

**GAO**

Fact Sheet for the Chairman,  
Subcommittee on Procurement and  
Military Nuclear Systems Investigations  
Committee on Armed Services  
House of Representatives

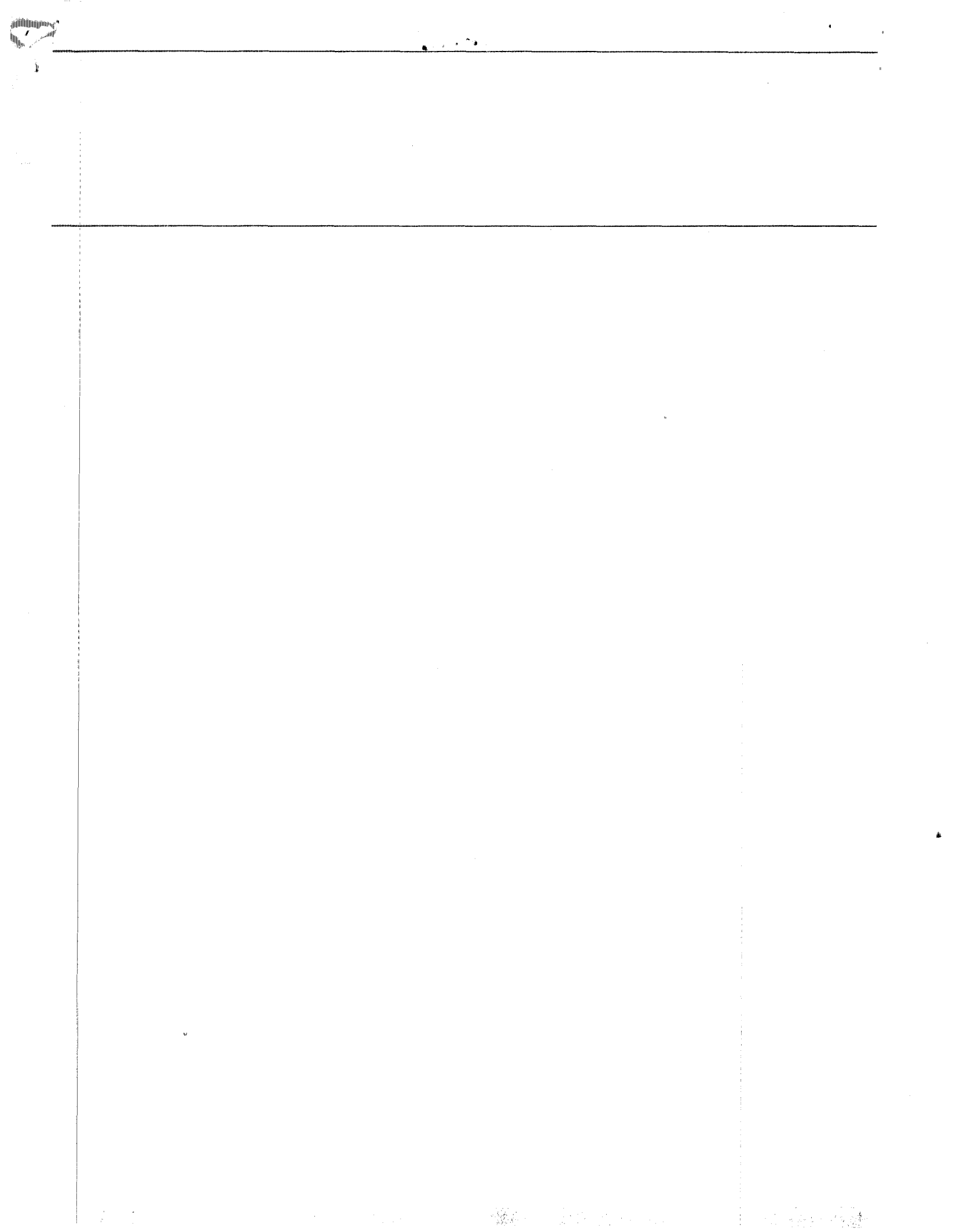
February 1986

# ARMY BUDGET

## Selected Analyses of M1 Tank Budgets for Fiscal Years 1980-85



129233





UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

NATIONAL SECURITY AND  
INTERNATIONAL AFFAIRS DIVISION

February 25, 1986

B-222085

The Honorable Samuel S. Stratton  
Chairman, Subcommittee on Procurement and  
Military Nuclear Systems Investigations  
Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

This responds to your September 6, 1985, request for a trend analysis of the Army's budgeting for the M1 tank program for fiscal years 1980 through 1985. On January 29, 1986, we provided your office with some preliminary results of our analysis. As agreed, we have summarized our findings in several tables. (See app. I.)

Our analysis covered four M1 budget lines for the M1 project budget--M1 Tank, M1 Advance Procurement, M1 Training Devices, and M1 Modifications. We made our analysis on the basis of data provided by the Army's Tank-Automotive Command (TACOM), Warren, Michigan. In conducting our review, we interviewed Army officials and reviewed and analyzed various budget documents, cost estimates, and other documents used to prepare the Army's budget requests. We also analyzed prior fiscal years' budget execution documents, including records of reprogramming actions. Although we did not request official agency comments on this document, we did discuss our results with Army officials and considered their views in preparing the accompanying tables. Our review was performed in accordance with generally accepted government auditing standards.

As discussed with your office, we encountered a problem in responding to your request that we relate budget cost estimates to actual costs at the cost element level. According to TACOM officials, the Army does not record cost estimates using the same cost elements as in the budgets. We did, however, find

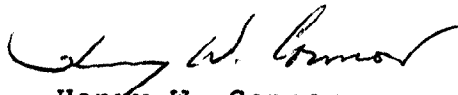
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unofficial estimates of program costs by cost elements for fiscal years 1984 and 1985. As a result, we were able to measure variances between the budget estimate and the current cost estimates at the cost element level for those 2 years.

As arranged with your office, we are sending copies of this fact sheet to various congressional committees; the Director, Office of Management and Budget; and the Secretaries of Defense and the Army. Copies will also be made available to other interested parties upon request.

If you have any questions concerning our review, please call me on (202) 275-4141.

Sincerely yours,



Henry W. Connor  
Senior Associate Director

SELECTED ANALYSES OF M1 TANK BUDGETS  
FOR FISCAL YEARS 1980-85

The following tables show the results of our analyses of M1 tank budgets for fiscal years 1980-85.

Table I.1 summarizes the budgets for the M1 Tank budget line, the M1 Advance Procurement (Adv. Proc.) budget line, the M1 Training Devices (Train. Dev.) budget line, and for program years 1984 and 1985, the M1 Modifications (Mods.) budget line. Supplemental appropriations have been added to the appropriate budget lines. The table shows (1) budgeted quantities and dollars for each fiscal year as it appeared in the President's budget request, (2) what was appropriated by the Congress, (3) the current program, and (4) the funds obligated and unobligated.

Table I.2 shows the M1 budget line increases and decreases that have occurred after the appropriation was made and briefly explains the changes (i.e., the difference between the appropriation and the current program). The changes represent changes in spending authority for the M1 tank project.

Tables I.3 and I.4 show changes in the M1 Tank budget line for fiscal years 1984 and 1985, respectively, at the cost element level. Information included in the allocation of appropriation column was taken from documents supporting the Army's budget request, whereas the program cost estimates as of January 1986 were obtained from informal TACOM records.

Table I.1

## M1 Tank Budget For FYs 1980-85 as of September 30, 1985

(amounts in millions of current dollars)

Program year	Budget line	Budget request		Appropriation		Current program		Changes from appropriation to current program			Status of current program	
		Units	Amount	Units	Amount	Units	Amount	Units	Amount	Percent of amount	Obligated	Unobligated
1980	M1 Tank	352	\$ 576.9	352	\$ 579.2	309	\$ 578.6	(43)	\$ (0.6)	(0.1)	\$ 574.6	\$ 4.0
	Adv Proc		70.7		70.7		70.5		(0.2)	(0.2)	70.5	.0
	Train Dev		18.4		18.4		14.9		(3.5)	(19.0)	14.9	.0
	Total	352	\$ 666.0	352	\$ 668.3	309	\$ 664.0	(43)	\$ (4.3)	(0.6)	\$ 660.0	\$ 4.0
1981	M1 Tank	569	\$ 946.3	569	\$1,283.8	569	\$1,213.4	0	\$ (70.4)	(5.5)	\$1,209.5	\$ 3.9
	Adv Proc		98.9		135.9		133.9		(2.0)	(1.5)	133.9	0.0
	Train Dev		5.4		6.4		8.6		2.2	34.7	6.6	2.0
	Total	569	\$1,048.6	569	\$1,426.1	569	\$1,355.9	0	\$ (70.2)	(4.9)	\$1,350.0	\$ 5.9
1982	M1 Tank	665	\$1,345.9	665	\$1,345.9	665	\$1,202.5	0	\$ (143.4)	(10.7)	\$1,201.6	\$ 0.9
	Adv Proc		212.1		212.1		212.0		(0.1)	(.0)	212.0	0.0
	Train Dev		50.7		50.5		60.4		9.9	19.6	60.1	0.3
	Total	665	\$1,608.7	665	\$1,608.5	665	\$1,474.9	0	\$ (133.6)	(8.3)	\$1,473.7	\$ 1.2
1983	M1 Tank	776	\$1,457.0	855	\$1,558.6	855	\$1,444.5	0	\$ (114.1)	(7.3)	\$1,444.4	\$ 0.1
	Adv Proc		432.3		380.9		368.4		(12.5)	(3.3)	368.3	0.1
	Train Dev		58.2		58.2		62.3		4.1	7.0	61.9	0.4
	Total	776	\$1,947.5	855	\$1,997.7	855	\$1,875.2	0	\$ (122.5)	(6.1)	\$1,874.6	\$ 0.6
1984	M1 Tank	720	\$1,361.2	840	\$1,450.8	840	\$1,200.0	0	\$ (250.8)	(17.3)	\$1,139.6	\$ 60.4
	Adv Proc		251.1		290.8		290.8		0.0	0.0	290.8	0.0
	Mods		0.0		0.0		2.0		2.0	--	2.0	.0
	Train Dev		31.6		31.3		41.2		9.9	31.6	36.0	5.2
Total	720	\$1,643.9	840	\$1,772.9	840	\$1,534.0	0	\$ (238.9)	(13.5)	\$1,468.4	\$ 65.6	
1985	M1 Tank	720	\$1,469.4	840	\$1,545.0	840	\$1,531.7	0	\$ (13.3)	(0.9)	\$1,273.4	\$258.3
	Adv Proc		289.4		313.6		301.3		(12.3)	(3.9)	241.8	59.5
	Mods		8.0		0.0		0.0		0.0	--	0.0	0.0
	Train Dev		37.1		37.1		37.3		0.2	0.5	34.2	3.1
Total	720	\$1,803.9	840	\$1,895.7	840	\$1,870.3	0	\$ (25.4)	(1.3)	\$1,549.4	\$320.9	

Table I.2

M1 Budget Line Transactions as of September 30, 1985

(amounts in millions of current dollars)

Program year	Transaction year	M1 tank budget line items				Explanation of changes
		M1 Tank	M1 Advance Procurement	M1 Modification	M1 Training Devices	
1980	1980	\$ 4.900	\$		\$(4.900)	To M1 Tank from Training Devices.
	1981	(0.681)			0.681	From M1 Tank to Training Devices.
	1982		(0.162)			To Production Base Support (PBS) - Bridge Crane Renovation.
		(0.242)			0.242	From M1 Tank to Training Devices.
	1983	(0.438)				To PBS - Bridge Crane Renovation.
		(1.439)				Held by Army Materiel Command (AMC) due to excess funding.
	1984	0.073			(0.365)	Held by AMC due to excess funding.
					0.400	From Medium Recovery Vehicle.
		(0.447)			0.447	From AMC.
		(2.300)				From M1 Tank to Training Devices.
					Held by AMC.	
	Total	\$ (0.574)	\$ (0.162)		\$(3.495)	
1981	1981	\$ (20.000)	\$		\$	Held by DA due to inflation index adjustment.
			(2.000)		2.000	From Advance Procurement to Training Devices.
	1983	5.773			(0.100)	Held by AMC due to inflation index adjustment.
		(7.000)				From AMC.
		(3.000)				To Division Air Defense Gun (DIVAD) support.
		1.227				To Production Base Support.
					(1.227)	From AMC.
		1.200			1.227	Held by AMC.
		0.400			(1.200)	From AMC.
		(0.773)			0.100	To M1 Tank from Training Devices.
	(1.047)			(0.400)	To M1 Tank from Training Devices.	
	(67.000)			0.773	From AMC.	
	(0.170)			0.773	From M1 Tank to Training Devices.	
1984	20.000			1.047	From M1 Tank to Training Devices.	
					Returned for reprogramming to FY 1983.	
					To Production Base Support.	
					From AMC.	
	Total	\$ (70.390)	\$ (2.000)		\$ 2.220	

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Table I.2

(continued)

## M1 Budget Line Transactions as of September 30, 1985

(amounts in millions of current dollars)

Program year	Transaction year	M1 tank budget line items				Explanation of changes
		M1 Tank	M1 Advance Procurement	M1 Modification	M1 Training Devices	
1982	1982	\$ (1.900)	\$	(0.100)	\$	To Muzzle Loader Boresight. Held by Department of the Army (DA). 3.900 From TACOM Secondary Items - Spares. 3.000 From TACOM M88 Vehicles. 0.800 From Army Armament, Munitions, and Chemical Command (AARCOM) Secondary Items - Spares. (0.100) Held by Office of Secretary of Defense (OSD). To DIVAD. To DIVAD. To Production Base Support. To Thermo Receivers - Spares. 2.290 From M1 Tank to Training Devices. Returned for reprogramming to FY 1983. To Production Base Support. From Bradley FVS for M1 test sets. From M88A1 for M1 test sets. From Bradley FVS for M1 test sets. From AMC. From M60 for M1 test sets. (2.241) To M1 Tank from Training Devices. 2.241 From M1 Tank to Training Devices. From Bradley Fighting Vehicle System. Held by DA. Held by AMC. Rounding difference (according to TACOM).
	1983	(9.900)				
		(0.100)				
		(2.091)				
		(2.100)				
		(2.290)				
		(131.200)				
	1984	(3.000)				
		8.292				
		0.200				
		0.240				
		0.014				
		1.619				
		2.241			(2.241)	
		(2.241)			2.241	
		1.000				
		(1.999)				
		(0.115)				
		(0.085)				
Total		\$ (143.415)	\$	(0.100)	\$ 9.890	



Table I.2

(continued)

## M1 Budget Line Transactions as of September 30, 1985

(amounts in millions of current dollars)

Program year	Transaction year	M1 tank budget line items				Explanation of changes
		M1 Tank	M1 Advance Procurement	M1 Modification	M1 Training Devices	
1983	1983	\$ 0.850 (7.100) (0.350)	\$		\$ 7.100 (0.470) 0.470	From M240 Armor Machine Gun. From M1 Tank to Training Devices. To Production Base Support. Held by OSD. From OSD.
	1984	7.000 9.000 (3.691) (0.230)				From Bradley Fighting Vehicle System. From Bradley Fighting Vehicle System. To Production Base Support. To Production Base Support. Held by OSD.
	1985	1.300 0.300 3.000 (1.300) (32.100) (0.100) (1.000)  6.600 (96.300)	(12.500)		(3.000)          (0.050)	From Secondary Items - Spares. From M60 Training Devices. To M1 Tank from Training Devices. To Secondary Items - Spares. Held by AMC due to excess funding. Held by AMC. To Spares. Held by AMC due to excess funding. From DA. Held by AMC.
Total		\$(114.121) =====	\$(12.500) ----- =====		\$ 4.050 ----- =====	

Table I.2

(continued)

## M1 Budget Line Transactions as of September 30, 1985

(amounts in millions of current dollars)

Program year	Transaction year	M1 tank budget line items				Explanation of changes
		M1 Tank	M1 Advance Procurement	M1 Modification	M1 Training Devices	
1984	1984	\$ (9.900)	\$	\$	\$	To M60 Training Devices.
		(1.999)		1.999		From M1 Modification to M1 Tank.
		(9.900)	(42.000)		9.900	Held by OSD.
	1985	(20.800)	42.000			From M1 Tank to Training Devices.
		(155.600)				Held by AMC due to excess funding.
		(52.600)				From OSD.
						To OSD for the MX Missile.
						To DA.
	Total	\$ (250.799)	\$ 0.000	\$ 1.999	\$ 9.900	
		=====	=====	=====	=====	
1985	1985	\$ 45.000	\$		\$	From DA.
		(7.000)				Held by DA.
		(45.000)				Held by DA.
		(1.300)				To Production Base Support.
		(3.000)				To M60 Modification.
		(2.000)				To M60 Modification.
			(11.000)			To OH-58 Helicopter
			(1.300)			To PBS - Lima Plant Expansion.
					2.200	From Medium Recovery Vehicle.
					2.100	From M60 Training Devices.
					3.100	From M60.
					(5.000)	Held by AMC.
					(2.200)	To M88.
	Total	\$ (13.300)	\$ (12.300)		\$ 0.200	
		=====	=====		=====	

Table I.3

## FY 1984 M1 Budget Line Cost Elements as of January 1986

(amounts in current dollars)

M1 tank cost elements	Allocation of appropriation	Program cost estimate as of January 1986	Change from appropriation	
			Amount	Percent
Basic vehicle, radio harness, block mods	\$ 583,100,000	\$ 520,497,560	\$ (62,602,440)	(10.74)
Engineering change orders	18,000,000	353,812	(17,646,188)	(98.03)
Engine	235,200,000	225,686,991	(9,513,009)	(4.04)
Transmission	151,600,000	145,219,038	(6,380,962)	(4.21)
Fire control	53,200,000	49,609,421	(3,590,579)	(6.75)
Track	15,100,000	10,255,344	(4,844,656)	(32.08)
Gun and mount	8,900,000 a	7,422,550	(1,477,450)	(16.60)
120-mm. delta (change)	4,400,000 a	800,000	(3,600,000)	(81.82)
Driver's night viewer	3,200,000	3,106,414	(93,586)	(2.92)
Basic issue list items	2,600,000	4,339,965	1,739,965	66.92
Gas particulate filter	1,300,000	301,876	(998,124)	(76.78)
Test sets	51,700,000	19,382,819	(32,317,181)	(62.51)
Special tools	11,800,000	7,404,889	(4,395,111)	(37.25)
Sustaining tooling	7,100,000	110,000	(6,990,000)	(98.45)
Contracted engineering, quality assurance, and document maintenance	92,700,000	88,654,536	(4,045,464)	(4.36)
Government engineering	3,100,000	8,838,982	5,738,982	185.13
Quality assurance, government	1,600,000	450,031	(1,149,969)	(71.87)
Test and refurbishment	15,600,000	16,517,249	917,249	5.88
Auxiliary services contracted	28,500,000	25,589,511	(2,910,489)	(10.21)
Reliability, availability, maintainability-durability/maintainability	0	958,000	958,000	--
Other projects	49,900,000	79,570,000	29,670,000	59.46
Should cost team	1,600,000	1,715,071	115,071	7.19
Management reserve	45,300,000	0	(45,300,000)	--
Held by Office of Secretary of Defense	65,300,000 b	0	(65,300,000)	--
Total	\$1,450,800,000	\$1,216,784,059	\$ (234,015,941)	(16.13)

a/These cost elements may not be directly comparable to cost elements in the current program because of changes in the cost element definitions.

b/This is not a budget line cost category. The \$65,300,000 was appropriated but was withheld from TACOM so it was not allocated to M1 costs.

Table I.4

FY 1985 M1 Budget Line Cost Elements as of January 1986

(amounts in current dollars)

M1 tank cost elements	Allocation of appropriation	Program cost estimate as of January 1986	Change from appropriation	
			Amount	Percent
Basic vehicle, block mods	\$ 718,500,000	\$ 717,924,461	\$ (575,539)	(0.08)
Engineering change orders	8,400,000	8,600,000	200,000	2.38
Engine	248,900,000	246,800,000	(2,100,000)	(0.84)
Transmission	153,200,000	146,800,000	(6,400,000)	(4.18)
Fire control	52,600,000	55,900,000	3,300,000	6.27
Track	16,100,000	10,436,469	(5,663,531)	(35.18)
Gun and mount	15,500,000 a	6,913,405	(8,586,595)	(55.40)
120-mm. delta (change)	67,500,000 a	32,978,806	(34,521,194)	(51.14)
Driver's night viewer	4,600,000	4,084,000	(516,000)	(11.22)
Basic issue list items	3,800,000	2,710,108	(1,089,892)	(28.68)
Radio harness	4,000,000	1,011,780	(2,988,220)	(74.71)
Gas particulate filter	1,900,000	1,021,567	(878,433)	(46.23)
Test sets	45,800,000	25,400,000	(20,400,000)	(44.54)
Special tools	12,200,000	2,600,000	(9,600,000)	(78.69)
Sustaining tooling	0	3,735,062	3,735,062	--
Contracted engineering, quality assurance, and document maintenance	83,700,000	83,900,000	200,000	0.24
Government engineering	1,700,000	6,300,000	4,600,000	270.59
Quality assurance, government	3,300,000	700,000	(2,600,000)	(78.79)
Test and refurbishment	18,900,000	15,600,000	(3,300,000)	(17.46)
Auxiliary services contracted	30,100,000	24,700,000	(5,400,000)	(17.94)
Reliability, availability, maintainability - durability/maintainability	0	2,700,000	2,700,000	--
Other projects	45,600,000 a	111,975,000	66,375,000	145.56
Should cost team	1,700,000	2,029,465	329,465	19.38
Management reserve	Not listed	8,879,877	8,879,877	--
Held by Department of the Army	7,000,000 b	0	(7,000,000)	--
<b>Total</b>	<b>\$1,545,000,000</b>	<b>\$1,523,700,000</b>	<b>\$(21,300,000)</b>	<b>(1.38)</b>

a/These cost elements may not be directly comparable to cost elements in the current program because of changes in the cost element definitions.

b/This is not a budget line cost category. The \$7,000,000 was appropriated but was withheld from TACOM so it was not allocated to M1 costs.

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