement



Source: DA

vehicles, especially self-propelled artillery. SADARM is delivered by 155mm artillery projectiles or by MLRS. Once dispensed from its carrier, the submunition detects targets and fires an explosively formed penetrator through the top of the target. SADARM is scheduled for a low-rate production decision in early 1995.

As of now, training requirements are being met, but future years will require more funding to preclude an erosion of war reserve. Also, future years will require selective procurement of preferred (high technology) munitions for war reserve to provide adequate precision strike capabilities.

In the long term, the greatest concern with ammunition is the decline of the ammunition industrial base in the United States, which cannot be sustained with the current and projected levels of procurement.

Other Procurement, Army (OPA)

OPA covers three major categories: (1) tactical and support vehicles, (2) communications and electronic equipment and (3) other support equipment. A funding profile since FY 1989 is shown in figure 21.

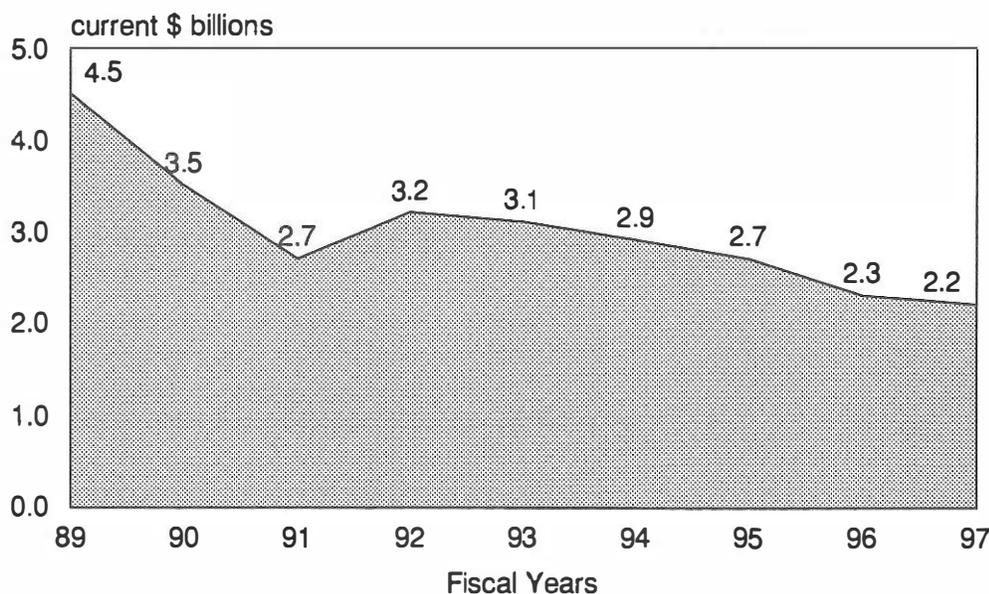
The OPA budget request for FY 1996 totals \$2.257 billion: \$128 million for tactical and support vehicles, \$1.691 billion for communications and electronics equipment, \$351 million for other support equipment and \$86 million for spares.

The bulk of this appropriation is for communications and electronics, with priority to command, control and communications capabilities plus expanded use of automation and enhanced digitization.

By contrast, the status of tactical wheeled vehicles shows a dismal picture. The family of medium tactical vehicles needed throughout the Army to replace an aging medium truck fleet is being given only enough FY 1996 funding to close out the line. There is no funding support for heavy trucks and even the light tactical trucks, the High Mobility Multipurpose Wheeled Vehicles (HMMWVs), are being scaled back significantly. This budget simply does not address the current and future needs for tactical trucks for both active and reserve forces.

A description of selected items included in the budget under this appropriation follows.

Fig 21. Other Procurement, Army



Source: DA

Selected Items Other Procurement, Army
(\$ millions)

**High Mobility Multipurpose
Wheeled Vehicle (HMMWV)**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
1,325/117.7	546/ 57.7	226/ 52.7

HMMWV is the Army's light four-wheel-drive tactical vehicle. It can be configured for a number of uses, such as a cargo/troop carrier, armament carrier, shelter carrier, ambulance and TOW and Stinger weapons carrier.

Family of Medium Tactical Vehicles (FMTV)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
3,461/386.0	/ 39.7	/ 0

This consists of a family of vehicles based on a common truck chassis for the new medium trucks being acquired and fielded. Several body configurations are used to meet various needs in the 2 1/2- to 5-ton range. These are badly needed to replace a large number of overage trucks currently in the fleet that have become maintenance intensive with uncertain reliability. Unfortunately, the program was cut short in FY 1996 with only sufficient funds to close out the contract. This was a decision based solely on the lack of available budget resources.

**Defense Satellite Communications
Ground System**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/103.8	/ 78.2	/ 99.9

The Defense Satellite Communications System (DSCS) provides wideband and antijam satellite communications supporting national strategic and

tactical C³I requirements. The Army is responsible for developing and acquiring the ground segments to support DSCS.

SINGARS
(Single Channel Ground
and Airborne Radio System)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/364.8	/310.6	/208.4

SINGARS is the Army's VHF-FM radio system providing voice and data communications for tactical command and control. It has frequency hopping and jam-resistant capabilities and has been highly reliable in field use. Its configurations include manpack, vehicular and airborne models. Over 60,000 have been fielded within the Army, including the training base. An improved model will go on the market this year.

Close Combat Tactical Trainer (CCTT)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/31.8	/30.7	/88.5

The CCTT program comprises a group of fully interactive networked simulators and command, control and communications workstations replicating vehicles and weapon systems of a company or team operating on a simulated battlefield. The CCTT function is to train M1 tank and M2/3 Bradley crews on individual and collective tasks and skills on a simulated, interactive, real-time basis.

**Advanced Field Artillery Tactical
Data System (AFATDS)**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
116/8.1	211/30.9	222/34.9

AFATDS provides the automated fire support command, control and communications portion of the Army Tactical Command and Control System (ATCCS). Funds are also included in RDT&E.

**Joint Surveillance Target Attack System
(Joint STARS) Army**

FY95	FY96	FY97
Qty/Amt	Qty/Amt	Qty/Amt
/ 55.2	/ 83.0	/ 89.9

Joint STARS (also known as JSTARS) is a joint Air Force and Army program that provides both tactical air and ground commanders with near real-time, wide area surveillance and deep targeting data on both moving and fixed targets. The Air Force is responsible for the Joint STARS aircraft, as modified to conduct the surveillance mission. The Army is responsible for the Ground Station Module.

**Forward Area Air Defense (FAAD)
Ground Base Sensor (GBS)**

FY95	FY96	FY97
Qty/Amt	Qty/Amt	Qty/Amt
/ 63.9	8/ 44.7	15/ 53.3

The GBS consists of a radar sensor with its prime mover. The sensor is an advanced three-dimensional air defense phased array radar with a range of 40 km. It is capable of operating day and night and under adverse weather conditions. It provides 360-degree coverage for acquisition and tracking. The GBS contributes to the digital battlefield by automatically detecting, tracking, classifying, identifying and reporting targets.

Reserve Component Automation System (RCAS)

FY95	FY96	FY97
Qty/Amt	Qty/Amt	Qty/Amt
/163.5	/ 83.2	/ 25.4

RCAS is an automated information system to support the reserve components. Now being fielded, it is designed for management of day-to-day operations and mobilization planning.

RESEARCH AND DEVELOPMENT

The Army funding for RDT&E from FY 1989 through the present submission to Congress is reflected in figure 22. The lower line (wedge points) shows annual funding in current dollars and the upper line (circle points) provides the same information in constant (FY 1986) dollars.

Table 22 summarizes the Army RDT&E budget by budget activity for fiscal years 1994 through 1997.

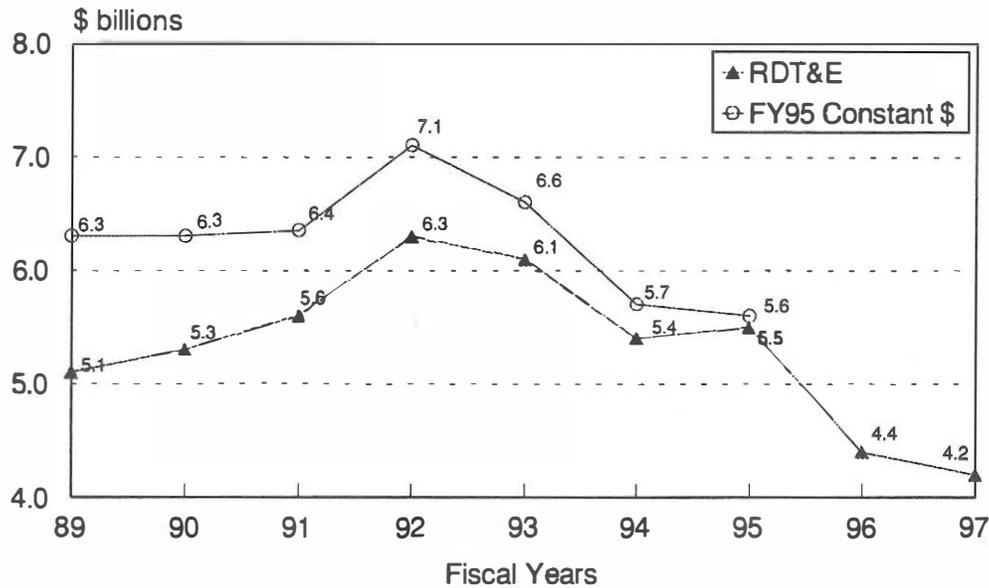
The Army program for FY 1996 at \$4.44 billion represents about 7.5 percent of the total Army budget and only a small 12.9 percent share of research and development funding in the entire DoD budget.

The Army Science and Technology (S&T) program focuses on options to support Force XXI, with emphasis on the demonstration of promising technologies to achieve this. The Army wants to maintain an S&T program that can ensure the timely development and transition of technologies into new systems or system upgrades and to explore alternative concepts in warfighting. Special attention is given to horizontal technology integration.

The Science & Technology portion — the total of Budget Activities 1, 2, and 3 from table 22 — includes the development of technologies not directly tied to specific acquisition programs and covers programs in basic research, exploratory development and advance development.

The budgeted amount for S&T in the FY 1996 budget at \$1.13 billion is about 25 percent of the overall RDT&E Army budget. The Army failed to achieve the DoD guidance level of maintaining S&T at a constant (inflation adjusted) level, falling short in FY 1996 by almost \$140 million. This decision was driven solely by the overall shortage of research and development funding.

Fig 22. Army RDT&E Funding Profile



Source: DA

Table 22

**ARMY RDT&E
(current \$ millions)**

Budget Activities	FY95	FY96	FY97
1. Basic Research	224	205	212
2. Exploratory Development	633	434	473
3. Advanced Technology Development	791	488	484
4. Demonstration/Validation	451	477	488
5. Engineering Manufacturing Development	1,618	1,059	1,052
6. Management Support	1,194	1,173	1,047
7. Operational Systems Development	570	608	485
Total	\$5,481	\$4,444	\$4,241

Source: DA

Funding is included in the FY 1996 budget for continuing the development of the Comanche helicopter, the Brilliant Antiarmor Submunition, Armor System Modernization which includes both the Advanced Field Artillery System (AFAS) and the Future Armored Resupply Vehicle (FARV), and Sense and Destroy Armor Munition programs. Funds for operational systems development are included in the budget for the Combat Vehicle Improvement Program and for Battlefield Digitization.

Management support absorbs a disproportionately large share, some 26 percent, of the RDT&E budget for FY 1996. In addition to base operations and environmental compliance costs, the Army must cover the cost of operating the Kwajalein national test range as well as Army test ranges and facilities.

There are no new major research and development initiatives in the FY 1996 program. The overall budget level for FY 1996 has dropped more than

11 percent below levels provided in both FY 1994 and FY 1995. FY 1997 will move this down even more.

A brief description of selected Army RDT&E items found in the Army budget for fiscal years 1995, 1996 and 1997 follows. The focus is on FY 1996, the budget currently before Congress. The FY 1997 column is subject to change in the future as the result of congressional action for FY 1996 and the revised FY 1997 version to be submitted next year.

**Army Highlighted RDT&E Items
(\$ millions)**

RAH-66 Comanche Helicopter

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/488.6	/199.1	/298.6

The RAH-66 Comanche armed reconnaissance helicopter is considered one of the Army's top priority development projects. It will provide the Army with new and expanded capability to conduct armed reconnaissance both day and night in adverse weather conditions and will greatly expand the Army's capability to conduct operations in a variety of combat scenarios and battlefield environments. It provides enhanced reliability and crew survivability. The FY 1996 budget supports the testing of two prototype aircraft and the development of the advanced T800 engine.

Brilliant Antiarmor (BAT) Submunition

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/117.5	/193.3	/186.0

The BAT is a dual-sensor (both acoustics and infrared) antiarmor submunition that can automatically seek out, identify and destroy moving vehicles. It is carried by a variant of the Army Tactical Missile System (ATACMS). Its primary mission is for deep attack of moving armored vehicles.

Multiple Launch Rocket System (MLRS)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/57.8	/68.8	/53.7

MLRS is the Army's self-propelled rocket system designed to attack deep targets. The RDT&E funding is for a MLRS product improvement program to include the extended range rocket.

**Advanced Field Artillery Tactical
Data System (AFATDS)**

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/40.1	/39.4	/38.8

AFATDS provides the automated Fire Support Command, Control and Communications portion of the Army Tactical Command and Control System (ATCCS), now transitioning to the Army Battle Command System (ABCS). It will provide integrated and automated support. Funds are also included under Procurement.

Armored Systems Modernization (ASM)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/172.4	/201.5	/267.9

Armored Systems Modernization (ASM) includes both the Advanced Field Artillery System (AFAS), now called the Crusader, and the Future Armored Resupply Vehicle Ammunition (FARV-A). AFAS and FARV-A will incorporate advanced technologies to increase accuracy, rate of fire, survivability, mobility and ammunition handling. This will provide a significant increase in effectiveness through integration of advanced technology, including a regenerative liquid propellant armament system, automated ammunition handling system and advanced fire control system.

Bradley Upgrade Program

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/75.1	/117.9	/91.6

This is the RDT&E portion of the program that provides for the upgrading of first-generation Bradley fighting vehicles to the current M2A2 configuration as well as a new M2A3 upgrade to provide digitized communications and improved target acquisition capability.

M1 Tank Upgrade Program

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/11.7	/38.8	/48.7

This is the RDT&E portion of the program that will upgrade older M1 Abrams tanks to the M1A2 configuration, to include improved armor, a 120mm gun, a commander's independent thermal viewer and an improved commander's weapon station. It also provides for digitized communications capability and for nuclear, biological and chemical protection.

SATCOM Ground Environment

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/67.3	/56.4	/40.6

This involves the development of ground subsystem equipment for the Defense Satellite Communications System.

All Source Analyses System (ASAS)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/42.0	/52.7	/37.4

ASAS is the intelligence electronic warfare sub-element of the Army Tactical Command and Control System (ATCCS). It will provide combat commanders with the source intelligence needed to view the battlefield and conduct the land battle. It provides the capability to receive and correlate data, produce enemy situation displays, disseminate intelligence information, nominate targets and manage collection requirements.

Advanced Command and Control Vehicle (AC²V)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/31.6	/18.3	/6.9

AC²V will provide a fully-tracked armored vehicle as a mobile and survivable command and control platform for the heavy forces. It will provide command and control capabilities for mobile operations and will accommodate the Army Tactical Command and Control System.

Joint Surveillance Target Attack Radar System (Joint STARS)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/39.7	/18.8	/7.9

This is the ground station module (GSM) for the Joint Surveillance Target Attack Radar System (Joint STARS). Joint STARS is a joint Air Force/Army program.

The airborne portion, using the E-8A aircraft, can detect, locate, track, classify and assist in attacking both fixed and moving targets.

The GSM receives, displays, processes and disseminates targeting information. Block II GSM will be the common ground station and a key node on the digitized battlefield.

Digitization

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/82.7	/88.6	/80.6

This involves the use of digitized communications for the integration of operations on the modern battlefield. It incorporates horizontal integration of information nodes to provide real-time information and data exchange. The Army is focusing on information technology as it moves to the future by exploiting the power of digitization.

BALLISTIC MISSILE DEFENSE (BMD)

In addition to systems funded by the Army budget, the Army is heavily involved in the development of BMD technologies and systems funded through DoD's Ballistic Missile Defense Organization (BMDO).

The Army's Space and Strategic Defense Command (USASSDC) is the agent for a number of BMDO programs related to ground-based air and missile defense systems. For FY 1996, the Army will be the agent for about \$1.8 billion of BMDO RDT&E funds, or about 63 percent of the BMDO total for that year. Much of this effort is related to those systems for which the Army will become a principal user.

Descriptions of the major programs in this category for which the Army will subsequently have mission requirements follow.

BMDO Programs of Special Army Interest (\$ millions)

Corps Surface to Air Missile (Corps SAM)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/16.3	/15.0	/30.4

Corps SAM will provide low-to-medium altitude air and theater missile defense to maneuver forces and other forward deployed units. It will fill an existing void in theater missile defense. The system will consist of missiles, launchers, sensors and C³I (command, control, communications, intelligence) elements. It will be deployed and operated by both the Army and the Marine Corps. Corps SAM will provide a 360-degree defense against attacks by a wide variety of tactical missiles and other air-breathing threats.

Theater High-Altitude Missile Defense (THAAD)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/710.1	/652.9	/576.3

THAAD will provide high-altitude air defense against ballistic missiles. The system will consist of missiles, launchers, C³I elements, Ground Based Radar and support equipment. The missile will be a hypervelocity kinetic energy weapon that will kill by direct collision. The Ground Based Radar provides surveillance and detection of incoming tactical ballistic missiles. The THAAD system is a theater missile defense (TMD) weapon system designed to intercept short- and intermediate-range missile threats.

Patriot Advanced Capability-3 (PAC-3)

FY95 Qty/Amt	FY96 Qty/Amt	FY97 Qty/Amt
/139.1	/350.3	/267.4

The Patriot missile system provides high- and medium-altitude defense against aircraft and tactical ballistic missiles. The Patriot Advanced Capability-3 (PAC-3) missile will provide advanced anti-missile capability to the currently fielded system. The primary mission of the PAC-3 missile is to kill tactical ballistic missiles. It also will have the capability to counter cruise missiles and aircraft.

In addition to RDT&E funding, the BMDO budget also provides for procurement of PAC-3 missiles, funded for \$253 million in FY 1995 and \$399 million for FY 1996.

FACILITIES

Military Construction

The Army has three separate appropriations under the Military Construction heading: Military Construction (MCA) for the active force, MCARNG for the Army National Guard and MCAR for the Army Reserve. Table 23 provides a summary of the funding as shown in the Army budget.

Focusing on the FY 1996 MCA request of \$472.7 million, \$78 million is for construction in Korea and Southwest Asia. When planning and design costs are subtracted, only \$342 million is left for projects in the United States. Over half of this (\$210 million) is designated for troop housing and community support as priority projects. Smaller amounts go for supply and maintenance facilities, utilities and real estate.

The level of funding for MCA facilities is at a historically low level, well below long-term reconstitution and replacement needs. It represents a minimum holding level until the transition is stabilized and installation realignments are more definitive.

Even more constrained are construction funding levels for the ARNG and the USAR. In past years, Congress has tended to insert additional construction projects into these appropriations and may well do so again for FY 1996.

A major Army program to improve living conditions for the single soldier is the Whole Barracks Renewal Program. This plan would fund the construction of new barracks and the renovation of older barracks. With the present goal of \$250 million a year, this effort will still take 23 years to upgrade the Army's inventory of aging and substandard barracks. It should be noted that FY 1996 funding does not meet this goal, even though it is currently the top priority in the construction budget.

A significant segment of DoD construction funding goes for base closure costs. While held in the DoD account, base closure funds are allocated to the services during the year of application. Base realignment funds amounting to \$305.5 million are included in the DoD FY 1996 budget for the Army and carried in the Army TOA total but not as part of the MCA appropriation.

The biggest concern at the moment is not new construction but the serious deficiency for maintenance and repair. Real property maintenance is underfunded by more than 47 percent of calculated requirements, and the overall condition of facilities continues to deteriorate. The Army backlog of maintenance and repair is expected to reach a level of \$4.9 billion by the end of FY 1996. This problem is

Table 23

ARMY MILITARY CONSTRUCTION
(\$ millions)

Appropriation Title	FY94	FY95	FY96	FY97
Military Construction, Army*	891.8	550.5	472.7	492.1
Military Construction, ARNG	295.2	188.1	18.5	14.3
Military Construction, Army Reserve	99.5	57.4	43.0	55.2

* Does not include BRAC funds which are a DoD appropriation but become part of Army TOA when provided for execution.

Source: DA

not one to be solved in the construction budget, however, as maintenance and repair funds are provided through the operation and maintenance appropriations.

Family Housing

This is the other important part of the facilities picture. The family housing appropriation provides funding for both construction and the cost of operating the Army's family housing inventory, including debt payment. A summary of Family Housing (AFH) budget numbers is shown in table 24.

Army family construction dollars for fiscal years 1995-1997 are for replacement of uneconomically repairable units and do not increase the housing inventory. FY 1996 provides very limited new housing construction — only 119 units at the U.S. Military Academy and 84 units at Fort Lewis, Washington.

Since 1985, the housing inventory has declined 17 percent. A major portion of the remaining inventory is between 35 and 40 years old and in need of revitalization. Since 1985, family housing funding, in real terms, has decreased about twice as much as the decrease in the housing inventory. The Army's goal is to upgrade or replace, but not increase, the inventory.

The Defense Department initiatives to improve military family housing will have a large impact on

the Army, which has the most units of family housing. The proposal announced in May to more actively tap into the private sector for financing and construction is to be used on installations with the most substandard housing. While Congress will not have to appropriate money for this program in fiscal year 1996, both the Senate and the House of Representatives will have to authorize the Military Family Housing Act to get the ball rolling

Family housing maintenance funds are a fairly healthy \$634 million for FY 1996, but the maintenance status of the family housing inventory has deteriorated badly in recent years and will require a good shot in the arm over the next few years.

ARMY PROJECTION CAPABILITY

The concept of a projection Army depends on its ability to deploy the necessary forces and equipment from home bases rapidly enough to meet potential mission requirements. The key to this is strategic mobility.

Those missions that must be anticipated are framed in the Bottom-Up Review's concept of two major regional conflicts, along with the recommendations of the most recent Mobility Requirements Study.

For the Army, projection objectives are based on the first and most demanding contingency scenario, the one that would require a corps of up to

ARMY FAMILY HOUSING				
(\$ millions)				
	FY94	FY95	FY96	FY97
Army Family Housing Construction	230	170	43	172
Army Family Housing Operations*	1,072	1,014	1,338	1,228
Total	1,302	1,184	1,381	1,400
* Includes Leasing				

Source: DA

five divisions. Most pressing is the timing and sequence needed to ensure stopping the enemy and permitting a rapid military buildup, in that order. This scenario would require a lead brigade on the ground by C+4 days, a lead division by C+12, two armored or mechanized divisions from the continental United States by C+30 and a five-division corps with a corps support command (COSCOM) in place by C+75, along with sufficient supplies to sustain the force until the regular lines of communication are working.

This places the spotlight on strategic mobility, discussed earlier in the DoD section. There are multiple factors in the strategic mobility equation, including airlift, sealift, prepositioning of equipment and materiel (both afloat and ashore) and facilities in the United States that support deployment.

The Army strongly endorses all of these programs, being a major user and very dependent on the adequacy and availability of both airlift and sealift for the success of contingency missions. The budget for strategic mobility is not centralized, however. The Army is responsible for funding its own prepositioning as well as for infrastructure requirements in the United States. Airlift is covered in the Air Force budget, and additional sealift is funded through a special National Sealift Fund.

The Army is an active player in prepositioning, an important part of the whole mobility scheme. It has established a prepositioned package for the equipment needed by an armored brigade afloat, along with its normal combat support elements. Also, a 30-day corps floating supply package is in the process of completion. The use of prepositioned ships for delivery of equipment to Southwest Asia in October 1994 clearly proved their worth. The current fleet of ships to do this now numbers 13. Seven of these will be replaced by more modern roll-on/roll-off ships later and the total number increased to 16 (by 1998).

Other actual or planned prepositioned packages of equipment worldwide include four separate heavy brigade sets in Central Europe; a heavy brigade set in Italy; an armor battalion of equipment in Kuwait, to be expanded to a brigade; negotiations in process

for a second brigade set in Southwest Asia, along with divisional support equipment; and an agreement with the Republic of Korea for prepositioning a heavy brigade set in Korea.

Since 1992, the Army has been in the process of reorganizing its war reserves and operational project stocks. Stockpiles have been delinked from specific warfighting commands. Total quantities have been materially reduced and stockage is being placed into common user stockpiles: CONUS, Europe, prepositioned afloat, Korea and Southwest Asia. In addition, there will be 16 operational project stocks designed for specific missions.

Back in the continental United States, the Army has taken a hard look at the infrastructure needed to facilitate deployment and support projection missions. This involves the movement from installations and depots to airports and seaports. It requires good rail systems, modern airfield and port facilities, and installations with adequate storage capability. Also needed are facilities that make these installations good power projection platforms. The Army has identified over \$735 million in infrastructure improvements at installations and depots in the United States for this purpose, to include rail upgrades, airfield improvements, and enhancements in warehousing and other deployment facilities. The Army will also purchase 16,000 shipping containers and over 1,000 special rail cars to improve its capability. The funding for these improvements will be spread over several years.

Other initiatives of importance relate to the logistics support structure. Key to this are initiatives under the umbrella of the Total Distribution Program (TDP) with associated in-transit visibility for equipment and materiel. This will use automation to bridge the seams among strategic, operational and tactical logistics and consists of 24 separate programs. A major Army program now under development is called Total Asset Visibility (TAV). When fielded this will provide quick identification and visibility of materiel in process, in storage and in transit. The initial implementation of this will be in Korea. It will be a quantum step above the logistics tracking system used during Desert Storm.

OTHER BUDGET CONSIDERATIONS

Environment

The Army has a comprehensive environmental program covering the four areas of compliance, restoration, prevention and conservation. As a matter of basic policy, the Army has mandated compliance with federal, state and local requirements, as well as with applicable host-nation environmental standards.

Army funds requested in the FY 1996 budget for compliance, conservation and pollution prevention amount to \$845 million contained in various appropriations. The Army is implementing Executive Order 12856, which mandates a 50 percent reduction of hazardous wastes by the end of 1999. Also, the Army has included \$66 million in its RDT&E budget for environmental compliance research.

Restoration and remedial action funding are contained in a special DoD account titled Environmental Restoration Defense. Funds for this purpose are provided to the services for execution. They are a significant portion of total environmental costs. From the latest statistics on actions completed during FY 1994, the Army spent about \$730 million for cleanup at Army installations and about \$330 million (as the executive agent for DoD) on formerly used defense sites. This should continue at about the same annual level of effort.

The DoD FY 1996 budget request for environmental restoration is \$1,622 million. Army restoration funding for FY 1996 will be drawn from this source.

Army Base Realignments

Base realignments and closures are an ongoing fact of life for the Army. Not only is the Army getting smaller, it has pulled back to the United States a large share of its strength formerly in Europe. This forced early actions to reduce installations and infrastructure outside the United States in addition to the whole process of Base Realignment and Closure Commission (BRAC) actions in the United States.

These actions were necessary because of the excess infrastructure and overcapacity generated by force downsizing and the recognized need to reduce future costs. This created severe budgeting problems, however, due to the big up-front costs. Experience so far has shown that payback from savings will take at least six years from the initial date of execution.

The Army put an enormous amount of effort into overseas closures during the past few years. In total, the Army closed the equivalent of 11 Fort Hoods in overseas areas.

The focus has now shifted to CONUS installations. The Army is in the process of realigning and closing installations as approved for BRAC I in 1988, followed by BRAC 91 and BRAC 93. The BRAC 95 list is now being considered by the current commission, with recommendations due this summer. Some of the more significant installations on the Army BRAC 95 list for possible closure are Fort McClellan, Alabama; Fort Chaffee, Arkansas; Fitzsimmons Army Medical Center, Colorado; Fort Ritchie, Maryland; Bayonne Military Ocean Terminal, New Jersey; Seneca Army Depot, New York; Fort Indiantown Gap, Pennsylvania; Red River Army Depot, Texas; and Fort Pickett, Virginia.

BRAC actions have a direct impact on budgets. The Army reports that for the first three BRAC actions to date, costs have totalled about \$3.8 billion and have netted for the Army one-time savings of \$2.1 billion, revenues of \$0.3 billion and an annual recurring savings of \$0.6 billion. Returns are catching up but are not there yet. In the meantime, there are many actions and up-front costs still pending with respect to both BRAC 91 and BRAC 93.

The DoD budget shows BRAC costs in the defense part of the construction budget. The current budget requests \$3.4 billion for FY 1996 to include BRAC 91, BRAC 93 and an estimated \$784 million for BRAC 95. How much of this will actually be allocated to the Army is not clear at this time.

Part of the consideration for selection of installations for the BRAC 95 list was to minimize initial

costs and to take advantage of those realignments or closures that would produce early payback.

Even with BRAC 95, the overall reduction of infrastructure is far from complete. Another commission can be expected in about three years which will require a new authorization by Congress.

Unbudgeted Costs

Unbudgeted Contingencies. The unbudgeted contingency problem is continuing to haunt the Army. The budget is currently funded on the basis of forces ready and prepared to execute missions but does not provide for additional costs of contingency missions. These missions are not funded, the presumption being that such costs would be handled by supplemental appropriations.

For the past several years a number of contingencies have been undertaken on an unbudgeted basis. Examples being Somalia, Iraq, Macedonia, Yugoslavia, Kuwait and Southwest Asia, Haiti, Cuba and Rwanda.

To the uninitiated it may seem that contingencies are much like training requirements and that the differences in costs should be minimal. There is, however, an enormous difference from a normal training environment. Contingencies require all the costs of projecting and supporting the force in the field, including significant support and sustainment costs. Also, the OPTEMPO increases sharply with around-the-clock operations and heavy usage of vehicles, aircraft and other equipment. O&M costs soar well above budgeted levels. These costs must be replaced in the same fiscal year or other operational funding will suffer. This especially hits training and base support. If funds are replaced too late, deferred training cannot be made up.

As illustrated in recent FY 1994 and FY 1995 experiences, readiness is at stake. A 1994 supplemental appropriation for this purpose was passed by Congress but too late to avoid readiness loss for some Army units. The FY 1995 supplemental, which just recently passed Congress, forestalled the need for

the Army to cut back on unit and field training decisions for the rest of this fiscal year, but the threat of repeating the FY 1994 problem was imminent. Contingency costs are still being accrued; the meter is running and could register on the order of \$1 billion for defense during the rest of this fiscal year. The Army has a significant interest at stake.

The problem was recognized. In the FY 1994 budget as submitted, then Secretary of Defense Les Aspin requested a special line item to cover possible costs for peacekeeping, humanitarian and disaster relief operations to avoid a direct drain on operating costs. This was not accepted by Congress, however, because of their concern about loss of oversight and their desire to maintain a tighter reign over such contingencies.

It is still apparent, however, that some kind of procedure is needed to pay for operations of this type without draining the funds needed for force readiness. Consequently, Secretary of Defense Perry included in the FY 1996 budget request a Readiness Preservation Authority. This would allow the use of other emergency funds as a protection against draining the critical O&M accounts, specifically those tied directly to readiness. It could only be used during the last two quarters of the fiscal year. As stated by DoD comptroller John Hamre, this is over-draft protection. It avoids the possibility of an illegal over-obligation while permitting continued use of essential readiness funds, but it must be reconciled in the end with other reprogramming or supplemental procedures.

This problem adds uncertainty to both budget planning and budget control, and a manageable solution needs to be found.

Currency Exchange Rates. Another uncertainty that faces budget planners and those executing the budget is that of currency exchange rates. The United States spends money in other currencies for such things as pay of civilian employees and the purchase of a variety of goods and services in other countries. In addition, when exchange rates change they also affect the amounts paid for cost-of-living allowances

to soldiers stationed overseas. When foreign currencies rise with respect to the dollar there is an unfunded change to the extent they differ from the budgeted figure.

The countries where U.S. presence is significant are Germany, Japan and Korea. Korea has not been an exchange rate problem, but recent increases in the value of the deutsche mark and the yen can generate sizable unfunded liabilities. Table 25 compares exchange rates used in preparation of the budget with actual current rates.

Table 25
EXCHANGE RATES
(currency in dollars)

	Budget FY95	Budget FY96	Actual (5/19/95)
Deutsche mark	1.72	1.57	1.45
Yen	108.33	100.73	86.93

Source: DA

These differences when payments have to be made are unpredictable but can be significant.

The problem at this time is for FY 1995; the total FY 1995 gap for defense was recently estimated to be about \$700 million. The deutsche mark problem rests heavily on the Army in Europe. If the present currency gap continues, the FY 1996 problem could be more more severe, perhaps several billions of dollars.

Fortunately there is a safety valve established by Congress, identified as a currency fluctuation account and managed within DoD. This fund cannot exceed \$900 million and is recharged by transfer of certain expired but unobligated O&M funds to be provided by the services. But this is not absolute insurance. There must be money available in the fund. Time lags in reprogramming are involved and there is no authority for over-obligation.

FY 1995 will probably be covered, but FY 1996 could be another question unless more funding is provided to cover the gap or unless there is a major change in exchange rates favorable to the dollar by then.

RESERVE COMPONENTS SUMMARY

When the Army reaches its projected end state, all the Army components added together will total a military strength of slightly more than one million. Of these, about 55 percent will be in the National Guard (ARNG) or the Army Reserve (USAR). However, the Army National Guard and the Army Reserve are two separate and distinct elements by statute: The Army National Guard has specific responsibilities to the governors of the respective states in addition to their federal mission. The Army Reserve is a totally federal force.

Both the Army National Guard and the Army Reserve receive separate appropriations from Congress — although these appropriations are incorporated into the Army's overall budget.

Significant changes have taken place since 1989 in structure, strength and warfighting missions of the reserve components. There has been a shift in the focus between the two with emphasis on combat elements for the National Guard and on combat service support for the Army Reserve.

The National Guard will no longer have roundout brigades for the active divisions. Instead it will have 15 designated enhanced brigades, but eight division headquarters will be retained. The 15 enhanced brigades will be separate from the ARNG divisions and be capable of deployment within 90 days. This will not be an instantaneous capability, however, as they are not expected to reach full readiness until 1999.

The USAR will carry the bulk of the Army's support forces with special priority on units for the Contingency Force Pool (CFP), which are those units needed for the projection force in a regional crisis.

While reorganizing and adjusting to these changes, the reserve components (RC) are in the process of reducing strength from 776,000 in FY 1989 to 575,000 by the end of FY 1998. Combat support and combat service support are now heavily in the reserve components and will play a critical role in the sustainment of Army forces in contingencies short of war or regional conflicts.

While previous discussion of the Army's budget has incorporated all these Army components (active, Army National Guard and Army Reserve), this section focuses on aspects relating specifically to the reserve components.

U.S. Army National Guard

Three appropriations apply directly to the ARNG. These are: (1) Military Personnel, (2) Operation and Maintenance and (3) Military Construction. The National Guard is also funded by the individual states for state-related functions. These three appropriations fund specific requirements as defined in appropriation language but should not be confused with the total costs. Other support costs and most equipment acquisition costs are covered in other military appropriations.

ARNG statistical highlights are shown in tables 26 and 27.

	FY95	FY96	FY97
Military Personnel, ARNG (total direct program)	3,340	3,219	3,231
O&M, ARNG	2,428	2,304	2,274
Military Construction, ARNG	188	19	14

Source: DA

Table 27

ARNG FORCE STRUCTURE AND MANNING HIGHLIGHTS

	FY95	FY96	FY97
Force Structure			
Divisions	8	8	8
Separate Brigades	13	6	3
Enhanced Brigades	0	15	15
Armored Car Regiment	1	0	0
Roundout/Roundup Brigades	7	0	0
Manning (thousands)			
Military End Strength	387.0	373.0	367.0
Paid Drill Strength	348.2	336.2	329.4
Full-time Support*			
Active Guard and Reserve	23.7	23.4	23.0
Military Technicians	25.5	25.1	23.7

* In addition, the ARNG has full-time active component support estimated at 390 for each of the above years and DA civilians totalling 459 for FY95 and 574 for FY96 and FY97.

Source: DA

The National Guard Operation and Maintenance funding for FY 1996 requests \$2.304 billion, which includes \$1.72 billion for training operations, \$101 million for depot maintenance and \$250 million for base operations, plus administration, recruiting and medical support. Depot maintenance and real property maintenance are both underfunded. Depot maintenance supports only about 33 percent of total recognized needs; real property maintenance covers only about 30 percent of total needs.

New construction, as previously noted, is on a virtual hold at this time. However, the backlog of construction has grown significantly in recent years, particularly with new requirements in line with more sophisticated equipment and new training initiatives. The backlog of unfunded construction is on the order of several billions of dollars.

U.S. Army Reserve

The USAR has three direct appropriations: (1) Military Personnel, (2) Operation and Maintenance and (3) Military Construction. In addition, the USAR is provided equipment and receives additional support from other Army sources.

USAR budget highlights are summarized in the tables 28 and 29.

Table 28

USAR BUDGET SUMMARY
(\$ millions)

	FY95	FY96	FY97
Reserve Personnel, Army (total direct program)	2,162	2,101	2,021
O&M, Army Reserve	1,240	1,069	1,034
Military Construction, AR	57	43	55

Source: DA

Table 29

ARMY RESERVE HIGHLIGHTS

	FY95	FY96	FY97
Manning (thousands)			
Military End Strength	242.0	230.0	215.0
Paid Drill Strength	217.1	207.9	195.5
Full-time Support*			
Active Guard and Reserve	11.9	11.6	11.6
Military Technicians	6.6	6.4	6.3
DA Civilians	1.4	1.4	1.4
Individual Mobilization Augmentees	13.0	10.5	8.0
Individual Ready Reserve (IRR)	427.3	430.9	421.6

* In addition, the USAR has full time active component support of 1.26 thousand in FY95 and 1.24 thousand for FY96 and FY97.

Source: DA

The mission of the USAR is to provide trained and ready federal reserve forces that can be employed at the direction of the National Command Authority to support national security interests and requirements. The USAR is, in fact, the principal provider to the Army of combat service support. It is particularly important that the USAR units, designated in the Contingency Force Pool and subject to employment on short notice for contingency operations, be in an especially high state of readiness.

Over half of the Army terminal and transport capability, the bulk of maintenance and engineer backup support, the bulk of medical and hospital augmentation, and virtually all civil affairs units, water supply battalions and chemical brigades come from the Army Reserve.

That portion of the USAR budget most closely tied to readiness is Operation and Maintenance, Army Reserve (OMAR). OMAR is budgeted for \$1.069 billion in FY 1996. Of this, the largest portion (\$573 million) is for training and operations. The rest goes for force support, depot maintenance, recruiting and retention, and administration.

Maintenance and repair funding for real property is not adequate with a funding request of \$57 million for FY 1996, compared with a backlog of \$120 million.

As with ARNG, the USAR construction budget is at a low ebb. There is a large unfunded construction backlog of well over a billion dollars.

Additional Notes on Army RC Programs

As with the active component, the reserve components are in the throes of a turbulent reorganization and downsizing process. Now that the basic force decisions have been made and projected end strengths should be reached by 1998, the most important thing for the well-being of the RC is stability. They are locked with the active component in a common national security mission and must be given the opportunity, training and resources to carry out their part of the overall plan. Stability is the basic ingredient needed.

An issue raised by both the ARNG and USAR is that of full-time manning, especially those categorized as civilian technicians. Civilian technicians are directly associated with force readiness needs and should only be reduced when force structure is reduced. Instead, they have been caught up in overall defense personnel reductions. This is a situation that should be corrected.

One of the major concerns is that of equipping the RC to required mission standards. The basic policy in effect is first to fight, first to be equipped. There is a need to phase out old and obsolete equipment and upgrade and modernize to the degree possible, keeping in mind the need for compatibility between active and reserve component forces where they must operate together.

While the plan for redistribution within the RC (as the result of force reductions within the RC and transfers from the active component resulting from the drawdown) is sound, it is not enough. Improvement will be gradual at best, and there are many items not provided through redistribution. Also, the very process of modernization means a greater demand for newer equipment across the board, if comparability is to be assured.

The cascading of equipment from the active forces applies essentially to major weapons but does not ensure all the materiel needed for ready units. For the National Guard, there are noted shortages in communications and electronic equipment, espe-

cially such things as FM radios and night-vision equipment. For the USAR, especially those in the Contingency Force Pool, equipment shortfalls for core missions include palletized land systems, reverse osmosis water purification units and a variety of trucks and radios. As for compatibility, the best that can be achieved is to try to be compatible within force packages.

Planning and experimentation are being done on finding better ways to use the RC for ongoing purposes in operations other than war. One example of this is the Sinai composite battalion.

This year (January 1995) the Army deployed a composite battalion task force made up of personnel from the active Army, the National Guard and the Army Reserve to the Sinai for peacekeeping duties with the multinational force and the observer organization, to remain until July 1995. Eighty percent of this force comes from the RC, 400 soldiers from the National Guard alone. The Army Research Institute is conducting assessments throughout the process to evaluate this as a regular RC rotation.

High priority Guard and Army Reserve units provide capabilities not found in the active force and, as operations continue, larger numbers will be required from the RC. Title XI of the fiscal year 1993 National Defense Authorization Act addressed the issue of combat unit readiness. Under this program, thousands of active component officers and senior noncommissioned officers help train the reserve components.

BUDGET ASSESSMENT

The FY 1996 budget can be considered a benchmark. It represents pretty much the beginning of the end for the drawdown and the associated post-Cold War transition. The transition is no longer the principal focus. It recognizes the overriding imperative of force readiness. The projection force concept combined with a variety of operations other than war (OOTW) — actual or potential — have clearly sharpened the priority for near-term readiness. This is budget priority number one, and while not all needs are filled, the budget gets high marks on current readiness.

Beyond this, the major thrust of the budget is on the future — through this decade and into the 21st century. Mission requirements flowing from the National Security Strategy and the Bottom-Up Review carry a strong sense of logic and are a valid basis for estimating the adequacy of current and future defense resources. Here is where we run into problems. There clearly exists a gap of some order of magnitude between mission requirements, as defined in guidance, and the dollars currently allocated through the period of the FYDP. The size of this dollar gap is open to speculation — GAO in its January 1995 report says it could be as high as \$150 billion. Other outside estimates have speculated it to be in the \$100 billion range.

There is a tendency to rationalize that we can really do it all; that the forces can not only remain ready today and still handle the various other contingencies being directed, but also remain capable of executing major regional conflicts while modernizing for the 21st century. However, it doesn't add up. The dollars do not match and the area most subject to deferral, the modernization of weapons and equipment, has taken a backseat to other requirements. DoD acknowledges that this is a calculated risk.

While applying across the board for all services, the risk is particularly acute for the Army, which has

already taken the largest percentage of cuts in both dollars and manpower. The Army also has been squeezed the hardest in terms of research, development and acquisition.

THE DOD BUDGET

When we look at the DoD FY 1996 budget as a whole, this is our assessment:

- High marks are given on near-term readiness with its recognition of global requirements and the need for rapid response when called for.
- Special kudos are given for Secretary of Defense Perry's efforts on "people first" and the initiatives relative to quality of life. Particularly noteworthy are the initiatives for better living conditions for both single and married soldiers and their families through the barracks modernization program and the start of a long-range program to improve family housing conditions. While there is much to do, the message is clear that people count and such efforts pay rich dividends in terms of future recruiting and retention and concomitantly, a ready quality force.
- Where the DoD budget suffers most, both now and in the future, is in the attempt to force-fit missions and structure into a predetermined package constrained by a fixed sum of money. The fit is too tight. What has and will suffer the most is recapitalization or the overall modernization of the forces. There is a commitment to get on with recapitalization in the future, but with the lead time needed for development and acquisition, it seems clear that military forces will be entering the 21st century without all the enablers assumed by the Bottom-Up Review. These enablers, particularly the high-technology solutions for better weapons and precision warheads, were the basis for assuming that Bottom-

Up Review forces could perform assumed missions with a smaller and leaner structure. The unanswered question now remains as to how this modernization is going to be funded. From the perspective of mission requirements, however, any plan to further reduce manpower by either size or structure for this purpose would be imprudent.

- The infrastructure dilemma still exists. DoD still has total infrastructure capacity in excess of needs and base closures of the past have required more up-front costs than anticipated. Net savings realized from closures have been very slow. This has resulted in higher costs and less savings than originally calculated, which has affected long-term cost assumptions. The barriers to reducing infrastructure along with forces should have been anticipated. Adding to the problem is the deteriorating condition of a large portion of the infrastructure currently in use, including bases, facilities, etc. There is an unfunded requirement of some magnitude.

THE ARMY BUDGET

Moving now to the Army, this is a subset of the DoD budget but with its own special problems and issues:

- Funding for personnel is adequate to meet the programmed strength for both military and civilian personnel. Transition costs are included, as is a pay raise of 2.4 percent.
- O&M is lean but adequate; it will meet essential training readiness and maintenance needs. Base support, however, has obvious deficiencies for facilities and repairs. Uncertainty remains with respect to ongoing contingencies without budget resources. Failure to solve this problem means continued uncertainty, with borrowing against the fourth fiscal quarter and sometimes a real lapse in readiness if replacement funding is not timely.

- Research, Development and Acquisition, which equates to modernization, is clearly deficient if the Army is to have the leaner but technically superior forces planned for the next century. The \$10.7 billion in FY 1996 for procurement and RDT&E combined must be increased materially in future years if the Army is to carry out its program of digitization and implement other technical enhancements inherent in the Force XXI vision for the 21st century. At least \$3 billion dollars more a year is needed if the Army is to reach modernization goals by the year 2010. The additional investment is not a new idea; rather, it is in line with technical enhancements planned for and anticipated in the Bottom-Up Review, which rationalized the smaller and leaner force as being adequate to meet future challenges on the basis of technological improvements.
- Looking now at facilities, military construction doesn't amount to much for either the active or the reserve components. While the Army is being provided funds by DoD for base closures, this does not add anything to the Army's current construction needs. The one bright spot is the funding for troop housing, which is part of the quality-of-life initiatives for the single soldier. Other than really critical projects, the military construction budget is pretty barren. Its overall level does not approach a normal reconstitution level and with aging facilities at most bases, it is a problem which must be faced in future years.
- Family housing is generally all right from the operations standpoint for FY 1996, with very limited new construction. An enormous backlog of maintenance has developed, however, partially recognized by the almost doubling of maintenance funds for FY 1996 over FY 1995 and projecting a higher funding level for continued attention in future years. Particularly significant is the focus given to family housing by the Secretary of Defense with his quality of life priorities and initiatives to rehabilitate existing government housing to current standards, as well as methods for new housing to be funded by private sources.

Altogether the Army FY 1996 budget passes muster on military personnel costs and O&M costs, except for deficiencies in base operations. It is seriously constrained in funding for modernization, both in FY 1996 and projections beyond that. The military construction level is not good, but it is not immediately threatening to the readiness or modernization of the force. Funding for housing is satisfactory, particularly if the new initiatives for improvement continues to receive strong support and successfully taps into the private sector.

Acknowledging that the Army's FY 1996 budget falls short in various areas, it is a fair question to ask where additions should go if funds were made available. If an additional billion dollars were offered, an AUSA selected list for FY 1996 would look something like this:

- Ammunition \$100 million for preferred ammunition items, including precision munitions
- Truck Program \$300 million (all types)
- Javelin Antitank and Avenger Air Defense Weapons \$200 million
- C⁴I (including Digitization) \$50 million

- Infrastructure Revitalization and Base Support \$255 million
- RC Readiness \$75 million
- Miscellaneous \$20 million to include replacement of the Black Hawk helicopters lost in Iraq

Current attention now focuses on what will happen to the DoD budget in Congress. Actions this next month are critically important with the budget resolution at stake. This should establish top-line defense numbers into the next decade. Only then will the authorization and appropriation committees review and act.

There does not seem to be any intention on the part of the Republican-dominated Congress to further cut the DoD budget. The general sentiment is for adequate defense but with solid justification and carefully managed resources. While the price tag for defense, at 16 percent of estimated federal costs, is certainly not excessive for a nation with the responsibilities of the United States, it must compete with all other requirements in a forum where deficit control has top priority.

The probable result for FY 1996 is expected to be at about the same overall level as submitted by the president, with maybe a little more, particularly for selected modernization, but no sizable increases at this time.

APPENDIX I

BUDGET TERMS

Appropriation is the specific authority to obligate and expend funds provided for in appropriation bills, which are prepared by the appropriation committees, passed by Congress and signed by the President into law. Appropriations are provided in line item detail. The time over which monies may be obligated is specified, varying from one year for personnel and operation and maintenance to two years for RDT&E and three years (normally) for procurement and construction — extended to five years for shipbuilding.

Authorization is substantive legislation which provides the authority for an agency to carry out a particular program. Authorization may be annual, for a specified number of years, or indefinite. Most national defense activities require annual authorization before funds may be appropriated by Congress. Of the total FY96 Department of Defense request, 72 percent requires annual authorization by the Armed Services Committees of the House and Senate. The largest amount in the request not requiring annual authorization is military pay; military end strength, rather than military pay, is authorized.

Budget Authority (BA) is the authority to enter into obligations which will result in the payment of government funds. Budget authority is normally provided in the form of appropriations. The defense budget as presented to Congress is expressed in terms of budget authority.

Constant dollars are dollars expressed in terms which have been adjusted for inflation relative to some reference or base year. Thus, all figures have the same relative value to allow comparisons. This is sometimes referred to as “real dollars” or “dollars in real terms.” It must, however, always relate to a base year, such as FY96 dollars.

Current or “then year” dollars are the dollar figures in the budget (or in the accounting records) actually associated with the stated date (past, present or projected). Figures for prior years and the present year are those actually recorded (not adjusted for inflation), but figures projected for future years contain estimated inflationary increases expected to occur in the program.

Deficit is the amount by which outlays exceed receipts. The reverse of this is called surplus.

The Department of Defense (DoD) Budget, which carries the Federal Account Number 051, includes funding for DoD itself. It is the budget which comes under the jurisdiction of the Secretary of Defense and is frequently referred to as the Pentagon Budget. The DoD budget accounts for more than 95 percent of the National Defense function in FY96.

Discretionary appropriations is a category of budget authority that comprises budgetary resources (except those provided to fund mandatory-spending programs) provided in appropriations acts.

Entitlement authority is a provision of law that legally obligates the federal government to make specified payments to any person or government that meets the eligibility requirements established by that law.

Fiscal year (FY) is the federal government’s accounting period. It begins October 1 and ends September 30, and is designated by the calendar year in which it ends.

The National Defense Budget, which carries the Federal Account Number 050 as a designator, includes not only the Department of Defense (military) budget, but also funding for defense-related activities of the Department of Energy (primarily weapons activities and related support) and miscellaneous military activities of other federal agencies.

Obligations are binding agreements that will result in outlays, immediately or in the future.

Outlays are the measure of government spending. They are the payments actually made for goods and services and interest payments during a particular year. These payments (outlays) lag obligations because of the sequential cycle of congressional appropriations, contracting, placing orders, receiving goods or services and (finally) making payments. For example, in DoD for FY96, approximately 30 percent of the outlays will pertain to prior-year appropriations.

Receipts are collections from taxes or other payments to the federal government.

Supplemental appropriation is one enacted subsequent to a regular annual appropriations act when the need for funds is too urgent to be postponed until the next regular annual appropriations act.

Total Obligational Authority (TOA) is a DoD term which includes the total value of the direct program regardless of the method of financing. As a practical matter, TOA totals in the aggregate do not differ significantly from BA. TOA is used in managing the service budgets, as it is the most accurate reflection of program value. The differences are attributed principally to offsetting receipts, such as recoveries from foreign military sales, and financing adjustments. For example, application of sales receipts will increase TOA but not BA. Legislation transferring unobligated funds for which the purpose has changed are reflected in BA with no effect on TOA.

APPENDIX II

FY 1995 ARMY BUDGET SUMMARY

(TOA - \$ millions*)

APPROPRIATION	FY94	FY95	FY96	FY97
Military Personnel, Army	\$ 21,352	\$ 20,679	\$ 19,721	\$ 19,483
Operation & Maintenance, Army	17,942	18,659	18,185	17,628
National Board for Promotion of Rifle Practice	2.7	2.5	0	0
Procurement	6,894	6,878	6,250	5,852
Aircraft	(1,305)	(1,056)	(1,223)	(843)
Missiles	(1,080)	(808)	(676)	(718)
WTCV	(887)	(1,144)	(1,299)	(1,262)
Ammunition	(727)	(1,173)	(795)	(831)
Other	(2,895)	(2,697)	(2,257)	(2,199)
Research, Development, Test and Evaluation	5,413	5,481	4,444	4,241
Military Construction, Army	892	550	473	492
BRAC III	36	114	123	27
BRAC IV	0	0	182	298
Army Family Housing	1,302	1,184	1,381	1,400
Operations	(1,072)	(1,014)	(1,338)	(1,228)
Construction	(230)	(170)	(43)	(172)
Army National Guard	5,970	5,956	5,540	5,519
Personnel, Army	(3,446)	(3,340)	(3,218)	(3,231)
Operation & Maintenance	(2,229)	(2,428)	(2,304)	(2,274)
Military Construction	(295)	(188)	(18)	(14)
Army Reserve	3,319	3,459	3,213	3,110
Reserve Personnel, Army	(2,147)	(2,162)	(2,101)	(2,021)
Operation & Maintenance, AR	(1,073)	(1,240)	(1,069)	(1,034)
Military Construction, AR	(99)	(57)	(43)	(55)
Total	\$ 63,123	\$ 62,962	\$ 59,513	\$ 58,050

* Numbers may not add due to rounding.

** Includes the requested FY95 Emergency Contingency Supplemental funding.

OPERATION AND MAINTENANCE, ARMY (OMA)
BUDGET SUMMARY DATA*
(\$ millions**)

	FY94	FY95	FY96	FY97
BA1: OPERATING FORCES				
Land Forces	8,038.7	9,717.2	9,069.6	8,726.6
Land Operations Support	386.2	290.1	251.3	245.1
Total	8,424.9	10,007.3	9,320.9	8,971.7
BA2: MOBILIZATION				
Mobility Operations	457.2	583.8	696.8	604.7
BA3: TRAINING AND RECRUITING				
Accession Training	292.0	306.0	314.8	330.0
Basic Skill & Advanced Training	1,812.7	1,994.4	2,060.1	2,102.7
Recruiting & Other Tng/Education	637.8	664.1	691.2	710.8
Total	2,742.5	2,964.5	3,066.1	3,143.4
BA4: ADMINISTRATION AND SERVICEWIDE ACTIVITIES				
Security Programs	354.1	383.1	362.3	373.7
Logistic Operations	1,666.8	1,698.3	1,630.3	1,433.6
Servicewide Support	4,088.8	2,750.4	2,826.1	2,810.4
Support of Other Nations	208.1	271.4	282.2	290.8
Total	6,317.8	5,103.2	5,100.9	4,908.5
GRAND TOTAL	17,942.5	18,658.7	18,184.7	17,628.3

	FY94	FY95	FY96	FY97
BA1: OPERATING FORCES				
Combat Units	1,162	1,791	1,882	1,717
Tactical Support	976	1,138	1,166	1,103
Theater Defense	164	256	179	171
Force Related Training	1,669	2,124	1,271	1,215
Force Communications	51	58	74	56
JCS Exercises	48	67	55	55
Base Support	3,274	3,126	3,582	3,548
Depot Maintenance	695	1,157	861	862
Combat Development	247	234	214	209
Unified Commands	139	56	37	36
Total	8,425	10,007	9,321	8,972

* Does not include OMAR and OMARG.

** Numbers may not add due to rounding.

	FY94	FY95	FY96	FY97
BA2: MOBILIZATION				
Strategic Mobility	221	276	394	247
Army Reserve	27	99	72	122
Industrial Preparation	101	90	144	147
POMCUS	108	119	87	89
Total	457	584	697	605
BA3: TRAINING AND RECRUITING				
Officer Acquisition	51	54	58	62
Recruit Training	10	10	11	12
One Station Unit Training	11	15	17	19
ROTC	109	111	110	114
Service Academy Base Support	111	115	118	123
Specialized Skill Training	205	240	237	246
Flight Training	215	267	219	218
Professional Development/Education	69	87	69	81
Training Support	393	354	376	375
Base Support	930	1,046	1,160	1,184
Recruiting and Advertising	159	197	211	217
Examining	64	61	64	67
Off Duty/Voluntary Education	113	101	104	104
Civilian Education and Training	85	86	81	82
Junior ROTC	57	68	75	75
Base Spt Recruiting & Examination	160	151	156	166
Total	2,742	2,964	3,066	3,143
BA4: ADMINISTRATION AND SERVICEWIDE ACTIVITIES				
Security Programs	354	393	362	374
Servicewide Transportation	597	548	543	531
Central Supply Activities	452	418	487	362
Logistics Support Activities	341	344	299	286
Ammunition Management	277	389	301	255
Administration	605	268	275	284
Servicewide Communications	783	735	686	668
Manpower Management	80	81	125	139
Other Personnel Support	168	175	176	176
Other Service Support	594	551	568	595
Army Claims Activities	164	178	173	172
Real Estate Management	92	98	87	82
Base Support	620	662	735	696
Def Environmental Restoration Acct	984	0	0	0
International Headquarters	177	245	253	258
Misc Support of Other Nations	32	26	29	33
Total	6,318	5,103	5,101	4,909

* Does not include OMAR and OMARNG.

** Numbers may not add due to rounding.

PROCUREMENT BUDGET SUMMARY DATA
(\$ millions*)

	FY94		FY95		FY96		FY97	
	(QTY)	AMT	(QTY)	AMT	(QTY)	AMT	(QTY)	AMT
APPROPRIATION								
Aircraft		1,305		1,056		1,223		843
Missiles		1,080		808		676		718
Weapons and Tracked Combat Vehicles		887		1,144		1,299		1,262
Ammunition		727		1,173		795		831
Other Procurement		2,895		2,697		2,257		2,199
Total		6,895		6,878		6,250		5,853
AIRCRAFT PROCUREMENT, ARMY								
Aircraft								
AH-64 Attack Helicopter (Apache)	(10)	167.6		77.1		3.3		0
Guardrail Common Sensor	(1)	17.2		0		6.0		6.2
UH-60 Helicopter (Black Hawk) (MYP)	(63)	427.6	(60)	316.1	(60)	334.9		17.7
New Training Helicopter	(35)	29.3		.5		.5		0
ARL/Drug Interdiction	(1)	42.1		0	(1)	18.4		24.7
Modifications								
CH-47 Cargo Helicopter (MYP)		15.4		14.2		14.1		16.6
Armed OH-58D (Kiowa Warrior)		226.2		217.2		71.3		10.6
AH-64		35.4		51.9		53.6		48.0
UH-60		22.3		25.7		19.3		20.6
Guardrail		111.3		0		49.0		33.5
Aircraft Survivability Equipment		2.5		8.1		4.2		5.5
Longbow Apache (Advanced Procurement)		0		79.4		354.8		395.5
EH-60 Quickfix		.5		38.9		38.0		37.2
Spares and Repair Parts		52.8		46.9		49.2		44.1
Support Equipment and Facilities								
Aircraft Survivability Equipment		28.0		44.3		22.3		0
Avionics Support Equipment		28.9		30.1		22.2		7.8
Common Ground Equipment		21.1		18.4		30.5		32.1
Industrial Facilities		2.4		2.8		2.8		2.2
Other Aircraft		73.9		84.1		128.7		141.1
Total Aircraft		1,304.8		1,055.7		1,223.1		843.4

* Numbers may not add due to rounding.

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	FY94 (QTY) AMT	FY95 (QTY) AMT	FY96 (QTY) AMT	FY97 (QTY) AMT
MISSILE PROCUREMENT, ARMY				
Missiles				
Patriot (MYP)	40.6	8.8	5.1	3.0
Stinger (MYP)	23.8	0	0	0
Avenger	135.2	13.7	31.4	6.8
Hellfire (1,417)	66.8	(1,245)	132.7	(352) 209.5
TOW 2 (2,000)	67.8	(1,503)	37.2	7.4
MLRS Rockets (MYP)	78.4	25.9	3.1	(834) 25.4
MLRS Launchers (34)	169.5	(20)	143.1	48.2
ATACMS (255)	145.6	(148)	115.0	(91) 107.0
Javelin (703)	207.3	(872)	212.6	(557) 171.4
				(994) 168.2
Modifications				
Patriot	18.5	26.0	7.0	11.9
Stinger	9.6	5.0	10.1	10.1
TOW	10.8	0	33.4	32.1
MLRS	28.9	29.3	18.0	5.3
Avenger Modifications	9.3	10.8	0	0
Spares and Repair Parts	43.4	34.4	11.8	13.2
Support Equipment and Facilities				
Air Defense Targets	14.8	8.2	6.8	6.4
Production Base Support	3.8	3.6	3.7	3.6
Other Missile	5.6	1.8	2.7	2.6
Total Missile	1,079.7	808.1	676.4	717.8

WEAPONS AND TRACKED COMBAT VEHICLES (WTCV) PROCUREMENT, ARMY

Tracked Combat Vehicles				
Bradley Fighting Vehicle (MYP)	56.9	14.0	0	0
Command and Control Vehicle	0	0	0	(6) 30.2
M1 Abrams Tank Series (MYP)	20.2	21.9	0	0
M1 Abrams Training Devices	24.6	17.0	6.3	13.1
Armored Gun System (AGS)	8.2	0	(26) 141.6	(42) 182.2
Weapons and Other Combat Vehicles				
Machine Gun, 5.56mm (SAW) (5,854)	20.2	(8,705)	22.5	0
Grenade Launcher, Auto 40mm (1,800)	32.2	(1,500)	33.7	0
Mortar, 120mm (125)	16.9	(110)	13.9	3.0
5.56mm Carbine XM4 (22,985)	11.3	(15,892)	11.1	0

* Numbers may not add due to rounding.

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	FY94 (QTY) AMT	FY95 (QTY) AMT	FY96 (QTY) AMT	FY97 (QTY) AMT
Modifications				
Carrier, Modifications	6.2	50.7	48.1	28.3
Bradley Base Sustainment Program	201.6	144.4	138.3	131.7
BFVS Series Modifications	29.9	82.2	74.3	86.8
Howitzer, Med Sp Ft 155mm M109 Modernization	155.3	226.0	220.2	27.5
Howitzer, Med Sp Ft 155mm M109A5	15.5	1.3	.1	.1
FAASV PIP to Fleet	23.0	9.9	4.1	2.0
Armored Vehicle Launch Bridge (AVLB)	6.9	0	0	0
Heavy Assault Bridge	0	0	15.1	47.0
Breacher System	0	0	0	74.8
M1 Abrams Tank Modifications	49.0	36.0	77.1	53.0
Abrams Upgrade/Program Advanced Procurement	0	53.0	133.0	138.0
M1 Upgrade Program	106.0	280.9	340.8	330.3
Modifications Less than \$2.0M	4.1	3.0	2.0	2.6
SAW Modifications	.7	6.7	0	0
Improved Recovery Vehicle	31.2	36.9	23.5	29.9
Support Equipment and Facilities				
Spares and Repair Parts	12.3	5.1	34.3	41.3
Production Base Support	29.1	24.7	17.7	16.2
Industrial Preparedness	5.9	7.4	5.6	7.7
Other WTCV	20.0	41.5	13.9	19.0
Total WTCV	887.2	1,143.8	1,299.0	1,261.7

AMMUNITION PROCUREMENT, ARMY

By Type of Ammo				
Small Arms	99.0	208.1	172.3	187.1
Mortars	8.0	69.1	79.5	33.5
Tank	227.7	238.6	120.4	200.4
Artillery	10.0	99.7	75.7	98.1
Rockets	54.6	114.8	28.1	82.7
Miscellaneous	69.7	22.3	17.4	23.4
Other	24.3	55.2	78.1	54.9
Mines/Countermines	2.5	49.4	18.9	22.0
Production Base Support	230.8	315.7	204.6	128.5
Total Ammunition	726.6	1,172.9	795.0	830.6

* Numbers may not add due to rounding.

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	FY94 (QTY) AMT	FY95 (QTY) AMT	FY96 (QTY) AMT	FY97 (QTY) AMT
Training/War Reserve Breakout				
Training	248.7	440.7	412.0	481.6
War Reserve	188.1	401.4	164.7	201.4
Nonhardware	19.0	15.1	13.7	19.1
Miscellaneous	40.0	0	0	0
Production Base	230.8	315.7	204.6	128.5
Total Breakout	726.6	1,172.9	795.0	830.6

OTHER PROCUREMENT, ARMY

Tactical and Support Vehicles

Wheeled Vehicle (HMMWV)	(5,836)	246.8	(1,325)	117.7	(546)	57.7	(226)	52.7
Family of Medium Tactical Vehicles	(219)	29.0	(3,461)	386.0		39.7		0
Family of Heavy Tactical Vehicles	(932)	402.7		16.3		.6		80.6
All Other Vehicles and Trailers		73.4		63.1		29.8		130.8

Communications and Electronics Equipment

Joint Communications		1.0		1.8		2.3		2.5
Satellite Communications		139.3		163.1		226.0		243.3
MSE Modifications		0		33.3		14.7		18.7
C ³ System		8.9		15.6		26.9		21.1
Combat Communications		507.2		443.9		381.5		275.6
Information Security		56.9		13.5		11.1		11.1
Long Haul Communications		3.4		5.3		22.0		5.9
Base Communications		58.8		64.3		136.4		69.0
Electronic Equip.—NFIP		37.5		32.7		32.8		24.7
Electronic Equip.—Tactical Intelligence Related		178.8		200.9		232.9		188.5
Electronic Equip.—Electronic Warfare (EW)		10.4		1.8		2.6		1.7
Electronic Equip.—Tactical Surveillance		161.1		176.8		173.1		169.8
Elect. Equip.—Tactical C ²		135.7		79.4		155.7		163.3
Elect. Equip.—Automation (RCAS and ADPE)		231.4		246.9		215.9		147.7
Electronic Equip.—Audio Visual Systems (AV)		9.4		6.8		7.7		3.2
Elect. Equip.—Test Measurement and Diagnostic Equipment		87.8		83.7		47.4		40.2
Elect. Equip.—Support		83.5		15.0		2.5		1.9

*Numbers may not add due to rounding.

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	FY94 (QTY) AMT	FY95 (QTY) AMT	FY96 (QTY) AMT	FY97 (QTY) AMT
Other Support Equipment				
Smoke Generators	0	0	17.9	28.7
Chemical Defensive Equipment	60.8	93.4	**	**
Bridging Equipment	0	0	3.8	4.5
Engineer Equipment (Nonconstruction)	15.9	16.2	1.0	11.0
Combat Service Support Equipment	38.4	30.1	21.7	24.3
Petroleum Equipment	11.3	17.6	9.9	10.1
Water Equipment	4.1	7.6	9.0	3.1
Medical Equipment	20.8	19.2	14.3	16.5
Maintenance Equipment	7.0	6.0	3.3	3.2
Construction Equipment	17.3	9.2	21.0	10.4
Rail Float Containerization Equipment	17.1	14.7	19.0	43.1
Generators	24.8	25.2	13.8	15.7
Materiel Handling Equipment	5.8	4.7	28.1	19.4
Training Equipment	101.7	138.2	124.4	218.9
Other Support Equipment	108.2	147.4	64.0	72.4
Initial Spares				
Tactical Support Vehicles	0	0	1.1	.1
Communications and Electronics	0	0	83.0	63.0
Other Support	0	0	2.0	2.0
Total Other Procurement	2,895.5	2,697.4	2,256.6	2,198.7

* Numbers may not add due to rounding.

** Transferred to OSD.

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**RESEARCH, DEVELOPMENT, TEST AND EVALUATION
ARMY BUDGET SUMMARY DATA
(\$ millions*)**

	FY94	FY95	FY96	FY97
TECHNOLOGY BASE				
Basic Research	199	224	205	212
Exploratory Development	621	633	434	473
Subtotal	820	857	639	685
 ADVANCED TECHNOLOGY DEVELOPMENT				
Logistics	11	15	11	13
Medical	112**	253**	12	12
Aviation	43	52	46	43
Weapons & Munitions	27	32	18	21
Combat Vehicle & Automotive	39	61	31	33
MSL/Rocket	45	77	124	112
Landmine Warfare	10	22	19	16
Night Vision	33	33	38	31
Military HIV Research	33**	30	3	3
Air Defense/Precision Strike	21	40	40	40
Technology Demonstration				
Other	142	176	146	160
Subtotal	516	791	488	484
 DEMONSTRATION & VALIDATION				
Landmine Warfare & Barrier	21	24	33	17
Armored System Modifications - Advanced	146	172	201	268
Soldier Support & Survivability	12	12	34	16
Aviation - Advanced	15	17	8	9
CSSCS Evaluation & Analysis	21	19	14	14
Medical System	21	16	11	11
Other	291	191	176	153
Subtotal	527	451	477	488
 ENGINEERING & MANUFACTURING DEVELOPMENT				
Comanche	365	489	199	299
Electronic Warfare Development	83	92	65	72
Landmine Warfare	23	33	31	18

* Numbers may not add due to rounding.

** Includes congressional adds.

(continued on next page)

	FY94	FY95	FY96	FY97
Night Vision	41	43	40	39
Armored Systems Modifications-ED	89	62	38	21
Non-System Training Devices-ED	57	47	55	53
BAT	122	117	193	186
SADARM-ED	42	41	17	4
Longbow	271	169	24	4
Other	600	525	397	356
Subtotal	1,693	1,618	1,059	1,052
RDTE MANAGEMENT SUPPORT				
Major Test & Evaluation	32	50	67	44
Army Test Range Facilities	145	154	147	146
Army Kwajalein Atoll	169	162	150	144
Support of Operation Testing	52	32	46	50
Programwide Activities	97	96	64	55
Environmental Compliance	51	56	66	49
Maintenance & Repair - RPM	63	81	96	65
Base Operations	276	296	330	313
Other	343	267	207	181
Subtotal	1,228	1,194	1,173	1,047
OPERATIONAL SYSTEMS DEVELOPMENT				
Combat Vehicles Improvement Program	109	110	198	170
Horizontal Battlefield Digitization	20	83	89	81
MLRS PIP	42	58	69	54
Other MSL PIP	67	67	58	6
SATCOM Ground Environment	134	67	56	41
Other	257	185	138	133
Subtotal	629	570	608	485
Total	5,413	5,481	4,444	4,241

* Numbers may not add due to rounding.

** Includes congressional adds.