This special version of the report has been revised to omit contractor sensitive data.
MEMORANDUM FOR DIRECTOR, DEFENSE LOGISTICS AGENCY


We are providing this final report for your information and use. The Commander, Defense Contract Management Command, Defense Logistics Agency, did not provide comments to the draft of this report in time to include the comments in the final report. We considered Director of Defense Procurement and Defense Contract Audit Agency comments in preparing the final report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. The Defense Contract Management Command comments were received 59 days late; therefore, we will consider these comments as comments to the final report unless additional comments are received. As a result of other comments received, we revised Recommendation 2.a.(2) for the final report. We request that the Commander, Defense Contract Management Command provide comments on the unresolved recommendations by October 4, 1993.

The courtesies extended to the audit staff are appreciated. If you have any questions on this report, please contact Ms. Patricia A. Brannin, Program Director, at (703) 692-3206 (DSN 222-3206) or Mr. Michael Perkins, Project Manager, at (703) 692-3027 (DSN 222-3027). The report distribution is at Appendix I.

Robert J. Lieberman
Assistant Inspector General for Auditing

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Office of the Inspector General, DoD

Report No. 93-152 (Project No. 1CD-0039)

ADMINISTRATION OF PROGRESS PAYMENTS AT DEFENSE CONTRACT MANAGEMENT DISTRICT-WEST

EXECUTIVE SUMMARY

Introduction. Progress payments are allowed by the Federal Acquisition Regulation to provide interim financing of a contractor's cost to perform its contracts. Progress payments are made on undelivered or unaccepted contract items. Administrative contracting officers are generally responsible for progress payment administration. This audit was conducted at the Western district of the Defense Contract Management Command, Defense Logistics Agency and examined 18 contracts valued at $2.1 billion that received $1.2 billion of progress payments.

Objectives. The audit objectives were to evaluate the Defense Contract Management District-West administration of progress payments made to contractors and to evaluate internal controls related to the review and approval of progress payments requested by contractors.

Audit Results. Although the Defense Contract Management Command took actions to improve progress payment administration, all 18 contracts examined had some type of deficiency related to the progress payment administration. Administrative contracting officers did not adequately administer progress payments on the contracts. As a result, the administrative contracting officers approved premature progress payments totaling about $5.5 million for five contracts that resulted in increased risk and lost interest to the Government of about $63,000. On one contract, the administrative contracting officer approved an underpayment of $200,000.

Internal Controls. Administrative contracting officers did not comply with existing policies and procedures. We consider the weaknesses to be material. See Part I for a summary of internal controls reviewed and Part II for details of the weaknesses.

Potential Benefits of Audit. Benefits of implementing the recommendations will result from improved procedures for the payment of progress payments. However, we could not quantify the potential monetary benefits. A summary of the potential benefits resulting from the audit is at Appendix G.
Summary of Recommendations. We recommended that the Defense Contract Management Command follow up on training initiatives for progress payments, provide additional training for administering progress payments, and implement procedures to verify estimates-at-completion, liquidations, contract deliveries, and physical progress reviews.

Management Comments. The Commander, Defense Contract Management Command comments, which were received too late to be included in the final report, disagreed with portions of the report and partially agreed with all the recommendations except the recommendation to check progress payment liquidations at times of major contract deliveries. We consider the Defense Contract Management Command comments received after the date of the report to be comments to the final report unless revised comments are provided by October 4, 1993.

The Deputy Director, Cost, Pricing, and Finance, Office of the Director of Defense Procurement, generally agreed with the report and the recommendations. Based on discussions with the office of the Deputy Director and comments provided by the Assistant Director, Policy and Plans, Defense Contract Audit Agency, we deleted the portion of the report on contractor adjustments to the estimate-at-completion because of unallowable costs. Management comments and our response are summarized in Part II, and the full text of the comments is in Part IV.
PART I - INTRODUCTION

Background

**Progress payments.** Through progress payments, the Government provides interim financing to a contractor, allowing the Government and the contractor to share the financial burden of the contract while the work is being performed. If a contract contains a progress payment clause, a contractor or subcontractor can submit a Standard Form 1443, "Contractor’s Request for Progress Payments." Upon approval, the contractor can collect contract payments before the Government accepts deliverable products or services. Federal Acquisition Regulation (FAR) part 32, "Contract Financing," states that progress payments are allowed on fixed-priced-type contracts and on the fixed-priced line items of predominantly cost-type contracts. The amount of progress payments allowed is limited by a progress payment rate applied to the incurred cost on the contract. Contract progress payment provisions specify the progress payment rate. Although the amount of the progress payment is calculated from the contractor’s incurred cost, the actual amount payable is always limited by the fair value of the undelivered work.

**Recoupment.** The Government recoups progress payments through deductions from invoices associated with contract deliveries. In the recoupment process, called "liquidation," the Government subtracts progress payments previously made to the contractor from the contract price of a delivered product or service to determine the final amount to pay the contractor on delivery.

**Loss ratio.** The Government is protected against loss of unliquidated progress payments by reducing the amount of the requested progress payment. FAR 32.503-6(g), "Suspension or Reduction of Payments, Loss Contracts," requires that progress payments be reduced by a loss ratio if the estimate-at-completion (EAC) of the contract cost exceeds the fixed contract price on firm-fixed-price contracts or the contract ceiling price on fixed-price incentive contracts. The loss ratio is calculated by dividing the contract price by the EAC.

If a loss ratio is not timely applied, Government monetary interests are not protected. The Government will pay the contractor more than it should be paid before delivery of the goods and services. Applying the loss ratio does not reduce the amount the Government will ultimately pay the contractor for the delivered items, but applying the loss ratio will reduce the amount of interim financing. The premature payments, which would result from not applying a loss ratio, represent interest-free financing (or cash flow) to the contractor. This cash flow would vary from month to month and would not accumulate.
Responsibilities. Administrative contracting officers (ACOs) review and approve contractors' progress payment requests. The Defense Contract Management Command, Defense Logistics Agency (DCMC), as the primary Defense contract administration organization, issues policy and guidance on the review and approval of progress payments.

Objectives

The audit objectives were to evaluate the Defense Contract Management District-West (DCMDW), DCMC, administration of progress payments to contractors and evaluate internal controls related to the review and approval of progress payments requested by contractors.

Scope

Audit locations. We conducted the audit at DCMDW, one of six autonomous districts of DCMC. We selected DCMDW because it had the largest proportion of former Military Department plant representative offices and, therefore, would provide the widest variety of methods for reviewing progress payments. Within DCMDW, we reviewed the administration of progress payments at 1 of 7 Defense Contract Management Area Operations (DCMAOs) and 2 of 15 Defense Plant Representative Offices (DPROs). Appendix H lists the activities visited or contacted.

Progress payments reviewed. As of June 1991, DCMDW administered a total of 101,626 contracts with obligated funds of $222.3 billion. The DCMAO and the two DPROs we reviewed administered contracts valued at $12.2 billion with progress payment provisions. We judgmentally selected 18 firm-fixed-price or fixed-price incentive contracts, 6 from each of the 3 locations. At each location, we selected one contract from each of the following strata.

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<td>I</td>
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We also selected one to three contracts valued at more than $100 million at each location to increase the large-dollar contract coverage. The 18 contracts selected were valued at $2.1 billion (17.2 percent) of the $12.2 billion of available contracts with progress payments at the 3 locations. This selection resulted in the review of five Army, eight Navy, and five Air Force contracts. We reviewed 559 progress payment requests from contractors that covered the period August 1987 through October 1991 for the 18 contracts. The total value for the 559 progress payments was $1.2 billion. A list of the contracts reviewed is in Appendix A. We also reviewed
documentation supporting the review and approval of progress payments and interviewed DoD and contractor personnel knowledgeable of progress payment policies, procedures, and practices.

**Calculation of interest.** We calculated, in accordance with FAR 52.232, "Interest," the Government's interest loss from premature progress payments identified by the audit. The amount of interest the Government lost was calculated by applying the U.S. Treasury 6-month interest rate to the applicable periods in which premature payments were made. We calculated average amounts and durations separately for each interest period that had a different interest rate because the interest rates changed periodically. Appendix B gives an example of how the interest was calculated for premature payments on contract N00024-88-C-5803 using the U.S. Treasury 6-month interest rate in effect when the premature payments were made.

**Scope limitations.** We reviewed progress payments based on incurred cost only and did not review progress payments based on the percent of physical completion because the two types of progress payments are calculated and reviewed differently. Shipbuilding and construction contractors are the primary recipients of progress payments based on percent of physical completion. Generally, DCMC does not administer shipbuilding or construction contracts.

**Computer-generated data.** We performed the audit with limited computer-generated data. We used data from the computer-generated DD Form 350, "Individual Contracting Action Report," as a basis for selecting audit sites and contracts. However, we did not rely on and did not make projections based on DD Form 350 data; therefore, the audit results were not affected by the reliability of the computer-generated data.

**Audit standards.** We performed this economy and efficiency audit from May 1991 through December 1992. The audit was made in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. Accordingly, we included such tests of internal controls as were considered necessary.

**Internal Controls**

**Controls assessed.** We evaluated internal controls related to the administration of progress payments, especially the internal controls contained in FAR subpart 32.5, "Progress Payments Based On Costs," and Defense Logistics Agency Manual (DLAM) 8105.1, "Defense Contract Management Command Contract Administration Manual," which relate to contract EAC, 'progress payment liquidations, contract deliveries, and technical support for progress payment reviews.'
**Internal control weaknesses.** The audit identified material internal control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Internal controls were not adequate to effectively administer progress payments in accordance with FAR subpart 32.5 and DLAM 8105.1. Specifically, ACOs did not properly assess the contract EAC, did not substantiate progress payment liquidations, and did not obtain timely technical support. In addition, contract administration technical support personnel did not conduct reviews according to established procedures. Although the deficiencies individually may not be considered material, the overall extent and impact of the deficiencies indicate a lack of control over the progress payment review and approval process, which we consider material.

Before February 1992, DCMC and DCMDW did not consider progress payments an assessable unit. Report Recommendations 1., 2.a., and 2.c., if implemented, will correct the weaknesses, but we could not readily determine the potential monetary benefits to be realized by implementing the recommendations. The benefits to be realized would be based on avoiding premature payments on future progress payment requests and would be based on the amount of interest lost to the Government as a result of the premature payments. A copy of this report will be provided to the senior official responsible for internal controls within the Defense Logistics Agency.

**Prior Audits and Other Reviews**

Since 1983, the General Accounting Office (GAO); the Inspector General, DoD; the Navy; and the Air Force Audit Agency have issued nine audit reports or review reports that addressed problems with the administration of progress payments and the lack of internal controls over progress payments. Seven of the nine reports identified deficiencies similar to those described in this report. Summaries of the nine reports are in Appendix C.

In addition to the reports summarized in Appendix C, the issues identified in the November 1990 Navy administrative inquiry of the A-12 aircraft and subsequent actions focused DoD management attention on progress payment review and approval. As a result, DCMC initiated action to improve its reviews of progress payments. For example, during April 1991, DCMC developed training on reviewing and approving progress payments and revised its guidance to include a requirement to periodically review progress payments using production and delivery data and Defense Contract Audit Agency (DCAA) audits.
PART II - FINDING AND RECOMMENDATIONS

PROGRESS PAYMENT ADMINISTRATION

DCMDW ACOs did not adequately administer progress payments for the 18 contracts reviewed. ACOs did not adequately assess the contract EAC, analyze progress payment liquidations, monitor delivery schedules, or obtain timely physical progress reviews. Contract administration technical support staff did not provide adequate physical progress reviews. These inadequate reviews occurred because ACOs and supporting contract administration personnel did not comply with requirements for reviewing and approving progress payments or for conducting reviews of progress payments. In addition, DCMC had not effectively implemented its progress payment training initiatives. Although the administration of progress payments for each of the 18 contracts reviewed had some deficiency, ACOs for 5 of the 18 contracts approved premature progress payments totaling approximately $5.5 million that resulted in a loss to the Government of about $63,000 in interest and increased risk. The ACO for another contract approved an underpayment of $200,000. In addition, progress payments for three contracts continued despite significant delays in contract performance.

DISCUSSION OF DETAILS

Background

FAR 32.503-2, "Supervision of Progress Payments," requires ACOs, when approving progress payments, to be aware of the contractor's performance record and financial strength. The ACO must also assess the adequacy of the contractor's accounting system and accounting controls. The ACO can rely on this information to approve progress payments without prepayment review or audit. However, FAR 32.503, "Administration of Progress Payments," requires the ACO to make periodic postpayment reviews or audits that, as a minimum, include determination of whether:

- the unpaid balance of the contract price was adequate to cover the anticipated cost of completion,

- the unliquidated progress payments were fairly supported by the value of the work accomplished on the undelivered portion of the contract, and

- the applicable limit on progress payments in the progress payments clause was not exceeded.

DLAM 8105.1 states that the ACO will obtain a review of each contractor with unliquidated progress payments at least annually or any time the ACO determines a review is necessary.
To accomplish these requirements, the ACO must assess the reasonableness of the contract EAC and reduce the requested progress payment by a loss ratio if the EAC exceeds the contract price or if the unliquidated progress payments exceed the fair value of undelivered work.

In addition to assessing the validity of the EAC relative to the progress payment request, the ACO must periodically obtain reviews of the contractor's progress payments. Reviews include a physical progress review, an audit of the progress payments, and an assessment of the contractor's financial condition. The reviews ensure that progress payments reflect and will continue to reflect the progress made on the contract and that the Government's interest continues to be protected.

**Progress Payment Administration**

The ACO and contract administration office support staff failure to comply with established policies and procedures resulted in inadequate review and approval of progress payments. Each of the 18 contracts we reviewed contained at least one deficiency in progress payment administration (Appendix D).

*Estimates-at-completion.* In 8 of the 18 contracts, the ACOs did not analyze or substantiate the validity of the EAC amounts on the progress payment requests (contracts F04704-88-C-0043, F04704-88-C-0029, F04704-90-C-0016, N00024-88-C-5803, N00024-89-C-5300, DAAH01-88-C-0330, N00024-88-C-5141, and F04701-89-C-0036). The EAC represents the contractor's estimated cost to perform the work authorized by the contract. Standard Form 1443, "Progress Payment Request," includes the cost incurred to date and an estimate-to-complete the work on the contract, which together equal the EAC. One of the eight contracts (N00024-88-C-5803) had premature progress payments because of the ACO's failure to substantiate the EAC, and another of the eight contracts (F04704-88-C-0043) had an EAC that was questionable.

*Contract in loss condition.* On Rockwell contract N00024-88-C-5803, the ACO failure to substantiate the contractor's progress payment EAC resulted in premature payments between February 1990 and February 1991 ranging from $52,717 to $520,842 per month. The premature payments resulted in a $1.5 million incremental cash flow to the contractor and a $32,259 lost interest cost to the Government (Appendix B). The ACO was not aware of a $1.6-million increase in the EAC reflected in a January 1990 equitable adjustment proposal that the contractor submitted to the program office. The equitable adjustment proposal was intended to compensate the contractor for Government funding delays on the contract. By February 1991, the ACO had approved the maximum allowable progress payments of $9.3 million, even though EAC had not been substantiated and material variances between the program office and the progress
Methodology for the estimate-at-completion. The methodology Rockwell used to calculate the progress payment EAC for contract F04704-88-C-0043 may not accurately reflect the amount of effort to complete the contract. Rockwell derived the EAC by multiplying the contract price by the ratio of the total contract estimated cost at completion divided by the total contract estimated price at completion. The estimate to complete, which is included on the progress payment request form, was then determined by subtracting the cost incurred to date from the derived EAC. For example, for the June 1990 progress payment number 22, the Rockwell progress payment EAC was $190.2 million. Rockwell derived the EAC for the progress payment by multiplying the contract price, $186.0 million, by \( \frac{\text{EAC}}{\text{Price}} \). The factor, \( \frac{\text{EAC}}{\text{Price}} \), was derived by dividing the EAC for all authorized work, \( \frac{\text{EAC}}{\text{Price}} \), by the estimated price for all authorized work, \( \frac{\text{EAC}}{\text{Price}} \). At the time of progress payment number 22, the contract had 18 undefinitized contractual actions (UCAs\(^1\)) with a total not-to-exceed price of $100.5 million of which $69.3 million was funded. Based on our calculations, the contract price should have been \( \frac{\text{EAC}}{\text{Price}} \). We were told by DCAA and DPRO personnel that the method used by Rockwell to calculate the progress payment EAC was to adjust out the effect of the unfunded amounts of UCAs and to avoid the effect of material amounts of UCAs. Also, \( \frac{\text{EAC}}{\text{Price}} \), \( \frac{\text{EAC}}{\text{Price}} \), \( \frac{\text{EAC}}{\text{Price}} \), \( \frac{\text{EAC}}{\text{Price}} \), \( \frac{\text{EAC}}{\text{Price}} \). We were unable to reconcile the contract price or EAC on the progress payment request form to determine if this method of adjusting the EAC resulted in a reasonable EAC.

In progress payment audit reports for contract F04704-88-C-0043 and other Rockwell contracts done in 1990, DCAA auditors stated

\(^1\)The UCAs are actions for which contract terms, specifications, or prices are not agreed on before contract performance begins. The Government shall not exceed (fund) more than 50 percent of the not-to-exceed price of the UCA before definitization unless the contractor submits a qualifying proposal, at which time up to 75 percent of the not-to-exceed price can be expended.

\(^2\)The contract price is the contract definitized target price plus the funded amount for UCAs. We calculated the ceiling price for progress payment number 22 to be \( \frac{\text{EAC}}{\text{Price}} \), the contract definitized ceiling price plus the funded amount for UCAs. This method of determining the contract price is consistent with FAR 32.503-6(g), which states that the current contract price or the current ceiling price under fixed-price incentive contracts should be revised to include pending change orders and unpriced orders to the extent funds for the orders are obligated.

*Contractor sensitive data has been deleted.
that they did not consider the mathematical calculation method adequate because it "may not accurately reflect the amount of effort to complete the contract." However, in a February 20, 1991, "Report on Audit of Progress Payment Request Number 29," for Rockwell contract F04704-88-C-0043, DCAA stated that the method of computing the EAC on the progress payment appeared reasonable and appropriate considering the amount of contract undefinitized effort, the funding status, and the "volatile status of the contract price." At the time of progress payment number 29, January 1991, 20 UCAs had a total not-to-exceed price of $172.9 million of which $80.1 million was funded. The definitized target price was $174.3 million. Rather than recommend withholding or suspending the progress payments because of the significant amount of UCAs\(^3\), the volatile status of the contract price, and a projected $32.4 million overrun, the ACO and DCAA approved the progress payment request, bringing the total progress payments to $150 million. Nine months later, on October 11, 1991, the Air Force terminated contract F04704-88-C-0043 for convenience after canceling the Rail Garrison program.

We believe that Rockwell's method of prorating the EAC results in a questionable EAC. If the contract has significant numbers of UCAs, the methodology could result in obscuring significant overruns in the definitized portion of the contract and limit the Government's ability to recognize loss on a contract.

**Action to improve.** The ACOs were not comparing the EAC on the progress payment request with the EAC included in cost and schedule control system data. GAO Report No. NSIAD-92-01, "Defense Contracting: Key Data Not Routinely Used In Progress Payment Reviews," January 14, 1992, recommended that ACOs be provided with DPRO technical reports generated from the contractors' cost and schedule control systems, such as an independent EAC, production schedules, and delivery reports. Also, Inspector General, DoD, Report No. 93-067, "Use of Contractor Cost and Schedule System Data," March 11, 1993, recommended that ACOs provide the EAC used for approving progress payments to program offices and to DCAA for review and comment (Appendix C). The actions proposed by DCMC to implement these recommendations should correct the deficiencies noted for those contracts with cost and schedule control system requirements and data.

However, four of the eight contracts with unsubstantiated EAC did not have cost and schedule control system data. We believe that if ACOs provided the progress payment EAC to program offices, procuring contracting officers, and contract administration office support staff for comment, for all contracts without cost

\(^3\)In accordance with FAR 32.503-6, "Suspension or Reduction of Payments," progress payments may be suspended if material requirements of the contract are not complied with. Timely definitization of UCAs is a material element of a contract.
and schedule control system requirements, the risk of making premature payments would be reduced. Had the ACO for Rockwell contract N00024-88-C-5803 obtained EAC data from the program office or procurement contracting office, the premature payments could have been avoided. We believe that this example also shows the importance of frequent, effective communication between the program management offices and the ACOs.

We also believe that the EAC for progress payments on contracts with significant UCAs that are not definitized within the required 180 days should be based on the estimated cost for the scope of work for the definitized scope of work plus the scope of work for the funded portion of undefinitized work. ACOs must be aware of the potential impact of significant UCAs on the contract price and the potential distortion in the evaluation of potential loss on the contract.

**Progress payment liquidations.** The ACOs did not properly review liquidations for 13 contracts. Of the 18 contracts in our sample, 13 had liquidated progress payments because the 13 contracts had deliveries made against the contract. Because ACOs did not review the liquidations on the 13 contracts, 5 contracts had errors in the liquidation data included on the progress payment request. One ACO stated that he had reviewed the liquidations for contract F04701-86-C-0023 administered at DCMAO, Santa Ana, California; however, the review did not reveal that the unliquidated progress payment amount was overstated by about $200,000. This overstated unliquidated progress payment amount resulted in a $200,000 underpayment to the contractor by the Government.

FAR 32.503-5 requires ACOs to determine whether unliquidated progress payments are fairly supported by the value of the work accomplished on the undelivered portion of the contract. However, the ACOs did not compare the amount of liquidations included on the progress payment request with the contractually specified liquidation rate⁴, did not review material inspection and receiving reports and supporting payment vouchers for the material received, and did not check the accuracy of the unliquidated progress payment amount.

**Effect of liquidation errors.** General Dynamics contract N00024-87-C-5363 and Rockwell contract F04704-88-C-0029 demonstrate the consequences of not reviewing the liquidations. In April 1989, the Navy overpaid General Dynamics $253,010 because the amount of the invoice was incorrect and did not include the correct amount of liquidations.

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⁴The contract specifies a percentage liquidation rate that is applied to the contractor's invoice amounts for items delivered. This percentage of the invoice is deducted from the Government payment as a liquidation of progress payments against the specific contract. In this way, progress payments are recouped.
not include unit prices. The unit price must be listed in order for the DPRO material inspection and receiving department and the paying office to evaluate the accuracy of the invoiced amount. General Dynamics corrected the error in May 1989. In the Rockwell example, during November 1990, the Air Force overpaid Rockwell $185,000, by paying twice for warranty cost. Rockwell corrected this overpayment on the following month’s progress payment request.

If the contractors had not reported the overpayments, the overpayments could potentially have gone undetected for as long as a year until a periodic review was requested by the ACO.

Liquidation errors on four of the five contracts resulted in premature payments totaling $4 million, and errors on one of the five contracts resulted in an underpayment of $200,000. As a result of $4 million in interest-free money between the time the overpayments were made and the time the corrections to the liquidation errors were made (Appendix E), the Government lost $30,404 in interest costs.

**Reasons for liquidation errors.** The ACOs we interviewed believed:

- liquidation amounts were reviewed as part of mathematical accuracy checks by the Defense Logistics Agency automated progress payment system or by desktop computer programs,

- the payment office or the DPRO receiving and inspections office were verifying the liquidated amounts, and

- reconciling the liquidations on the progress payments to deliveries was a low priority.

The Defense Logistics Agency automated progress payment system does not check the accuracy of the liquidated amount on the progress payment request. DPRO material and receiving personnel verify that the contractor provided items in accordance with contract specifications, but DPRO personnel do not check the contract price of the items or the accuracy of the contractor’s request for payment. Therefore, ACOs must give higher priority to reconciling liquidations to deliveries for progress payments.

**Actions to improve.** The liquidation errors may have been found eventually by ACOs as part of periodic reviews required for all progress payments or by the Defense Financial and Accounting Service, which pays the contract bills, during its internal reviews. However, we believe that the significant potential for overpayments makes it necessary to implement
controls within the contract administration office to verify that progress payment liquidations are correct. Examples of verification controls could include the following.

- Require ACOs to check progress payment liquidations at the time of major contract deliveries or at some unannounced interval between regularly scheduled reviews. Seven of the ten ACOs in our audit received material and receiving reports and payment vouchers but did not reconcile the information to the payment requests.

- Require the ACO to verify that payment invoices have the correct unit price and contract price amounts.

**Delivery schedules.** For 3 of the 18 contracts reviewed (F04704-88-C-0029, N00024-88-C-5803, and N00024-87-C-5443), the ACOs approved progress payments despite significant delays in contract deliveries. For the three contracts, physical progress reviews either were not performed or were performed inadequately. For example, for General Dynamics contract N00024-87-C-5443, the ACO approved $1.8 million in progress payments for $2.6 million in costs incurred during the 22-month delay in first contract delivery (September 1989 to July 1991). In our opinion, a 22-month late delivery indicated a problem with completing the contract, thus the ACO should have suspended or reduced the progress payments until the delivery problem was evaluated. The ACO was unaware that the contractor had not delivered the first contract item on time. If the ACO had obtained a physical progress review on this contract, the ACO would have known about the delay.

Timely delivery of acceptable contract items is a material part of contract performance. ACOs are required to suspend or reduce progress payments if the contractor fails to meet material requirements of the contract (FAR 32.503-6, "Suspension or Reduction of Payments"). Late or unacceptable deliveries can also indicate problems in contract performance that will likely increase the EAC over the contract price, and thus, application of loss ratios to the progress payment requests would be appropriate. For example, Rockwell contracts N00024-88-C-5803 and N00024-87-C-5443 were in a loss or overrun position. In addition, the EAC for Rockwell contract F04704-88-C-0029 was near the contract price, therefore, an increase in the EAC could have resulted in a contract cost overrun and application of a loss-ratio to the progress payment request.

We believe that an ACO who is unaware that a contract is significantly behind schedule has not adequately performed contract surveillance and, therefore, cannot perform the basic responsibilities for progress payment administration. Consequently, ACOs must obtain the contract performance status to effectively administer the progress payments. Contract performance status information should be available either in the contract administration office or in the program office.
Physical progress reviews. The physical progress review is a critical part of the periodic review process. The review evaluates the extent of actual progress a contractor has made in completing a contract. Industrial engineers and specialists in the contract administrative office perform the physical progress reviews. The physical progress review enables the ACO to compare the percent of contract dollars spent to the percentage of contract completion and provides technical assessments on the status of programs and problems. The reviews also enable the ACO to properly evaluate the appropriateness of contractor progress payment requests. The ACO can use the information from the reviews to minimize the Government's risk in the event a contractor encounters difficulties that would result in a loss position on the contract. Of 36 periodic physical progress reviews conducted on 18 contracts, 24 were inadequate and 10 were not timely. Of the 10 untimely reviews, 6 were also inadequate (Appendix F).

Adequacy of physical progress reviews. Of 36 physical progress reviews, 24 physical progress reviews (67 percent) were not performed in accordance with DLAM 8500.4, "Program and Technical Support Manual," and DLAM 8300.1, "Industrial Support Manual" (Appendix F). These 24 inadequate reviews were for 12 contracts. We considered the reviews inadequate and not in accordance with the manuals if the review:

- did not include physical verification by observation and sampling,
- was based on unverified verbal assertions of contractor representatives, or
- did not reflect or include contract performance data available from the contractor cost and schedule control system.

The October 1989 review of Rockwell contract N00024-88-C-5803 is an example of an inadequate physical progress review. The technical analyst estimated the contract to be 67 percent complete by dividing the actual period of performance to date (14 months) by the period of performance (21 months) specified in the contract. This methodology did not consider contractor performance problems, which caused delays in delivery. In August 1990, the contracting officer notified Rockwell of potential default on the contract because Rockwell had not met the July 1990 contract delivery date. By February 1991, 6 months later, the contractor was paid $9.3 million (71 percent of the contract amount), the maximum allowable progress payments for this contract.
Reasons for inadequate physical progress reviews. DPRO support staff gave various reasons for inadequate physical progress reviews.

- Industrial engineers and specialists did not comply with DLAM procedures.
- Industrial specialists had limited experience in performing the reviews.
- The DLAM did not contain precise procedures concerning the scope of the reviews.

Timeliness of physical progress reviews. In addition to conducting inadequate reviews, ACOs did not request timely periodic physical progress reviews (at least annually) for 10 of the 18 contracts as required by DLAM 8105.1, subpart 32.59-2, "Requirements for Periodic Review." Of the 36 reviews ACOs requested for the 18 contracts, 10 reviews (for 8 contracts) were 3 months to 30 months late (Appendix F). Two of the 10 contracts had no review. ACOs and DPRO support personnel gave various reasons for not requesting timely physical progress reviews including a lack of emphasis by former Military Department plant representative offices and a higher priority placed on other contract administration functions.

On one contract, an ACO entered dates into the DCMC automated progress payment system for completed physical progress reviews even though the reviews were not conducted, were not planned, and were not waived in accordance with DLAM 8105.1, part 32.594-3, "ACO Waiver of Periodic Reviews." The DCMC automated system would have properly rejected the progress payment until the scheduled periodic review was performed if the ACO had not entered the nonexistent dates of physical progress reviews.

Effect of physical progress reviews. The ACO uses a physical progress review to evaluate the extent of actual progress a contractor has made in completing a fixed-price contract. Without such reviews, the ACO cannot ensure that progress payments are properly paid. The lack of adequate and timely physical progress reviews contributed directly to ACO approval of improper or premature progress payments. The ACOs could have used the physical progress reviews to identify actual or likely delays in contract performance and to identify the impact of the problems and delays on the contracts' EAC.

Actions to improve. The ACOs and support staff responsible for conducting physical progress reviews stated they did not receive DCMC training material on the importance of the review and how to conduct a review. DCMC training material dated April 1991 for ACOs and other contract administration specialists included the "Program and Technical Support Physical Progress Review Guide for Program Managed Contracts" and "Industrial Support Working Manual Physical Progress Reviews for Non-Program
Managed Contracts." The DCMC training can clarify how to conduct a physical progress review and clarify what is acceptable and not acceptable in a physical progress review for the ACOs and contract administration office personnel.

Other issues. On three contracts, the ACOs did not request DCAA progress payment audits at least yearly. In addition, the ACOs were not aware of the contractor’s financial condition on 13 contracts. Further, on 12 contracts, the contract price was not consistent among the ACO, the procurement contracting officer, and the contractor. Appendix D summarizes these deficiencies.

DCMC Progress Payment Training Initiatives

DCMDW did not adequately implement DCMC progress payment training initiatives. DCMC developed progress payment training material, including software packages applicable to the DCMC automated progress payment system, on the overall administration of progress payments based on costs and physical progress reviews. However, one of the DCMC instructors stated that the training sessions were attended by only high-level managers and that the training covered only a few progress payment topics. ACOs and technical personnel at the DPROs and DCMAO we visited stated that they had not received the April 1991 DCMC training material.

DCMC management was not aware of the lack of implementation of DCMC training initiatives because an adequate follow-up system was not established. In a memorandum dated January 30, 1991, DCMC directed its management districts to report the status of implementing the training. An August 1991 DCMDW memorandum to DCMC was supposed to report the status of the DCMDW implementation of training initiatives. The memorandum did not adequately reflect the extent to which DCMDW implemented the DCMC training initiatives. The memorandum did not state whether DCMAO and DPRO commanders carried out the training initiatives. Four other DCMDs sent DCMC similar memorandums with insufficient details about their implementation of the DCMC training initiatives.

Effective training and periodic reviews of responsibilities, requirements, and methodologies for reviewing and approving progress payments are essential to ensure that all contract administration personnel understand the need for and requirements of effective review and approval of progress payments. DCMC should develop a follow-up system to verify training is given to all ACOs and contract administration specialists who are involved directly or indirectly in the progress payment review and approval process. Also, an effective internal control system should include an assessment of the training needs of contract administration personnel.
Internal Controls

Although the deficiencies noted during the audit may not be material when considered individually, the overall extent of deficiencies indicates a lack of control over the progress payment review process. Before February 1992, only one of the organizations we visited, DCMAO, Santa Ana, included progress payments in its internal control review program. DCMC, DCMDW, and DPROs at General Dynamics and Rockwell did not have formal management control plans that addressed the progress payment process as a separate assessable internal control unit.

In February 1992, DCMDW instructed the DPROs and other contract administration offices to include and review the administration of progress payments as a part of contract administration internal control reviews. We believe that including progress payments as a specific part of the internal control review program will improve the administration of progress payments by emphasizing the importance of progress payment oversight.

Conclusion

ACOs are responsible for minimizing the risk of premature payments and for adequately protecting the Government monetary interests. The ACOs need accurate and timely data in order to fulfill their responsibility. In addition, the ACOs must maintain effective surveillance over contracts and be aware of the status of the contracts for which they approve progress payments to include knowing when the EAC increases and when deliveries are late. To maintain effective surveillance, ACOs must establish and maintain effective communication with the technical support staff in the contract administration office as well as the program management or procuring office. In addition, technical support staff members in the contract administration offices must not only know how to properly conduct physical progress reviews, but must also understand the importance of their work to the administration of progress payments.

RECOMMENDATIONS, MANAGEMENT COMMENTS, AND AUDIT RESPONSE

1. We recommend that the Commander, Defense Contract Management Command, Defense Logistics Agency, establish a follow-up program to verify that progress payment training initiatives are implemented for all administrative contracting officers and contract administration support staff responsible for or who have input to the review and approval of progress payments.

Director of Defense Procurement comments. The Deputy Director, Cost, Pricing, and Finance, Office of the Director of Defense Procurement, concurred and stated that progress payment training needs to be a permanent part of a continuing training
program. In addition, the Deputy Director stated that DCMC should ensure that DCMC has long term training and a refresher training program.

**Audit response.** We request that the Commander, DCMC, provide comments on the recommendation in the final report.

2. We recommend that the Commander, Defense Contract Management District-West, Defense Contract Management Command:

   a. Direct all administrative contracting officers to:

      (1) Provide for review and comment at least twice a year the estimate-at-completion on the progress payment request to the contract administration office support staff and the program management or procuring office.

   **Director of Defense Procurement comments.** The Deputy Director, Cost, Pricing, and Finance, partially concurred and stated that the ACO should consult with the procuring contracting officer concerning the EAC only when the procuring contracting officer will have information to assist in determining the accuracy of a EAC. The Deputy Director also stated that, for very large numbers of progress payment contracts, the procuring contracting officer would have only the information already developed by the ACO and contract auditor. The Deputy Director also stated that the recommendation should be applicable to all DCMC districts, not just DCMDW, to maintain consistent progress payment administration and should be directed to DCMC.

   **Audit response.** We agree that the procuring contracting officer may not have additional information; however, the ACO has no way of determining that until the information is requested. Also, the recommendation includes the need for the ACOS to regularly communicate with not only the procuring contracting office but also the contract administration office support staff to ensure an understanding of the status of the contract. We issued the recommendation to the Commander, DCMDW, because we reviewed progress payment administration in only DCMDW. We request that the Commander, DCMC, provide comments on the recommendation in the final report.

      (2) Issue guidance to all contract administration offices directing that progress payment requests be evaluated based on the total estimate-at-completion for the scope of work for the definitized portion of the contract plus the scope of work for the funded portions of undefinitized contractual actions.

   **Director of Defense Procurement comments.** The Deputy Director Cost, Pricing, and Finance, partially concurred and stated that it may be more appropriate to treat a contract in which the undefinitized portion of the contract is a significant
portion of the contract value as a letter contract until it is substantially definitized. The Deputy Director suggested revising the recommendation to clarify this point.

Defense Contract Audit Agency comments. The Assistant Director, Policy and Plans, Defense Contract Audit Agency, did not agree that the EAC should be based on the total estimated cost of the contract including the estimated cost for UCAs. He stated that the progress payments should not be reduced based on an EAC that included scope of work that was different from the scope of work included in the contract price. He also stated that the method used in the report to calculate premature payments essentially resulted in an EAC that reflected work not yet included in the contract price. The Assistant Director proposed that the EAC for progress payment purposes should be based on the scope of work for the definitized contract plus the scope of work for only the funded portion of undefinitized contractual actions.

Audit response. We revised the recommendation in accordance with discussions with the Deputy Director, Cost, Pricing, and Finance, and written comments provided by DCAA. The Deputy Director made comments similar to the DCAA comments. We believe that the EAC should reflect the estimate of the work the contractor is undertaking, which is the definitized portion plus the scope of work for the portion of the UCAs that have been funded. If the amount of funds for the undefinitized portion of the contract is used, the effect is a cost-plus type contract and the ACO may not be able to properly assess the need for applying a loss ratio. We do not agree that a fixed-priced-type contract with significant UCAs should be treated as a letter contract until it is substantially definitized. The emphasis should be on definitizing the UCAs or taking actions within the purview of the contracting officer to obtain a contract price. We request that the Commander, DCMC, provide comments on the revised recommendation in the final report.

(3) Obtain at least twice a year from the contract administration office support staff and program management or procuring office the status of contractor performance toward meeting contract delivery schedules.

Director of Defense Procurement comments. The Deputy Director, Cost, Pricing, and Finance, partially concurred and stated that ACOs must be aware of any contract with progress payments that are delinquent in delivery, and the reasons for the delinquency. The Deputy Director also stated that it is expected that all progress payment contracts under DCMC administration have sufficient production surveillance to ensure the ACO is alerted to actual delinquencies as they occur and that contracts with significant progress payment risks have sufficient surveillance to anticipate delinquencies.
Audit response. We agree with the Deputy Director that the ACOs must be aware of any contract with progress payments that is delinquent in delivery. The audit determined it was an incorrect expectation that sufficient production surveillance would alert ACOs to all delivery delinquencies. In certain cases, the ACOs were unaware of serious delivery delinquencies. Therefore, we believe that it is imperative to have a mandatory requirement for the ACO obtain at least twice a year from the contract administration office support staff and program management or buying office the status of contractor performance toward meeting contract delivery schedules. We request that the Commander, DCMC, provide comments on the recommendation in the final report.

b. Provide training and guidance to administrative contracting officers, industrial engineers and specialists, and other appropriate contract administration support staff on the administration of progress payments on:

1. Substantiating the estimate-at-completion or the estimate-to-complete.
2. Reconciling liquidations to support documentation.
3. Determining whether deliveries are timely.
4. Ensuring that physical progress reviews are timely and adequate.
5. Ensuring timely progress payment audits and knowledge of the contractor’s financial condition.
6. Determining whether the contract price is consistent between the procurement contracting officer and the contractor.

Director of Defense Procurement comments. The Deputy Director, Cost, Pricing, and Finance, partially concurred with the intent of the recommendation and strongly endorses further training in the subject areas.

Audit response. We request that the Commander, DCMC, provide comments on the recommendation in the final report.

c. Establish guidance for administrative contracting officers to check progress payment liquidations at time of major contract deliveries or at some unannounced interval between regularly scheduled periodic reviews and to verify that payment invoices have the correct contract and unit price.

Director of Defense Procurement comments. The Deputy Director, Cost, Pricing, and Finance, partially concurred with the recommendation. The Deputy Director stated that the report disclosed a significant error rate in liquidation values and agreed that some type of corrective action was needed to correct the error rate. The Deputy Director suggested the recommendation be revised to recommend enhancing existing automated progress payment tools. The Deputy Director also stated that the audit
report was not clear on whether the detected errors were just in the contractor's value or whether the actual liquidations taken by the Government were also erroneous. The Deputy Director suggested that, if the errors were in the actual liquidations taken by the Government, a recommendation to the Defense Finance and Accounting Service could be appropriate.

Audit response. We did not modify the recommendation as suggested by the Deputy Director. However, we agree that the suggestion to enhance existing automated progress payment tools could, if properly implemented, meet the intent of our recommendation.

During our audit, we found both types of errors mentioned by the Deputy Director. We did not make a recommendation to the Defense Finance and Accounting Service because the primary focus of the audit was contract administration. Furthermore, because our sample was small, we could not justify recommending a change to a Defense Finance and Accounting Service automated system based on errors in 13 contracts. We did, however, bring the deficiencies to the attention of the Defense Finance and Accounting Service staff we contacted. The information that we provided to the Defense Finance and Accounting Service should help correct the deficiency. In our opinion, whether the detected errors were just in the contractor's value, or whether the actual liquidations taken by the Government were erroneous, does not detract from the ACO's responsibility to determine whether unliquidated progress payments are fairly supported by the value of the work accomplished on the undelivered portion of the contract. We request that the Commander, DCMC, provide comments on the recommendation in the final report.
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APPENDIX A - Contracts and Progress Payments Reviewed
APPENDIX B - Interest Calculation on Premature Payments
APPENDIX C - Summary of Prior Audits and Other Reviews
APPENDIX D - Contract Administration of Progress Payments
APPENDIX E - Progress Payment Liquidations
APPENDIX F - Physical Progress Reviews
APPENDIX G - Summary of Potential Benefits Resulting From Audit
APPENDIX H - Activities Visited or Contacted
APPENDIX I - Report Distribution
# APPENDIX A - CONTRACTS AND PROGRESS PAYMENTS REVIEWED

<table>
<thead>
<tr>
<th>Contracts 1</th>
<th>Contract Amount 2 (millions)</th>
<th>Progress Payments Reviewed</th>
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<th>Value (millions)</th>
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<td>$1,192.99</td>
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See footnotes and acronyms at end of appendix.
## APPENDIX A - CONTRACTS AND PROGRESS PAYMENTS REVIEWED

(cont’d)

<table>
<thead>
<tr>
<th>Contracts¹</th>
<th>Contract Type</th>
<th>Supplies/Services</th>
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<tbody>
<tr>
<td>Rockwell</td>
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<tr>
<td>F04704-88-C-0043</td>
<td>FPIF/CPIF</td>
<td>Rail Garrison.</td>
</tr>
<tr>
<td>F04704-88-C-0029</td>
<td>FPIF/FFP</td>
<td>Inertial measurement unit (small ICBM and MX).</td>
</tr>
<tr>
<td>F04704-90-C-0016</td>
<td>FPIF/FFP</td>
<td>Inertial measurement unit (small ICBM and Minuteman silo).</td>
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<td>N00024-88-C-5803</td>
<td>FFP/CPFF</td>
<td>Integrated dual band radar for ship target acquisition system.</td>
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<tr>
<td>N00024-88-C-5248</td>
<td>FPIF/FFP/Cost</td>
<td>Data multiplex system for ship information transfer.</td>
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<tr>
<td>DAAH01-90-C-0343</td>
<td>FFP</td>
<td>Army helicopter improvement program spare parts.</td>
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<tr>
<td>General Dynamics</td>
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<td>N00024-89-C-5300</td>
<td>FFP</td>
<td>Standard missile.</td>
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<tr>
<td>N00024-87-C-5373</td>
<td>FPIF</td>
<td>MK 612 guided missile test sets.</td>
</tr>
<tr>
<td>N00024-87-C-5363</td>
<td>FPIF</td>
<td>Standard missile test equipment.</td>
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<td>N00024-87-C-5443</td>
<td>FPIF/FFP</td>
<td>Phalanx reliability upgrade program.</td>
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<td>DAAH01-90-C-0539</td>
<td>FFP</td>
<td>Stinger engineering services.</td>
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<tr>
<td>DAAH01-87-C-0607</td>
<td>CPAF/FFP</td>
<td>Stinger reprogrammed microprocessor.</td>
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<tr>
<td>DCMAO, Santa Ana</td>
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<tr>
<td>DAAH01-88-C-0330</td>
<td>FFP</td>
<td>Stinger training equipment.</td>
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<td>FFP</td>
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<td>AN/SLQ-49.</td>
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<td>FFP</td>
<td>AEGIS MK-84 power supply.</td>
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<tr>
<td>F04701-89-C-0036</td>
<td>FPIF/CPIF</td>
<td>Special sensor microwave imager/sounder.</td>
</tr>
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</table>

See footnotes and acronyms at end of appendix.

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APPENDIX A - CONTRACTS AND PROGRESS PAYMENTS REVIEWED (cont’d)

1The contracts were managed at DPRO, Autonetics Marine Division, Rockwell International Corporation, Anaheim, CA; DPRO, Air Defense Systems Division, General Dynamics, Pomona, CA; and DCMAO, Santa Ana, CA.

2The contract amount represents the amount the contractor showed on block 5 of Standard Form 1443, "Progress Payment Request," on the last progress payment requests we reviewed.

CPAF.................................Cost-Plus-Award-Fee
CPFF.................................Cost-Plus-Fixed-Fee
CPIF.................................Cost-Plus-Incentive-Fee
FFP.................................Firm-Fixed-Price
FPIF.................................Fixed-Price-Incentive-Fee
ICBM.................................Intercontinental Ballistic Missile
TOW.................................Tube-Launched, Optically Tracked, Wire-Guided
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### APPENDIX B - INTEREST CALCULATION ON PREMATURE PAYMENTS

**Contract**

Rockwell

N00024-88-C-5803

**Premature Payment**

$1,501,603

**Government Interest Cost**

$32,259

## Interest Calculation

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<tr>
<th>Progress Payment Number</th>
<th>Amount Of Premature Payment</th>
<th>Check Date</th>
<th>Days Between Checks</th>
<th>Interest Rate (percent)</th>
<th>Government Interest Cost</th>
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<td>$ 520,842</td>
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<td>116</td>
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<td>11</td>
<td>304,200</td>
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<td>109</td>
<td>9.000</td>
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<tr>
<td>12</td>
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<td>Dec. 4, 1990</td>
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<td>13</td>
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<td>Dec. 24, 1990</td>
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<td>15</td>
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<td>Feb. 26, 1991</td>
<td>30</td>
<td>8.375</td>
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**Total** $1,501,603

$32,259

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1 The interest rate is based on the U.S. Treasury 6-month interest rate.

2 Government Interest Cost = Amount of Premature Payment x Interest Rate x Days Between Checks / 365 Days
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APPENDIX C - SUMMARY OF PRIOR AUDITS AND OTHER REVIEWS

General Accounting Office

Report No. NSIAD-92-01 (OSD Case No. 8841), "Defense Contracting: Key Data Not Routinely Used In Progress Payment Reviews," January 14, 1992. The report stated that ACO reviews of contractors' monthly progress payment requests were often limited to verifying the progress payment rate, contract price, and mathematical accuracy. The ACOs did not routinely use available cost and performance data in the ACO monthly review of contractor progress payment requests. GAO recommended that ACOs be provided with DPRO technical reports generated from the contractors' cost and schedule control systems, such as independent EACs, production schedules, and delivery reports. Obtaining the reports would allow the ACOs to identify contracts with performance problems so they could review progress payment requests in detail. DoD agreed that ACOs should use cost and schedule control system data. However, because DPROs use an automated system to review progress payments, the data should be used only when it indicated a negative contract performance trend.

Office of the Inspector General, DoD

Report No. 93-067, "Use of Contractor Cost and Schedule System Data," March 11, 1993. The report included recommendations to improve the oversight and use of cost and schedule systems and data from the systems. The recommendations included using the EAC based on the cumulative cost performance index in the review of progress payments and providing the EAC used for approving progress payments to the program offices and DCAA for reviews and comments. Management proposed actions that meet the intent of the recommendations.

Report No. 92-046, "Contractor Accounting Practice Changes for C-17 Engineering Costs," February 13, 1992. The report stated that progress payments approved for the C-17 contractor were based on changes in how the contractor charged sustaining engineering costs resulting in $148 million of premature progress payments. The report also stated that DCAA qualified its progress payment reports rather than make recommendations consistent with its audit findings. Based on the report recommendations, the Air Force reversed the accounting change and DCAA agreed to include reviews of audit report qualifications in its quality control program.

Report No. 91-059, "Review of the A-12 Aircraft Program," February 28, 1991. The report restated DCAA findings that an inaccurate EAC resulted in progress payment overbilling of $227.3 million and interest due to the Government of $4.1 million. The report noted that DCMC had identified actions to establish policies and procedures to address contract
Office of the Inspector General, DoD (cont’d)

administration problems and had developed training for progress payment administration. The report did not contain recommendations.

Report No. 89-102, "CH-47D Remanufacture Contracts with Boeing Helicopters," August 22, 1989. The report stated that the contractor did not identify or refund overpayments on fixed-priced incentive contracts and that the contracting officers were often unaware of overpayments and contract overruns. The Army overpaid Boeing about $21.6 million because the ACO did not adequately analyze and monitor payment statements. The report made recommendations to establish internal controls to ensure Boeing prepared and submitted accurate statements and that contract billing prices are adjusted when required. The report also recommended that the Government collect overpayments and any interest due. The Army concurred with the recommendations, and contract billing prices were reduced by $21.6 million through the issuance of credit memos.

Department of the Navy

"Navy Progress Payment Review." In August 1991, the Office of the Assistant Secretary of the Navy (Research, Development, and Acquisiton) performed a review on progress payments. Based on the review results, the Assistant Secretary directed that Navy program managers calculate an EAC and provide the EAC to administrative and procuring contracting officers when the EAC would exceed the firm contract price or ceiling price. The Assistant Secretary also directed that training be provided to Navy personnel in the coordination of progress payments that emphasize the EAC, loss-ratio calculations, and cost-performance analysis. In addition, for those programs where cost-performance reports or some other earned-value performance measurement data were not available, the Assistant Secretary requested that the Defense Logistics Agency direct the ACOs to periodically provide the procuring contracting officer or the program manager the contractor EAC from the progress payment request for review and comment. On September 20, 1991, DCMC issued a directive to the DCMD commanders requiring that ACOs provide contracting officers and program managers with EAC and supporting data for major Navy programs where performance measurement data were not available. The guidance was effective until September 10, 1992.

Navy Audit Service Report No. 094-N-88, "Contractors’ Progress Payments under Naval Air Systems Command Programs," April 30, 1988. The report stated that progress payments were not adequately validated to preclude the possibility of overpayment and that the cost data submitted by the contractors
APPENDIX C - SUMMARY OF PRIOR AUDITS AND OTHER REVIEWS (cont’d)

Department of the Navy (cont’d)

did not adequately support the progress payment requests. The Navy Audit Service also reported a need to establish a standard method for calculating progress payments. Naval Air Systems Command concurred with report recommendations to adopt a mechanized tracking system for progress payments, to develop and implement guidance for uniform data supporting progress payment requests, to stress the importance of accurate progress payment rates, and to verify and recoup overpayments made to contractors and determine whether interest is due the Government.

Air Force Audit Agency

Report No. 9076412, "Payments to Contractors," June 19, 1989. The report stated that ACOs were not calculating percentage of contract physical completion or that the calculations were not reliable on 88 percent of progress payment requests reviewed. The report recommended that ACOs be required to compute the percentage of physical completion and that guidance be provided to the ACOs on procedures for calculating percentage of physical completion. The Air Force concurred with the recommendations and directed that all ACOs perform a percentage of physical completion determination twice a year for all contracts under their cognizance.

Report No. 7076410, "Review of the Air Force Contract Management Division’s Contract Payment Process," April 26, 1988. The report stated that the contractors were overpaid because Air Force Plant Representative Offices incorrectly calculated progress payment reductions for fair value of remaining work and noncompliance conditions. The report recommended that the Air Force provide interim guidance requiring that progress payments be reduced by the fair-value excess before reducing the payment for contractor noncompliance. The report also recommended that the Air Force submit a FAR case to the Defense Acquisition Regulation Council recommending a FAR amendment to clarify that the fair-value and loss-ratio reductions are separate calculations. Management agreed with the recommendations.
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The following are the deficiencies found in the administration of progress payments at DCMDW.

1. The ACO did not substantiate either the EAC or the estimate-to-complete, which is part of the EAC.

2. The ACO did not reconcile liquidations to supporting documentation.

3. Deliveries were not made on schedule and the ACO did not withhold or suspend progress payments.

4. Physical progress payment reviews by ACOs were not done at least yearly.

5. Physical progress reviews were not adequate.

6. The ACO did not request DCAA progress payment audit at least yearly.

7. The ACO was not aware of the contractor's financial condition.

8. The contract price was not consistent among the ACO, procurement contracting officer, and contractor.

The following charts highlight with an "x" the deficiencies for the contracts we reviewed.

<table>
<thead>
<tr>
<th>Contract Administration</th>
<th>Total Deficiencies Per Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7 8</td>
</tr>
<tr>
<td>Rockwell</td>
<td></td>
</tr>
<tr>
<td>F04704-88-C-0043</td>
<td>x x x x x x x x</td>
</tr>
<tr>
<td>F04704-88-C-0029</td>
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</tr>
<tr>
<td>F04704-90-C-0016</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>N00024-88-C-5803</td>
<td>x x x x x x</td>
</tr>
<tr>
<td>N00024-88-C-5248</td>
<td>x x x x x</td>
</tr>
<tr>
<td>DAAH01-90-C-0343</td>
<td>x x x x</td>
</tr>
<tr>
<td>Subtotal of deficiencies per attribute:</td>
<td>4 4 2 2 6 2 6 5</td>
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## APPENDIX D - CONTRACT ADMINISTRATION OF PROGRESS PAYMENTS

(continuation)

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<thead>
<tr>
<th>Contract</th>
<th>Deficiencies</th>
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<tr>
<td>General Dynamics</td>
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<tr>
<td>N00024-89-C-5300</td>
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<tr>
<td>N00024-87-C-5373</td>
<td>x x x</td>
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</tr>
<tr>
<td>N00024-87-C-5363</td>
<td>x x x</td>
<td>5</td>
</tr>
<tr>
<td>N00024-87-C-5443</td>
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<td>5</td>
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<tr>
<td>DAAH01-90-C-0539</td>
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<td>DAAH01-87-C-0607</td>
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Subtotal of deficiencies per attribute:

<table>
<thead>
<tr>
<th>Contract</th>
<th>Deficiencies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCMAO, Santa Ana</td>
<td>x x x</td>
<td>4</td>
</tr>
<tr>
<td>DAAH01-88-C-0330</td>
<td>x x x</td>
<td>4</td>
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<tr>
<td>DAAH01-90-C-0114</td>
<td>x x x x</td>
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</tr>
<tr>
<td>N00024-88-C-5515</td>
<td>x x x x</td>
<td>5</td>
</tr>
<tr>
<td>F04701-89-C-0036</td>
<td>x x x</td>
<td>4</td>
</tr>
<tr>
<td>F04701-86-C-0023</td>
<td>x x x</td>
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Subtotal of deficiencies per attribute:

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Total

<table>
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<tr>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 13 3 10 12 3 13 12</td>
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</tbody>
</table>

34
# APPENDIX E - PROGRESS PAYMENT LIQUIDATIONS

<table>
<thead>
<tr>
<th>Contract</th>
<th>Cause of Error</th>
<th>Premature Payment</th>
<th>Government Interest Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>F04704-88-C-0029</td>
<td>Warranty cost paid twice between Nov. 12, 1990, and Mar. 11, 1991.</td>
<td>185,427</td>
<td>1,151</td>
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<tr>
<td>NO0024-88-C-5248</td>
<td>Incorrect liquidations on invoices between Nov. 9, 1988, and Nov. 6, 1990.</td>
<td>1,943,931</td>
<td>13,166</td>
</tr>
<tr>
<td>General Dynamics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO0024-87-C-5363</td>
<td>Incorrect billing for full receipt of material when only partial shipment was received.</td>
<td>253,010</td>
<td>1,352</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$4,005,495</td>
<td>$30,404</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Contractor Underpayment Interest Cost</th>
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</table>

<table>
<thead>
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<th>DCMAO, Santa Ana</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F04701-86-C-0023</td>
<td>Understated progress payment amount for progress payment 38, Aug. 27, 1990.</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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APPENDIX F - PHYSICAL PROGRESS REVIEWS

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<tr>
<th>Contract</th>
<th>Number</th>
<th>Inadequate¹</th>
<th>1-12</th>
<th>13-24</th>
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<td>General Dynamics</td>
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<td><strong>Subtotal</strong></td>
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<td><strong>1</strong></td>
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</tr>
<tr>
<td>DCMAO, Santa Ana</td>
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<td>F04701-89-C-0036</td>
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<td></td>
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<td><strong>Total</strong></td>
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<td><strong>24</strong></td>
<td><strong>7</strong></td>
<td><strong>2</strong></td>
<td><strong>1</strong></td>
<td></td>
</tr>
</tbody>
</table>

¹We considered the physical progress reviews inadequate if the review did not include physical verification by observation and sampling, was based on unverified verbal assertions of contractor representatives, or did not reflect or include available contract performance data available from the contractor cost and schedule control system (when available).

²Required physical progress review was not done.

³A physical progress review was not required.
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## APPENDIX G - SUMMARY OF POTENTIAL BENEFITS RESULTING FROM AUDIT

<table>
<thead>
<tr>
<th>Recommendation Reference</th>
<th>Description of Benefit</th>
<th>Amount and/or Type of Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Internal Control. Ensures all contract administration personnel are aware of the need for and requirements to effectively review and approve progress payments.</td>
<td>Nonmonetary.</td>
</tr>
<tr>
<td>2.b.</td>
<td>Compliance. Ensures adequate reviews are done to evaluate the appropriateness of progress payments.</td>
<td>Undeterminable. Avoids future premature payments.</td>
</tr>
<tr>
<td>2.c.</td>
<td>Internal Control. Ensures that progress payment liquidations are correct.</td>
<td>Nonmonetary.</td>
</tr>
</tbody>
</table>
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APPENDIX H - ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Director of Defense Procurement, Washington, DC
Comptroller of the Department of Defense, Washington, DC

Department of the Army

Army Missile Command, Redstone Arsenal, Huntsville, AL
Payments Office, Redstone Arsenal, Huntsville, AL

Department of the Navy

Naval Sea Systems Command, Washington, DC
Navy Regional Finance Center, Arlington, VA

Department of the Air Force

Air Force Ballistic Missile Systems Division, Air Force Materiel Command, Norton Air Force Base, CA

Defense Agencies

Resident Office, Air Defense Systems Division, General Dynamics, Pomona, CA,
Resident Office, Autonetics Marine Systems Division, Rockwell International Corporation, Anaheim, CA

Headquarters, Defense Contract Management Command, Alexandria, VA
Headquarters, Defense Contract Management District-West
El Segundo, CA
Defense Plant Representatives Offices:
Autonetics Marine Systems Division, Rockwell International Corporation, Anaheim, CA
Air Defense Systems Division, General Dynamics, Pomona and Rancho Cucamonga, CA
Defense Contract Management Area Operations, Santa Ana, CA

Headquarters, Defense Finance and Accounting Service,
Washington, DC
Columbus Center, Columbus, OH
Columbus Center-Albuquerque Office, Albuquerque, NM
APPENDIX H - ACTIVITIES VISITED OR CONTACTED (cont'd)

Non-Government Activities

Autonetics Marine Systems Division, Rockwell International Corporation, Anaheim, CA
Air Defense Systems Division, General Dynamics Corporation, Pomona, CA
Arral Industries, Incorporated, Ontario, CA
New Bedford Panoramex Corporation, Upland, CA
Irwin Industries, Incorporated, Santa Ana, CA
Aerojet Electrosystems Company, Azusa, CA
APPENDIX I - REPORT DISTRIBUTION

Office of the Secretary of Defense

Director of Defense Procurement
Comptroller of the Department of Defense

Department of the Army

Secretary of the Army
Inspector General, Department of the Army

Department of the Navy

Secretary of the Navy
Assistant Secretary of the Navy (Financial Management)

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force (Financial Management and Comptroller)

Defense Activities

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, Defense Finance and Accounting Service

Non-Defense Activities

Office of Management and Budget
National Security and International Affairs Division, Technical Information Center, General Accounting Office

Chairman and Ranking Minority Member of each of the following Congressional Committees and Subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Operations
House Subcommittee on Legislation and National Security, Committee on Government Operations

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PART IV - MANAGEMENT COMMENTS

Director of Defense Procurement
Director, Defense Contract Audit Agency
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MEMORANDUM FOR DIRECTOR, CONTRACT MANAGEMENT, OFFICE OF THE ASSISTANT INSPECTOR GENERAL FOR AUDITING

SUBJECT: Draft Audit Report on the Administration of Progress Payments at Defense Contract Management District-West (Project No. 1CD-0039)

We appreciate the opportunity to comment on the subject draft. Attached are a number of comments and suggestions concerning the recommendations in the report.

Carol Covey
Deputy Director
Cost, Pricing, and Finance

Attachment
RECOMMENDATION 1: We recommend that the Commander, Defense Contract Management Command (DCMC), Defense Logistics Agency, establish a follow-up program to verify that progress payment training initiatives are implemented for all administrative contracting officers (ACOs) and contract administration support staff who are responsible for, or have input to, the review and approval of progress payments.

POSITION: Concur. Progress payments training needs to be an permanent part of a continuing training program. As a response to the immediate problems disclosed in the report, the verification of current training initiatives is appropriate. DCMC should also ensure that it has a long term training and a refresher training program.

RECOMMENDATION 2: We recommend that the Commander, DCMC-West, DCMC:

a. Direct all ACOs to:

   (1) Provide at least twice a year the estimate-at-completion (EAC) on the progress payment request to the contract administration office support staff and the program management or buying office for review and comment.

   (2) Issue guidance to all contract administration offices directing that progress payment requests be evaluated based on the total EAC for the scope of work for the definitized portion of the contract plus the scope of work for the funded portions of undefinitized contractual actions.

   (3) Obtain at least twice a year from the contract administration office support staff and program management or buying office the status of contractor performance toward meeting contract delivery schedules.

b. Provide training and guidance to administrative contracting officers, industrial engineers and specialists, and other appropriate contract administration support staff on the administration of progress payments on:

   (1) Substantiating the EAC.
   (2) Reconciling liquidations to support documentation.
   (3) Determining whether deliveries are timely.

Attachment
(4) Ensuring that physical progress reviews are timely and adequate.
(5) Ensuring timely progress payment audits and knowledge of the contractor's financial condition.
(6) Determining whether the contract price is consistent between the procurement contracting officer and the contractor.

c. Establish guidance for administrative contracting officers to check progress payment liquidations at time of major contract deliveries or at some unannounced interval between regularly scheduled periodic reviews and to verify that payment invoices have the correct contract unit price.

POSITION: Concur with the intent of the recommendation. In order to maintain consistency of progress payments administration, the recommendations should be applicable to all DCMC Districts, rather than just the western district. Thus, the recommendation should be addressed to Headquarters DCMC. Also, for many contracts, these recommendations would not be appropriate because of the low degree of risk or the small size of the contract. To best use scarce contract management and audit resources, the ACO needs to be able to use judgment in deciding the depth and intensity of progress payment management, or the specific tests need to be included in automated progress payment management tools.

RECOMMENDATION 2.a.(1): Partially concur. For some major systems contracts, the procurement contracting officer (PCO) or program manager (PM) may be able to provide information to assist the ACO with EAC issues. However, for very large numbers of progress payment contracts, the PCO will routinely have only the information already developed by the ACO and auditor. Suggest the recommendation be revised to read:

"(1) Consult with the Procuring Contracting Officer concerning the EAC whenever the PCO may have information that will assist in determining the accuracy of a EAC."

RECOMMENDATION 2.a.(2): Partially Concur. The recommendation ensures that the EAC has a common measurement base with the equivalent FAR definition of contract price (FAR 32.501-3(a)), thus maintaining comparability. However, when the definitized portion of the contract is significantly less than the undefinitized portion, it may be more appropriate to continue to treat the contract as a letter contract or equivalent until it is substantially definitized. For greater clarity, suggest the recommendation be revised to read:

"(2) Issue guidance to all contract administration offices directing that progress payment requests be evaluated based on the total EAC for the scope of work for the definitized portion of the contract plus the funds obligated for the undefinitized portion."
RECOMMENDATION 2.a.(3): Partially concur. ACOs must be aware of any contract with progress payments that is delinquent in delivery, and the reasons therefore. It is expected that all progress payment contracts under DCMC administration have sufficient production surveillance (DFARS 242.1104(a) (i) (B) Category 2) to ensure the ACO is alerted to actual delinquencies as they occur, and that contracts with significant progress payment risks have sufficient surveillance to anticipate delinquencies (DFARS 242.1104(a) (i) (A) Category 1 surveillance). Suggest the following revised wording of the recommendation:

"(3) Ensure support staff managing production surveillance is aware of the ACO's determinations of progress payment risk for specific contractors or contracts and assigns the appropriate surveillance category."

RECOMMENDATION 2.b: Partially concur. While we do not agree with all the details of the IG discussion, we strongly endorse further training in these subject areas.

RECOMMENDATION 2.c: Partially concur. Once deliveries start, the amount of progress payments liquidated partially determines the amount of progress payments that can be paid to the contractor. However, the determination of the liquidation amount is not simple or straightforward. Because of the type of data involved, at any specific point in time neither the Government nor the contractor will normally have all the data needed to compute the precise liquidation amount; both parties have to estimate it from internal data. Also depending upon how the Government has structured the delivery schedule, some invoices may not be subject to a deduction (e.g., no unliquidated progress payments remain to be liquidated); thus simple projections of liquidation rate times deliveries may be inaccurate. Because of the mechanics of the progress payment computation, the only way the contractor can benefit from misstating the liquidation amount is by overstating it; understating it can only reduce the amount of progress payments payable. Real-time verification of this amount has not been cost effective based on the low level of risk generally involved. Properly this liquidation value is verified in the same way as the contractor's statement of costs incurred, by periodic post-payment audit. The IG report has disclosed a significant error rate in the liquidation values (e.g., 5 out of 13 contracts had errors). While we do not concur with the details of the IG recommendation, we concur that corrective action is required. (It is not clear from the report whether the detected errors were just in the contractor's value, or whether the actual liquidations taken by the Government were also erroneous. In the latter case, the IG may wish to add a recommendation on that issue addressed to the Defense Finance and Accounting Service.) In order to improve the cost-effectiveness of the corrective action, we suggest the recommendation be revised to read:
"c. Enhance existing automated progress payment tools to test whether the contractor's value for progress payment request line 23 is within a reasonable range, based on the Government's knowledge of liquidations, deliveries, and invoices submitted, and that the amount in line 23 is not significantly overstated."
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MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING, DOD

SUBJECT: Draft Audit Report on the Administration of Progress Payments at Defense Contract Management District-West (Project No. ICO-0039)

We have received the subject draft report relayed by the Contract Management Directorate's memorandum dated 19 March 1993. Although the draft report is not addressed to DCAA, we nevertheless wish to comment on the findings and recommendations, since the work of DCAA auditors is mentioned in the report.

1. Calculation of Loss Ratio

Recommendation A.1. provides for evaluating a progress payment request using an estimate-to-complete (ETC) based on the total ETC for the work authorized under the contract, regardless of the level of funding under the contract. We believe that the premise upon which this recommendation is based is incorrect.

The premise is expressed on page 6 of the report in the sentence, "Limiting the EAC to the funding amount on the contract could delay recognition of contracts in a loss condition (that is, the EAC exceeds the contract price)." This premise is incorrect because if one does not limit the EAC to only those portions of the contract that are funded, one will be comparing two inconsistent and incompatible items—an EAC which includes both funded and unfunded amounts, and a contract price with only funded work included. In our opinion, a loss ratio that is calculated by comparing two inconsistent and incompatible numbers is misleading. The scope of work funded under the current contract price should be matched to a comparable EAC which covers the same scope of work.

An example will serve to illustrate the problem. Assume that a contract has three orders, as follows:

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<th>ORDER</th>
<th>NEGOTIATION STATUS</th>
<th>CONTRACT AMOUNT</th>
<th>EAC</th>
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<td>A</td>
<td>Definitized</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>B</td>
<td>Funded but not definitized</td>
<td>1,000,000</td>
<td>1,250,000</td>
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<tr>
<td>C</td>
<td>Neither definitized nor funded</td>
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</tbody>
</table>

When computing progress payments, FAR 32.503-6(l) requires that the contract price be revised to include any "unpriced orders to the extent funds for the orders have been obligated." In the example, the contract price would be $2 million (the definitized amount for order A plus the...
Funded amount for order B). The FAR offers no similar guidance as to how the EAC should be calculated. The report recommendation suggests that the EAC should be the sum of the EACs for all tasks: defined, funded, and unfunded. In this example, the IG-recommended EAC would be $3.5 million. This results in a loss ratio factor of 57.1 percent ($2.0 million / $3.5 million).

In our opinion, a loss ratio which assumes that the contract price for all unfunded work is zero, and thus implies a 100 percent loss for that portion of the contract, is unfair and not in compliance with the spirit of the progress payment regulations. We believe that the loss ratio in the example should be 68.9 percent ($2.0 million / $2.25 million). This compares the price and EACs for similar rather than disparate scopes of work.

IG personnel indicated in the exit briefing that the intent of the recommendation is to make the ACO aware of the entire picture regarding the EAC—not to unduly influence the contract auditor into recommending, and the ACO into imposing, a loss adjustment if one is not warranted. However, as written, Recommendation A.1. encourages them to do just that.

The draft report takes exception to the method used by the DPRO to review progress payment submissions for calculation of a loss ratio. This method was also agreed to by COMA. In the case reviewed, the contractor essentially adjusted the EAC developed by its C/S/C/C system to reflect the total funded amounts. This adjustment permitted a comparison of the funded contract value to an estimated EAC for that portion of the work.

We believe that, when read in context, the FAR requires such a matching in order to administer progress payments equitably. Effort for which the contract price has been definitized or funded should be matched to an EAC which covers comparable work.

2. Consideration of Unallowable Costs in EAC

Recommendation A.1. also provides for contract administration offices to evaluate contractors' estimates-at-completion "regardless of the level of unallowable cost incurred." This means that EACs should be developed to include all allocable unallowable costs on the contract. In our opinion, this recommendation requires the contract administration office to impose an evaluation criterion on the contractor's EAC that is not required by the contract. The progress payment clause does not require contractors to include unallowable cost in their EAC. Traditionally, the
incurred costs on the progress payment request and the contract price have been stated net of unallowable costs. In developing their EACs, contractors have been urged to use approved forward pricing rates, which are also net of unallowable costs.

Although the use of an EAC which includes unallowables may be more theoretically correct, in that it will provide a better measure of the true profit or loss projection on a contract, we believe that it may present practical difficulties, which outweigh the benefits to be derived by its adoption. The case presented in the report is one where the contractor apparently developed an EAC which included unallowables, and then also developed a "holdback" rate to back the estimated unallowables out of the EAC. We agree that there was no need for the contractor to have developed or used a "holdback" rate, since the EAC was more correct without one.

Nevertheless, there are probably cases where contractors regularly develop EACs which exclude unallowables. This would occur when the contractor uses normal forward pricing rates to develop the EAC. Under the recommendation, such contractors would be required to develop an "addback" rate, or two sets of forward pricing rates: the current ones which exclude unallowables, and new ones which include unallowables for use in developing EACs. Presumably, government auditors and ACCs will be expected to review this new set of rates, adding appreciably to administrative costs and diverting scarce government oversight resources. Contractors will also have to estimate unallowable direct costs by contract in order to develop a more theoretically correct EAC. All this effort would be required to more accurately estimate the loss ratio by a few percentage points, which by affecting the timing of progress payments made to the contractor would potentially save the government the interest on the reduced progress payments. In the reported case, the interest savings were less than one tenth of one percent of the progress payments under the contract. In our opinion, a cost/benefit analysis needs to be done before such a procedure is implemented.

3. Recoupment of Interest

Because the interest is computed based upon an incorrect premise, we do not believe that a loss adjustment is warranted. Therefore, the recoupment of interest by the termination contracting officer is also unwarranted.
PLD 225.4.2
SUBJECT: Draft Audit Report on the Administration of Progress Payments at Defense Contract Management District-West (Project No. 1CD-0039)

4. Recommendations

We recommend the following:

- Delete or substantially modify the discussion on pages 6-7 under the heading "Contract in loss condition."

- Substantially modify the discussion on pages 7-8 under the heading "Adjustment for Unallowable Indirect Costs."

- Use the following alternative for Recommendation A.1., which would accomplish the desired improvements by providing the ACO with the entire picture regarding the EAC without incurring an inappropriate loss to the contract:

  Issue guidance to all contract administration offices directing that progress payment requests be evaluated to assure that contractor adjustments to estimates-at-completion for work authorized on the contract but currently unfunded are appropriate and not designed to disguise losses on the contract. ACOs should make use of technical assessments where available.

- Delete Recommendation A.2., which states: "Request that the termination contracting office for contract F44704-86-C-0043 with Autonetics Marine Systems Division, Rockwell International Corporation, negotiate, as part of the termination settlement, the recoupment of the $1.15 million interest as a result of premature progress payments of $147 million."

We will be pleased to discuss our comments further with you or your staff. Please direct questions concerning our response to Mr. John A. Wares, Program Manager, Policy Liaison Division at (703) 274-7521.

Signed
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