



# REPORT OF THE COMPTROLLER GENERAL OF THE UNITED STATES

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**RELEASED**

## Increasing Procurement Cost Of M60A1 Tanks

*B-133295*

Department of the Army

The Army negotiated a unit price of \$385,000 for 439 M60 tanks it purchased in 1975. This is 29 percent more than it paid a year earlier. Whether or not this price is reasonable is a matter of judgment that could vary among individuals.

The cost could go higher because some of the major contracts will be repriced when they are completed. The price rise stems from the requirement for increased tank production at a time when industrial capacity is limited and inflation is continuing.

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COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20543

B-133275

The Honorable Les Aspin  
House of Representatives

Dear Mr. Aspin:

In response to your letter of February 3, 1975, regarding rising costs of the M60A1 tank, we have completed our review of the Army's tank procurement which was financed from its fiscal year 1975 appropriation. Our objectives were to evaluate the justification for the current tank price and the reasons for the increase over the fiscal year 1974 price.

Since an Army-sponsored, should-cost study of this procurement and an audit by the Defense Contract Audit Agency had just been completed, we were able to obtain considerable information from reports prepared as a result of these reviews. In our opinion, these reviews were comprehensive and obviated the need for us to visit contractor plants to verify the cost data.

Instead, we examined contractor proposals and supporting data furnished to the Army and reviewed the record of negotiations. For purposes of comparison, we also had data available which we had obtained from a pricing review of the vehicle and engine contracts covering the 1974 procurement.

We obtained earned profit information on tank production from Chrysler's defense division. Chrysler considers the data on earned profit to be proprietary and we are furnishing it under separate cover.

As agreed with your office we obtained informal comments on a draft of this report from the Army and from Chrysler. Those views which we considered to be appropriate have been incorporated in the report.

The Army's production contract with Chrysler requires the contractor to assemble 1,240 M60A1 tanks and deliver them over a 19-month period from July 1975 through January 1977 at a contract price of \$317 million. The quantity includes 281 tanks purchased for the Army's use, 225 for foreign military sales, and 134 for the Marine Corps.

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The tank configurations vary depending on whom the customer is to be. Therefore, components and unit prices vary slightly for each configuration.

Chrysler is responsible, by contract, to acquire certain materials and to manage vehicle assembly operations primarily at the Government-owned, contractor-operated Detroit Arsenal Tank Plant. Chrysler's contractual share represents about 60 percent of the tank's unit price. Government-furnished items and services represent the remaining 40 percent.

Since your interest centered around the 439 tanks, out of the total to be produced, which are being financed from the Army's fiscal year 1975 procurement appropriation, we confined our review to analyzing the price that was paid for this specific quantity. Additional tanks purchased for the Army's use included 309 tanks which are to replace tanks previously furnished out of the Army inventory to foreign allies and 133 tanks purchased from a 1974 supplemental appropriation. The unit prices of these quantities varied somewhat from the price paid for the 439 tanks. We computed a unit price for the 439 tanks of \$385,000 as of March 1, 1976, the date we ended our review. The price includes, in addition to Chrysler's charges for the vehicle, the cost of the Government-furnished portion. It is 29 percent higher than the \$298,000 unit price the Army paid for 360 tanks bought under its 1974 program. (See appendix.)

Our interim reply to you on August 11, 1975, dealt with the Army's basis for estimating the tanks' cost. The Army originally anticipated a 39-percent increase over the 1974 price. We stated that for the most part, the Army's estimate represented a compilation of firm prices, prices proposed by contractors for contracts not yet awarded, and cost estimates furnished by Army arsenals'. We also stated that our determination as to the reasonableness of the estimate would have to await completion of contract negotiations with Chrysler and other major prime contractors.

The Army and Chrysler signed a contract in October 1975 but even now a unit price for the complete tank is not firm because

--certain items subcontracted by Chrysler priced at about \$98 million and Chrysler's home office expenses estimated at \$10 million, are subject to repricing provisions:

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--about \$60 million of material and labor costs are subject to price adjustments based upon future economic conditions; and

--prices for certain Government-furnished equipment are still based on estimates.

With approximately 45 percent of the tank costs still subject to possible repricing, the final price may exceed the 1974 price by more than the 29 percent projected in March. We believe the 29-percent increase is due mainly to acceleration of the tank's production by the Army, and the effects of inflation.

For the 1975 program, the Army accelerated production by over 60 percent to an average of 65 tanks a month from approximately 40 a month for the 1974 program. According to the Secretary of Defense, increased tank production was necessary because

--a review of attrition rates, partly based upon experience during the Middle East war, pointed up the need for additional war reserves;

--tanks were previously provided to other nations (particularly Israel) out of the U.S. inventory;

--a special contingency reserve was to be established to meet unanticipated emergency requirements of allies; and

--three new combat divisions were added to the active Army.

Plant and equipment expansion is under way to further increase production capability to 120 tanks a month.

Contractors were asked to increase the quantities produced without obtaining an extension of their normal delivery period. In certain situations, increased production might be expected to result in lower unit production costs. But apparently whatever savings could be achieved through increased production were offset by costs of additional tooling, test equipment, plant rearrangement, and direct labor overtime. In addition, sporadic quantity increases that occurred before the contract was finalized, negated possible savings that would otherwise be expected with a large single order. It is also likely that the urgency *the*

Army attached to the procurement, and the limited sources of supply known to be available, permitted some producers to adopt a more independent stance in negotiating prices.

The effects of the continuing upward inflation spiral were evident from the unwillingness of some of the major suppliers to accept contracts which did not provide for some form of price redetermination. Unfortunately, this created a situation where the Army was precluded from reaching agreement on a firm contract price for a major item which has been produced by the same contractors in essentially the same configuration for more than a decade.

Whether or not the 1975 M60A1 tank price is reasonable is a matter of judgment that could vary among individuals. Although the circumstances placed the Army in an unfavorable negotiating position, the record shows that the Army made a conscientious effort prior to negotiations, particularly through should-cost studies, to determine the reasonableness of contractor proposed prices. These studies and other audits helped reduce prices during negotiations, but the benefits may be lost by the Army's inability to establish firm prices. If conditions such as the urgent need for tanks and the instability of the economy were not present, it is possible that the Army could have fared better in the negotiations.

The price of the tanks increased at a *lesser* rate than the 39 percent originally estimated by the Army because

- material acquired by Chrysler was either negotiated or provisionally priced at lower costs than the Army anticipated, and
- the Army ultimately decided against using Chrysler for most fire control items after Chrysler proposed a price for the fire control system about 4 times greater than what the Army had paid the previous year.

In testifying on the price increase before a Senate Armed Services Subcommittee, the Army broke down the price difference of *the* two fiscal year procurements into seven categories of variances. In your letter you asked that we try to analyze each of the variances. However, soon after beginning our audit we determined that the most practical way to analyze the price increase was to examine *the* separate contracts for the major tank components.

Our evaluation of the 1975 price increase broken down by vehicle, engine, transmission, track, fire control, engineering, and gun and mount, follows.

VEHICLE

Chrysler Corporation is the only manufacturer of the M60A1 tank. Production of this tank has been continuous since 1962. Fixed price contracts are generally awarded annually,

To initiate the purchase from the fiscal year 1975 appropriation, the Army awarded a letter contract to Chrysler in June 1974. In February 1975, Chrysler submitted its original proposal of \$355 million. Over the next seven months, in discussions among the Army, the should-cost team, and Chrysler, revisions were made concerning additions to the scope, the recognition of additional costs, and a reduction for terminated fire control units which netted out to a revised proposed price of \$375 million. Final negotiations were completed in September 1975, about 2 months into the 19-month delivery period. The price was negotiated downward to \$317 million and a fixed-price contract with certain provisionally priced items (including economic price adjustments for labor and certain material) was signed in October 1975. The cost elements are categorized below.

CHRYSLER CONTRACT FOR 1,240 TANKS

<u>Cost elements</u>	<u>Proposed (millions)</u>	<u>Percent of total</u>	<u>Negotiated (millions)</u>	<u>Percent of total</u>
Purchased parts (including subcontracts)	\$186.6	52	\$164.1	52
Labor	13.3	4	12.4	4
Overhead	60.8	16	51.8	16
Interdivisional	27.8	7	24.9	8
Home office	12.4	4	10.0	3
Other costs	<u>39.0</u>	<u>10</u>	<u>27.3</u>	<u>9</u>
	<u>340.4</u>	<u>91</u>	<u>290.5</u>	<u>92</u>
Profit	34.0	9	25.5	8
Adjustment (note a)	<u>.8</u>	<u>-</u>	<u>.8</u>	<u>-</u>
Total.	<u>\$375.2</u>	<u>100</u>	<u>\$316.8</u>	<u>100</u>

a/Certain costs and profit for 15 tanks added to the contract after formal negotiations.

The Army made a should-cost study of Chrysler's proposal to determine what the tank ought to cost and to use in final negotiations. For various periods from March through September 1975, a team of about 60 Government specialists was involved in the study. According to the Army, this cost analysis technique was applied because of (1) the substantial production cost increase over the previous year, (2) the decision to accelerate tank production, and (3) the continued sole source procurement from Chrysler.

We determined the unit vehicle cost to the Army for 439 tanks to be about \$230,000 excluding Government-furnished items. This is \$43,000, over 23 percent, above the previous year's unit cost of \$187,000.

Purchased warts  
(including subcontracted components)

Parts purchased by Chrysler, including subcontracted components, represent about 50 percent of the vehicle contract price. About one-half of the parts and component costs are associated with hull, turret, and gun shield castings which are subcontracted on a noncompetitive basis. The contract provides for production of 1,316 sets of castings--1,240 to be assembled into tanks and 76 to be left unassembled for inclusion in a follow-on contract.

The casting subcontractor is a major supplier of heavy machinery and equipment to the steel industry. This company has continually produced tank castings since 1940, yet it was unwilling to submit a definitive proposal to Chrysler for 798 of the 1,316 castings until negotiations, which involved considerable disagreement as to price, were completed on the first 518. Therefore, only a provisioner price for the entire quantity, which is subject to further negotiations and repricing, was included in the Army's contract with Chrysler. Chrysler proposed an amount of \$94 million for the 1,316 castings. The Army's should-cost team recommended a substantial reduction, mainly in the areas of manufacturing overhead, general and administrative costs and profit. The negotiated provisional price is now set at \$77 million--a reduction of about 18 percent from the proposed price. The Army now expects the final price to be close to the provisional price.

The Army has had particular difficulty expanding its casting production base to meet tank production requirements. The current subcontractor's plant capacity is limited. According to the Army, all interested heavy armor producers

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would have had to resort to costly expansion to meet the Army's production needs. Army officials believe the lack of production capacity (or, conversely, the demand for more tanks) strengthened the subcontractor's hand in its negotiations with Chrysler.

The casting subcontractor pointed out that

--the production base of large foundries in the United States has significantly deteriorated partly because of Government environmental restrictions;

--foundry industry management had not sensed the need to upgrade equipment: and,

--larger profits are necessary to make such investments attractive.

The subcontractor's original profit proposal was 25 percent of estimated costs, but was subsequently reduced to 15.8 percent, through Chrysler's negotiation efforts.

For the next procurement, to be financed from its 1976 appropriation, the Army solicited competitive proposals from other sources. Two additional U.S. firms and two foreign firms responded, but the same producer was selected for the new purchase primarily because it submitted the lowest price both for production and for facility expansion at a second site.

For the remaining one-half of the parts costs, the differences between the amount proposed and the Army's should-cost recommendations were not as great as for castings. Chrysler's proposed price of \$92 million was negotiated downward to \$87 million or about 6 percent less.

Higher value items (over \$100 unit price, and sole source purchases over \$100,000, were all reviewed by the should-cost team. The Army's and Chrysler's records of negotiation were contradictory. The contracting officer's memorandum of negotiations stated that five of the sole source subcontractors, with parts priced at about \$5 million, refused to supply supporting cost documentation or negotiate acceptable prices, and that Chrysler did little more than accept the quoted price. Chrysler maintained that it was furnished the cost data but that two subcontractors refused to negotiate their prices which amounted to an aggregate of about \$1 million,



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Of the total \$164 million for parts negotiated by the Army with Chrysler, items priced at \$48 million are still subject to change because of a clause included in the vehicle contract calling for an upward or downward economic price adjustment to be based on actual costs incurred. The Army estimates an increase of \$3.4 million, or 7.1 percent, through December 1976. The contractual ceiling allows for an adjustment of up to 50 percent.

#### Labor and overhead

Labor and overhead costs for manufacturing represent about 20 percent of the vehicle contract price.

The labor consists mainly of welding, machining, and assembly operations which are characterized as semi-skilled functions. The negotiated amount of \$12 million was about 7 percent less than the \$13 million proposed by Chrysler. The negotiated labor rates include an 8-percent increase to cover the anticipated results of labor negotiations to be held with the United Auto Workers Union in September 1976. The contract ceiling allows for an adjustment of up to 50 percent. In addition, actual cost-of-living allowances are to be paid on a quarterly basis and could differ from the estimated amount negotiated.

Although the Army did not raise any particular issue regarding Chrysler's labor efficiency during its analysis of contractor costs, it has found that over a period of several years the actual labor hours spent in production far exceeded the standard. Chrysler attributes the continuous low efficiency to the Army's poor scheduling, a requirement to produce a mixture of tank configurations, and the use of old production equipment and machines. The Army attributes the scheduling problem to fluctuating tank requirements.

The Army's analysis and negotiations of manufacturing overhead costs proposed by Chrysler, totaling \$61 million, resulted in a \$9 million reduction, or 15 percent, bringing the costs down to \$52 million. These costs are incorporated into the contract based upon estimated direct labor hours at three Chrysler plants. The contract provides for an equitable upward or downward adjustment if a substantial variation in these hours materializes.

#### Interdivisional, home office, and other costs

Approximately 50 percent of the vehicle contract price consists of interdivisional, home office, and other costs.

Interdivisional costs applied to the contract are for vehicle parts supplied by five Chrysler divisions. The Army conducted separate negotiations with these divisions and succeeded in obtaining a reduction from the proposed \$28 million to \$25 million. The largest exception taken by the Army to the proposed price involved an excessive number of labor hours estimated to produce rangefinders-- an item used by tank gunners for determining the distance to targets.

Defense auditors questioned Chrysler's \$13 million proposal for home office expenses, particularly its estimates for independent research and development, and for bid and proposal costs. The Army stated that Chrysler historically overestimates these costs. Chrysler maintained that the amounts it proposed were not unreasonable when compared with its incurred overhead costs. An agreement on how much to allow had not been reached as of March 1976. The \$10 million established in the contract is a provisional amount pending the outcome of negotiation of the calendar year 1976 rate with Chrysler.

Other proposed costs of \$39 million consisted primarily of nonrecurring costs required to accelerate tank production. These were reduced to \$27 million, or by about 31 percent, in the negotiations. However, the principal effect of the negotiated reduction was to transfer the major portion of these costs from the vehicle contract to a separate facilities contract which bears no home office expense or profit.

#### Profit

The Army used the cost-based weighted guidelines approach contained in procurement regulations to develop a prenegotiated profit objective. Chrysler's proposed profit of \$34 million was reduced to \$25 million because the Army negotiated lower costs as well as a lower profit rate.

The table below shows Chrysler's proposed and negotiated profit rates based on tank production costs for fiscal years 1974 and 1975. For comparison purposes, the table also shows Department of Defense median average profit rates as a percentage of costs for the same fiscal years. These DOD statistics were developed from (1) an analysis of negotiated firm, fixed-price, prime-production contracts which are susceptible to cost and profit analysis and (2) the contracting officers' estimates of cost and profit immediately following completion of negotiations with the contractors. Profit rates on production contracts at Government-owned, contractor-operated plants are not included in these statistics.

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Fiscal Year	Chrysler tank contracts		DOD contracts (note a)		
	Proposed	Negotiated	Rate	Number	Amount (billions)
1974	11.0	9.4	11.5	934	\$ 2.3
1975	10.0	8.8	11.8	1,262	\$ 3.3

a/Source: Office of the Assistant Secretary of Defense (Comptroller)

There is less risk involved in the tank contract than may be present in many of the contracts included in DOD's compilation. Chrysler's lower profit rate is consistent with this reduced risk factor. The Army considers Chrysler's cost risk to be below normal because the contractor:

--Has been in a sale source position since 1959.

--Incurred a substantial amount of costs under letter contracts.

--Was receiving 100-percent progress payments instead of the normal 80 percent. (The 100-percent progress payments continued through December 1975.)

The fact that Chrysler's contract allows for labor and material price adjustments also reduces the risk.

In addition, the tank plant and almost all tooling and equipment is Government-owned. According to the Army, Chrysler's investment is practically nil--estimated at about \$22,000--which substantially reduces the contractor's risk. Army records did not identify the types of assets included. Chrysler maintained it had \$25 million invested in accounts receivable and unbilled costs and that the \$22,000 covered only fixed assets.

Most of the Army's Government-owned, contractor-operated plants are for ammunition production, and cost-type contracts are usually awarded with fees averaging 3 to 4 percent of the costs. Army officials believe that tank production requires more specialized management talent than ammunition production. In addition, Chrysler does more subcontracting than ammunition contractors. These factors were deemed to justify a higher profit rate for Chrysler. It would appear that tank production does require significant managerial talent. On the other hand this would be counterbalanced by Chrysler's limited risks.

Since the early 1970s, the Department of Defense has been attempting to develop a profit policy that would give greater emphasis to contractor-invested capital. Both the Commission on Government Procurement and GAO have also recommended it.

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Such a policy could be detrimental to Chrysler because of its low investment under the Government-owned, contractor-operated arrangement.

In terms of return on investment for tank production, it is obvious that since Chrysler's investment is exceedingly small, its return on investment would be exceedingly high. A modified profit policy has not yet been implemented.

#### ENGINE

Teledyne Continental Motors has been the sole producer of diesel tank engines since 1959. In 1970 the Army established a product improvement program for the M60A1. Teledyne's engine was one of nine items selected for improvement. The improved engine was first installed in the M60A1 under the 1975 tank production program.

The Army conducted a should-cost study of Teledyne's new engine proposal in September 1974, and awarded a letter contract in February 1975 for 439 improved engines at a unit price of \$42,467. The letter contract had not been finalized as of last March because of continuing negotiations related to Teledyne's revised method of funding its pension program.

Recently the Army informed us that negotiations had been completed and a unit price of \$41,563 was established. Although this represents a 38-percent increase over the \$30,100 paid for the earlier model engines, it is nevertheless close to the amount recommended by the should-cost team. About 50 percent of the price increase is directly related to new components for improving the engine's reliability. Other material cost increases and higher overhead charges were also contributing factors to the higher cost of the new engine.

#### TRANSMISSION

General Motors Corporation has been the sole producer of tank transmissions since 1959. The contractor proposed a unit price of \$25,837 for the fiscal year 1975 procurement. The contract for the Army's 439 transmissions was finalized in February 1976 at a price of \$20,983 a unit. This is 28 percent higher than the fixed price of \$16,300 negotiated for fiscal year 1974. A fixed price redeterminable contract was negotiated because of market uncertainties, and because an extended delivery period made cost estimating more difficult. The final price is to be based on actual costs incurred and will be subject to audit.

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### TRACK

The track for each tank will cost 98 percent more than it did in the previous year. The unit price of \$19,203 was established in a firm, fixed-price, advertised contract with The Standard Products Company.

In April 1974, the Army advertised for bids by inviting 16 prospective suppliers to produce both production and spare tank track. Only 6 of the 16 prospective bidders solicited were actually considered qualified in the sense that their product had been successfully tested and met military specifications. However, Army officials said that anyone could produce the track as long as the rubberized portion was bonded by a qualified producer.

Three of the six qualified bidders responded with offers to produce the spare track, but only one of the three-- Standard Products--offered to produce the production quantity specified. The Army concluded that the competition was adequate because three firms bid on portions of the solicitation.

The Army accepted the \$19,203 offer because (1) it was the lowest bid by a contractor capable of fulfilling the requirement and (2) the alternatives of canceling the solicitation and readvertising, or seeking authority to reject the bids and procure by negotiations would, the Army believed, have taken too long to meet tank production schedules. Army officials believed that the price increase was because of inflation in the steel forging industry, and because the bidders included an additional amount in their bid as a hedge against future inflation.

### FIRE CONTROL

Several components of *the* tank fire control system such as telescope, periscope, and gun sight are purchased from different manufacturers. In fiscal year 1974 the Army's Frankford Arsenal purchased all the components for about \$10,200 a tank and provided them to Chrysler for installation.

In 1975 the Army decided to let Chrysler serve as a second procurement source in an attempt to improve component quality, but Chrysler's price estimate of \$38,900 was considerably higher than what the Army had previously paid. Chrysler explained its higher price as due to the Army's limiting it to procuring components from new, higher-priced sources, whereas the Arsenal was permitted to procure from existing lower-price sources. Due to Chrysler's higher price,

the Army reduced Chrysler's participation and allowed them to provide only 4 (of 13) components for which Chrysler had already completed negotiations with subcontractors. Chrysler's unit price on these four items totaled \$2,500, which was over 93 percent higher than Arsenal estimates for the same items.

The average unit price estimate for fire control components procured from all sources is now about \$16,454-- a 61-percent increase from 1974. This estimate was based on a combination of finalized contracts, most of which were competitively awarded; letter contracts; and funds remaining for obligation. We were informed that contributing to the increased unit price was the fact that contractors had to manufacture larger quantities for the accelerated tank program without securing extensions to normal delivery periods.

#### CONTRACT AND GOVERNMENT ENGINEERING

The vehicle, engine, and transmission contractors (Chrysler, Teledyne Continental, and General Motors) negotiated separate agreements with the Army to provide engineering support during production of their particular item. As of March 1976 cost reimbursable contracts had been awarded to Teledyne and General Motors but the contract for Chrysler's engineering support had not been finalized.

For the fiscal year 1974 tank purchase, the Army allocated *contract* engineering costs funded from the Procurement Appropriation to all M60 tanks (\$10,200 per tank). Engineering costs above \$10,200, which involved the integration of two items associated with the product improvement program, were funded from the Research and Development Appropriation and were not allocated to the tank. In 1975, the Army changed its method of allocating improvement costs and *charged* them to the tank. The effect of this change is 'to reflect a greater increase in estimated contract engineering costs--about a 75-percent increase--than may actually occur.

Army officials reasoned that *it* was proper to allocate increased tank improvement costs to the Army's tank and not to other tank customers because only the Army plans to buy the two new items.

The Army testified before the Subcommittee that there was an \$8,900 increase in engineering costs per tank over 1974 engineering costs. The increase included \$7,700 for contract engineering and \$1,200 for Government in-house engineering. The Army subsequently decided to uniformly charge the Government engineering costs for all tanks, including the Army's

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439. The Army now projects a \$100 increase in Government in-house engineering for the 439 tanks. The revised allocation seems equitable since all tanks benefited from Government engineering.

GUN AND MOUNT

The Army's Watervliet Arsenal in New York is the only producer of the tank's 105 millimeter gun. The unit cost is estimated at \$12,600 which is an 18-percent increase from the previous year's estimate of \$10,700. The primary reasons for this increase were an expected 38-percent increase in material costs and an expected 28-percent increase in manufacturing labor costs.

Mounts for the main gun are produced at the Army's Rock Island Arsenal in Illinois. However, the Army established a second procurement source because the Arsenal was unable to meet the planned production requirements. Chrysler was selected as this second source and will produce 150 of the 439 mounts required at \$13,760 each. The Arsenal will produce the remaining 289 mounts at \$10,504 each. The average cost for the 439 mounts, \$11,616, is 40 percent greater than the \$8,300 paid for each mount the previous year. The cost increase is attributed to a combination of rising material and labor costs at the Arsenal and to establishing a second production source at Chrysler. Chrysler maintains that its costs are higher than the Arsenal's because it uses older equipment than the Arsenal and is using newer vendors than those accustomed to producing mounts for the Arsenal.

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In answer to your question on the relative cost and effectiveness of the XM-1 and the M60A1 tanks, we refer to our recent report which we submitted to you on the Army's proposed acquisition of a new main battle tank (B-163058 dated June 24, 1976). We have no basis for disputing the Army's claim, based on its own analyses, that the XM-1 will be the more cost-effective tank. Our concern is that the Army analyses have not explored other alternatives which might have shown that the same or greater effectiveness could be achieved for less cost by varying the mixes of tanks and other anti-tank weapons,

Current information is too scant to permit a comparison of the West German contender, the Leopard 2 AV, with the XM-1. Although there are no major problems anticipated in securing the licensing rights to produce the Leopard 2 AV, this issue,

Comptroller General  
of the United States

Sincerely yours,  
*James R. Heath*

We hope the information in this report will be useful to you. If you desire, we will be glad to discuss these matters with you.

and the issue of the cost of the tank, are still being examined by RMC Corporation under an Army contract. Testing of the Leopard 2 AV is not scheduled to begin at Aberdeen Proving Grounds, Maryland, until September 1976. Although some information on the Leopard is available from the Army's test of an earlier version, comparisons of these results with the XM-1's performance potential would not be useful since the newer version of the Leopard has undergone important modifications.



ARMY M60A1 TANK UNIT PRICES  
FOR FISCAL YEARS 1974 AND 1975

<u>Components/Services</u>	1974 (360 Tanks)	1975 (439 Tanks)	Increase or (Decrease)	
			<u>Amount</u>	<u>Percent</u>
----- (thousands) -----				
Vehicle	<u>\$187.5</u>	<u>\$230.1</u>	\$ <u>42.6</u>	23
<u>Furnished by</u>				
<u>government</u>				
<u>(purchased from contractors)</u>				
Engine	30.1	41.5	11.4	38
Transmission	16.3	21.0	a.7	28
Track	9.7	19.2	9.5	98
Fire control	10.2	16.5	6.3	61
Add-on stabilization	9.2	9.6	.4	4
On-board equipment and material	2.0	1.1	(.9)	(45)
Contract engineering	<u>10.2</u>	<u>17.9</u>	<u>a/7.7</u>	<u>a/75</u>
	<u>87.7</u>	<u>126.8</u>	<u>39.1</u>	48
<u>Furnished by</u>				
<u>government from</u>				
<u>government sources</u>				
Main gun	13.7	12.6	1.9	18
Main gun mount	8.3	11.6	3.3	40
Government engineering	<u>3.7</u>	<u>3.e.</u>	<u>.1</u>	3
	<u>22.7</u>	<u>28.0</u>	<u>5.3</u>	23
Total	<u>\$297.9</u>	<u>\$384.9</u>	<u>\$87.0</u>	29

a/Increase arises from Army's allocation of costs of developing product improvements to the M60A1 tank in 1975, but not in 1974.