# Audit Report

OFFICE OF THE INSPECTOR GENERAL

**QUICK-REACTION REPORT ON THE AUDIT OF THE TARGET HOLDING MECHANISM, TANK GUNNERY, PROCUREMENT**

Report No. 94-170 July 27, 1994

**Department of Defense**

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**Acronyms**

| | |
|---|---|
| FAR | Federal Acquisition Regulation |
| TACOM | Army Tank-Automotive Command |
| THM/TG | Target Holding Mechanism, Tank Gunnery |
| USAREUR | U. S. Army, Europe, and Seventh Army |

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

July 27, 1994

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Quick-Reaction Report on the Audit of the Target Holding Mechanism, Tank Gunnery, Procurement (Report No. 94-170)

We are providing this final report for your review and comments. This report is the first in a series of reports in response to congressional concerns regarding procurement of the target holding mechanism, tank gunnery. We are issuing this as a quick-reaction report because the Army is planning to award two contracts for target holding mechanisms and is planning to continue efforts to develop a prototype target holding mechanism.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. The Deputy Assistant Secretary of the Army (Procurement) and the Commander, Army Tank-Automotive Command, did not concur with the draft report recommendations. Therefore, we request that the Army provide final comments on the unresolved recommendations by August 26, 1994.

The courtesies extended to the audit staff are appreciated. If you have any questions on this audit, please contact Ms. Victoria C. Hara, Audit Project Manager, at (703) 604-9228 (DSN 664-9228). Copies of the report will be distributed to the organizations listed in Appendix D. The audit team members are listed inside the back cover.

David K. Steensma

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Deputy Assistant Inspector General
for Auditing

# Office of the Inspector General, DoD

**Report No. 94-170** **July 27, 1994**
(Project No. 3CD-5026.00)

## QUICK-REACTION REPORT ON THE AUDIT OF THE TARGET HOLDING MECHANISM, TANK GUNNERY, PROCUREMENT

## EXECUTIVE SUMMARY


**Introduction**. This is the first in a series of reports in response to congressional concerns on the procurement of the target holding mechanism, tank gunnery, by the Army Tank-Automotive Command, Warren, Michigan. The Army uses the target holding mechanism to train tank gunners. The Army plans to award two contracts, one sole-source and one competitive, for production of additional target holding mechanisms, tank gunnery, and to continue to develop a prototype target holding mechanism, tank gunnery. We are issuing this as a quick-reaction report in an attempt to cancel the proposed solicitations and to suspend further development of the prototype.

**Objectives**. The 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 procurement of target holding mechanisms, tank gunnery. This report addresses the contract award process for two solicitations for target holding mechanisms, tank gunnery. Subsequent reports will address the remaining objectives.

**Audit Results.** The Army Tank-Automotive Command did not provide reliable technical data packages for the sole-source solicitation and the competitive solicitation to procure target holding mechanisms, tank gunnery. In addition, the Army 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 (Finding A). The Army was developing a prototype for the target holding mechanism, tank gunnery, that may be unnecessary because there are commercially available target holding mechanisms in use by the military. As a result, a $587,382 cost-plus-fixed fee contract was awarded, which reduces the chances for procurement of commercial target holding mechanisms (Finding B).

**Internal Controls.** A subsequent report will include our assessment of the adequacy of internal controls and management's implementation of the DoD Internal Management Control Program at Army Tank-Automotive Command for the acquisition of target holding mechanisms, tank gunnery.

**Potential Benefits of Audit.** Potential monetary benefits could not be determined because benefits would result from future decisions. Undeterminable monetary benefits will result from canceling both solicitations for production of target holding mechanisms, tank gunnery and from allowing the Army time to determine the best solution for Army requirements. Undeterminable monetary benefits will result from determining whether requirements can be met with commercial target holding mechanisms before continuing development of a prototype. Appendix B details the potential benefits of implementing the report recommendations.

**Report Recommendations.** We recommend that the Commander, Army Tank-Automotive Command, cancel the sole-source and competitive solicitations and withhold any new solicitations until all of the issues concerning the technical data packages are resolved. We also recommend that the Commander, Army Tank-Automotive Command, determine whether requirements can be met with commercial target holding mechanisms before allowing further prototype development or production.

**Management Comments.** The Army nonconcurred with the report recommendations. The Army stated that the technical data package is suitable for competition, the requirements are urgent, and that the sole-source procurement is justified. The Army also stated it would evaluate commercial items while developing a prototype target holding mechanism. A discussion of the responsiveness of management comments on the recommendations is in Part II and the complete text of management comments is in Part IV of the report.

**Audit Response.** We verified that there are no urgent requirements, and if urgent requirements occur there are 212 target holding mechanisms due in from other contracts to satisfy requirements. Also, commercial target holding mechanisms can be acquired within 90 days versus 451 days production lead time for the military specification versions. However, the primary reason the contracts should not be awarded is that the technical data packages are flawed. Due in part to problems with the technical data packages, 2 contractors could not deliver 560 target holding mechanisms for 2 contracts. Two other contractors experienced delivery delays of 2,295 target holding mechanisms for 5 contracts, allegedly, due in part to problems with the technical data packages. In addition, 6 contracts are now in litigation. There are currently 2 open contracts. Until the Army can show that the technical data package is reliable, there should be no contract award even if there are urgent requirements. The Army should also use commercially available target holding mechanisms instead of expending scarce resources to develop a military specification target holding mechanism. We request that the Commander, Army Tank-Automotive Command, provide additional comments by August 26, 1994.

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

# Part I - Introduction

# Background

This is the first in a series of reports on the target holding mechanism, tank gunnery (THM/TG). This report addresses two planned procurements by the Army Tank-Automotive Command (TACOM), Warren, Michigan, to purchase 523 THM/TGs. In addition, the report addresses the potential availability of commercial target holding mechanisms.

**Purpose of THM/TGs.** A THM/TG is an electro-mechanical-hydraulic device that raises and 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 two U. S. Senators and two U. S. Representatives 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 THM/TGs.

# Objectives

Our audit objectives were to determine:

- o the adequacy of the contract award process for THM/TGs,
- 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 objective was to evaluate internal controls for THM/TG procurement. This report addresses the contract award process for two solicitations for THM/TGs. Subsequent reports will address the remaining objectives.

## Scope and Methodology

**Audit Location.** We reviewed the procurement process for THM/TGs at Army Armament, Munitions, and Chemical Command, Rock Island, Illinois. The organizations involved with the THM/TG at Army Armament, Munitions, and Chemical Command became the Armament and Chemical Acquisition and Logistics Activity and is a part of TACOM. Appendix C lists the organizations visited or contacted during the audit.

**Data Reviewed.** This report addresses two solicitations for the procurement of THM/TGs and a military interdepartmental purchase request issued by TACOM to Hill Air Force Base, Utah, to contract for a prototype for an improved THM/TG. We reviewed the solicitations, the technical data packages, pertinent laws and regulations, and other related documentation dated 1990 through 1994. We did not use computer-processed data or statistical sampling procedures to conduct this audit.

**Use of Technical Staff.** Engineers from the Technical Assessment Division, Audit Planning and Technical Support Directorate, Office of the Assistant Inspector General for Auditing, evaluated the accuracy and completeness of the technical data packages applicable to the two solicitations. The technical data packages contained 53 separate drawing changes to 38 drawings. In some cases, the same drawing required a succession of changes. The Inspector General, DoD, engineers evaluated all of the changes to the drawings. We also reviewed an additional 11 approved changes received between December 8, 1993, and May 31, 1994.

**Audit Period, Standards, and Potential Benefits.** We performed this economy and efficiency audit from June 1993 through June 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. See Appendix B for a summary of potential benefits resulting from the audit.

## Internal Controls

Our review of the adequacy of internal controls and of the implementation of DoD Internal Management Control Program at TACOM for the acquisition of THM/TGs will be included in a subsequent report.

## Prior Audits and Other Reviews

General Accounting Office Report No. 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 completing the work after a contract is awarded. The General Accounting Office report made no recommendations that addressed issues in this report.

# Part II - Findings and Recommendations

# Finding A. Acquisition Strategy and Configuration Control

TACOM did not provide reliable technical data packages for a sole-source solicitation and a competitive solicitation to procure THM/TGs. In addition, TACOM improperly issued a sole-source solicitation. These conditions occurred because TACOM did not adequately control configuration documentation to maintain a reliable technical data package and did not adequately support the need for a 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.

## Background

Solicitations are used to communicate Government requirements to potential offerers and to solicit proposals to fill Government requirements. Solicitations should contain all of the information needed by prospective contractors to properly prepare their proposals or quotations, including a technical data package describing the product. Contractors can spend large amounts of money trying to prepare a responsive proposal.

**Sole-Source Solicitation for THM/TGs.** On December 22, 1993, TACOM issued a sole-source solicitation, DAAA09-93-R-0303, to Technical Systems, Incorporated, for 288 THM/TGs. On January 12, 1994, TACOM amended the solicitation to incorporate technical data package revisions, to update drawings and specifications, and to revise the solicitation closing date from January 21, 1994, to February 15, 1994. On February 10, 1994, TACOM issued a second amendment to eliminate the receiver from the solicitation.

**Competitive Solicitation for THM/TGs.** On January 28, 1994, TACOM issued a competitive solicitation, DAAA09-93-B-0307, for 235 THM/TGs. On February 10, 1994, TACOM issued an amendment to reduce the quantity from 235 to 192 THM/TGs, to eliminate the receiver, and to change the solicitation closing date from March 1, 1994, to March 15, 1994.

## Technical Data Package Reliability

A technical data package defines and documents an engineering design of a product to allow a manufacturer to duplicate the product. An inaccurate or incomplete technical data package results in additional Government contract administration costs and additional Government engineering costs to process

engineering change proposals needed to correct the technical data package. An inaccurate or incomplete technical data package can also result in contract terminations and in additional costs to reprocure the product. For the contractor, an inaccurate or incomplete technical data package can result in an improperly prepared proposal, contractor loss of learning, 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:

o identifying and documenting the functional and physical characteristics of a product;

o controlling changes to products and to their related documentation;

o recording and reporting information needed to manage the product effectively, including the status of proposed changes and implementation status of approved changes; and

o auditing products to verify conformance to specifications, drawings, interface control documents, and other contract requirements.

**THM/TG Technical Data Packages.** The THM/TG program has two technical data packages. The technical data packages are the same except that technical data package 11784501 is for radio-controlled THM/TGs and technical data package 9375764 is for remote-controlled THM/TGs. Since December 1993, when the Army prepared the technical data packages, a number of changes to the technical data packages occurred. Table 1 shows the number of changes and the status of the changes for the two technical data packages as of May 31, 1994.

**Table 1. Technical Data Package Changes**

| Status of Changes | Number of Changes to Technical Data Package | |
|---|---|---|
| | 9375764 | 11784501 |
| Approved Outstanding Changes as of Mar. 8, 1994 | 26 | 26 |
| Approved Changes Incorporated as of May 31, 1994 | 5 | 5 |
| Approved Changes Not Incorporated | 21 | 21 |
| New Approved Changes Received Since Mar. 8, 1994 | 9 | 8 |
| Approved Outstanding Changes as of May 31, 1994 | 30 | 29 |

**Inspector General, DoD, Assessment of the Technical Data Packages.** Inspector General, DoD, engineers reviewed the technical data packages and identified problems that the engineers categorized as confusing and as improper configuration control.

The engineers concluded that the problems listed below resulted in deficiencies in the technical data packages. The engineers also concluded that use of the technical data packages as they exist might lead to confusion and misinterpretation by the contractor.

Items causing confusion included:

o drawing changes written against obsolete drawing revisions,

o multiple drawing changes written against a drawing when one drawing change would suffice,

o updates to drawings that were in process at the same time that changes to the drawings were being processed,

o drawing changes provided that had already been incorporated into the drawings, and

o reference to a different technical data package not associated with the current technical data package.

Improper configuration control included:

o drawing updates that did not include all outstanding drawing changes,

o inaccurate changes,

o drawing changes written against nonexistent drawing revisions, and

o previously incorporated drawing changes that remained on the current technical data packages listing.

The engineers also reviewed 11 additional changes that were approved after the technical data package was issued. These changes have not yet been provided to the potential contractors. The engineers determined that 5 of the 11 changes could cause contract delays if the changes are not provided to the contractor until after contract award.

## Justification for Sole-Source Solicitation

**Requirements for Sole-Source Justification.** Title 10, United States Code, section 2304, "Purchases and Contracts: Formal Advertising Exceptions," and title 41, United States Code, section 253, "Competition Requirements," require that contracting officers promote and provide for full and open competition in soliciting offers and awarding Government contracts except in limited circumstances. In accordance with Federal Acquisition Regulation 6.302-2, "Unusual and Compelling Urgency," to limit competition, the contracting

officer must prove that an unusual and compelling urgency exists or that delay in the award would result in serious injury or financial or other harm to the Government.

**TACOM Sole-Source Justification for THM/TGs.** TACOM cited title 10, United States Code, section 2304, and Federal Acquisition Regulation 6.302-2 to justify a sole-source solicitation to Technical Systems, Incorporated. The July 16, 1993, TACOM justification and approval for other than full and open competition stated that THM/TGs were urgently needed to satisfy field requisitions for troop training and were critically needed because of problems encountered on six previous contracts. Further, the justification stated that, if the THM/TGs were not procured as soon as possible, TACOM would lose its ability to support operational readiness and combat effectiveness.

Installations in the United States and Europe would receive the 288 THM/TGs in the quantities shown in Table 2.

**Table 2. Projected THM/TG Installations and Quantities**

| Installation | Quantity |
|---|---|
| Camp Ripley, Minnesota | 1 |
| Army National Guard, Nevada | 10 |
| Boone National Guard Center, Kentucky | 18 |
| Fort Bliss, Texas | 27 |
| TACOM | 30 |
| Headquarters, U. S. Army, Europe, and Seventh Army, Germany | 202 |
| Total | 288 |

**Assessment of Impact on Readiness.** To assess the impact of THM/TG shortages on training and readiness, we contacted the installations listed in Table 2.

**Minimal Impact on Readiness.** The 288 THM/TGs included in the sole-source solicitation do not meet the test for unusual and compelling urgency. According to the information received from the installations, 4 out of the 6 installations scheduled to receive 251 of the 288 THM/TGs, or 87 percent, claimed no significant negative impact resulting from the shortages of THM/TGs.

The 30 of the 288 THM/TGs, or 11 percent, scheduled for TACOM were intended to be combined with receivers and reallocated to other locations not yet determined. Because the 30 THM/TGs were not designated for specific installations with an urgent requirement, we question the urgency of the need.

**Potential Impact on Readiness.** The Army National Guard, Nevada, indicated a potential impact from THM/TG shortages. They stated that the tank gunnery program might be terminated if delivery of 10 THM/TGs was delayed

beyond 1996. Personnel at Fort Bliss, Texas, stated that their requirements cannot be fully supported by on hand THM/TG resources. According to Fort Bliss personnel, the additional 27 THM/TGs are essential to meet their requirements and constitute approximately 25 percent of the total THM/TGs authorized for Fort Bliss.

The THM/TGs needed by the Army National Guard and Fort Bliss do not meet the test for unusual and compelling urgency because, if necessary, the Army could satisfy the requirement for 37 THM/TGs by reallocating resources or potentially by procuring commercial target holding mechanisms. Availability of commercial target holding mechanisms is estimated to be 90 days or less. See Finding B.

## Conclusion

We believe that TACOM should not award new contracts for the THM/TG at this time. A clear and accurate technical data package is essential for effective procurement. The December 1993 TACOM technical data packages were confusing, inaccurate, and incomplete. A defective technical data package could result in production delays, delinquent deliveries, and requests for equitable price adjustments. TACOM must first correct the technical data packages before using them in contracts for THM/TGs. Also, Government policy is to promote and use full and open competition in the acquisition process. TACOM did not adequately justify the use of a sole-source solicitation to Technical Systems, Incorporated. Finally, as discussed in Finding B, TACOM has not adequately addressed the potential for procurement of commercial target holding mechanisms.

## Recommendations, Management Comments, and Audit Response

**We recommend that the Commander, Army Tank-Automotive Command:**

**1. Cancel sole-source solicitation DAAA09-93-R-0303 and competitive solicitation DAAA09-93-B-0307.**

**Management Comments.** The Commander, TACOM, nonconcurred with the recommendation. TACOM stated that the solicitations need to proceed with urgency.

**Audit Response.** The comments were not adequate because TACOM did not adequately justify an urgent sole-source solicitation and has not explored alternate means to satisfy its needs as required. The primary reason we recommended delaying the procurements is because of flaws in the technical

data packages that could ultimately delay contractor delivery of THM/TGs if the contracts are awarded. The flawed technical data packages have led to delivery delays or terminations of seven contracts. The contractor's inability to deliver or inability to deliver in a timely manner for other THM/TG contracts will be discussed in subsequent reports. However, the lack of deliveries for the prior contracts is creating the stated "urgent need" from the solicitations cited in this report. We request that TACOM reconsider its reply and provide additional comments on the recommendations.

**2. Withhold any new solicitations until all of the issues concerning the target holding mechanism, tank gunnery, technical data packages have been resolved.**

**Management Comments.** TACOM nonconcurred with the recommendation. According to TACOM, Technical Systems, Incorporated, was the only producer that could meet the Government's requirements in the time frame necessary to meet the urgent requirements.

**Audit Response.** TACOM's reply was not responsive because the recommendation specifically refers to withholding all solicitations until all of the issues concerning the technical data packages have been resolved. The issues include, but are not limited to, the decision to procure commercial target holding mechanisms, the stability of the current technical data package, the need for additional changes to the technical data package, and the establishment of effective configuration controls. We request that, TACOM reconsider its reply and provide additional comments on the recommendation.

**Management Comments on the Finding.**

TACOM also commented on the adequacy of the justification for the sole-source solicitation to Technical Systems, Incorporated. See Appendix A for a synopsis of management comments on the finding and the audit response.

# Finding B. Evaluation of Commercial Target Holding Mechanisms

The Army developed a prototype for the target holding mechanism, tank gunnery, that may be unnecessary. This development project occurred because TACOM did not evaluate commercial target holding mechanisms before developing a prototype. As a result, a $587,382 cost-plus-fixed-fee contract to develop a prototype was awarded, reducing the chances for a commercial procurement and requiring the development of a new technical data package.

## Development of THM/TG Prototype

TACOM issued a military interdepartmental purchase request to Hill Air Force Base to award a cost-plus-fixed-fee contract for the research, design, production, and demonstration of an improved THM/TG prototype, for phase I of the contract. On January 7, 1993, contract F42620-93-C-0102, with an estimated value of $587,382, was issued to Science Applications International Corporation. The contractor also analyzed the strengths and weaknesses of commercial target holding mechanisms. As of March 23, 1994, Science Applications International Corporation had not provided TACOM with its final report.

The contractor presented four options to TACOM for phase II of the contract:

o completion of the detail design and preproduction of the prototype THM/TG,

o revision and correction of the current THM/TG technical data packages,

o selection of two contractors to produce one to three prototypes each, and

o replacement of the electronic control unit of the current THM/TG.

## Requirements to Use Commercial Products

Since 1972, procurement officials have been continually encouraged to satisfy requirements with commercial items wherever possible. Congress enacted the Competition in Contracting Act in 1984 to require Federal agencies to "promote the use of commercial products whenever practicable." In 1986, Congress added section 2325 to title 10 of the United States Code, which mandates that DoD use "nondevelopmental items" when such items would meet DoD needs. A nondevelopmental item is defined as any item of supply available in the

commercial marketplace. Congressional emphasis has continued with the proposed Federal Acquisition Streamlining Act. The act requires procurement officials to acquire commercial items or other nondevelopmental items to meet agency needs, including market research needs, to the maximum extent practicable before developing new specifications. As of July 1994, a conference committee was trying to resolve differences between House and Senate versions of the act.

## Army Use of Commercial Target Holding Mechanisms

Several commercial vendors manufacture and sell commercial target holding mechanisms that could potentially meet Army requirements. Five Army installations are using commercial target holding mechanisms. In addition, installations such as the Army National Guard Nevada; Boone National Guard Center Kentucky; and the National Training Center, Fort Irwin, California, expressed an interest in commercial target holding mechanisms.

## TACOM Procurement Decision for Target Holding Mechanisms

TACOM did not consider commercial target holding mechanisms before awarding a contract to develop a prototype THM/TG, even though TACOM was aware that commercial items were available. In addition, TACOM knew that some DoD users of commercial target holding mechanisms were satisfied with the commercial target holding mechanisms.

TACOM decided to build a prototype THM/TG against which all other contenders would be compared. We believe that the TACOM decision to build a prototype unnecessarily puts commercial products at a disadvantage because a prototype is custom-built to the optimum user requirements. A commercial product may meet the basic requirements but not necessarily the optimum requirements. In general, DoD cannot duplicate the economies of scale that are possible in products available in the marketplace. In addition, once a prototype has been built, a tendency exists to support the prototype to justify the previous expenditure. As a result of the TACOM decision to develop a prototype THM/TG without considering commercial target holding mechanisms, TACOM issued a $587,382 contract, which restricts commercial procurement and which would require the development of a new technical data package.

## Conclusion

Federal policy requires TACOM to evaluate existing commercial target holding mechanisms against the Government requirements and to satisfy the Government requirements with commercial items if possible. TACOM should have conducted preliminary market research and should have determined the viability of commercial target holding mechanisms before awarding a contract to develop a prototype THM/TG that would require a new technical data package.

Procurement of commercial target holding mechanisms from vendors may be an option for TACOM. Reduced costs could accrue through increasing competition, decreasing administrative procurement effort, and removing the need to develop and maintain reliable technical data packages. TACOM needs time to evaluate commercial target holding mechanisms and to resolve problems with the technical data packages, as documented in Finding A. We believe that the Army is not ready to procure THM/TGs and may not be ready in the near future.

## Recommendation, Management Comments, and Audit Response

**We recommend that the Commander, Army Tank-Automotive Command, determine the viability of using commercial target holding mechanisms to meet Army requirements before awarding other contracts for target holding mechanisms, tank gunnery, or before allowing further prototype development or production. The determination should include input from the target holding mechanism, tank gunnery, users in the field.**

**Management Comments.** TACOM nonconcurred with the recommendation and stated that near term use of commercial devices to replace the existing THM/TGs would result in nonstandard field support for the Remote Target System program (which uses non-portable, non-radio-controlled THM/TGs). TACOM agreed that it should evaluate commercial sources for field user requirements beyond those in the current requirements documents and stated that it was doing so with deliverables from the current contract. Also, users will be requested to observe tests and provide input of the new performance requirement. After the configuration of an appropriate target mechanism is selected, it will become the new Army Standard.

**Audit Response.** The Army incorrectly believes that it has the latitude to evaluate commercially available target holding mechanisms at some future date while continuing to develop a prototype to meet future requirements. On June 29, 1994, the Secretary of Defense issued new guidance titled "Specifications and Standards-A New Way of Doing Business." The guidance prohibits use of military specifications when upgrading or modifying systems. In light of the new guidance and the commercial availability of the THM/TGs, we request TACOM to provide additional comments on why it needs to spend over $587,382 to develop a prototype.

# Part III - Additional Information

# Appendix A. Detailed Audit Responses to Department of the Army Comments

This appendix provides detailed responses to Army comments on the findings and other statements in the report. The full text of the Army comments is in Part IV.

**Management Comments.** The Deputy Assistant Secretary of the Army (Procurement) stated that a "Red Team," made up of technical and procurement representatives from TACOM, performed an on-site review of all documentation relating to the quick-reaction report.

**Audit Response.** The TACOM Red Team did not review all documentation relating to the audit report. The IG, DoD, discussed a selection of drawing changes in April 1994 with the Army Armament Research, Development, and Engineering Center. TACOM officials chose not to participate in the April 1994 meeting. The Red Team reviewed the selection of drawing changes discussed in April 1994. The Red Team did not review all of the drawing changes at issue. The Red Team did not review documentation maintained as part of this audit. In fact, we requested a meeting with the Red Team and TACOM told us that a meeting with the Red Team would not be necessary.

**Management Comments.** TACOM concluded that the technical data package was adequate for competitive procurement and for timely and orderly production of the THM/TG.

**Audit Response.** In December 1993, when the technical data packages were issued, technical data package 9375764, for remote-controlled THM/TGs, contained 32 engineering change proposals. Technical data package 11784501, for radio-controlled THM/TGs, contained 33 engineering change proposals. Between December 1993 and May 31, 1994, 19 additional engineering change proposals were approved. The technical data packages issued in December 1993 already have 52 engineering change proposals written and approved but not incorporated. Based on previous experience, the technical data packages will continue to change. If the technical data packages continue to change after award, TACOM will again encounter requests for equitable price adjustments and untimely deliveries.

The intended contract types are firm-fixed-price. When the Army provides a technical data package, the Army is responsible for the accuracy and completeness of the technical data package. Prospective contractors should be able to build the THM/TG in accordance with the drawings provided by the Army as part of the solicitation. The technical data packages are not stable and continue to change. These changes affect the ability to produce the THM/TG and potentially affect the cost to produce the THM/TG. By awarding contracts with unstable technical data packages, the Government has been liable on past contracts and may, with these THM/TG awards, be liable for the costs of

implementing engineering change proposals and for equitable price adjustments, in addition to the value of the original contract.

**Management Comments.** TACOM stated that its review found that the deficiencies noted by the Inspector General, DoD, engineers were minor in nature.

**Audit Response.** We concluded that the technical data packages were confusing, inaccurate, and incomplete. We stand by that conclusion. The technical data packages released for the sole-source and competitive solicitations required 52 engineering change proposals as of May 31, 1994. Our review identified the need for additional changes. A reliable technical data package, according to our definition, is complete, is accurate, and contains compatible requirements (dimensional, material, process, etc.). The data included in the package would be correct and current. The drawings, specifications, standards, etc. would be clear and legible and the specifications and standards would be compatible with the product requirements. The technical data packages are not stable and continue to change. The contractor is required to perform an analysis of each change, thus adding to the time and cost to produce the THM/TG.

**Management Comments.** TACOM stated that they believed that the audit conclusions may have been based on a misunderstanding of the configuration management process.

**Audit Response.** Our conclusions are derived from an extensive audit that is ongoing. A detailed analysis of the configuration control documentation and configuration management is included in the audit. The Army has not resolved the technical data packages problems identified in this report. Until these issues are resolved, the Army is not ready to procure THM/TGs.

**Management Comments.** TACOM stated that the process used to maintain the THM/TG technical data package is the same that is used for maintaining all technical data packages.

**Audit Response.** The configuration control process TACOM used to maintain the THM/TG technical data package has resulted in six requests for equitable price adjustments, three contractors to be heard before the Armed Services Board of Contract Appeals, and the inability of any contractor to meet the delivery schedule. Due in Part to problems with technical data packages, 2 contractors were unable to deliver 560 THM/TGs on 2 contracts. Two other contractors experienced delays in delivery of 2,295 THM/TGs on 5 contracts allegedly due in part to problems with the technical data packages. This lack of delivery or delay in delivery is why there are increasing requirements backlogs for THM/TGs. In addition, there are two open contracts with two other contractors. The process TACOM uses to maintain technical data packages will be addressed in a summary report.

**Management Comments.** TACOM stated that the National Training Center, Fort Irwin, California, canceled 30 THM/TGs because of lack of funds. In addition, TACOM could not validate the Camp Ripley unit urgency. As a result, TACOM will delete both orders from the sole-source solicitation and will add the orders to the competitive solicitation.

TACOM stated that it had revalidated the urgency requirements of the four customers with the largest requirements. U.S. Army, Europe, and Seventh Army (USAREUR) needs the 202 THM/TGs because the radios used with non-THM/TG mechanisms use an unauthorized frequency. The unauthorized radio frequencies violate host nation sovereignty and could result in a possible shutdown of the range if the host nation desires it. In addition, a 4 to 6 month delay in receiving the THM/TGs violates an unwritten agreement with Germany to convert from radios with unauthorized radio frequencies to the standard Army radio as soon as possible. TACOM also stated that Fort Bliss, Texas; Boone National Guard Center, Kentucky; and Army National Guard, Nevada officials believed that delay in delivery of the requested THM/TGs will have an impact on the regimental gunnery program, will increase transportation costs, and will result in loss of inactive duty training time.

**Audit Response.** TACOM should not award new contracts for THM/TGs at this time. TACOM needs to reallocate or reprioritize existing or on-order THM/TGs and comply with the requirements in the Competition in Contracting Act of 1984 and title 10, United States Code, section 2325 to use commercial target holding mechanisms.

**National Training Center and Camp Ripley.** We agree with the TACOM proposed action to delete the quantity of 30 THM/TGs originally scheduled for the National Training Center. We also agree with the TACOM proposed action to delete the one THM/TG for Camp Ripley, Minnesota, from the sole-source solicitation.

**U.S. Army, Europe, and Seventh Army.** According to USAREUR, the unauthorized use of radio frequencies was brought to its attention on May 21, 1992, as a result of interference to a civil radio frequency user. USAREUR requisitioned THM/TGs on September 25, 1992, with expected delivery in FY 1995. If an urgent requirement existed, then the Army should have requisitioned the THM/TGs immediately and not allowed approximately 4 months to elapse before requisitioning the THM/TGs. TACOM then waited 15 months to issue an urgent sole-source solicitation. In total, the Army waited 19 months to issue an urgent solicitation. If the Army had issued the solicitation for THM/TGs when the need was first identified, the Army would already have the THM/TGs.

On June 27, 1994, USAREUR stated that Germany has agreed to provide USAREUR with additional radio frequencies. With the additional radio frequencies the Army has four options:

o The Army can procure commercial target holding mechanisms for USAREUR in approximately 90 days. No modifications of the radio frequencies will be needed.

o USAREUR can modify existing target holding mechanisms to the new frequencies while waiting an average of 451 days from contract award for delivery of new THM/TGs (some of these will have to be modified anyway).

o USAREUR can continue to operate on the current frequencies while waiting for new THM/TGs and modify the THM/TGs that will not be replaced.

o The Army can reallocate THM/TGs currently on contract but not yet delivered.

Because the Army has at least these four options available, we do not believe that the Army has adequately demonstrated justification for unusual and compelling urgency.

**Fort Bliss.** Fort Bliss requisitioned THM/TGs in August and September 1992. As of May 4, 1994, Fort Bliss has approximately 75 percent of its requirement for THM/TGs already met. According to the Army Logistics Information System, as of November 1993, delivery of the remaining THM/TGs was estimated for FY 1995 and FY 1996.

TACOM informed Fort Bliss to expect delivery in August 1994, if the contract was awarded in January 1994. TACOM did not anticipate awarding the sole-source contract until sometime after February 15, 1994, when the solicitation closed. Based on actual contract experience with Technical Systems, Incorporated it takes an average of 451 days from contract award to contract delivery. Thus, if TACOM awarded the contract on the same day that the solicitation closed, TACOM could not expect the first delivery before April 30, 1995.

The delivery date for the sole-source contract was not realistic. If TACOM intends to satisfy Fort Bliss' requirements for target holding mechanisms by August 1994, then TACOM must either reallocate resources or buy commercial target holding mechanisms.

**Boone National Guard Center.** Boone National Guard Center officials requisitioned THM/TGs on September 5, 1992, with expected delivery in FY 1995. Boone National Guard Center officials stated to us that they could wait for the completion of a prototype THM/TG, provided the delay would not be more than 12 months. Acceptance of such a delay indicates that the Boone National Guard Center does not have unusual or compelling urgency for THM/TGs. Further, on May 5, 1994, Boone National Guard Center officials informed us that they believe that commercially available target holding mechanisms would satisfy their requirements.

**Army National Guard.** The Army National Guard, Nevada, requisitioned THM/TGs on November 23, 1992, with expected delivery in FY 1996. On May 9, 1994, the Army National Guard stated that because of the reduced cost and quick delivery time, the Paramax system (a commercial target holding mechanism) would meet its requirements.

**Reallocating, Reprioritizing, or Use of Commercial Items.** Fort Bliss, Texas; Army National Guard, Nevada; Boone National Guard Center, Kentucky; and USAREUR requested 257 THM/TGs between August and November 1992. None of these requirements were included in the TACOM contract issued on December 18, 1992. More than a year later TACOM issued an urgent sole-source solicitation for these requirements.

As of June 2, 1994, TACOM has two active contracts with 212 THM/TGs still to be delivered. None of the installations identified by TACOM to justify its urgent procurement were scheduled to receive any of the THM/TGs from these two contracts. In addition, 50 of the 212 THM/TGs are scheduled to be sent to Fort Polk, Louisiana. Fort Polk officials told us that they do not anticipate any impact from a further delay in receiving THM/TGs.

We found no evidence that Army had made any effort to satisfy the urgent requirements by reallocating or reprioritizing existing or on-order THM/TGs. For example, although USAREUR has 202 THM/TGs on backorder, it will be releasing 278 older target holding mechanisms that can be reallocated.

Commercial target holding mechanisms are available in approximately 90 days. If TACOM is able to validate an urgent requirement, commercial target holding mechanisms are the only way to satisfy Army requirements in the time frames the Army identified without reallocating resources. At least five Army ranges use one or more commercial target holding mechanisms already. Range officials stated that the commercial target holding mechanisms meet their requirements and stated that they intend to buy additional commercial target holding mechanisms when needed.

**Management Comments.** TACOM stated that Technical Systems, Incorporated, was the only producer that could meet the Government's requirements in the time frame necessary to meet the urgent requirements.

**Audit Response.** TACOM signed the justification for other than full and open competition on July 16, 1993. According to TACOM, Technical Systems, Incorporated, was the only current producer that could meet the Government's requirements in the time frames necessary to meet the urgent requirements. Modern Technologies Corporation delivered 19 THM/TGs on June 2, 1993, and 31 THM/TGs on June 11, 1993, both before the TACOM justification for other than full and open competition.

According to TACOM, Modern Technologies Corporation deliveries were consistently late. A review of deliveries shows that both Technical Systems, Incorporated, and Modern Technologies Corporation were consistently late. Technical Systems, Incorporated, delivered on average 436 days after the scheduled delivery date with a first article test. On its second contract, Technical Systems, Incorporated delivered 211 days after the scheduled delivery date without first article test. Modern Technologies Corporation was delivering 221 days after the scheduled delivery date with first article test before being required to complete a partial retesting of first article. Both companies

were behind schedule at the time TACOM justified a sole-source award to Technical Systems, Incorporated, as the only capable producer. We do not consider the Army's justification for a sole-source solicitation to Technical Systems, Incorporated, valid.

# Appendix B. Summary of Potential Benefits Resulting From Audit

| Recommendation Reference | Description of Benefit | Amount and/or Type of Benefit |
|---|---|---|
| A.1. | Economy and Efficiency. Prevents contract award that may not provide the best solution to Army THM/TG requirements. | Undeterminable.* |
| A.2. | Economy and Efficiency. Prevents new requests for proposal for THM/TGs until technical data packages problems have been resolved. | Undeterminable.* |
| B. | Economy and Efficiency. Determines the viability of using commercial target holding mechanisms before awarding any other contracts or allowing further effort on a THM/TG prototype. | Undeterminable.* |

*Potential monetary benefits are undeterminable because the benefits would result from future Army decisions concerning the acquisition of THM/TGs.

# Appendix C. Organizations Visited or Contacted

## Office of Secretary of Defense

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

## Department of the Army

Assistant Secretary of Army (Research, Development, and Acquisition), Washington, DC
Army Materiel Command, Alexandria, VA
- Army Tank-Automotive Command, Warren, MI
  - Armament and Chemical Acquisition and Logistics Activity, Rock Island, IL
  - Army Armament Research, Development, and Engineering Center, Picatinny Arsenal, NJ
- Simulation Training and Instrumentation Command, Orlando, FL

Adjutant General, State of Minnesota, Saint Paul, MN
- Camp Ripley, Little Falls, MN

State of Nevada Military Department, Army National Guard, Carson City, NV
Kentucky Army National Guard, Boone National Guard Center, Frankfort, KY
Indiana National Guard, Camp Atterbury, Edinburgh, IN
Army Air Defense Artillery Center and Fort Bliss, Fort Bliss, TX
Headquarters, U.S. Army, Europe, and Seventh Army, Heidelberg, Germany

## Non-Government Organizations

Caswell International Corporation, Minneapolis, MN
Science Applications International Corporation, San Diego, CA
Technical Systems, Incorporated, Grand Rapids, MI
Government Systems Group, Unisys Corporation, Huntsville, AL

# Appendix D. Report Distribution

## Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
Comptroller of the Department of Defense
Assistant to the Secretary of Defense (Public Affairs)

## Department of the Army

Secretary of the Army
Assistant Secretary of the Army (Research, Development, and Acquisition)
Commander, Army Materiel Command
  Commander, Army Tank-Automotive Command
    Commander, Armament and Chemical Acquisition and Logistics Activity
    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

## Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspector General, Central Imagery Office
Inspector General, Defense Intelligence Agency
Inspector General, National Security Agency
Director, Defense Logistics Studies Information Exchange

## Non-Defense Federal Organizations

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

## Non-Defense Federal Organizations (cont'd)

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

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

# Part IV - 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

20 MAY 1994

SARD-PC

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE (AUDITING)

SUBJECT: Quick-Reaction Report on Procurement for the Target Holding Mechanism, Tank Gunnery THM/TG (Project No. 3CD-5026)

We have reviewed and fully agree with the enclosed U.S. Army Tank-Automotive Command (TACOM) nonconcurrence with the findings and recommendations in subject quick-reaction report.

Our position is supported by the findings of a "Red Team", made up of technical and procurement representatives from TACOM. The team performed an on-site review of all documentation relating to the quick-reaction report.

We find the TDP is suitable for competition and the sole source procurement is justified. We have concluded that the requirements are urgent and we are prepared to proceed with the contracting actions. Therefore we request expedited resolution of this dispute.

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

George E. Dausman
Deputy Assistant Secretary of the Army
(Procurement)

Enclosure

CF:
SAAG-PRF-E
AMCIR-A
DAIG

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**DEPARTMENT OF THE ARMY**

UNITED STATES ARMY TANK-AUTOMOTIVE COMMAND
WARREN, MICHIGAN 48397-5000

REPLY TO ATTENTION OF

AMSTA-CG (36 (B)) 18 May 1994

MEMORANDUM FOR Commander, U.S. Army Materiel Command,
ATTN: AMCIR-I, 5001 Eisenhower Avenue,
Alexandria, VA 22333-0001

SUBJECT: Department of Defense Inspector General (DODIG) Quick-Reaction Report on Procurement for the Target Holding Mechanism Tank Gunnery, Project No. 3CD-5025

1. Headquarters, U.S. Army Materiel Command Permanent Order 125-3, 17 Dec 93, established the Armament and Chemical Acquisition and Logistics Activity (ACALA) (Provisional) effective 1 February 1994. This order further assigned the ACALA to Headquarters, U.S. Army Tank-Automotive Command by direction of Base Realignment and Closure (BRAC) Law of 1993.

2. The U.S. Army Tank-Automotive Command position to subject quick-reaction report is enclosed for your consideration. We nonconcur with the three recommendations as discussed in the enclosure. However, procurement solicitations discussed in the report are suspended until this audit action is resolved.

3. Point of contact is Ms. Susan Smith, AMSMC-IA, DSN 793-2708.

Encl

JOSEPH RAFFIANI, JR.
Major General, USA
Commanding

ENCL

DODIG QUICK-REACTION REPORT ON PROCUREMENT FOR
THE TARGET HOLDING MECHANISM, TANK GUNNERY
Project No. 3CD-5026, AMC No. D9345

FINDING A. Acquisition Strategy and Configuration Control.

AMCCOM did not provide reliable technical data packages for a sole-source solicitation and a competitive solicitation to procure THM/TGs. In addition, AMCCOM improperly issued a sole-source solicitation. These conditions occurred because AMCCOM did not adequately control configuration documentation to maintain a reliable technical data package and did not adequately support the need for a 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.

ADDITIONAL FACTS. TACOM technical personnel conducted an independent review of the TDP and the deficiencies noted on page 8 of the DODIG report. Based on the technical review, it was concluded that the TDP is adequate for competitive procurement and timely and orderly production of the item. The review of the specific items found that they were minor in nature and we believe that the conclusions reached by the DODIG reviewer may have been based on a misunderstanding of the ARDEC configuration management process. The configuration control documentation process used to maintain this TDP is the same that is used for maintaining all TDPs in the Technical Data Center.

The sole source solicitation was based on a Statement of Urgency written by the Weapons System Matrix Manager. The urgency was established based on information received by the Item Manager from the field stating the need for THM/TGs and the impact to training/readiness. Within the last two weeks, customers with the largest four requirements on the sole source solicitation were asked to revalidate their urgency statements and have done so.

a. USAREUR states that present ranges are using radios to operate the non-standard target mechanisms. The radios used on the unique target mechanisms (in place of THM/TGs) are using an unauthorized frequency. These frequencies violate the host nation sovereignty and could result in a shutdown of the training ranges. USAREUR needs the THM/TGs requisitioned from the ACALA to use with a standard RETS radio to prevent a possible shutdown of the training ranges. A four to six month delay in receiving the THM/TGs violates an unwritten agreement with Germany to convert to the standard Army radio as soon as possible.

b. The 3d Armored Cavalry Regiment is an immediate contingency deployment rapid ready force unit at Fort Bliss. Further delay of the acquisition and delivery of the THM/TGs to

Fort Bliss will continue to have a significant impact on the Regimental gunnery program and on the Regiment's ability to execute its wartime mission as a Force Package One unit. In addition, a recently completed Tank Crew Proficiency Course combined with the current Regimental training OPTEMPO cannot be fully supported by on-hand THM/TG resources.

c. The Kentucky National Guard replied that a continued delay in delivery of the requested lifters results in increased transportation costs, degraded training when training ranges aren't available and reduced training time due to the distance to the nearest active component training facility.

d. The Nevada National Guard states that further delay in receipt of the THM/TG will have a severe impact on the Tank Gunnery Program for the NVARNG. The loss of Inactive Duty Training time and the additional costs resulting from transporting the Armor unit to appropriate ranges have had immeasurable effect on the NVARNG and the readiness of the Armor unit.

e. The original sole source solicitation included a quantity of 30 for the National Training Center (NTC) and one for Fort Riley.* Because the 30 have subsequently been cancelled by NTC due to lack of funds and the Fort Riley unit has not been verified as urgent, these will be deleted from the sole source solicitation and added to the competitive solicitation.

RECOMMENDATIONS AND ACTIONS TAKEN.

RECOMMENDATION 1. Cancel sole-source solicitation DAAA09-93-R-0303 and competitive solicitation DAAA09-03-B-0307.

RECOMMENDATION 2. Withhold any new solicitations until all of the issues concerning the target holding mechanism, tank gunnery, technical data packages have been resolved.

ACTION TAKEN. NONCONCUR. Both procurements are on hold pending resolution of this audit, but every day lost places additional stress on field training. Based on the additional information provided above, the solicitations need to proceed with urgency. The sole source justification stated that Technical Systems Inc. was the only current producer that could meet the Government's requirements in the timeframe necessary to meet the urgent requirements. This statement was accurate and competition was restricted only to meet urgent requirements.

FINDING B. EVALUATION OF COMMERCIAL TARGET HOLDING MECHANISMS.

The Army developed a prototype for the target holding mechanism, tank gunnery, that may be unnecessary. This occurred because AMCCOM did not evaluate commercial target holding mechanisms before development of a prototype. As a result, a $587,382 cost-plus-fixed-fee contract to develop a prototype, was awarded

*TACOM stated that references to Fort Riley are incorrect and they should read Camp Ripley.

reducing the chances for a commercial procurement and requiring the development of a new technical data package.

ADDITIONAL FACTS. Procurement of the type classified THM/TG in lieu of a "commercial" THM/TG is based on the present organic support system for the Remoted Target System (RETS) program for which THM/TG is only one component. Procurement of a "commercial" THM/TG would result in a dual support system for RETS ranges having a mixture of standard and non-standard items. During the early stages of procurement planning a contractor proposal for a commercial THM/TG was rejected for the above reason.

The contract to SAIC is to help find a suitable future replacement for the THM/TG and not simply to satisfy the present requirements. Field user requirements beyond those presently covered in the Training Device Requirement (TDR) were identified through visits/coordination with various post/camps/stations. The contractor then reviewed design concepts and will provide a Concept Demonstration Prototype for evaluation. Review of available "commercial" mechanisms is an integral part of the effort. The SAIC effort will be completed in Jun 94 after which time evaluation of user requirements will be conducted through a planned operational comparison of the Concept Demonstration Prototype and interested commercial sources. The final decision for the future THM/TG could result in adoption of a commercial item in lieu of the Concept Demonstration Prototype. In either case, development of documentation for organic support and establishment of an organically supported system is planned.

RECOMMENDATIONS AND ACTION TAKEN.

RECOMMENDATION B-1. We recommend that the Commander, Army, Armament, Munitions, and Chemical Command, determine the viability of using commercial target holding mechanisms to meet Army requirements before awarding other contracts for target holding mechanism, tank gunnery, or before allowing further prototype development or production. The determination should include input from the target holding mechanism, tank gunnery, users in the field.

ACTION TAKEN. NONCONCUR. In the near term, use of a commercial device to replace the existing THM/TG would result in non-standard field support for the RETS program. We agree that we should evaluate commercial sources for field user requirements beyond those in the current requirements documents. In fact, we are doing so, partly on the basis of the SAIC contract deliverables. Validation of the new performance requirements will include evaluation of available commercial devices. Users will be invited to witness the tests and provide their input. Based on the results of the performance tests, users' input, and costs, a final decision will be made. After the configuration of an appropriate target mechanism is selected, it will become the new standard in the Army system.

# Audit Team Members

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