

BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

4363

Recent Changes In The Defense Department's Profit Policy--Intended Results Not Achieved

Implementing the Defense Department's new profit policy has increased the average profits negotiated with some defense contractors, without identifiably reducing costs--contrary to the Department's intent.

The Department expected that the policy changes would encourage contractors to make substantial investments in cost-reducing facilities, while at the same time keeping average profits negotiated at previous levels. However, cost-reducing investments have not been made primarily because, according to GAO, too much emphasis is still placed on estimated contract costs in establishing profit objectives.

GAO makes five recommendations to help achieve the new policy's objectives.



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WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report (1) describes recent changes in the Defense Department's profit policy intended to reduce noncompetitive procurement costs and (2) recommends that the Secretary of Defense take several actions to help achieve the policy's objectives.

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretaries of Defense, Army, Navy, and Air Force; and the Administrator, Office of Federal Procurement Policy.

James A. Stacks
Comptroller General
of the United States



COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

RECENT CHANGES IN THE
DEFENSE DEPARTMENT'S
PROFIT POLICY--INTENDED
RESULTS NOT ACHIEVED

D I G E S T

Negotiated profit rates have increased on a substantial number of Department of Defense (DOD) contracts because of the Department's new profit policy.

Many believe that production costs of defense equipment can be reduced if contractors invest in more efficient plant and equipment. To encourage this, DOD made several significant changes in its profit policy, effective October 1, 1976.

The principal changes involved (1) recognizing the imputed interest cost of contractors' facilities capital investments as a cost of performance under most negotiated contracts and (2) considering the amount of facilities investments in establishing profit objectives for use in negotiating profit rates with contractors. (See p. 1.)

DOD expected that these and other changes would result in the negotiations of higher profit rates for some contractors and lower rates for others. However, DOD believed that, on the average, profit rates would not materially change. (See p. 2.)

GAO evaluated the effectiveness of these profit changes by examining 71 DOD contracts awarded during the first 18 months after the changes became effective, and compared the results with similar contracts awarded under the prior policy. Also, questionnaires were sent to 66 contractors to identify the impact of the new profit policy on their investment decisions. (See p. 3.)

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FINDINGS AND CONCLUSIONS

The new policy resulted in higher profits negotiated with some contractors without any demonstrable reduction in costs to the Government. GAO found little indication that contractors responded positively to DOD's attempts to encourage greater investments in new or upgraded plant and equipment which would lower production costs. Although some added investments were identified, the reasons for making them were unrelated to DOD's profit policy. (See pp. 5, 6, and 9.)

GAO attributes this lack of success primarily to the limited emphasis given to facilities investments in establishing the Government's prenegotiation profit objectives. The new policy provided that about 10 percent of the Government's profit objectives would be based on the level of the contractors' investments in plant and equipment. DOD recognized that this was a modest beginning and that the weight might have to be increased. (See p. 7.) GAO believes that the emphasis given to capital investment must be substantially increased if desired results are to be achieved.

GAO found that although the new profit policy has not encouraged contractors to increase their investments in cost-reducing facilities, it has resulted in the negotiation of higher profit rates on an overall basis. This is contrary to DOD's intent. Stated as a percentage of prior rates, GAO's sample indicated that the prenegotiation profit objectives increased 7.4 percent and the negotiated profits increased 7.8 percent. The higher profit rates negotiated on these contracts increased the Government's price by about \$14.5 million. (See p. 9.)

About 20 percent of the increase in profit objectives can be attributed to the fact that the imputed interest on contractors' facilities capital, allowed as a cost, was not fully offset from profit. Formerly, this cost was implicitly included as a part of the profit objective. To prevent double counting of facilities capital in computing contract cost and profit, DOD constructed a reduction factor, believed to represent the average imputed interest allowed as a cost. The Department believed that the use of an average offset would be preferable to having a dollar for dollar offset on each contract. GAO believes that the DOD constructed offset factor needs to be increased. (See pp. 9 to 11.)

A contributing factor to the profit increase is the lack of definitive criteria for contracting officers' use in determining the profit dollars to be allowed for the facilities investment and cost-risk profit determinants. In many cases, GAO found that the contracting officers allowed more than the minimum weight for these factors without adequate explanation. In GAO's opinion, these actions reduced the assurance that the Government negotiated fair and reasonable prices. (See pp. 11 to 14.)

The new profit policy also lacks sufficient definitive criteria needed for determining appropriate profit allowances for productivity improvements.

Examining several productivity awards made during contract negotiations resulted in GAO's questioning the adequacy of the determination and the reasonableness of the awards. This inadequate criteria weakness may have resulted in unjustifiable increases in negotiated profit. (See pp. 14 and 15.)

Profits increased on some contracts because contractors in relatively strong negotiating positions would not accept the lower profit objectives developed in accordance with the Government's new profit policy. (See p. 15.)

DOD is aware of problems associated with implementing its profit policy. It has taken some corrective action and is considering others. However, actions taken and contemplated are incomplete. Further actions are necessary to correct the problems identified in this report. (See pp. 16, 17, and 19.)

RECOMMENDATIONS

To increase the likelihood that the new profit policy will motivate contractors to invest in cost-reducing facilities and improve its implementation, the Secretary of Defense should:

1. Substantially increase emphasis on facilities capital investment and further reduce the portion of the prenegotiation profit objectives that is based on estimated contract costs. Even though a portion of the profit rate might still be based on costs, the overall rate of return on facilities investment should be computed to assist in identifying any potential excessive profit.
2. Perform additional analysis to determine more precisely the impact of the new profit policy on overall negotiated profit rates and the need to increase the offset factor to more closely approximate the amount of imputed interest on facilities capital.
3. Establish more definitive criteria and procedures to enable contracting officers to determine appropriate profit allowances for contractors' facilities capital investments, cost risk, and productivity improvements subject to special profit rewards.

4. Develop safeguards to prevent negotiating profits significantly greater than Government objectives without a complete explanation and review of the rationale and consideration of possible alternatives, such as the development of another source of supply.
5. Monitor more extensively the implementation of the new profit policy, and revisions made thereto, to provide greater assurance that the desired results are achieved.

AGENCY COMMENTS

GAO representatives met with representatives from the Office of the Secretary of Defense to obtain their comments on the draft of this report. Some changes were made to the report as a result of additional data they furnished. After these changes were made, the Defense representatives agreed with all of GAO's recommendations.



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ABBREVIATIONS

DOD Department of Defense

GAO General Accounting Office

OSD Office of the Secretary of Defense

CHAPTER 1

INTRODUCTION

Effective October 1, 1976, the Department of Defense (DOD) made significant changes to its profit and pricing policy for most negotiated production-type contracts. The new policy did not apply to labor intensive contracts, such as architect-engineering or management contracts for the maintenance or operation of Government facilities. According to DOD, the new policy changes were based on a study of the profitability of defense contractors. The study, "Profit '76," was conducted at the direction of the Deputy Secretary of Defense (Installations and Logistics).

DOD stated that the important changes concerned contractor investment in cost-reducing facilities and equipment. To encourage greater investment DOD will allow the imputed cost of capital for facility investment on most negotiated defense contracts and will recognize the level of facility investment in establishing a profit objective for use in negotiating a profit rate with contractors.

Profit '76 showed that although contractors' profits on defense work, measured as a return on sales, were lower than on commercial work, profits on defense work were somewhat higher when measured as a return on investment. This relationship was traced to a markedly low level of investment in facilities and equipment used in defense work--less than half that used for commercial work when measured on the basis of sales. DOD concluded that there are many reasons for contractor reluctance to invest in modern machinery and equipment on defense contracts, but it is clear that some are rooted in procurement policy which fails to recognize adequately, either in profit or as an allowable cost, the facility investment which may be required for efficient operation.

Other policy changes of consequence effective October 1, 1976, included the following:

- Less weight is given to the estimated cost of performing contracts in establishing contract profit objectives.
- A greater spread in profit is established to recognize the difference in risk between cost reimbursable and fixed-price type contracts.

--Productivity improvements are introduced as a modest profit factor to further the principle that reduced costs will lead to increased earnings.

--Past performance is no longer considered a profit determinant.

These changes, however, were not intended to result in any considerable increase in the average profit negotiated for defense contracts. It was expected that increased profits negotiated on individual contracts, because of higher than average investment in facilities and assumption of risk, would be offset by negotiating lower rates for those contracts involving lower than average facilities investment and risk. See appendix I for a discussion of the method used in establishing profit objectives for negotiated defense contracts.

PURPOSE OF REPORT

This report provides the Congress, DOD, and other interested parties with our assessment of the new profit policy's effectiveness during its first 18 months. Earlier, based on our limited review of the Profit '76 Study and DOD's proposed profit policy revisions, we concluded that there were potential problems which could impede the new policy's effectiveness. We advised the Secretary of Defense on February 17, 1977, 1/ that:

--The new policy provided too little incentive to encourage increased contractor capital investment.

--In allowing imputed interest on capital as a cost, DOD planned to reduce the profit by an equal amount in the aggregate. We believed there was little assurance that the profit would be appropriately reduced.

--Potential existed for an overall profit increase if, for example, some contractors refuse to negotiate profit rates lower than those negotiated on prior contracts for similar work.

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--Instructions governing the reward for improved productivity were not clear or comprehensive enough to expect reasonably consistent application by hundreds of contracting officers.

The Secretary of Defense advised us that the new policy's implementation would be monitored and changes would be made when proven necessary. Subsequent DOD findings, and our review, confirmed many of our initial observations. DOD has already made some changes to the new policy, but others are needed if DOD's original objective is to be achieved.

SCOPE OF REVIEW

We reviewed the new profit policy and related Defense regulations, implementing policies, and procedures. Government contracting officials and price analysts were interviewed. We selected and analyzed 142 negotiated contract actions by the Army, Navy, and Air Force. Seventy-one of these contracts were negotiated before and 71 were negotiated after the effective date of the new profit policy, with each pair of contracts involving the acquisition of the same or similar items. Total negotiated contract amounts were about \$1.7 billion under the former policy and about \$1.8 billion under the new policy. We also sent questionnaires to 66 contractors to identify the impact of DOD's profit policy on decisions the companies made relative to investments in new plant and equipment, and received 47 written responses (71 percent).

Our review was conducted at procurement offices of:

60158 --Naval Air Systems Command, Crystal City, Virginia.

60175 --Naval Sea Systems Command, Crystal City, Virginia.

60159 --Navy Aviation Supply Office, Philadelphia, Pennsylvania.

60216 --Naval Regional Procurement Office, Philadelphia, Pennsylvania.

60919 --Army Communications and Electronics Materiel Readiness Command, Fort Monmouth, New Jersey.

60800 --Army Missile Materiel Readiness Command, Redstone Arsenal, Alabama.

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--Army Missile Research and Development Command,
Redstone Arsenal, Alabama.

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--Air Force Aeronautical Systems Division, Wright-
Patterson Air Force Base, Ohio.

CHAPTER 2

A MAJOR PROFIT POLICY OBJECTIVE HAS NOT BEEN ACHIEVED

A major objective of DOD's new profit policy is to encourage contractors to invest in new or upgraded plant and equipment which will lower production costs. However, there was little indication that this objective was achieved during the first 18 months of the new policy. While we recognize that it may take a longer time period for the policy to become fully effective, contractors said that the new profit policy, as presently structured, was not a significant factor in their investment decisions, nor would it be in the future. This strongly suggests that DOD's modest emphasis on investment as a basis for establishing a profit objective (10 percent of total profit) is not adequate to motivate contractors to take the risks associated with the investment required to upgrade existing facilities or procure new plant and equipment. Also, our analysis of several hypothetical facilities investments showed that contractors, after making some investments, could receive lower profits than before.

PROFIT POLICY CHANGED TO ENCOURAGE PROCUREMENT OF COST-REDUCING FACILITIES

Many believe that defense equipment production costs can be reduced if contractors will invest in more efficient plant and equipment. To encourage contractors to make such investments, DOD determined that the profit objective for individual contracts should be based, in part, on the contractor's level of investment in plant and equipment to be used.

In the past, the Government's profit objectives used in negotiating with contractors were primarily based on an analysis of the contractors' levels of cost to be incurred and the risks associated with incurring that cost. Thus, an increase in cost meant a corresponding increase in the profit dollars that could be negotiated, thus encouraging contractors to retain inefficient production methods. To eliminate or reduce this incentive to maintain high production costs, DOD revised the weighted guidelines to provide that about 10 percent of the profit objective would be based on the level of contractors' investments in plant and equipment.

Also, DOD accepted the imputed interest on facilities capital employed as a cost. In the past, this economic cost of providing the facilities needed to perform under a contract was assumed to be recovered only through earned profit. Thus, if profit earned was minimal, this cost might not have been recovered. This may have encouraged contractors to hold their investment in facilities capital to a minimum by using old, depreciated, and inefficient plant and equipment.

INVESTMENTS IN FACILITIES NOT
ATTRIBUTABLE TO PROFIT POLICY

We sent questionnaires to 66 contractors doing business with DOD. We asked whether corporate decisions to invest in additional plant and equipment were influenced by DOD's new profit policy that allows imputed interest on facilities capital and the consideration of the level of contractor facilities investment in arriving at a profit objective for specific contracts. Our analysis of investment and sales information furnished by the contractors showed that for 1977, their investment in capital facilities increased by an average of 6 percent. However, 41 contractors, or 87 percent of the 47 that responded, stated that DOD's new profit policy was not a significant factor in their investment decisions. Only six contractors, or 13 percent, indicated that the new policy influenced decisions to some extent. However, even these responses indicated that the chief motivating factor behind the decision to make capital investments was the desire to expand production capabilities rather than to reduce production costs.

Most contractors were critical of the new profit policy. Some provided lengthy statements emphasizing serious problems. Some of the more frequent responses were:

- The policy lacks adequate incentives and has not achieved the objective of motivating contractors to make investments in cost-reducing facilities.
- Many other factors not addressed by the new profit policy affect corporate investment decisions, including the difficulty in planning major investments, insufficient profit on DOD business, and the need for funds to meet Federal health and safety standards.

PRENEGOTIATION PROFIT OBJECTIVES
ARE STILL BASED PRIMARILY ON COST
RATHER THAN FACILITIES INVESTMENT

DOD recognized the 10-percent relative weight assigned to facilities investment in establishing prenegotiation profit objectives was modest and it might have to be increased based on experience. The inadequacy of this weight is evidenced by the absence of a considerable increase in investments and contractors' comments that the new policy was not a significant factor in their investment decisionmaking process.

However, even this modest goal of 10 percent may not have been attained. Of the 71 contracts examined, only 5 percent of the profit objective was based on investment, primarily because there was a lower relationship between facility investments and total estimated contract costs than the relationship established in the Profit '76 Study, which was used by DOD in projecting its 10 percent goal. DOD's analysis of 811 contract actions for fiscal year 1977 showed a 7.6-percent relationship.

ADDITIONAL INVESTMENTS COULD
REDUCE CONTRACTORS' PROFITS

Our analysis of hypothetical investments by contractors under the new profit policy showed that additional equipment investments could reduce the portion of profits related to costs by amounts disproportionately greater than the additional profits gained because of the new investments.

A 1976 DOD study of investment policy identified a \$31,000 lathe as an example of industry investment in cost-saving equipment which produces savings in labor and material. According to the study estimates, the lathe would reduce annual operating costs by \$7,829 and produce a net 5-year savings of \$39,840.

To analyze the impact of the profit policy on contractors' costs and profits, we considered an investment similar to the lathe example in two of the contracts reviewed. Using the original contract information on which the Government based its objectives for cost, profit, and imputed interest on facilities, we assumed that the contractor purchased equipment that would save the \$7,829 in costs as discussed above.

We varied the assumptions of the extent the equipment would be used in performing the specific contract from exclusive use, or 100 percent, to only 5 percent of the time. For comparison with original factors, we recomputed labor costs, overhead, net book value of facilities, imputed interest on facilities, and other profit determinants.

The analysis of both contracts showed that the additional investment generally reduced the total amount of the Government's prenegotiation objectives for cost, profit, and imputed interest on facilities. In one contract example, assuming exclusive use of the equipment on the Government contract, the investment reduced cost by \$27,774 and profit, including imputed interest, by \$1,751. Assuming the use of the equipment on this contract was 5 percent of the equipment utilization by the contractor, costs were reduced by \$7,471 and profit, including imputed interest, was \$788 less. Profit reductions were caused by reduced labor costs and total costs used as the basis for computing the profit objective. These reductions were greater than the increased profit objective associated with the increased facilities investment.

CHAPTER 3

THE NEW PROFIT POLICY INCREASED PROFITS

Contrary to DOD's intent, as discussed on page 2, there are indications that the new profit policy has resulted in the negotiation of higher profit rates on an overall basis. As stated previously, we compared the profit rates on 71 contracts awarded under the former policy with 71 under the new policy. Stated as a percentage of prior rates, the pre-negotiation profit objective increased 7.4 percent and the negotiated profit increased 7.8 percent. The higher profit rates negotiated increased the Government's negotiated price on these contracts by \$14.5 million. We believe negotiated profits increased because DOD, in restructuring the profit policy and the weighted guidelines, did not provide an adequate offset from profit for the total amount of imputed interest on facilities allowed as a cost. A further contributing factor has been the lack of definitive criteria for contracting officers' use in determining the profit dollars allowed for the new profit elements. We also noted examples where contractors refused to accept profit rates lower than those negotiated on previous contracts even though application of the new profit policy indicated that a lower rate was justified.

The actual overall impact of the higher profit rates is difficult to determine, since it will depend on the specific rate increases for a large number of contracts. Our sample of contracts provides an estimate of increased profits for each of the several types of negotiated contracts, but it may not be representative of the universe of contracts.

INADEQUATE IMPUTED INTEREST OFFSET

DOD designed a factor to offset from profit the amount of imputed interest on facilities allowed as a cost. We found, however, that the use of this factor probably has not achieved a total offset. About 30 percent of the \$8.2 million imputed interest allowed as a cost was not offset from profit in the sample of 71 contract actions reviewed. This caused about 20 percent of the overall increase in prenegotiation profit objectives as discussed above. Further, even some contractors with less than average facilities investments were obtaining increased profits.

Imputed interest (also called the cost of money or the cost of capital) represents the economic cost of contractors' capital investments in facilities used in

contract performance. Formerly, this cost was implicitly included as a part of the profit objective, since interest expense was considered an unallowable cost for reimbursement purposes under Government contracts. However, effective October 1, 1976, the Cost Accounting Standards Board ^{1/}ruled that this economic cost could be reimbursed as a cost. The Board stated that although this ruling (Cost Accounting Standard 414) need have no impact on overall prices paid by the Government, it will identify the cost of money as an element of the cost of facilities capital in individual negotiated contracts.

DOD recognized that adopting standard 414 would require a change to its profit policy to prevent the double counting of facilities capital in computing contract cost and profit. Further, as stated previously, the DOD Profit '76 Study showed that profits on defense work, based on return on contractors' investments, were somewhat higher than profits on commercial work. Thus, DOD did not believe it necessary to increase the overall profit on defense work. To accomplish the offset, the weighted guidelines were structured to reduce the profit objective by a factor believed to be representative of the average imputed interest that would be allowed as a cost. DOD determined that using an average offset would be preferable to making a dollar for dollar offset on each individual contract. In this way, DOD expected to reward those contractors with facilities investments greater than the average by understating the offset and to penalize those contractors with lower than average facilities investments by overstating the offset. However, it was concluded, that considering the universe of contracts, the factor selected would result in an overall total offset.

The offset factor was based on an analysis of capital asset data obtained during the Profit '76 Study. It was assumed that this data represented all defense contractors doing business with DOD. However, as previously discussed, we wrote the Secretary on February 17, 1977, that we found indications that the data gathered through Profit '76 may not have been representative of all contractors and that this could result in establishing an inappropriate average offset factor.

^{1/}The Cost Accounting Standards Board was established by the Congress on August 15, 1970, to promulgate cost accounting standards designed to achieve uniformity and consistency in cost principles followed by defense prime contractors and subcontractors under Federal contracts.

Review of the 71 contract negotiations showed that estimated imputed interest allowed as a cost totaled about \$8.2 million. However, use of the average offset factor resulted in a reduction of only \$5.7 million in profit objectives, or an insufficient offset of about \$2.5 million, or 30 percent of the total imputed interest allowed.

For example, \$53,824 was computed as allowable imputed interest cost related to one firm-fixed-price contract with estimated costs of about \$6 million. The computed offset amount was \$23,639. Thus, there was an insufficient offset of \$30,185, or 56 percent of the imputed interest amount.

Use of the imputed interest offset factor has improperly rewarded contractors

Review of the 71 contract negotiations also showed that, in many cases, contractors having less than the determined average level of investment were rewarded rather than penalized as DOD intended. Contractors involved in 38 contracts where the amount of imputed interest allowed as a cost was greater than the offset, had less than the DOD contractor average level of investments. Yet, these contractors were able to receive an average net amount of about \$35,100, or \$1.3 million in total under the new imputed interest procedures. This represents about half of the imputed interest not offset under the 71 contracts.

Contractors had above average investments for only 19 contracts. Net increased amounts relating to imputed interest for these contracts averaged about \$71,000 each and totaled about \$1.3 million.

LACK OF DEFINITIVE POLICY CRITERIA

The new profit policy and implementing instructions lack the definitive criteria needed for contracting officers to make an adequate assessment of facilities investment, cost risk, and productivity rewards as profit determinants. In our opinion, the lack of adequate criteria and administrative review procedures may have increased the Government's overall profit objectives by permitting unexplained increases in profit above the minimum allowable for these three profit elements.

DOD's existing criteria and review procedures are not adequate to provide for establishing reasonable and consistent profit objectives for facilities investment and

cost risk. Further, the contract files generally lacked adequate explanations for determining these profit elements, and the officials involved did not adequately explain increased objectives for specific contracts. We identified similar problems in assessments of productivity rewards. In our opinion, the absence of adequate explanations and supporting documentation results in reduced assurance that the Government representatives established fair and reasonable profit objectives.

Facilities investment

As part of its new profit policy (see pp. 1 and 21 to 23.), DOD directed that contracting officers consider the level and associated risks of the contractor's investment in facilities in establishing a profit objective. A range for this profit determinant was established as 6 to 10 percent of the facilities capital employed.

However, DOD's implementing regulation does not provide information on how and to what extent contracting officers should measure and consider the key factors in assessing facilities investment. Moreover, although the regulation requires contractors to submit reasonable evidence concerning their new investments, it provides little guidance for contracting officers to use in evaluating the contractors' submissions.

Faced with inadequate criteria for properly evaluating the contractor's investment, contracting officers have generally established the objective for this profit determinant as 8 percent of the net book value of facilities capital employed (midpoint of the range allowed). This is 2 percentage points above the minimum allowable and represents about \$2 million of the \$8 million profit associated with facilities investments for the 71 contracts reviewed.

We also noted instances where Government officials gave higher than the minimum allowance, even though the contractors had not made any new investments to perform the contracts. Further, Air Force officials assigned weights above the midpoint in recognition of new investments when the new investments did not apply to the contract being considered or the benefits could not be documented. Similarly, Army and Navy explanations were inadequate or nonexistent.

Cost risk

As part of its new profit policy, DOD increased the emphasis on contractor's cost risk in determining the profit objective for fixed-price contracts. This was accomplished by increasing the permissible range for the risk determinant as follows:

<u>Contract type</u>	<u>Profit allowance as a percentage of proposed cost</u>	
	<u>Former policy</u>	<u>New policy</u>
Firm-fixed-price	5 to 7%	6 to 8%
Fixed-price-incentive	2 to 5	3 to 6

This change was not intended to result in an overall increase in profit. However, because implementing instructions are vague on this point, many contracting officers increased the allowance for this profit determinant, even though the previous allowance was above the revised minimum. This was done with only vague reasons given or without explaining the reasons for the increased percentage. For example, Navy officials increased the cost risk allowance on a large fixed-price-incentive contract from 4 percent on a previous contract to 6 percent, thereby increasing the profit objective by about \$2.4 million. Officials had explained the previous 4-percent weight by stating only that "the maximum weight * * * has been assigned since the contract is projected to run at least 6 years which could involve considerable risk over this time frame." The subsequent explanation for using a 6-percent weight was "the maximum weight * * * has been assigned due to the time frames for production under this contract."

Some Army price analysts had been instructed to allow the midpoint of the weight range unless justification for a different weight could be documented. This simplified procedure provided an overall profit increase because the revised policy increased the range by 1 percentage point for fixed-price contracts. Some price analysts had allowed the lowest possible weights on previous follow-on contracts negotiated under the former policy, but other analysts allowed higher rates on contracts negotiated under the revised policy even though they were also follow-on contracts. The Chief of Pricing at this Army installation said that his guidance to price analysts was much more liberal than his predecessor. He also said that criteria are so vague that different analysts could not be expected to establish the same profit objectives.

We also found, as discussed on page 15, some contractors refused to accept the lower profit rates computed under the new guidelines.

Productivity awards

The new profit policy allows productivity rewards for follow-on contracts as an incentive to increase productivity and reduce costs. Otherwise, cost reductions would result in reduced profits, since profit is still primarily based on cost. Accordingly, contracting officers may allow a percentage of cost reductions as a reward in follow-on contracts if reliable actual cost data is available to establish a fair and reasonable cost baseline and if changes in the item procured do not invalidate price comparability. The allowance is computed by multiplying the proposed contract cost decrease resulting from improved productivity by the basic profit objective rate computed for the contract. (See p. 23.)

Implementing instructions state that any method of quantifying productivity gains may be acceptable if the contractor prepares and supports the cost reduction estimate based on the lowest average unit cost of a preceding production run as the baseline. However, the policy requires productivity gains to be distinguished from the effects of quantity differences. An economic price adjustment may be applied if price level differences affect the cost decrease.

Our previous report to the Secretary of Defense ^{1/} stated that the implementing instructions were not clear or comprehensive enough to expect reasonably consistent application by various contracting officers. We emphasized that the instructions should define productivity gains and that the reward should be for something more than a productivity increase from improved worker learning and skill resulting from normal job performance.

In our current contract sample there were a few productivity rewards that may not have been fair and reasonable. In the largest case, for an aircraft contract with a \$352 million estimated cost base, the Air Force based its \$5.6 million reward on a telephone agreement with the contractor. Since the contractor had not submitted the required cost reduction estimate, the Air Force estimated productivity gains by comparing a previous procurement with the follow-on

^{1/}B-159896, February 17, 1977.

procurement. Moreover, the contracting officer advised us that "pure productivity" cannot be defined or computed and that he could not quantify the separate contributions of increased machine efficiency and normal learning. For these reasons, we question whether the Air Force adequately determined the cost reduction and productivity reward.

In a second example, also an aircraft production contract with a \$750 million estimated cost base, the Air Force estimated the extent of cost reduction and established a \$2.7 million reward. This was the fourth follow-on procurement, and the contractor had submitted a cost reduction estimate based on a capital investment program initiated in 1970. The Air Force quantified productivity gains based on estimated savings of production labor hours. An Air Force official said that the gains resulted from improved capital investments rather than improved learning. However, the Air Force did not request additional cost reduction data from the contractor, and the contract files did not contain an engineering evaluation of new equipment, or adequate support for the savings of labor hours. Accordingly, we could not determine whether the productivity reward was reasonable.

CONTRACTORS' NEGOTIATING ABILITIES INCREASED NEGOTIATED PROFITS

Negotiated profits increased to some extent because contractors in relatively strong negotiating positions would not accept the Government's lower profit objectives. For example, one contractor official stated that his company wanted at least 20-percent profit on all Government contracts and did not recognize the weighted guidelines method. Because this sole-source procurement affected a major program, the Government was apparently forced to negotiate an 18.8 percent profit rate, even though its objective was 10.6 percent.

DOD officials acknowledged that contracting officers have experienced almost total nonacceptance at the bargaining table if the profit objective is less than in the past for similar type effort. As expected, defense contractors resist any form of profit reduction, but are quite agreeable to have cost of capital recognized as an allowable cost.

CHAPTER 4

LIMITED OSD MONITORING EFFORT

Although the Office of the Secretary of Defense's (OSD's) monitoring efforts have been limited, it is aware of a need to reduce profit rates, the lack of sufficient incentives to encourage facility investments, and other problems associated with implementing the revised profit policy. OSD has taken some corrective action on these matters, but in our opinion, further action is necessary to correct the problems identified in this report.

In response to our previous recommendations, OSD stated that it would monitor the implementation of the revised profit policy and the productivity reward factor and evaluate the imputed interest offset. OSD also stated that it may increase the emphasis on investment as a profit objective, after contractors have had an opportunity to adjust their investment patterns.

OSD's monitoring effort has been primarily limited to analyzing selected reports on negotiated contracts. The analyses involved comparing 1976 and 1977 profit rates for each type of contract. The effort has not included determining the cost and benefits resulting from the new profit policy. We believe that this is essential for a good evaluation of the overall impact of this policy.

By July 1978 OSD's monitoring efforts had identified needed improvements to correct numerous errors in the weighted guidelines computations, to avoid continued use of the former policy, and to document and review negotiated profits which substantially exceed the prenegotiation objectives. Preliminary results also indicated unexpected profit increases.

OSD has taken or proposed limited action to correct some of the problems it identified. A July 1978 memorandum sent to the Army, Navy, and Air Force identified the problems noted and suggested corrective action be achieved by improving some contract review procedures. In September 1978 OSD circulated its proposal for two policy changes, based on analysis of the first year's experience, to industry and Government agencies for comment. The first change was not relevant to the problems we identified, since it involves an exception to the weighted guidelines method. However, the second proposed change alters profit weights for the risk element. OSD believes that this change will result in lowering profit objectives to a level that approximates those that

would have been established under the former profit policy. OSD stated that the average profit increase for cost-plus-fixed-fee contracts was not attributable to the level of facilities investment. Thus, it is considering reducing the maximum allowable cost risk for these contracts. OSD also proposed reductions in maximum profit allowances for the risk element for cost-plus-incentive-fee and fixed-price-incentive contracts with cost incentives only.

The OSD proposed action may not be adequate to correct the problems and to offset many of the profit increases we identified. However, an OSD representative said that:

- OSD is planning an internal review as a basis for further corrective action.
- His monitoring efforts have been limited, due to insufficient staff time.
- Even though OSD intends to reduce profits by reducing the profit range for the risk profit determinant, he felt that the OSD provision to offset imputed interest is adequate, but that it would be reexamined.
- OSD is looking into the desirability of increasing the emphasis on capital as a profit determinant, and a decision is expected within a few months.

CHAPTER 5

CONCLUSIONS, RECOMMENDATIONS, AND AGENCY COMMENTS

CONCLUSIONS

Negotiated profit rates have increased on a substantial number of DOD contracts because of the Department's new profit policy. A significant part of the profit increase resulted from using a factor which did not sufficiently offset the amount of imputed interest on contractors' facilities capital allowed as a cost. However, the increased profits and other policy incentives have not been sufficient to motivate many defense contractors to invest in additional cost-reducing facilities. As a result, DOD has not accomplished its objective to reduce production costs through additional contractor investments in more efficient facilities.

Although profit represents only a small portion of the contract price, it can and should be used to stimulate contractors to make significant cost reductions. In our view, however, the new profit policy lacks sufficient financial incentives and well-defined objectives necessary to encourage defense contractors to make additional investments in cost-reducing facilities on a basis that is both rewarding to the contractors and cost effective for the Government. A primary reason is that DOD has placed only modest emphasis on investment as a profit determinant. The data from 71 negotiations showed that about 95 percent of the prenegotiation profit objective is still based on cost.

As a result of these inadequacies, the profit policy simply lacks sufficient incentives to motivate contractors to take the risks involved in making additional investments to improve efficiency and reduce production costs. We found, in some cases, if a contractor did make such an investment, the reduced production costs could decrease rather than increase profits and imputed interest on facilities.

Some contractors involved in our review did make substantial investments in general purpose facilities for various reasons and priorities--with business expansion the predominant reason and highest priority. Most contractors, however, said that they do not consider DOD's profit policy a major factor in their investment decision process.

The revised profit policy also lacks definitive criteria needed for determining profit allowances for facilities investment, cost risk, and productivity improvements. This weakness may have resulted in unjustifiable increases in profit objectives. Also, the absence of adequate explanation and supporting documentation indicates that administrative review procedures have been lax.

DOD is aware of these weaknesses. It has taken some corrective action and is considering additional actions, but its monitoring effort has been somewhat limited, due to a lack of staff time. DOD has not examined some factors relating to cost and benefits which are essential to a better understanding of the profit policy impact.

RECOMMENDATIONS

To increase the likelihood that the new profit policy will motivate contractors to invest in cost-reducing facilities and to improve its implementation, we recommend that the Secretary of Defense:

1. Substantially increase emphasis on facilities capital investment and further reduce the portion of the prenegotiation profit objectives that is based on estimated costs. Even though a portion of the profit rate might still be based on costs, the overall rate of return on facilities investment should be computed to assist in identifying any potential excessive profit.
2. Perform additional analysis to determine more precisely the impact of the new profit policy on overall negotiated profit rates and the need to increase the offset factor to more closely approximate the amount of imputed interest on facilities capital.
3. Establish more definitive criteria and procedures to enable contracting officers to determine the appropriate profit allowances for contractors' facilities capital investments, cost risk, and productivity improvements subject to special profit rewards.
4. Develop safeguards to prevent negotiating profits significantly greater than Government objectives without a complete explanation and review of the

rationale and consideration of possible alternatives, such as the development of another source of supply.

5. Monitor more extensively the implementation of the new profit policy and revisions made thereto, to provide greater assurance that the desired results are achieved.

AGENCY COMMENTS

We met with representatives from OSD to obtain their comments on a draft of this report. Some changes were made to our report as a result of additional data they furnished. After these changes were made, the OSD representatives agreed with all of our recommendations.

METHOD USED IN ESTABLISHING PROFIT OBJECTIVES FOR
NEGOTIATED DEFENSE CONTRACTS

DOD regulations state that, when profit is to be negotiated as a separate element of the contract price (in all instances where price is not influenced by competitive forces of the marketplace), the Government should establish a profit objective for contract negotiations, generally using a formula known as the "weighted guidelines method." The weighted guidelines formula was first prescribed in 1963. Although the formula's application has changed over the years to reflect changes in DOD's profit policy, the basic technique remains the same.

The weighted guideline formula, applied according to the new profit policy that became effective October 1, 1976, was used during fiscal year 1977 to compute profit objectives for contracts with an estimated value of about \$22 billion. The total negotiated profits on these contracts are estimated at more than \$2 billion.

WEIGHTED GUIDELINES

Defense regulations state that the weighted guidelines method provides contracting officers with a technique that will insure (1) considering the relative value of prescribed factors in establishing a profit objective and conducting the negotiations and (2) a basis for documenting this objective, including an explanation of any significant departure from this objective in reaching a final agreement. The factors prescribed by the new profit policy are:

- Contractor's input to total performance, as indicated by the contractor's estimate of cost for materials, labor, overhead, etc.

- Contractor's assumption of contract cost risk, as measured by the type of contract, reasonableness of cost estimate, and the difficulty of the contract task.

--Consideration of capital to be employed (measured by application of Cost Accounting Standard 414).

--Other special factors.

Applying this technique and using the criteria established by the new profit policy, is demonstrated by the following example.

Profit Computation Using Weighted Guidelines Method

<u>Profit factors</u>	<u>Measurement base</u>	<u>Weight range (note b)</u>	<u>Assigned weight (note c)</u>	<u>Profit/fee dollars (note d)</u>
<u>Part A--contractor's input</u>				
Material	a/\$100,000	1 to 5%	3%	\$ 3,000
Labor	a/100,000	5 to 15	10	10,000
Overhead	a/100,000	4 to 9	7	7,000
Profit-subtotal	-	-	-	20,000
Adjustment factor	-	-	-	e/ .7
1. Total effort	a/300,000	-	-	\$14,000
<u>Part B--contractor's risk</u>				
2. Cost (line 1)	a/300,000	0 to 8	6	18,000
<u>Part C--facilities investment</u>				
3. Capital employed	f/28,000	6 to 10	6	<u>1,680</u>
4. Basic profit objective (lines 1, 2, and 3)				<u>33,680</u>
				(11.2% of cost)
<u>Part D--special factors</u>				
Productivity	g/50,000	11.2	-	5,600
Independent development	a,h/300,000	1 to 4	1	3,000
Other	i/33,680	-5 to +5	0	-
5. Special profit objectives				<u>8,600</u>
6. Total profit objective (lines 4 and 5).				<u>j/\$42,280</u>
				(14.1% of cost)

a/Contractor's proposed cost, including depreciation on buildings, equipment, etc.

b/Range prescribed by regulations.

c/Assigned weight selected by contracting officer applying criteria set forth in regulation.

d/Applying assigned weight to measurement base.

e/Factor applied to reduce emphasis on contractor's cost input to determine profit. Provision is also made in this factor to reduce the profit allowance based on costs as an offset to imputed interest allowed as a cost.

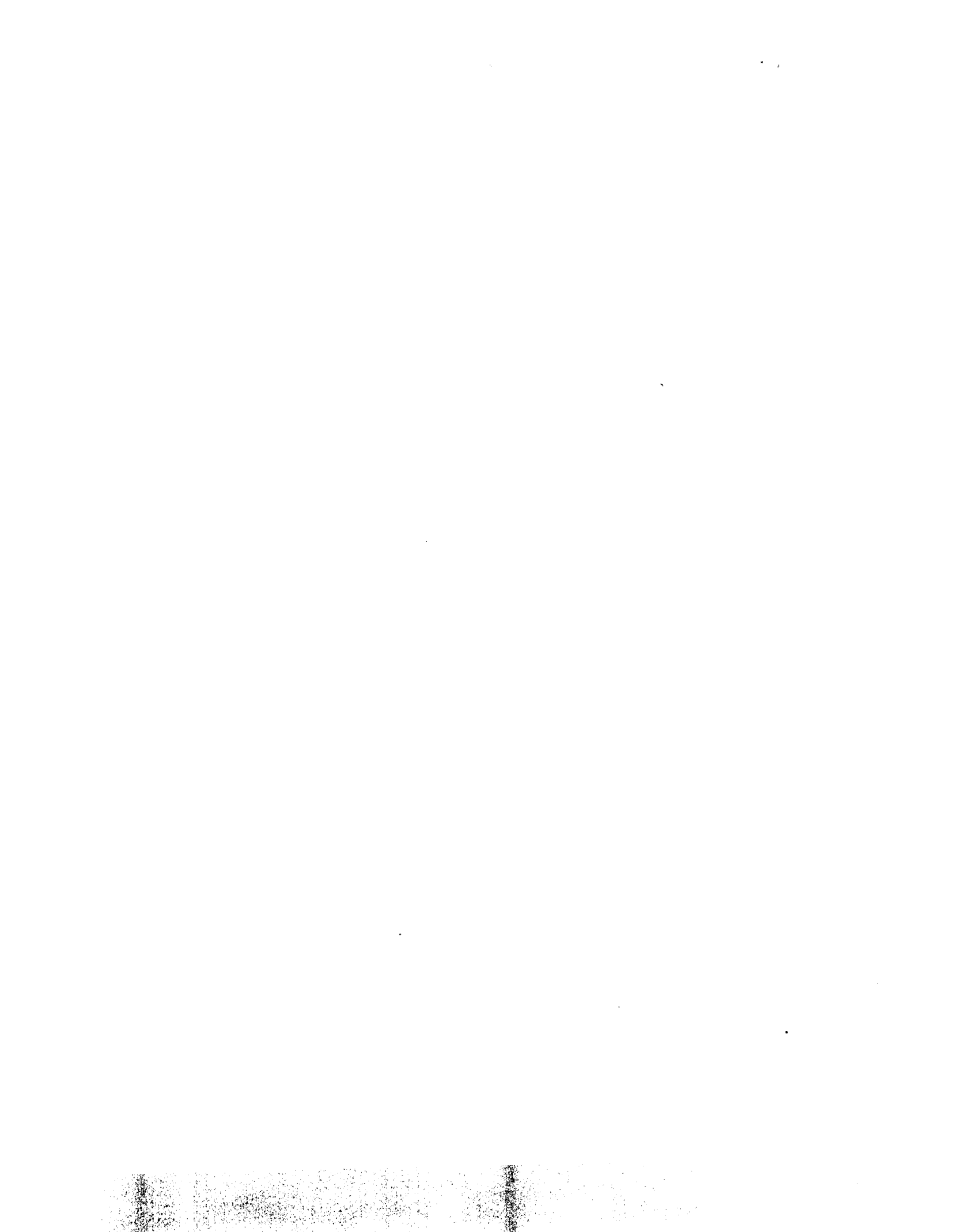
f/Measurement base is calculated, based on data provided by contractor and following method set forth in Cost Accounting Standard 414.

g/The factor is intended to reward a contractor for reducing costs by increasing efficiency and productivity. The amount of the reward shall be calculated by multiplying the contract cost decrease due to productivity gains by the base profit objective rate.

h/The factor provides a specific profit to contractors who develop items without Government assistance.

i/Other considerations include contractor's support of small business program, labor surplus area participation, or other special situations. Assigned weight is applied to the basic profit objective amount.

j/To determine the total profit relating to this contract negotiation, imputed interest on facilities capital should be added to this amount. This interest item is excluded from the estimated costs presented above to prevent computing profit on imputed interest.



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