Audit Report

OFFICE OF THE INSPECTOR GENERAL

PROCUREMENT OF THE TARGET HOLDING MECHANISM, TANK GUNNERY, FROM ACTION SUPPORT SERVICE CORPORATION

Report No. 95-146

March 13, 1995

Department of Defense

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Acronyms

ASSC	Action Support Service Corporation
TACOM	Tank-automotive and Armaments Command
THM/TG	Target Holding Mechanism, Tank Gunnery

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

March 13, 1995

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit Report on Procurement of the Target Holding Mechanism, Tank Gunnery, From Action Support Service Corporation (Report No. 95-146)

We are providing this final report for your review and comments. This report is the third in a series of reports in response to congressional concerns regarding procurement of the target holding mechanism, tank gunnery, by the Tank-automotive and Armaments Command, Warren, Michigan, from Action Support Service Corporation, DeKalb, Illinois. Comments on a draft of this report were considered in preparing the final report.

Management needs to provide comments on this final report that conform to the requirements of DoD Directive 7650.3. Therefore, we request that the Army provide comments on Recommendations 1., 3., and 4. by May 12, 1995.

We appreciate the courtesies extended to the audit staff. If you have any questions on this audit, please contact Ms. Kimberley A. Caprio, Audit Program Director, at (703) 604-9248 (DSN 694-9248) or Ms. Victoria C. Hara, Audit Project Manager, at (703) 604-9228 (DSN 694-9228). Copies of the report will be distributed to the organizations listed in Appendix F. The audit team members are listed inside the back cover.

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Report No. 95-146 **March 13, 1995**
(Project No. 3CD-5026.02)

PROCUREMENT OF THE TARGET HOLDING MECHANISM, TANK GUNNERY, FROM ACTION SUPPORT SERVICE CORPORATION

EXECUTIVE SUMMARY

Introduction. This report is the third in a series of reports responding to congressional concerns on the procurement for the target holding mechanism, tank gunnery. The target holding mechanism, tank gunnery, procurement and personnel associated with the procurement were formerly assigned to the Army Armament, Munitions, and Chemical Command. The procurement discussed in this report and the personnel associated with the procurement are now assigned to the Army Tank-automotive and Armaments Command (the Command).

Audit Objectives. The overall audit objectives were to determine:

o the adequacy of the contract award process for the target holding mechanism, tank gunnery;

o the Army responsiveness to requests for equitable price adjustments from target holding mechanism, tank gunnery, contractors;

o the impact on training and readiness of target holding mechanism, tank gunnery, shortages; and

o the adherence to DoD regulations by acquisition officials.

An additional audit objective was to evaluate internal controls over the procurement of target holding mechanisms and management's implementation of the Internal Management Control Program as it applies to the audit objectives.

A summary report will discuss the overall objectives. This report discusses the contract award process, adequacy of the technical data package, Army responsiveness to requests for equitable price adjustments, and Army adherence to DoD regulations as they apply to ASSC. It will also discuss management's implementation of an internal management control program.

Audit Results. The Command inappropriately awarded, in September 1988, a firm-fixed-price contract, valued at $1.8 million, to build 453 target holding mechanisms, tank gunnery, to Action Support Service Corporation. At the time of contract award, the contractor had financial difficulties, was an organization that consisted of three people, and was operating out of a owner's home garage. The Command certified a flawed technical data package. As a result, the Command issued 803 notices of revision that impacted this contract. The Command terminated the contract in August 1993 for default for a failure to meet the delivery schedule.

Also, the Command did not take action to approve or deny the contractor's request for equitable price adjustment claim. As a result, the contractor deemed its claim denied and appealed the claim to the Armed Services Board of Contract Appeals. See the finding in Part I for details.

Recommendations in this report, if implemented, will strengthen existing internal controls over the contract award process and will improve contracts and contract actions for contractors experiencing financial or technical performance difficulties. This report identifies no potential monetary benefits; see Appendix E for a summary of all potential benefits resulting from the audit.

Internal Management Control Program. The review of the procurement for the target holding mechanism, tank gunnery, was limited to a contract awarded to Action Support Service Corporation. No reportable material internal control weaknesses were identified during the audit. A subsequent report will include our assessment of the implementation of the DoD Internal Management Control Program at the Command for the acquisition of the target holding mechanism, tank gunnery. See Part II for a summary of internal controls assessed.

Summary of Recommendations. We recommend that the Commander, Tank-automotive and Armaments Command, establish and implement procedures to provide management oversight of contracts and contract actions involving contractors experiencing financial or technical performance difficulties. We recommend that the Commander establish and implement procedures to require that revisions to the technical data package do not exceed 5 percent of the number of drawings at the time the solicitation is issued. We recommend that the Commander establish and implement the use of contract control logs to document revisions to the technical data package, and establish and implement procedures to provide management oversight for responsiveness to contractor claims.

Management Comments. The Acting Deputy Assistant Secretary of the Army (Procurement) and the Commander, Tank-automotive and Armaments Command, nonconcurred with the finding and the recommendations. The Army stated that adequate procedures existed and were used for oversight of contracts and contract actions, management of technical data packages, and management oversight of responsiveness to contractor claims. A discussion of the responsiveness of management comments is in Part I, and the complete text of management comments is in Part III of the report.

Audit Response. We believe the report conclusions and recommendations are valid. The overall audit covers seven target holding mechanism, tank gunnery, contracts and three solicitations for the years 1985 through 1994. This is the third report in a series that discusses difficulties with procurement actions and management of technical data packages at Tank-automotive and Armaments Command. Also, this is the second report that discusses the Command's inability to resolve contractor claims in a timely manner. The Command response does not address why, if procedures are adequate, numerous appeals were filed with the Armed Services Board of Contract Appeals; the Armed Services Board of Contract Appeals determined that the technical data package was defective for three contracts and is currently reviewing two additional contracts; two of the contractors were terminated for default; and contractor claims remain unresolved, resulting in appeals to the Armed Services Board of Contract Appeals. We request additional comments from the Army by May 12, 1995.

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Part I - Audit Results

Audit Background

This is the third in a series of reports responding to congressional concerns regarding procurements of the target holding mechanism, tank gunnery (THM/TG). This report discusses one procurement from Action Support Service Corporation (ASSC), DeKalb, Illinois. The organization involved with the THM/TG at Army Armament, Munitions, and Chemical Command, Rock Island, Illinois, became the Armament and Chemical Acquisition and Logistics Activity assigned to Tank-automotive and Armaments Command (TACOM), formerly the Tank-Automotive Command, Warren, Michigan.

This report discusses the contract award process, configuration management of the THM/TG, and TACOM responsiveness to the ASSC request for an equitable price adjustment.

Purpose of THM/TGs. The THM/TG is an electro-mechanical-hydraulic device that raises or lowers an attached target. THM/TGs are available in two versions: portable, radio controlled, with a receiver; and not portable, not radio controlled, without a receiver. The THM/TG is used to train active-duty, Reserve, and National Guard tank gunners.

Congressional Interest in THM/TG Procurements. We received letters from members of Congress expressing concerns about the THM/TG procurements. The concerns included:

o unusual numbers of errors in the technical data packages,

o excessive delays or failures in correcting errors in the technical data packages,

o unusual delays in processing contractors' requests for equitable price adjustments, and

o potential shortages in the supply of THM/TGs that may affect readiness.

The congressional concerns identified a potential pattern of problems in the contract award and administration process, configuration management, and readiness of the THM/TG.

Audit Objectives

The overall audit objectives were to determine:

- o the adequacy of the contract award process for the THM/TG,
- o the Army responsiveness to requests for equitable price adjustments from THM/TG contractors,
- o the impact on training and readiness of THM/TG shortages, and
- o the adherence to DoD regulations by acquisition officials.

An additional audit objective was to evaluate internal controls over the procurement of target holding mechanisms and management's implementation of the DoD Internal Management Control Program as it applies to the audit objectives.

This report discusses the contract award process, the adequacy of the technical data package, the Army responsiveness to requests for equitable price adjustments, and the Army adherence to DoD regulations as they apply to ASSC. See Appendix A for a discussion of the scope, methodology, and internal management control program and Appendix B for a summary of prior coverage related to the audit objectives.

Procurement of Target Holding Mechanisms, Tank Gunnery

TACOM inappropriately awarded a contract to build 453 THM/TGs. Specifically, the contractor, ASSC, was known to have financial difficulties, no personnel other than the three owners, no other contracts, and an owner's garage as its base of operations. Also, TACOM provided ASSC with a flawed technical data package. In addition, TACOM was not responsive to the ASSC request for an equitable price adjustment. Those conditions occurred because TACOM:

o disregarded adverse contractor information during the contract award process,

o certified a flawed technical data package,

o did not control subsequent configuration revisions, and

o did not provide ASSC with a decision on the request for an equitable price adjustment by the self-imposed decision date.

As a result of the technical data package for the contract being flawed, TACOM revised the package with 797 notices of revision. ASSC, hampered by the numerous revisions and its own difficulties, completed no production THM/TGs. TACOM ultimately terminated the contract for default. Because TACOM did not respond to a request by ASSC to adjust the contract price, ASSC submitted a claim to the Armed Services Board of Contract Appeals.

Contract Award Considerations

TACOM inappropriately awarded a firm-fixed-price contract to ASSC to build 453 THM/TGs. The award was inappropriate for two reasons.

o TACOM disregarded adverse contractor information during the contract award process.

o TACOM knew or should have known that a reasonably detailed specification for the THM/TG, a portion of the technical data package, did not exist.

Subsequently, TACOM terminated for default the ASSC contract because ASSC failed to perform.

Determination of Contractor Responsibility. Under Federal Acquisition Regulation 16.202, "Firm-Fixed-Price Contracts," and Federal Acquisition Regulation 9.105-1, "Obtaining Information," a contracting officer should not

award a firm-fixed-price contract unless the contracting officer possesses or obtains sufficient information to be satisfied that a potential contractor is responsible.

To establish contractor responsibility, the contracting officer must determine that a prospective contractor:

o has adequate financial resources to perform the contract or the ability to obtain them;

o has the necessary experience, accounting controls, and technical skills or the ability to obtain them; and

o has the necessary production capability, and facilities, or the ability to obtain them.

An adverse financial condition could affect performance on Government contracts. Information that indicates solvency problems or raises a question about the continued existence of the contractor must be considered before the contracting officer makes a determination of responsibility.

Assessment of Contractor Financial Capability. On June 22, 1988, TACOM requested a preaward survey of ASSC. The preaward survey, completed on August 23, 1988, stated that resources on hand were inadequate to finance the proposed award.

In addition, the preaward survey provided a ratio of total liabilities to net worth of ASSC for TACOM to use as part of the determination of responsibility. A ratio of total liabilities to net worth provides an idea of the company's ability to withstand losses without impairing the interests of creditors. The higher this ratio is, the more overextended a company is and the greater likelihood of insolvency. The preaward survey indicated that the ASSC ratio was 2.7-to-1. That ratio indicated ASSC was in a position of potential insolvency.

The August 23, 1988, preaward survey of contractor financial capability recommended no award for a number of reasons. The solicitation provided for billing the Government after each 30-day shipment. Shipments were estimated to begin 300 days after first-article test approval. Based on the delivery schedule in the solicitation, ASSC was required to self-finance an 11-month period before payments from the Government could be received. The preaward survey determined that, without sufficient outside supplementary financing, the financial capability of ASSC was not assured. At the time of the August 23, 1988, preaward survey, a $400,000 bank loan was pending approval from the bank and pending a guarantee from the Small Business Administration.

A September 7, 1988, evaluation of the financial capability of ASSC stated that the current sales were $30,000 per year and that the contractor's ability to complete a contract in excess of $1 million would depend upon its ability to secure financing. For that reason, the Defense Contract Audit Agency was unable to express an opinion on the financial capability of ASSC.

A September 26, 1988, re-survey completed one day before contract award noted that the $400,000 line of credit from the bank was approved and recommended contract award.

Assessment of Contractor Experience, Accounting Controls, Skilled Personnel, and Facilities. The contractor's lack of experience, accounting controls, skilled personnel, and facilities adversely affected contractor performance on the Government contract and should have been considered before making a determination of responsibility. The following facts were known.

o Although the three owners were ex-employees of Detroit Armor Corporation, a prior THM/TG manufacturer, and had been employed in the military training range segment in engineering, production, and service, ASSC had never produced a THM/TG or any item similar to the THM/TG. ASSC was an electronics service and manufacturing company whose main business was depthfinder repairs.

o No accounting controls were in place at the time of award. Before contract award, ASSC proposed an accounting system that would be installed upon contract award. As of May 29, 1993, 4 years and 8 months after contract award, the accounting system ASSC installed still did not apply a logical and consistent method of allocating indirect costs to the contract.

o Other than the three owners, ASSC had no personnel employed.

o ASSC was operating from an owner's garage and lacked adequate facilities.

THM/TG Contract Type. Federal Acquisition Regulation 16.202-2, "Application," states that a firm-fixed-price contract is suitable for acquiring supplies or services on the basis of reasonably detailed specifications. Specifications are part of a technical data package.

Many notices of revision, coupled with the serious deficiencies found with the technical data package, made the technical data package unsuitable for a firm-fixed-price procurement. The October 21, 1988, business clearance memorandum stated that, under full and open competition, ASSC was the low bidder and would be awarded contract DAAA09-88-C-1067. Between November 18, 1987, the as-of date of the technical data package, and September 27, 1988, the date that the contract was awarded, 50 notices of revision were made to the technical data package.

Reliability of the Certified Technical Data Package

TACOM provided a flawed technical data package for a competitive firm-fixed-price contract to build THM/TGs and spares. Furthermore, TACOM did not control subsequent configuration revisions and their related documentation. As a result, TACOM did not provide the contractor with a reliable technical data package.

Purpose of Technical Data Packages. A technical data package defines and documents an engineering design of a product to allow for duplication of the product. An inaccurate or incomplete technical data package results in additional Government contract administration costs and Government engineering costs to process revisions needed to correct the technical data package. An inaccurate or incomplete technical data package can also result in contract terminations and additional cost to reprocure the product. For the contractor, an inaccurate or incomplete technical data package can result in an improperly prepared proposal, an increased contractor learning curve, an inferior product, delayed deliveries, and requests for equitable price adjustments.

Management of Technical Data Packages. MIL-STD-973, "Configuration Management," applies to DoD organizations and contractors who are tasked with configuration management. Configuration management should ensure an adequate and reliable technical data package by controlling revisions to products and their related documentation and recording and reporting information needed to manage the product effectively, including the status of proposed revisions and implementation status of approved revisions.

Army technical data package review guidelines require that, before procurement, all known design deficiencies are eliminated from the technical data package, and that the technical data package is reviewed and certified as adequate for procurement purposes. One purpose of the technical review is to ensure that design problems are identified and corrected.

Inspector General, DoD, Assessment of Technical Data Package. Inspector General, DoD, engineers and auditors evaluated revisions to the THM/TG technical data package provided by TACOM to ASSC.

Engineer Review. An Inspector General, DoD, engineer reviewed revisions to the THM/TG technical data package provided to ASSC to evaluate after contract award and identified a significant number of revisions that would have affected the ability of ASSC to meet the contract schedule. The engineer concluded that the revisions in the table on the next page resulted in deficiencies in the technical data package.

The deficiencies in the technical data package would not have prevented ASSC from performance of the contract. However, the deficiencies would result in production delays to the contractor.

The engineer reviewed 267 of the 658 notices of revision that ASSC received after contract award to evaluate. The table categorizes the 267 notices of revision reviewed. The notices of revision were categorized as having major impact, minor impact, or no impact. Notices of revision determined to have major impact could result in a schedule delay greater than 2 weeks. Notices of revision determined to have minor impact could result in a schedule delay of up to 2 weeks. Notices of revision determined to have no impact would not individually affect contractor cost or schedule. Although those notices of revision would have no individual impact, the sheer number of notices of revision would impair the ability of ASSC to meet the delivery schedule.

Categories of Notices of Revision to the Technical Data Package

Types of Revision	Number of Revision	Impact of Revision		
		Major	Minor	None
Administrative	138	2	2	134
Dimension, tolerance, and specification	37	2	9	26
Drawings	2	0	1	1
Material	20	2	1	17
Parts	45	2	4	39
Testing	7	1	6	0
Value engineering change proposal	9	1	8	0
Other	9	2	4	3
Total	**267**	**12**	**35**	**220**

The opinion of the engineer was based solely on the content of the notice of revision and did not consider the effect the notice of revision had on the contractor's manufacturing schedule. Therefore, the impact could be greater than or less than the impact indicated in the table, depending on the type of notice of revision and the manufacturing schedule of the contractor.

Using our sample, we estimated that 31 of the 658 notices of revision had major impact on the contract. Those 31 notices of revision could result in more than a year's delay to a manufacturer, because each notice of revision could result in a schedule delay of more than 2 weeks. Additionally, we estimated that ASSC had to contend with 88 notices of revision with minor impact. Each of those 88 notices of revision could result in a schedule delay of up to 2 weeks.

We also estimated that an additional 539 notices of revision individually had no impact. The 539 notices of revision that individually had no impact could cause the contractor to lose confidence in the reliability of the technical data package.

The 658 notices of revision received by ASSC to evaluate after contract award constituted a significant impact on the contractor. As a result of the large number of notices of revision, TACOM made performance on the contract more difficult than necessary.

Auditor Review. We also reviewed 423 notices of revision to the technical data package approved by TACOM. Those notices of revision were to four components of the THM/TG: the electronic control unit, the battery box, the hit sensor, and the visual hit indicator lamp. In addition, we reviewed the low-temperature first article environmental test and the hit sensor test procedure.

Electronic Control Unit. We identified 251 notices of revision that were approved to the electronic control unit. ASSC received 208 of the 251 notices of revision. Of the 43 notices of revision not received, 7 notices of revision were mandatory. One notice of revision received by ASSC required a revision to the circuit card pulse width requirement. The pulse width originally required by the technical data package exceeded the physical limitations of the circuit card components. Without the notice of revision, properly manufactured circuit cards would not pass testing. Two notices of revision were issued to increase tolerances. The tolerances specified in the technical data package resulted in an excessive interference fit with the mating connectors and also resulted in damage to the covers. TACOM considered those two notices of revision nonmandatory.

Battery Box. We identified 44 notices of revision that were made to the battery box. ASSC received 36 of the 44 notices of revision. The eight notices of revision not received were nonmandatory. Of the 36 notices of revision, 21 notices of revision were for a value engineering change proposal to change the battery box from steel to plastic. The original technical data package called for a steel battery box, which was sealed and watertight. However, when hydrogen gases from the battery accumulated in the steel battery box, the box would explode creating a safety hazard. When the box was moved, the battery terminals could touch the steel lid causing a spark, which could cause an explosion. TACOM stated that the value engineering change proposal to change the battery box from steel to plastic should be incorporated only if at a cost savings to the Government.

Hit Sensor. We identified 71 notices of revision that were made to the hit sensor. ASSC received 64 of the 71 notices of revision. Of the seven notices of revision not received, one notice of revision was mandatory. The original technical data package included hit sensors that shorted out because of water intrusion, provided inconsistent hit detection, fell off of the targets, and had covers that would come loose. ASSC submitted a value engineering change proposal to the hit sensor, which was approved as modified by TACOM. The value engineering change proposal was to resolve hit sensor reliability and repairability problems.

Visual Hit Indicator Lamp. We identified 55 notices of revision that were made to the visual hit indicator lamp. ASSC received 52 of the 55 notices of revision. Of the three notices of revision not received, two notices of revision were mandatory.

The original technical data package provided by the Army specified a finish that reacted with the brass and the aluminum/magnesium parts of the housing and harmed the housing. TACOM approved the notice of revision to correct that deficiency as a nonmandatory revision.

Low-Temperature First-Article Environmental Test. Under the low-temperature first-article environmental test, the ambient temperature of the tank target assembly was to be lowered to minus 25 degrees Fahrenheit, and still meet the operational testing requirements. The test procedure as originally provided to ASSC could not be completed successfully. At minus 25 degrees Fahrenheit, the hydraulic fluid specified for the tank target gelled and adversely affected the operation of the hydraulic motor. To successfully complete the test, it was necessary to mix 50-percent kerosene with 50-percent hydraulic fluid.

Hit Sensor Test Procedure. Poor configuration management by TACOM resulted in the need to pay ASSC twice to fix the hit sensor test procedure. On January 28, 1991, ASSC submitted a value engineering change proposal designed to revise the hit sensor test procedure, among other things. On July 31, 1991, TACOM approved a modified value engineering change proposal.

According to ASSC, some of the modifications to the ASSC value engineering change proposal resulted in testing procedures that could not be duplicated. On September 3, 1991, ASSC visited TACOM to discuss necessary corrections. ASSC demonstrated to Army representatives on November 7, 1991, that the hit sensor test as modified was faulty and needed revision. On January 23, 1992, ASSC submitted an engineering change proposal to replace the hit sensor test.

TACOM approved a modification to the contract on April 1, 1992, increasing contract DAAA09-88-C-1067 by $71,154 for a royalty settlement for an equitable price adjustment to compensate ASSC for its hit sensor test procedure, among other things. On June 12, 1992, TACOM accepted the revised test procedure and authorized an additional payment of $3,315 to ASSC under contract DAAA09-92-C-0555.

TACOM Configuration Control of the THM/TG

TACOM procurement and TACOM configuration management did not maintain adequate tracking procedures for revisions to the technical data packages. Procurement and configuration management lacked control over the technical

data package provided to ASSC. TACOM could not demonstrate that it knew what was provided to, and formally or informally accepted by, ASSC on that build-to-print contract.

Configuration Control of the Technical Data Package. TACOM did not properly control configuration of the THM/TG. We reviewed supporting documentation at TACOM, Army Armament, Research, and Development Center, and ASSC. Based on supporting documentation, we determined the following.

o The Configuration Control Board approved 797 notices of revision to the ASSC technical data package.

o The 797 notices of revision consisted of 161 mandatory notices of revisions and 636 nonmandatory notices of revisions.

o Of the 797 approved notices of revision, the Configuration Control Board approved 3 notices of revision during the solicitation period and approved 794 notices of revision after contract award.

o ASSC received 656 approved notices of revision. TACOM procurement sent 1 of the 656 approved notices of revision for informational purposes only. ASSC also received six notices of revision that were not approved for ASSC by the Configuration Control Board.

o ASSC did not receive 148 notices of revision approved by the Configuration Control Board.

o Of the 148 approved notices of revisions not received by ASSC, 19 notices of revision were approved to be sent to ASSC for inclusion in its technical data package after the contract was terminated by procurement.

o Of the 803 notices of revision that impacted the contract, ASSC did not receive 129 notices of revision (16 percent) that were approved by the Configuration Control Board before termination. Of the 129 notices of revision, twenty notices of revision were mandatory.

TACOM procurement officials and TACOM configuration management officials did not coordinate their efforts on the contract.

The Government cost to process the 797 notices of revision approved for incorporation into the ASSC technical data package was $992,185, or 56 percent of $1,765,794, the original contract price. The Government cost to process only the 658 notices of revision that ASSC received after contract award was $777,762.

Adequacy of Contract Management. TACOM procurement was unable to provide a complete and accurate list of revisions to the technical data package applicable to the contract. On August 16, 1993, Inspector General, DoD, personnel met with TACOM procurement and requested a list of THM/TG engineering revisions sent to ASSC.

When TACOM was not able to provide the list, we reviewed the contract files and developed the list independently using source documentation, including the amendments to the solicitation, modifications to the contract, and the actual letters sent to ASSC requesting review and potential incorporation of revisions to the technical data package.

Maintaining Adequate Control Logs. The contracting officer did not maintain adequate control logs from 1988 through 1993 that documented notices of revision to the technical data package applicable to the contract. The control logs did not identify by revision to the technical data package:

- o the purpose of the revision,
- o whether the revision was mandatory or nonmandatory,
- o whether and when TACOM submitted the revision to ASSC,
- o whether and when ASSC accepted or rejected the revision,
- o whether TACOM incorporated the revision into the contract, or
- o the estimated cost to incorporate the revision into the contract, if any.

TACOM should establish and implement control logs that document notices of revision to the technical data package applicable to an individual contract. At a minimum, the control logs should identify the six elements listed above.

Identifying Engineering Change Proposals. TACOM could not identify the notices of revision applicable to the ASSC procurement. We met with TACOM configuration management personnel on August 18, 1993, and requested a list of THM/TG engineering changes from 1985 through August 13, 1993, applicable to the ASSC procurement. TACOM configuration management personnel had to physically search configuration management files from 1985 through 1993 to develop the requested list. The list was provided on August 23, 1994, 13 months after it was requested. The TACOM list and the Inspector General, DoD, list were reconciled October 11, 1994.

Management Oversight of Contractor Performance

Technical Performance. In 1988, when ASSC submitted its offer to the Government to produce THM/TGs, ASSC consisted of three owners. ASSC intended to hire the necessary personnel to perform the contract. By January 19, 1990, 15 months after contract award, ASSC employed two people in addition to the three owners.

The contract required ASSC to deliver a first article test report by July 1, 1989, approximately 9 months after contract award. Between contract award and July 1, 1989, ASSC received 38 notices of revision.

On December 6, 1989, the Army informed ASSC of its intention to terminate the contract for default because of apses lateness in providing a first article delivery schedule. ASSC then committed itself to a first article inspection by February 28, 1990.

ASSC did not obtain first article approval until February 5, 1992, approximately 41 months after contract award. Between July 1, 1989, and February 5, 1992, ASSC received 412 notices of revision. ASSC expended several thousand labor hours on constructing its three first article units.

ASSC received 208 notices of revision between February 5, 1992, and August 30, 1993, the date the contract was terminated for default. Almost 5 years after contract award, ASSC had still not completed any production THM/TGs.

Financial Performance. From 1988 through 1993, ASSC continued to be in financial difficulty. During that time, beginning in January 1990, ASSC received 13 progress payments totaling $388,367, but did not deliver any production THM/TG units.

By June 30, 1989, less than a year after contract award, the ASSC financial condition had worsened.

o The ASSC ratio of current assets to current liabilities dropped from 3.96-to-1 (before award) to 0.68-to-1. This ratio indicates the ability of a company to liquidate its current obligations and to finance operations in the immediate future. A ratio considered acceptable by most industries is 2-to-1.

o The ASSC ratio of cash, accounts receivable, and short-term investments to current liabilities as of June 30, 1989, dropped from 2.15-to-1 (before award) to 0.18-to-1. This ratio indicates the ability of a company to liquidate current liabilities without interrupting the normal business cycle. A satisfactory ratio is 1-to-1. A significant possibility existed that ASSC would be unable to complete its contract.

By January 19, 1990, it was clear that the financial health of ASSC depended upon its ability to perform the contract in a satisfactory manner and avoid significant cost or schedule overruns. A computation of the ASSC estimate to complete this contract projected ASSC losses at $84,968. It was apparent that ASSC had already incurred significant cost and schedule overruns.

By October 31, 1991, ASSC recorded a pre-tax loss of $18,727, and liabilities exceeded assets by $99,596. While certain lines of financial credit continued to be available, a risk existed that ASSC would not be financially capable of completing the contract.

An August 7, 1992, computation of the ASSC estimate to complete the THM/TG contract projected ASSC losses at $599,244. ASSC losses continued to grow and endanger contract performance.

By May 29, 1993, ASSC had still not completed a single production unit, and the Government projected ASSC losses of $596,808 on the THM/TG contract. A risk continued to exist that ASSC would not be financially capable of completing the contract.

According to TACOM documentation, TACOM knew, or should have known, that ASSC lacked the financial ability to complete the contract and that ASSC had not made sufficient progress on the THM/TG. Despite this, TACOM did not try to negotiate an equitable contract termination.

Approximately 5 years after contract award, on August 30, 1993, the Army terminated ASSC for default because ASSC did not meet the scheduled delivery date. Delivery of production THM/TGs were scheduled to begin May 1, 1990. No production THM/TGs had been completed when the contract was terminated for default. In total, TACOM took 5 years to determine that the contractor was not performing in a responsible manner.

We could not document involvement by TACOM management above the contracting-officer level after contract award but before ASSC initiated a claim. According to a TACOM official, issues related to contractor financial and technical difficulties are resolved at the contracting-officer level. TACOM should establish and implement procedures for management oversight of contracts and contract actions with contractors that are experiencing financial or technical performance difficulties.

TACOM Responsiveness to Contractor Claim

TACOM was not responsive to the request for equitable price adjustment from ASSC. TACOM did not follow established procedures in processing the ASSC claim. As a result, ASSC deemed its request denied and appealed to the Armed Services Board of Contract Appeals.

Contractor Disputes. The Contract Disputes Act of 1978, United States Code, title 41, sections 601 through 613, as amended by the Administrative Disputes Resolution Act, establishes procedures and requirements for asserting and resolving claims.

Federal Acquisition Regulation 33.211, "Contracting Officer's Decision," requires the contracting officer to decide on the contractor's claim within 60 days. If a decision is not possible, then the contracting officer should, within the 60 days, state when a decision will be issued.

Contractor Claim. On June 28, 1993, ASSC submitted a certified claim to TACOM for relief in the amount of $1,389,003 based on a defective technical data package and on a perceived change to the type of contract from a build-to-print contract to a design-engineer-build contract. TACOM received the certified claim on July 1, 1993.

TACOM Responsiveness to Contractor Claim. On July 7, 1993, the contracting officer internally requested an audit, technical review, and pricing analysis of the certified claim. On July 14, 1993, TACOM acknowledged receipt of the certified claim and stated that it would issue a decision on the ASSC claim by September 29, 1993 (within 90 days). The following actions ensued.

o TACOM issued the request for an audit on August 11, 1993, 49 days before a decision was due.

o On September 27, 1993, 2 days before a decision was due, the results of the technical review of the ASSC claim were sent to TACOM.

o On October 26, 1993, TACOM was notified that the report on the audit would be issued on or before December 15, 1993, 77 days after the original decision was due.

o On November 9, 1993, 41 days after the original date the TACOM decision was due, ASSC appealed to the Armed Services Board of Contract Appeals.

Management Oversight of Contractor Claim. We could not document management oversight of responsiveness to contractor claims. We did not locate any mechanism that tracked whether and when the contractor was notified that the claim was received; whether and when the audit, technical evaluation, and legal review were requested; and whether and when a decision was made and the contractor was notified of the decision. TACOM should establish and implement procedures for management oversight of responsiveness to contractor claims. The procedures should require milestones to be set for notifying the contractor that the claim was received; for requesting audit, technical evaluations, and legal review; and for establishing a decision date.

Resolution of Contractor Claim. On June 28, 1993, the contractor submitted a certified claim to TACOM for $1,389,003. On August 3, 1994, the contractor revised its claim to $1,511,117. The Defense Contract Audit Agency audit report, September 21, 1994, questioned $957,026 (63 percent) of the claimed amount of $1.5 million. The Defense Contract Audit Agency concluded that if the contract had been completed, the contract would have been in a loss position, even after adjusting the contract price for audit-accepted claim items.

Conclusion

TACOM should not have awarded the contract to ASSC because ASSC did not meet the definition of responsible as required in the Federal Acquisition Regulation. Information available to TACOM before award showed that ASSC lacked the resources to build a THM/TG. The contracting officer is ultimately

responsible for the determination of responsibility when awarding a contract. We believe that the contracting officer did not exercise prudent business judgment when determining that ASSC was responsible.

In addition, TACOM improperly awarded a firm-fixed-price contract type to ASSC. TACOM should have either fixed the technical data package before contract award or awarded a cost-type contract instead of a firm-fixed-price contract. The technical data package used in the procurement was seriously flawed and thus was not suitable for a firm-fixed-price contract. That contract type placed the maximum risk, and full responsibility for all costs and resulting profit or loss, on ASSC.

The faulty technical data package contributed to ASSC delays. However, it did not prevent ASSC from performing. Throughout the 5 years of contract performance, ASSC completed no production THM/TGs.

The Government's policy is to try to resolve all contractual issues by mutual agreement at the contracting-officer level. TACOM, however, did not formulate a response to the ASSC claim by the self-imposed specified time. ASSC elevated its claim to the Armed Services Board of Contract Appeals as a result of the TACOM lack of responsiveness.

Recommendations, Management Comments, and Audit Response

Management Comments on the Finding. TACOM commented on the finding discussion of the adequacy of the technical data package, the contract award process, and configuration management. See Appendix D for a summary of management comments on the finding and the audit response. For the complete text of management comments, see Part III.

We recommend that the Commander, Tank-automotive and Armaments Command, Army Materiel Command:

1. Establish and implement procedures for management oversight of contracts and contract actions with contractors that are experiencing financial or technical performance difficulties.

Management Comments. TACOM nonconcurred with the recommendation and stated that management oversight already exists through current procurement policies, procedures, and regulations. The Defense Contract Management Command notifies the contracting-officer if a problem occurs after contract award. Upon being notified of the poor financial condition of ASSC, TACOM discussed the situation with the administrative contracting officer. After determining that ASSC was in a loss position and making no progress, further progress payments could not be paid, so the contracting officer

terminated the contract for default. The fact that after award ASSC made poor management decisions even though TACOM provided as much assistance as possible is not the fault of the contracting-officer.

Audit Response. The TACOM response does not discuss the fact that TACOM knew before contract award that ASSC:

- o was in a weak financial condition;
- o had no employees besides the three owners;
- o lacked managerial personnel experienced at running a company;
- o lacked experienced manufacturing personnel;
- o did not have adequate facilities to manufacture the THM/TG; and
- o had no accounting controls in place.

In addition, TACOM knew that ASSC annual sales before this contract were $30,000, a significant difference from the $1.8 million contract about to be awarded. All of those factors combined with the one piece of information that only TACOM knew - that the technical data package would require substantial revision - should have led TACOM to fix the technical data package before contract award, award a cost-type contract instead of a firm-fixed-price contract, or award the contract to a responsible bidder.

TACOM states that upon being notified of the poor financial condition of ASSC, TACOM discussed the situation with the administrative contracting officer, determined that ASSC was making no progress, and terminated the contract. Contrary to TACOM's comments, TACOM knew before award about the poor financial condition of the contractor. In fact, TACOM took 5 years to determine that the contractor was not performing in a responsible manner. Delivery of production THM/TGs was scheduled to begin May 1, 1990. ASSC never completed a production THM/TG when the contract was terminated for default. Although this report only addresses one contract, the overall audit addresses similar problems on seven THM/TG contracts. We request that TACOM reconsider its reply and provide additional comments on why additional procedures are not needed due to the problems cited and why the problems do not apply to other contracts at TACOM.

2. Establish and implement procedures to require that outstanding notices of revision to the technical data package do not exceed 5 percent of the number of drawings before the technical data package is reviewed and certified as adequate for procurement purposes and the solicitation is issued.

Management Comments. TACOM nonconcurred with the recommendation and stated that the large number of notices of revision, about 746, attached to the technical data package resulted from four concurrent production contractors

attempting to tailor the technical data package to their preferred processes and equipment. Each contractor's notices of revision were offered to the other contractors to assure equitable treatment of each contractor. That situation does not describe a flawed technical data package because the THM/TG has been successfully produced without those notices of revision. Nearly 4,300 technical data packages are certified for procurement annually and the specific 5-percent restriction is impractical to maintain for any given package. The entire THM/TG data package was updated in August 1994 and this should resolve the concerns of the audit.

Audit Response. Of the 797 notices of revision, 453 notices of revision (57 percent) were generated by TACOM. In addition, 161 notices of revision were approved by the TACOM Configuration Control Board as mandatory to manufacture the THM/TG. Further, 21 notices of revision pertained to a value engineering change proposal to replace a steel battery box that could explode due to sparks from the terminals coming in contact with the battery box igniting accumulated hydrogen gasses. That situation does describe a flawed technical data package. The complete update of the THM/TG technical data package addresses our concerns about the THM/TG. We accept the response.

3. Direct the Major Weapons and Chemical Division, Tank-automotive and Armaments Command, to establish and implement control logs documenting changes to the technical data package applicable to an individual contract. The control log should:

a. Identify the purpose of the revision to the technical data package.

b. Identify whether the revision is mandatory or nonmandatory.

c. Identify whether and when the revision was submitted to the contractor.

d. Identify whether and when the revision was accepted or rejected by the contractor.

e. Identify whether the revision was incorporated into the contract.

f. Identify the estimated cost to incorporate the revision into the contract, if any.

Management Comments. TACOM nonconcurred with the recommendation and stated that the audit shows no proof of systemic problems, but only points to alleged inadequacies of tracking configuration control on this specific contract. The procurement area maintains a log tracking receipt from configuration management, distribution to the contract specialist, and the applicable contract and solicitation numbers. The individual contract files serve further to track the details of the engineering proposal processing including transmittal to the contract, incorporation into the contract or solicitation, and consideration.

Audit Response. Although this report discusses one contractor, the overall audit covers seven THM/TG contracts and three solicitations for the years 1985 through 1994.

TACOM tracking procedures for the technical data revisions were not adequate. The recommendation is directed specifically to the contract specialist. The individual contract files did not adequately track technical data revisions. At the start of the audit, the contract specialist was asked to provide the auditors with a list of technical data revisions sent to the contractor and a list of revisions that were incorporated into the contract. According to TACOM, to provide such lists would require a page-by-page review of the contract files.

We reviewed the contract files page-by-page and determined that the contract files were disorderly and incomplete. The condition of the contract files hindered completion of this audit. TACOM never provided the requested lists. We developed our own list of revisions to complete the audit. We have been attempting to resolve exactly which technical data revisions were sent to the contractor. We received the final response on which technical data provisions were approved for the contractor in October 1994, 15 months after the data were requested. Clearly the record of delays to answer basic questions about a contract, shows that the individual THM/TG contract files do not adequately track technical data revisions. We request that TACOM reconsider its reply and provide comments that address why the contract specialist and TACOM control logs performed so poorly on THM/TG contracts in relation to all of the other contracts.

4. Establish and implement procedures for management oversight of responsiveness to contractor claims. The procedures should require setting milestones for notifying the contractor that the claim was received; for requesting audit, for technical evaluations, for legal reviews, and for establishing a decision date.

Management Comments. TACOM nonconcurred with the recommendation and stated that the problem is not systemic to TACOM. The guidance concerning time frames and handling of claims already exists and was utilized. That oversight is established by management through guidance, policy, and procedures through regulations and acquisition letters to the Federal Acquisition Regulation, Supplements, and local guidance. It is the responsibility of each contract specialist to ensure the 60-day criteria is met. Higher management expects those at the working level to follow that guidance in making business decisions that are reviewed by legal and policy offices to ensure compliance. The contractor was informed upon submittal of the claim that it was not properly supported and could not be audited. Every attempt was made to assist the contractor toward settlement of the claim.

Audit Response. The TACOM lack of timely response to contractor claims resulted in at least two THM/TG contractors requesting resolution by the Armed Services Board of Contract Appeals. Combined Arms Training Systems submitted a claim to the Armed Services Board of Contract Appeals 68 days after TACOM's original decision date. Action Support Service Corporation submitted a claim to the Armed Services Board of Contract Appeals 41 days

after TACOM's original decision date. In addition, TACOM received a certified claim from Technical Systems, Incorporated, on July 12, 1993. As of February 14, 1995, more than a year and a half later, TACOM had not provided Technical Systems, Incorporated, with a decision on its claim. TACOM had problems with timely responses to THM/TG contractors claims. We request that TACOM reconsider its reply and provide additional comments that address why the lack of timely response on the THM/TG contractor claims does not apply to other contracts and what actions were taken to ensure that the problems related to the THM/TGs will not occur in the future.

Part II - Additional Information

Appendix A. Scope, Methodology, and Internal Management Control Program

Scope and Methodology

Audit Locations. We reviewed the procurement process for the THM/TG at TACOM and ASSC. Appendix E lists the organizations visited or contacted during the audit.

Data Reviewed and Use of Computer-Processed Data. This report discusses one contract, DAAA09-88-C-1067, awarded to ASSC for the procurement of 453 THM/TGs, valued at $1,838,097 after modifications. For a chronology of the events associated with the ASSC contract, see Appendix C. We reviewed the solicitation, the preaward documents, the technical data package revisions, the pertinent laws and regulations, and other related documentation dated from 1988 through 1994. We developed a computer-processed data base to assist in the audit. The data base was determined to be accurate based on a verification to source documentation and Army Armament Research, Development, and Engineering Center documentation.

Audit Period and Standards. We performed this economy and efficiency audit from June 1993 through November 1994 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD. Accordingly, we included tests of internal controls that were considered necessary.

Use of Technical Staff. Personnel from the Quantitative Methods Division and the Technical Assessment Division, Office of the Inspector General, DoD, provided support for this audit. The Quantitative Methods Division, assisted in the development of the statistical sample of notices of revision reviewed, and the statistical projections of the sample data. Engineers from the Technical Assessment Division evaluated the accuracy and completeness of the technical data package applicable to the contract.

Universe Development. To review configuration management, we identified 810 notices of revision that impacted the ASSC contract. Of the 810 notices of revision that impacted the ASSC contract, TACOM approved 804 notices of revision for the ASSC contract. Of the 804 notices of revision, 1 approved by TACOM configuration management for the ASSC contract was sent to ASSC by TACOM procurement for informational purposes only. TACOM also sent ASSC 6 notices of revision that were not approved by TACOM configuration management for the ASSC contract.

We identified for evaluation a universe of a total of 658 notices of revision* received by ASSC after contract award. Our universe excluded the one notice of revision sent by TACOM procurement for informational purposes only. The notice of revision that was sent to ASSC for informational purposes only was excluded from our universe because ASSC was not sent the notice of revision to evaluate. We statistically selected for review 267 notices of revision received by ASSC after contract award.

Statistical Sampling Methodology

Sample Purpose. The purpose of the statistical sampling plan was to estimate separately the number of notices of revision received by ASSC that had major and minor impacts on the ASSC schedule. The audit definitions of "major impact" and "minor impact" are given in the Technical Data Package Reliability section of this report.

Sample Plan. The audit universe was defined as all notices of revision received by ASSC from TACOM from 1989 through 1992. The original universe included 649 notices of revision. Subsequently, 14 additional notices of revision were identified and 5 notices of revision were determined to be outside the scope of the audit. Therefore, the actual universe contained 658 notices of revision. The unit audited was a specific drawing revision.

Sample Design. A stratified sample design was used to project each impact result. Initially, a simple random sample of 255 notices of revision was selected. But 2 sample items were determined to be outside the scope of the audit, making the sample size 253. In addition, 14 additional notices of revision were found and incorporated as a separate census group. To present correctly the sampling results in terms of notices of revision, the total sample of 267 was split into 2 strata, size 253 and 14. To integrate both strata, weights accounting for the different strata sizes were applied in the statistical analysis.

*For the purpose of this count, multiple sheets, parts lists, and quality assurance provisions for one drawing within an engineering change proposal constitute only one notice of revision.

Sample Results

The sample results are discussed in the finding of the report. Statistical projections of the sample data are as follows.

	95-Percent Confidence Intervals		
	Lower Bound	Point Estimate	Upper Bound
Notices of revision with major impacts	17	31	44
Notices of revision with minor impacts	66	88	109

We are 95-percent confident that from 17 to 44 of the 658 notices of revision had major impacts on the ASSC schedule. The unbiased point estimate, 31 notices of revision, is the most likely single value for the number of such revisions with major impacts.

Also, we are 95-percent confident that from 66 to 109 of the 658 notices of revision had minor impacts on the ASSC schedule. The unbiased point estimate, 88 notices of revision, is the most likely single value for the number of such revisions with minor impacts.

Internal Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires DoD organizations to have in place a system of internal control procedures over operations and to perform regular self-evaluation of internal controls.

Scope of Review of Internal Management Control Program. The audit evaluated internal controls applicable to laws, regulations, and procedures for the acquisition of and configuration management of the THM/TG. In addition, we evaluated internal controls applicable to TACOM responsiveness to a request for equitable adjustment from ASSC. Specifically, we reviewed TACOM compliance with the Federal Acquisition Regulation; with the Defense Federal Acquisition Regulation Supplement; with MIL-STD-973, "Configuration Management;" and with pertinent Army regulations. Our review was limited to the guidance as it was implemented with regard to the contract that TACOM awarded to ASSC. We also evaluated management's self-evaluation of its internal controls. A subsequent report will include our assessment of the implementation an of Internal management control program at TACOM for the acquisition of THM/TG.

Adequacy of Internal Controls. Internal controls were adequate in that the audit identified no material internal control weaknesses as defined by DoD Directive 5010.38. Because internal controls were adequate, this report will not discuss management self-evaluation of its internal controls.

Appendix B. Summary of Prior Audits and Other Reviews

Both the General Accounting Office and the Office of the Inspector General, DoD, have issued audit reports related to configuration control of technical data packages.

General Accounting Office. General Accounting Office Report GAO/NSIAD-92-23 (OSD Case No. 8891), "Improvement Needed in Technical Data Management," February 25, 1992, states that data quality problems inhibit contractors from competing for Government work or from completing the work after a contract is awarded. The General Accounting Office report made no recommendations that addressed issues in this report.

Inspector General, DoD. Three reports related to this audit have been issued by the Office of the Inspector General, DoD.

Report No. 95-030. Report No. 95-030, "Procurement of the Target Holding Mechanism, Tank Gunnery, From Combined Arms Training Systems," November 16, 1994, states that TACOM awarded a firm-fixed-price contract to build THM/TGs to a contractor with financial difficulties, no prior experience, and limited technical ability. TACOM terminated the contract for default for failure to perform. In addition, TACOM certified a flawed technical data package. As a result, 720 notices of revision impacted the contract. Also, TACOM was not responsive to the contractor's requests for equitable price adjustment. As a result, the contractor submitted a claim to the Armed Services Board of Contract Appeals. The report recommended that TACOM:

o establish and implement procedures to provide management oversight of contracts involving contractors experiencing financial or technical performance difficulties,

o establish and implement procedures to require that outstanding notices of revision to the technical data package do not exceed 5 percent of the number of drawings before the solicitation is issued,

o establish and implement contract control logs documenting changes to the technical data package, and

o establish and implement procedures to provide management oversight of responsiveness to contractor claims.

The Deputy Assistant Secretary of the Army (Procurement) and the Commander, TACOM, nonconcurred with the finding and recommendations, stating that the review was limited to one contract, and the results of the review should be specific to that contract. Although Report No. 95-030 addresses one contract, the audit project covers nine contracts and two solicitations over 10 years. We believe that the problems identified in the report are systemic to THM/TG procurements at TACOM using technical data packages. We believe the report conclusions and recommendations remain valid.

Report No. 93-093. Report No. 93-093, "Procurement Procedures Used by the Single Manager for Conventional Ammunition," April 28,1993, states that contracts were awarded to financially distressed companies with high probability of bankruptcy, despite the availability of adverse information on the contractors' financial conditions existing before contract awards. We recommended that TACOM provide written guidance to contracting officers requiring them to effectively use available internal and external information before making a determination of responsibility regarding a prospective contractor. TACOM agreed to provide formal guidance.

Report No. 94-170. Report No. 94-170, "Quick-Reaction Report on the Audit of the Target Holding Mechanism, Tank Gunnery, Procurement," July 27, 1994, states that the sole-source and competitive solicitations for the THM/TG lacked reliable technical data packages. In addition, TACOM improperly issued the sole-source solicitation. As a result, both solicitations may result in production delays, delinquent deliveries, and requests for equitable price adjustments. Also, the sole-source solicitation unnecessarily restricted competition. TACOM did not evaluate the use of commercial target holding mechanisms, which might have eliminated the need for development of a prototype. As a result, a $587,382 cost-plus-fixed-fee contract was awarded, which reduces the chances for procurement of commercial target holding mechanisms. We recommended that TACOM cancel the sole-source and competitive procurements and withhold any new requests for proposals until all of the issues pertaining to the technical data packages are resolved. We also recommended that TACOM determine whether requirements can be met with commercial target holding mechanisms before allowing further prototype development or production. On January 12, 1995, the Army agreed to cancel the two solicitations. The Army also agreed that commercial mechanisms have the potential for meeting Army requirements and agreed to develop an Operational Requirements Document that would confirm the viability of commercial mechanisms.

Appendix C. Chronology of Procurement Action Involving Action Support Service Corporation

Date	Event
Nov.18, 1987	Technical data package issued.
May 23, 1988	TACOM issued a competitive solicitation to manufacture 453 THM/TGs.
June 22, 1988	Original bid closing date.
June 29, 1988	The solicitation was amended three times from June 13, 1988, to June 29, 1988, to extend the bid closing date, to incorporate a drawing, and to delete a clause.
July 11, 1988	Bid closing date.
Sept. 27, 1988	TACOM awarded the contract to ASSC for 453 THM/TGs valued at $1,765,794.
April 17, 1989	TACOM modified the contract to incorporate notices of revision.
July 1, 1989	First article due from ASSC. First-article testing and approval ensures that the contractor can furnish a product that conforms to all contract requirements for acceptance. Number of days since contract award: 277.
Jan. 18, 1990	TACOM extended the delivery date for first article to February 28, 1990. Number of days since contract award: 478.
April 30, 1990	TACOM modified the contract to incorporate notices of revision. Number of days since contract award: 580.
May 7, 1990	TACOM extended the delivery date for first article to September 7, 1990. Number of days since contract award: 587.
Aug. 31, 1990	TACOM modified the contract twice to incorporate notices of revision. Number of days since contract award: 703.
June 12, 1991	TACOM again extended the delivery date for first article to June 15, 1991 and incorporated notices of revision. Number of days since contract award: 988.
June 27, 1991	TACOM informed ASSC that it was considering terminating the contract for default for failure to deliver the first-article test report and that any further performance was at the risk of ASSC. Number of days since contract award: 1,003.

Appendix C. Chronology of Procurement Action Involving Action Support Service Corporation

Date	Event
July 3, 1991	ASSC stopped all work on the contract. The first article was shipped for final testing before production. Number of days since contract award: 1,009.
July 17, 1991	TACOM authorized ASSC to proceed with first-article testing. Number of days since contract award: 1,023.
Feb. 5, 1992	ASSC received approval of first-article testing.
April 1, 1992	TACOM increased the contract value by $71,154 to incorporate a royalty settlement for an equitable price adjustment for the ASSC value engineering change proposal for the hit sensor. The first-article test report was formally approved. The production delivery schedule was extended. Number of days since contract award: 1,282.
Nov. 25, 1992	TACOM increased the contract value by $1,149. That modification decreased the contract value by $27,937 to incorporate a value engineering change proposal for the battery box and increased the contract value by $29,086 to incorporate the ASSC value engineering change proposal for the hit sensor. TACOM also revised the production delivery schedule and incorporated notices of revision. Number of days since contract award: 1,520.
April 15, 1993	TACOM increased the contract value by $72,303 to correct the contract dollar value previously increased on November 25, 1992. Number of days since contract award: 1,661.
June 28, 1993	ASSC submitted a certified claim to TACOM for damages of $1,389,003 based on both a defective technical data package and a perceived change to the type of contract from a build-to-print contract to a design-engineer-build contract. Number of days since contract award: 1,735.
July 1, 1993	TACOM received the certified claim. Number of days since contract award: 1,738.
July 7, 1993	TACOM internally requested an audit, a technical review, and a pricing analysis of the certified claim. Number of days since contract award: 1,744.
July 14, 1993	TACOM acknowledged receipt of the ASSC certified claim. TACOM stated that it would respond to the certified claim by September 29, 1993. Number of days since contract award: 1,751.

Appendix C. Chronology of Procurement Action Involving Action Support Service Corporation

Date	Event
Aug. 11, 1993	TACOM issued the request for an audit 41 days after TACOM received the certified claim. Number of days since contract award: 1,779.
Aug. 30, 1993	TACOM issued a termination for default. ASSC never delivered a production THM/TG. Number of days since contract award: 1,798.
Sept. 27, 1993	The results of the technical review were sent to TACOM, 2 days before a decision was due. Number of days since contract award: 1,826.
Sept. 29, 1993	TACOM stated that its response to the ASSC certified claim was due. TACOM never responded to ASSC. Number of days since contract award: 1,828.
Oct. 26, 1993	TACOM notified that the audit would be issued on or before December 15, 1993, 77 days after the decision was due. Number of days since contract award: 1,855.
Nov. 9, 1993	ASSC appealed to the Armed Services Board of Contract Appeals stating wrongful termination, 41 days after the TACOM decision was due. Number of days since contract award: 1,869.

Appendix D. Management Comments on the Finding and Audit Response

This appendix provides summaries of Army's comments on the findings by subject area and our responses to those comments. The full text of the Army comments is in Part III.

Adequacy of the Technical Data Package. TACOM stated that the technical data package used in the solicitation for 453 THM/TGs was adequate for competitive procurement on a firm-fixed-price basis.

Audit Response. The technical data package was not suitable for a firm-fixed-price procurement. A firm-fixed-price procurement is intended to acquire products based on a reasonably definite detailed specification.

TACOM made 797 notices of revision to the technical data package. Of the 797 notices of revision, TACOM stated that 161 notices of revision (20 percent) were mandatory revisions. Clearly, the technical data package was not based on a reasonably definite detailed specification and, therefore, was not suitable for use on a firm-fixed-price procurement.

Further, as part of a 1989 THM/TG contract, awarded after TACOM awarded the ASSC contract, TACOM included a line item to correct the technical data package as problems were found.

Adequacy of Contractor Facilities. TACOM stated that the contractor was working out of a warehouse that was deemed sufficient at time of pre-award survey and continued to work out of that facility until termination.

Audit Response. TACOM awarded the contract to ASSC on September 27, 1988. The lease for the warehouse that ASSC worked out of was signed November 1, 1988, for occupancy from November 1, 1988, to December 31, 1990. At the time of the pre-award survey, ASSC was working out of a garage.

Feasibility of Updating the Technical Data Package. TACOM stated that nearly 4,300 technical data packages are certified for procurement each year. If TACOM waited for a data call, there was insufficient time to update the drawings, make the aperture cards, and review and certify the technical data package to meet the 60-day goal for the process.

Audit Response. TACOM states that to update a technical data package when the notices of revision exceed 5 percent of number of drawings before the technical data package is reviewed and certified ready for procurement is too time consuming. What TACOM did not mention was the time and cost of not updating the technical data package before using it in a procurement. TACOM determined the cost to process the 797 notices of revision approved for incorporation into the ASSC technical data package to be $992,185, effectively increasing the price of the contract by 56 percent.

In addition, the Armed Services Board of Contract Appeals determined that the technical data packages were defective for three prior contracts. Two contracts, including the ASSC contract, are before the Armed Services Board of Contract Appeals. Both contracts were terminated for default. In neither case did TACOM receive any production THM/TGs.

TACOM needs to consider the time and cost for processing notices of revision, the time and cost of litigation, delays in delivery, reprocurement costs, and the impact on the users. If the 60-day goal does not allow TACOM personnel sufficient time to update the drawings, make the aperture cards, and review and certify the technical data package, then perhaps the goal needs to be revised to variable goals for different types of technical data packages.

Appendix E. Summary of Potential Benefits Resulting From Audit

Recommendation Reference	Description of Benefit	Type of Benefit
1.	Internal Controls. Provides management oversight of contracts and contract actions for contractors experiencing financial or technical performance difficulties.	Nonmonetary.
2.	Internal Controls. Provides controls for limiting revisions to technical data packages before the technical data packages are reviewed and certified as adequate for procurement purposes.	Undeterminable. It is not possible to quantify the monetary benefits from implementing a system to validate that technical data packages are accurate when used in contracts.
3.	Internal Controls. Provides controls for documenting revisions to the technical data package applicable to an individual contract.	Nonmonetary.
4.	Internal Controls. Provides management oversight of responsiveness to contractor claims.	Nonmonetary.

Appendix F. Organizations Visited or Contacted

Office of Secretary of Defense

Under Secretary of Defense for Acquisition and Technology, Washington, DC

Department of the Army

Secretary of the Army, Washington, DC
Assistant Secretary of Army (Research, Development, and Acquisition), Washington, DC
Army Materiel Command, Alexandria, VA
Army Tank-automotive and Armaments Command, Warren, MI
Army Armament Research, Development, and Engineering Center, Picatinny Arsenal, NJ

Other Defense Organizations

Defense Contract Audit Agency, Alexandria, VA
Chicago Branch Office, Oakbrook Terrace, IL
Defense Logistics Agency, Alexandria, VA
Defense Contract Management Area Operations Chicago, Rockford, IL

Non-Defense Federal Organizations

Small Business Administration, Washington, DC
Chicago Regional Office, Chicago, IL

Non-Government Organization

Action Support Service Corporation, DeKalb, IL

Appendix G. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Deputy Under Secretary of Defense (Acquisition Reform)
Under Secretary of Defense (Comptroller)
Assistant to the Secretary of Defense (Public Affairs)
Director, Defense Procurement

Department of the Army

Secretary of the Army
Assistant Secretary of the Army (Research, Development and Acquisition)
Commander, Army Materiel Command
  Commander, Tank-automotive and Armaments Command
    Commander, Army Armament, Research, Development, and Engineering Center
Auditor General, Department of the Army

Department of the Navy

Auditor General, Department of the Navy

Department of the Air Force

Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspector General, Central Imagery Office
Inspector General, National Security Agency
Director, Defense Logistics Studies Information Exchange
Commander, Defense Contract Management Area Operations Chicago

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, 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 of National Security, Committee and Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
House Committee on National Security

Honorable Robert Graham, U. S. Senate
Honorable Connie Mack, U.S. Senate
Honorable Newt Gingrich, House of Representatives
Honorable J. Dennis Hastert, House of Representatives

Part III - Management Comments

Department of the Army Comments

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
RESEARCH DEVELOPMENT AND ACQUISITION
103 ARMY PENTAGON
WASHINGTON DC 20310-0103

REPLY TO ATTENTION OF

08 FEB 1995

SARD-PC

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE (AUDITING)

SUBJECT: Audit Report on the Procurement of the Target Holding Mechanism, Tank Gunnery (THM/TG), from Combined Arms Training Systems (CATS) (Report No. 95-030) and from Action Support Services Corporation Project No. 3CD-5026.02

The finding and recommendations for the CATS and the ASSC reports are the same, therefore, I am combining the Army's comments on both into one response.

I have reviewed and agree with the enclosed U.S. Army Tank-automotive and Armaments Command (TACOM) nonconcurrence with the finding and recommendations in both reports, however I want to make the following additional comments:

The Defense Contract Management Command, (DCMC) has the expertise and the responsibility for surveying contractor capability. Contracting officers must rely on input from these experts when making a contractor responsibility determination. The contracts for both CATS and ASSC were awarded only after receipt of positive pre-award surveys performed by DCMC.

Procedures are already in place and are being utilized to provide management oversight on contracts awarded by the Army. The contracting and technical personnel at the Armament and Chemical Acquisition and Logistics Activity (ACALA), TACOM work closely with DCMC to monitor contract progress. In each case, upon notification by DCMC that CATS and ASSC were experiencing performance problems, ACALA, TACOM provided technical assistance to both contractors by letters and telephone conversations and by traveling to the contractors production facilities on several occasions. Only after their efforts failed to result in satisfactory performance, did ACALA, TACOM terminate the contracts for default.

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As I indicated in my response to OIG Quick Reaction Report Number 94-170, the Army is initiating efforts to transition from the THM/TG to a commercial mechanism. Rather than commit additional resources to monitor the number of Notices of Revision (NORs) to technical data packages (TDP) and to develop control logs on changes to TDPs as recommended by the reports, the Army intends to use its resources to develop performance specifications that will enable the procurement of commercial items. We feel this is a much more productive approach.

The Federal Acquisition Regulation (FAR) 33.206 and 33.211 provide guidance on the processing of contractor claims. FAR 33.211 states the contracting officer shall issue a decision for claims over $50,000, 60 days after receiving a certified claim provided that if a decision will not be issued within 60 days, the contracting officer will notify the contractor of when a decision will be issued. The FAR further states the contracting officer shall issue a decision within a reasonable time, taking into account such factors as the size and complexity of the claim and the adequacy of the contractor's supporting data.

The FAR provides the contracting officer with the flexibility to deal with complex issues and to work with the contractor to obtain the necessary data to make a decision. Holding the contracting officer to a strict time (i.e. a specified number of days) would take away this flexibility and would, in many instances, require the contracting officer to deny claims that given additional time could be resolved.

The claims from CATS and ASSC were worked as expeditiously as possible given the lack of supporting documentation provided by the contractors.

The point of contact for this action is Geneva Halloran, (703) 695-5830.

Joseph R. Varady, Jr.
Acting Deputy Assistant Secretary of the Army
(Procurement)

Enclosure

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND
5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333-0001

REPLY TO ATTENTION OF

AMCIR-A (36-2b) 8 Feb 95

MEMORANDUM FOR GENEVA HALLORAN, OFFICE OF THE ASSISTANT SECRETARY FOR RESEARCH DEVELOPMENT AND ACQUISITION, DEPARTMENT OF THE ARMY, WASHINGTON, DC 20310-0103

SUBJECT: DODIG Draft Report, Procurement of the Target Holding Mechanism, Tank Gunnery, From Action Support Services Corporation (AMC No. D9345-B)

1. Reference, memorandum, AMCIR-A, 13 Jan 94, SAB.

2. We are forwarding an amended position on subject report IAW AR 36-2.

3. Point of contact for this action is Mr. Robert Kurzer, (703) 274-9025.

4. AMC -- America's Arsenal for the Brave.

FOR THE COMMANDER:

LEONARD H. MAGUIRE
Chief, Internal Review and Audit Compliance Office

Encl
as

AMSTA-CG (36-2c) 27 Jan 95

MEMORANDUM FOR COMMANDER, U.S. ARMY MATERIEL COMMAND,
ATTN: AMCIR-A, 5001 Eisenhower Avenue,
Alexandria, VA 22333-0001

SUBJECT: DODIG Draft Audit Report, Procurement of the Target Holding Mechanism, Tank Gunnery, From Action Support Services Corporation (ASSC), Project No. 3 CD- 5026.02 (AMC No. D9345-B)

1. The U.S. Army Tank-automotive and Armaments Command position to the subject draft report is enclosed. We nonconcur with the four recommendations and provide the enclosed rebuttal

2. The POC is Mr. Gary Ales, AMSTA-AC-MBP, DSN 793-2367, cc:mail GALES.

// signed //
EDWARD L. ANDREWS
Brigadier General, USA
Commanding

Encl

DODIG DRAFT AUDIT REPORT FOR THE PROCUREMENT OF THE TARGET HOLDING MECHANISM, TANK GUNNERY, FROM ACTION SUPPORT SERVICES CORPORATION
Project No. 3CD-5026.02, AMC No. 9345-B

FINDING. TACOM inappropriately awarded a contract to build 453 THM, TGs to ASSC, a contractor known to have financial difficulty, no employees, no other contracts, and that was operating out of a garage. TACOM also provided ASSC with a flawed technical data package. In addition, TACOM was not responsive to the ASSC request for an equitable price adjustment. These conditions occurred because TACOM:

o disregarded adverse contractor information during the contract award process.

o certified a flawed technical data package and did not control subsequent configuration revisions, and

o did not provide ASSC with a decision on the request for an equitable price adjustment by the self-imposed decision date.

As a result, TACOM revised the flawed technical data package for the contract with 804 notices of revision. ASSC completed no production THM,TGs, and TACOM terminated the contract for default. The TACOM nonresponsiveness resulted in ASSC submitting a claim to the Armed Services Board of Contract Appeals.

RECOMMENDATIONS AND ACTION TAKEN

RECOMMENDATION 1. TACOM establish and implement procedures for management oversight of contracts and contract actions with contractors that are experiencing financial or technical performance difficulties.

ACTION TAKEN. Nonconcur. Management oversight is already in place through current procurement policies, procedures and regulations. For example, the Defense Contract Management Command (DCMC) notifies the Procuring Contracting Officer (PCO) if problems occur after contract award. In this specific situation, upon being notified of ASSC's poor financial condition, TACOM discussed the situation with the Administrative Contracting Officer (ACO). It was decided that after determining that ASSC was in a loss positiion, and making no progress, the ACO could not process any further requests for progress payments and the PCO terminated the contract for default.

TACOM appropriately awarded a contract to ASSC based oh a Technical Data Package (TDP) which was certified competitive. A Pre-award Survey was completed which originally recommended no award to ASSC based on lack of financial support. Upon receipt of the necessary financial support, a Pre-award Survey recommending award was submitted to TACOM. Adverse contractor information was not disregarded, the Contracting Officer received input from the responsible offices for areas of concern, all recommending award. As to lack of contractor experience, no contractor who has delivered the THM,TG to this point has had experience producing the item prior to award. The owners of ASSC had more knowledge of the item than any other previous contractor to this point based on previous experience at Detroit Armor Corp., the developer of the THM,TG. The fact that after award ASSC made poor business decisions even though TACOM provided as much assistance as possible, is not the fault of the Contracting Officer. The contractor had a plan to implement an accounting system at time of pre-award which led to the recommendation of award. The lack of a proper accounting system after award would not preclude an award, nor necessitate termination. The contractor was working out of a warehouse which was deemed sufficient at time of Pre-award and continued to work out of this facility until termination.

RECOMMENDATION 2. TACOM establish and implement procedures to require that outstanding notices of revision to the technical data package do not exceed 5 percent of the number of drawings before the technical data package is reviewed and certified that it is adequate for procurement purposes and the solicitation is issued.

ACTION TAKEN. Nonconcur. At one point, the THM/TG has a large number (about 746) of Notices of Revision (NORs) attached to its technical data package (TDP). The large number of NORs resulted from four Small Business contractors who were conducting THM/TG production programs during the same timeframe. All were attempting to tailor the TDP to their preferred processes and equipment. To assure equitable treatment of each contractor, the NORs of each producer were offered to all other producers which dramatically increased the NORs to the package. This does not describe a flawed TDP because the THM/TG had been successfully produced without these NORs.

The TACOM Technical Data/Configuration Management System (TD/CMS) is by maintained by incorporating NORs onto the drawings in the data base, without reviewing a complete TDP. To periodically review all packages in the TD/CMS would be a substantial effort. Nearly 4,300 packages are certified for procurement each year. If we wait for a data call, there is not enough time to update the drawings, make aperture cards, and review and certify the TDP to meet the 60 day goal for this process.

The specific 5 percent restriction recommended by the DODIG is impracticable to maintain for a given package. In the long run, it may not be economical to achieve. The number of NORs generated for a TDP is dependent upon the number of active contractors, the contractor's sophistication, the Defense Contract Administration Officer, etc., and is not within the control of TACOM. The TACOM has been continually improving the quality of TDPs and it should be noted that the number of outstanding NORs in the entire TD/CMS has been reduced by over a factor of five from 1988 to 1994. The entire THM/TG TDP was updated in August 1994, which should have resolved all of the TDP issues presented by the DODIG. The contractor's TDP issues are being resolved by the Contract Board of Appeals, but future THM/TGs may be successfully manufactured using the updated TDP. A TDP with more than 5 percent NORs attached would be regarded as suitable for competitive procurement.

RECOMMENDATION 3. Direct the Major Weapons and Chemical Division, Tank-automotive and Armaments Command, to establish and implement control logs documenting changes to the technical data package applicable to an individual contract. The control log should identify all of the following:

a. The purpose of the revision to the technical data package.

b. Whether the revision is mandatory or nonmandatory.

c. Whether and when the revision was submitted to the contractor.

d. Whether and when the revision was accepted or rejected by the contractor.

e. Whether the revision was incorporated into the contract.

f. The estimated cost to incorporate the revision into the contract, if any.

ACTION TAKEN. NONCONCUR. The current system is adequate. The DODIG audit shows no proof of systemic problems, only pointing to alleged inadequacies of tracking configuration control on this specific contract. The configuration management and procurement areas maintain several logs to control changes to the technical data package. The configuration management control board includes procurement representation. Configuration Management maintains a log of receipt, approval, and transmittal to procurement. Procurement maintains a log tracking receipt from configuration management, distribution to the contract specialist, and the applicable contract and solicitation numbers. The individual contract files serve further to track the details of the engineering proposal change processing including transmittal to the contract, incorporation into the contract or solicitation, and consideration.

RECOMMENDATION 4. TACOM establish and implement procedures for management oversight of responsiveness to contractor claims. The procedures should require milestones to be set for notifying the contractor that the claim was received; for requesting audit, technical evaluations, and legal review; and for establishing a decision date.

ACTION TAKEN. NONCONCUR. This is not a systemic problem to TACOM. The guidance concerning time frames and handling of claims already exists and was utilized. This oversight is established by management through guidance, policy and procedures through regulations and acquisition letters to the FAR, supplements and local guidance; i.e., FAR 33.206 and 33.211. Far 33.211 states "...(c) The Contracting Officer shall issue a decision within the following statutory time limitations: (2) For claims over $50,000, 60 days after receiving a certified claim;...". It is the responsibility of each contract specialist to ensure the 60 day criteria is met. Higher management then expects the working level to follow this guidance in making business decisions, which are then reviewed by legal and policy offices to ensure compliance. The contractor was informed upon submittal of the claim that it was not properly supported and could not be audited. The Government scheduled a meeting with the contractor in order to assist in making the claim more sufficient for audit. After numerous attempts the claim was finally audited, but not until after the original time frame for a final decision had passed. Every attempt was made to assist the contractor toward some form of settlement.

Audit Team Members

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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