

Laboratory Joint Cross-Service Data Call

The Army Basing Study 1995

17 November 1994
Audit Report: SR 95-701

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U.S. Army Audit Agency





DEPARTMENT OF THE ARMY
SOUTHEASTERN REGION, U.S. ARMY AUDIT AGENCY
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HANOVER, MARYLAND 21076-1663

REPLY TO
ATTENTION OF:

17 November 1994

Director, The Army Basing Study

This is our report on the audit of the Laboratory Joint Cross-Service Data Call. The Director of Management requested the audit. The audit was part of a multilocation audit. We will include these results in an overall report to senior Army management.

These are the report's key sections:

- The Summary of the Audit is an overview of what we audited and found and includes command actions and our suggested action.
- General Information tells how we conducted the audit and gives other important information on matters related to the audit.
- Annex A shows the data elements reviewed. Annex B lists the activities included in the audit. Annex C shows others receiving copies of the report. Annex D lists the audit staff.

This report isn't subject to the command-reply process that Army Regulation 36-2 prescribes.

I appreciate the courtesies and cooperation extended to us during the audit.

FOR THE AUDITOR GENERAL:

A handwritten signature in cursive script that reads "Steph E Keefer".

STEPHEN E. KEEFER
Regional Auditor General

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SUMMARY OF THE AUDIT

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INTRODUCTION

The Defense Base Closure and Realignment Act of 1990, as amended, provides DOD a means to make needed adjustments to the installation structure. The Deputy Secretary of Defense's 1995 Base Realignment and Closure guidance memorandum, dated 7 January 1994, established several study groups. The study groups, led by the Office of the Secretary of Defense, are to evaluate opportunities for cross-service realignment and closure actions. Those cross-service work groups focus on:

- Medical Treatment Facilities and Graduate Medical Education Centers.
- Test and Evaluation Facilities.
- Laboratory Facilities.
- Undergraduate Pilot Training.
- Depot Maintenance Activities.
- Economic Impact.

Each of the cross-service work groups prepared a data call requiring activities to furnish information needed to assess and identify potential cross-service base closure and realignment opportunities.

Army guidance required responses from each activity identified in the cross-service data calls. The activities were to furnish these responses to their major commands. The major commands were to provide certified data to the Army Basing Study Office. The Basing Study Office will then provide data to each of the cross-service work groups.

The laboratory data call consisted of 25 data elements. The data elements included a mix of objective and subjective information about each activity's mission, workload, and facilities. We evaluated the accuracy and supporting documentation for 21 of the 25 data elements. Annex A lists the data elements we evaluated. The four elements that we didn't evaluate addressed the education, experience, accomplishments, and technical papers written by people assigned to the activities.

The laboratory data call identified 27 laboratories within the Army:

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- 16 laboratories reported through U.S. Army Materiel Command.
- 6 laboratories reported through U.S. Army Medical Command (Provisional).
- 4 laboratories reported through the Office of the Chief of Engineers.
- 1 laboratory reported through the Office of the Deputy Chief of Staff for Personnel.

We did the audit at 4 of the 27 laboratories: 2 reporting through Army Materiel Command, 1 through Medical Command, and 1 through the Office of the Deputy Chief of Staff for Personnel.

WHAT WE AUDITED

We audited the Army's process for responding to the Laboratory Joint Cross-Service Work Group's data call. The audit focused on procedures that reporting activities followed to gather and submit data to the Basing Study Office.

The audit was part of a multilocation audit of data the Army furnished to each of the joint cross-service work groups. The Director of Management requested the audit. Annex B lists the Army activities included in the audit.

OBJECTIVES AND CONCLUSIONS

We established three objectives for the audit. Here are our overall conclusion, objectives, and detailed conclusions:

Overall Conclusion: The data call responses that the laboratories provided the Basing Study Office were accurate and adequately supported and may be relied on by the cross-service work group for evaluating cross-service opportunities.

Objective: To determine whether Army procedures and management controls for processing data from subordinate laboratories were adequate.

Conclusion: The Army had adequate procedures and management controls to process data from subordinate laboratories. The Basing Study Office published guidance on 19 April 1994 applicable to all joint cross-service work group data calls. The guidance came early in the process and established adequate management controls for processing data. The memorandum required commanders to ensure that:

- Responses were supported.
- Data sources were consistent.
- Data was accurate.
- Complete records were maintained.

Also, the guidance required Chiefs of Staff of laboratory activities completing the data call to certify that reports were accurate and complete. Generally, the major commands and the Deputy Chief of Staff for Personnel effectively used and implemented the Basing Study Office guidance.

Army Materiel Command had adequate procedures for reviewing and validating the data from its 16 subordinate laboratories. Before submitting responses to the Basing Study Office, command personnel:

- Verified mathematical calculations.
- Determined whether reported data was accurate based on institutional knowledge and historical records.
- Held several meetings with representatives of the reporting laboratories to discuss, clarify, and revise, when necessary, the data call replies.

Medical Command had adequate controls. It relied on oversight that the U.S. Army Medical Research, Development, Acquisition, and Logistics Command furnished. All six medical laboratories reported through this subordinate command of Medical Command. Medical Research, Development, Acquisition, and Logistics Command reviewed the data based on institutional knowledge and historical records. These procedures were adequate and satisfied the intent of the Army's guidance.

Medical Research, Development, Acquisition, and Logistics Command conducted a review of the data that the U.S. Army Aeromedical Research Laboratory reported. It did the review using institutional knowledge of the laboratory and comparison of the data call response to historical records. Medical Command didn't perform any reviews of the laboratory's data call response because command personnel didn't think they had adequate knowledge of the laboratory's operations. Therefore, they relied on the laboratory commander's certification. The review procedures that Medical Research Development, Acquisition, and Logistics Command performed were adequate. As a result, Medical Command's not doing a detailed review had no adverse effect on the accuracy of the data.

The U.S. Army Research Institute for the Behavioral and Social Sciences submitted data directly to the Basing Study Office rather than through the Office of the Deputy Chief of Staff for Personnel as guidance required. However, this was one of the laboratories that we reviewed, and our review compensated for the absence of controls from the Office of the Deputy Chief of Staff. Our review showed that the data the Research Institute reported was accurate; thus, data accuracy wasn't adversely affected.

We didn't include engineer activities in our review. However, we discussed oversight procedures with knowledgeable personnel. We were told that the four engineer laboratories submitted their responses directly to the Basing Study Office. We observed that the Basing Study Office performed a detailed review of responses from the laboratories and coordinated with the Office of Chief of Engineers to obtain clarifications and resolve discrepancies. We concluded that, while the Chief of Engineers didn't establish the controls that Army guidance required, the actions of the Basing Study Office furnished assurance that the engineer laboratory responses were accurate.

Objective: To determine whether Army laboratories complied with cross-service work group guidance.

Conclusion: Three of the four laboratories we reviewed generally complied with cross-service work group guidance. However, the U.S. Army Communications - Electronics Command Research, Development and Engineering Center didn't comply with the guidance for 6 of the 21 data elements.

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The Communications - Electronics Command Research, Development and Engineering Center didn't maintain or report data in the format requested by the data call. For example, for the workload, excess laboratory capacity, and workyear and lifecycle elements, the cross-service work group asked for information relating to workyears. The data call guidance defined a workyear as a block of 2,080 hours worked. However, the center reported programmed workyears as authorized strength at the beginning of the year and actual workyears as its onhand strength at the end of the year. Center personnel agreed to report and explain this deviation from the data call guidance.

Cross-service guidance for the excess laboratory capacity element also created confusion at the other three laboratories. The element included the following formula using data from the workload element:

$$\begin{array}{r} \text{Sum of the Peak Workyears} \\ - \text{Sum of the Projected Workyears} \end{array}$$

Excess Laboratory Capacity

The term "peak workyears" confused laboratory personnel because they didn't know if they should use more than 1 year, and whether they should use actual or programmed workyears.

During the audit, the cross-service work group provided additional guidance directing laboratories to use the highest value for actual workyears listed in the workload element.

- The Aeromedical Research Laboratory and the U.S. Army Missile Research, Development and Engineering Center both complied with this additional guidance and provided accurate data.
- The Research Institute entirely omitted data for the excess laboratory capacity element because management personnel didn't believe it applied to them. The data call guidance specified that the DOD component level was to measure this element, indicating it wasn't applicable to the lower level activities. During our audit, the cross-service work group furnished additional guidance enabling the Research Institute to provide corrected and accurate data.

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We coordinated this issue with representatives of the cross-service work group. They determined that the work group could wait to finalize this information until after it received responses from each of the Services. Therefore, no Armywide corrective action is needed.

Objective: To determine whether data reported was accurate and adequately supported.

Conclusion: Laboratories generally reported accurate and adequately supported data. Here are the results from the four laboratories we reviewed:

The Aeromedical Research Laboratory reported accurate data for 20 of the 21 data elements we reviewed. For the laboratory facilities data element, the laboratory:

- Counted one building twice.
- Omitted another building from the list.
- Transposed several figures.

These errors were identified and corrected during our review.

The Communications - Electronics Command Research, Development and Engineering Center reported accurate data for 9 of the 21 data elements. Data the center reported for six elements included the following errors:

- **Workload.** Reported onhand strength at the end of the year instead of actual workyears.
- **Excess Laboratory Capacity.** Reported onhand strength at the end of the year instead of actual workyears.
- **Licenses and Permits.** Omitted one license and three permits.
- **Laboratory Facilities.** Reported future excess capacity instead of current excess capacity.
- **Workyear and Lifecycle.** Reported an arithmetical error and onhand strength at the end of the year instead of actual workyears.

- Utilities. Reported current capacity instead of expansion capability.

Center personnel agreed with our results and resubmitted corrected data for these elements during our review.

The center also didn't maintain sufficient supporting documentation for six data elements:

- Proximity to mission-related organizations.
- Engineering development.
- In-service engineering.
- Major equipment and facilities.
- Workyears capacity.
- Additional workyears.

The absence of supporting documentation for each of these elements occurred because data call guidance requested information that wasn't available in the laboratory's databases. Center personnel stated that to compile complete supporting documentation would be an immense undertaking. But they did agree to provide detailed explanations of their rationale for deviating from the guidance and document these explanations. However, they hadn't furnished the documentation for these data elements at the completion of our review. The Basing Study Office needs to make sure this documentation is submitted.

The Missile Research, Development and Engineering Center reported accurate and adequately supported data for all 21 data elements.

The Research Institute for the Behavioral and Social Sciences reported accurate data for 19 of the 21 data elements. Reported data for one element (laboratory facilities) included:

- Arithmetical errors.
- Inconsistent rounding.

In addition, the Research Institute didn't respond to the excess laboratory capacity element. An earlier data element also included the data for this element, and Research Institute personnel didn't understand the

question or receive adequate guidance. During our review, cross-service work group representatives provided further clarification enabling the Research Institute to respond. The response provided accurate and well-supported data.

The Research Institute's errors and the omission were identified and corrected during our review.

COMMAND ACTIONS

The laboratories generally agreed with our results and stated that they had taken or would take corrective actions.

During the audit, the Aeromedical Research Laboratory and the Research Institute corrected their errors and provided recertified data to the Basing Study office.

The Communications - Electronics Command Research, Development and Engineering Center corrected and recertified the elements that we determined were inaccurate. However, it hadn't obtained supporting documentation for the remaining six elements at the completion of our review.

Our suggested action to address this issue follows.

SUGGESTED ACTION AND COMMENTS

For the Director,
The Army Basing Study

Suggested Action: Have the Commander, Communications - Electronics Command Research, Development and Engineering Center:

- Gather and maintain sufficient documentation supporting the laboratory's response to the cross-service data call.
- Report explanations of methodologies used to develop data.
- Recertify the data call response.

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Command Comments: Basing Study Office and Army Materiel Command personnel agreed and stated that they directed the Communications - Electronics Command Research, Development and Engineering Center to submit a recertified data call response and gather sufficient supporting documentation. Army Materiel Command had received the recertified response by the completion of our audit.

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GENERAL INFORMATION

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AUDIT SCOPE

We performed the audit:

- At the request of the Director of Management.
- From May through October 1994.
- At U.S. Army Materiel Command; U.S. Army Medical Command (Provisional); the Army Basing Study Office; U.S. Army Medical Research, Development, Acquisition, and Logistics Command; and at the four laboratories listed in Annex B.

We made the audit, in most material respects, in accordance with generally accepted government auditing standards. Accordingly, we tested internal controls to the extent we considered necessary under the circumstances. We didn't follow certain aspects of the fieldwork and reporting standards. In our opinion, however, not following those standards had no material effect on the results of our audit.

The audit covered transactions representative of operations current at the time of the audit.

AUDIT METHODOLOGY

To do the audit, we:

- Reviewed cross-service work group, DA, and major command guidance and compared it with procedures laboratories followed to respond to the cross-service group data call.
- Interviewed managers from the Army, major commands, and laboratories.
- Tracked data element responses to supporting documentation, including accounting systems, memorandums, Army regulations, internal reports, and historical workload data.
- Verified calculations of data values.
- Tested the accuracy of selected source documentation.

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RESPONSIBILITIES

The Assistant Secretary of the Army (Installations, Logistics and Environment) is responsible for the policy and management of all base realignment and closure initiatives.

The Army Basing Study Office, established 1 August 1993, serves as the single Army Staff point of contact for Base Realignment and Closure 1995. The Director, The Army Basing Study has staff responsibility for:

- Maintaining Army liaison with joint cross-service work groups.
- Establishing and disseminating cross-service and DA guidance to major commands and reporting activities.

As the Army's single point of contact, the Basing Study Office is also responsible for:

- Receiving and reviewing cross-service data furnished by major commands and reporting activities.
- Forwarding data to the cross-service work groups.
- Reviewing and supporting Army recommendations to the cross-service work groups.

The major command or next higher management level for each activity was responsible for:

- Sending out the data calls to its subordinate laboratories.
- Reviewing responses from the laboratories.
- Forwarding responses to the Basing Study Office.

Chiefs of Staff at each laboratory facility were responsible for:

- Forwarding data to the next higher command level.
- Certifying the accuracy and completeness of the data.

ANNEXES

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DATA ELEMENTS REVIEWED

1. Workload
2. Excess Laboratory Capacity
3. Mission
4. Geographical/Climatological Features
5. Licenses and Permits
6. Environmental Constraints
7. Special Support Infrastructure
8. Proximity to Mission-Related Organizations
9. Total Personnel
10. Workyear and Lifecycle
11. Engineering Development
12. In-Service Engineering
13. Direct Funding
14. Other Obligations
15. Major Equipment and Facilities
16. Laboratory Facilities
17. Workyears Capacity
18. Additional Workyears
19. Military Construction
20. Buildable Acres
21. Utilities

ANNEX B

ACTIVITIES INCLUDED IN THE AUDIT

<u>Activity</u>	<u>Information Memorandum Issued</u>	
	<u>Number</u>	<u>Date</u>
U.S. Army Materiel Command	a/	
U.S. Army Medical Command (Provisional)	a/	
Army Basing Study Office	a/	
U.S. Army Medical Research, Development, Acquisition, and Logistics Command	a/	
U.S. Army Research Institute for the Behavioral and Social Sciences; Alexandria, Virginia	SR 94-714	12 Aug 94
U.S. Army Aeromedical Research Laboratory; Fort Rucker, Alabama	CR 94-708	4 Aug 94
U.S. Army Missile Research, Development and Engineering Center; Redstone Arsenal, Alabama	CR 94-712	5 Aug 94
U.S. Army Communications - Electronics Command Research, Development and Engineering Center; Fort Monmouth, New Jersey	NR 94-715	8 Aug 94

a/ This report includes results from the audit of this activity. We didn't report the results separately.

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OTHERS RECEIVING COPIES OF THE REPORT

Assistant Secretary of the Army (Civil Works)
 Assistant Secretary of the Army (Financial Management and
 Comptroller)
 Assistant Secretary of the Army (Installations, Logistics
 and Environment)
 Assistant Secretary of the Army (Manpower and Reserve Affairs)
 Assistant Secretary of the Army (Research, Development and
 Acquisition)
 General Counsel
 Director of the Army Staff
 The Inspector General
 Chief of Legislative Liaison
 Chief of Public Affairs
 Deputy Chief of Staff for Operations and Plans
 Deputy Chief of Staff for Personnel
 Deputy Chief of Staff for Logistics
 Assistant Chief of Staff for Installation Management
 Deputy Assistant Secretary of the Army for Budget
 Director of Management
 Director, Program Analysis and Evaluation
 Commanders
 U.S. Army Materiel Command
 U.S. Army Medical Command (Provisional)
 U.S. Army Medical Research, Development, Acquisition, and
 Logistics Command
 U.S. Army Aeromedical Research Laboratory
 U.S. Army Missile Research, Development and Engineering
 Center
 U.S. Army Communications - Electronics Command Research,
 Development and Engineering Center
 Directors
 U.S. Army Research Institute for the Behavioral and
 Social Sciences
 Center for Army Lessons Learned

 Comptroller, Department of Defense
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Test and Evaluation Joint Cross-Service Data Call

The Army Basing Study 1995

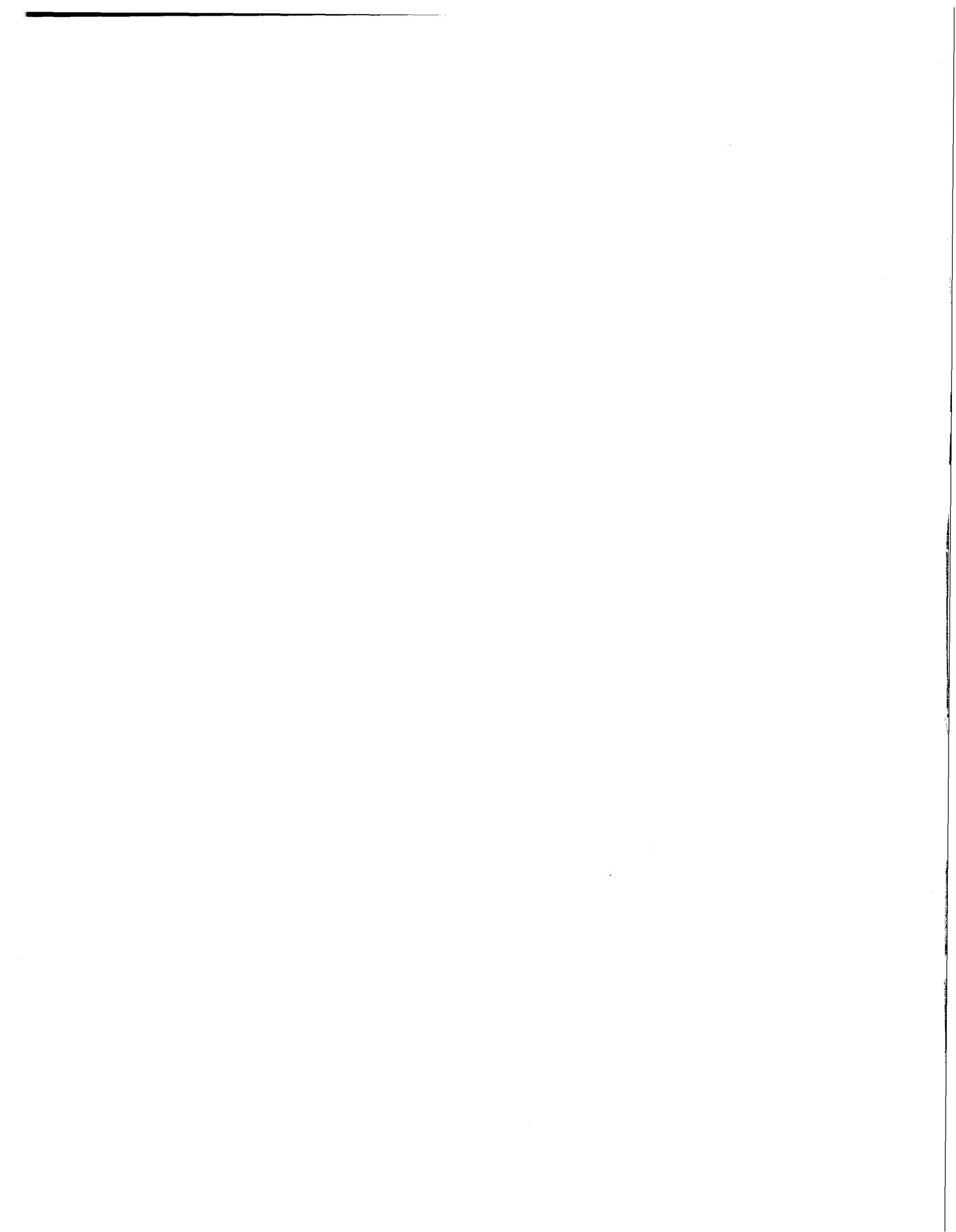
**13 December 1994
Audit Report: SR 95-705**

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U.S. Army Audit Agency







DEPARTMENT OF THE ARMY
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HANOVER, MARYLAND 21076-1663

REPLY TO
ATTENTION OF:

13 December 1994

Director, The Army Basing Study

This is our report on the audit of the Test and Evaluation Joint Cross-Service Data Call. The Director of Management requested the audit. The audit was part of a multilocation audit. We will include these results in an overall report to senior Army management.

These are the report's key sections:

- The Summary of the Audit is an overview of what we audited and found and includes command actions and our suggested actions.
- General Information tells how we conducted the audit and gives other important information on matters related to the audit.
- Annex A lists data elements reviewed. Annex B lists the activities included in the audit. Annex C shows others receiving copies of the report. Annex D lists the audit staff.

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STEPHEN E. KEEFER
Regional Auditor General

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INTRODUCTION

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- Medical Treatment Facilities and Graduate Medical Education Centers.
- Test and Evaluation Facilities.
- Laboratory Facilities.
- Undergraduate Pilot Training.
- Depot Maintenance Activities.
- Economic Impact.

Each cross-service work group prepared a data call requiring activities to provide information needed to assess and identify cross-service opportunities.

Army guidance required activities to furnish responses to their major commands. The major commands provided certified data to the Army Basing Study Office. The Basing Study Office will then provide data to each of the cross-service work groups.

The test and evaluation work group issued its data call on 31 March 1994. The data call required responses from test and evaluation activities operating in three functional areas:

- Air vehicles.
- Electronic combat.
- Armament and weapons.

The Army identified eight test and evaluation activities that should report:

- Five activities under U.S. Army Materiel Command.
- Three activities under U.S. Army Operational Test and Evaluation Command.

We reviewed responses for:

- Three Army Materiel Command activities.
- One Operational Test and Evaluation Command activity.

The data call had 94 data elements. We evaluated the accuracy and supporting documentation for 22 of the 94 elements. We reviewed the same 22 elements (shown in Annex A) at each activity we audited.

To select the 22 elements, we focused on:

- Information about the activities' physical assets and capabilities.
- Information included in multiple elements.

The cross-service work group issued a supplemental data call on 4 August 1994. This data call asked for airspace, land, and sea requirements to test and evaluate existing systems and those systems in the 1995 Future Years Defense Plan. The supplemental data call had six data elements (shown in Annex A) for each of five categories. The categories were:

- Armament and weapons with separate requirements for air-to-air, air-to-surface, and surface-to-air missiles.
- Cruise missiles.
- Theater missile defense with separate replies for short-, medium-, and long-range missiles.
- Air vehicles.
- Electronic combat.

We reviewed the supplemental data call responses from two Army Materiel Command activities:

- U.S. Army Redstone Technical Test Center.
- U.S. Army White Sands Missile Range.

WHAT WE AUDITED

We audited the Army's process for responding to the Test and Evaluation Joint Cross-Service Work Group's data call. The audit focused on procedures that reporting activities followed to gather and submit data to the Basing Study Office.

The audit was part of a multilocation audit of data furnished to each of the joint cross-service work groups. The Director of Management requested the audit. Annex B lists the Army activities included in the audit.

OBJECTIVES AND CONCLUSIONS

We established three objectives for the audit. Here are our overall conclusion, objectives, and detailed conclusions:

Overall Conclusion: The data call responses that test and evaluation activities provided the Basing Study Office were generally accurate and adequately supported. After the activities implement the changes we suggest, the responses may be relied on by the cross-service work group for evaluating cross-service opportunities.

Objective: To determine whether major command procedures for processing data call responses from subordinate activities were adequate.

Conclusion: Major commands and their subordinate commands followed adequate procedures for processing data from subordinate activities. Oversight of data call responses was adequate, appropriate activities responded, and reporting activities certified the data.

Oversight

The Basing Study Office. The office instructed Army Materiel Command and Operational Test and Evaluation Command to support the data call by:

- Selecting data call respondents.

- Assembling the required data for each responding activity.
- Certifying the accuracy and completeness of responses.

Both major commands gave adequate oversight to responding activities.

Army Materiel Command. Command delegated responsibilities to U.S. Army Test and Evaluation Command for ensuring that field activities followed consistent procedures and interpreted the data elements in accordance with the cross-service work group's intent. Test and Evaluation Command appointed a coordinator to assist data call respondents. The coordinator furnished adequate liaison between Basing Study Office and cross-service work group representatives and responding activities for the necessary explanations.

Operational Test and Evaluation Command. Command tasked U.S. Army Test and Experimentation Command with the responsibility for collecting data from Test and Experimentation Command subordinate activities. Test and Experimentation Command also designated a point of contact to coordinate responses from its subordinates with higher commands.

Respondents

The two major commands properly identified activities that should respond to the data call.

Army Materiel Command. Test and Evaluation Command properly forwarded data calls to five of its six test and evaluation facilities. It sent data calls to:

- White Sands Missile Range.
- Combat Systems Test Activity, Aberdeen Proving Ground.
- Redstone Technical Test Center, Redstone Arsenal.
- Aviation Technical Test Center, Fort Rucker.
- Yuma Proving Ground.

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Test and Evaluation Command properly excluded Dugway Proving Ground. The cross-service work group properly decided to exclude Dugway Proving Ground because it didn't operate in any of the functional areas that applied to the data call.

The supplemental data call addressed range capacities and requirements for specific categories of systems. The Basing Study Office sent the supplemental data call to Army Materiel Command. Only Army Materiel Command activities own and control ranges in the Army. Operational Test and Evaluation Command controls ranges only when it uses them for its tests.

Operational Test and Evaluation Command. Test and Experimentation Command properly forwarded data calls to 3 of its 10 test activities. It sent data calls to the:

- Experimentation Center, Fort Hunter-Liggett.
- Intelligence and Electronic Warfare Directorate, Fort Huachuca.
- Air Defense Artillery Test Directorate, Fort Bliss.

Test and Experimentation Command appropriately excluded four other directorates. These directorates didn't test any of the functions that applied to the data call.

- Close Combat Test Directorate, Fort Hood.
- Engineer/Combat Support Test Directorate, Fort Hood.
- Command, Control, and Communication Test Directorate, Fort Hood.
- Information Mission Area Test Directorate, Fort Hood.

Test and Experimentation Command also excluded three other directorates.

- Fire Support Test Directorate, Fort Sill.
- Airborne and Special Operations Test Directorate, Fort Bragg.
- Aviation Test Directorate, Fort Hood.

Generally, these activities didn't own or control any test facilities or ranges. Also, command personnel believed that these functions had little potential for consolidation with other DOD activities.

We agreed with the exclusions that Test and Experimentation Command made.

Certification

Activities certified their data call responses in accordance with Army guidance. Each level of command that submitted test and evaluation data calls certified the accuracy and completeness of the information in accordance with Basing Study Office guidance.

The Basing Study Office was an addressee for information memorandum reports that we issued discussing the results of our review at the four activities we visited. It compared the reports with the test and evaluation activities' data calls to make sure the inaccurate and incomplete responses we identified were corrected.

Objective: To determine whether test and evaluation activities complied with cross-service work group guidance.

Conclusion: The test and evaluation activities generally complied with cross-service work group guidance. Procedures were adequate to process work group requests for clarification.

Data call responses generally complied with work group guidance. This was in large part due to effective coordination by the major Army command coordinators and the Basing Study Office. However, activities had problems completing two data elements:

- The appropriation expected to generate a test element asked for appropriations (by program element) that generated a requirement for testing or test support. Reporting test and evaluation activities didn't have the information needed to answer this element. The Basing Study Office reported this problem to the cross-service work group. The work group decided to use Defense-level information to complete this element.

- The maximum capacity of the facility element required activities to complete a Determination of Unconstrained Capacity Form. Activities didn't know the cross-service work group wanted the capacity limited to a fully staffed and funded current facility. The cross-service work group was still working on this problem as we prepared this report in November 1994.

The cross-service work group advised activities to complete the data elements to the best of their ability. It planned to follow up on problem data elements during its review of the data call responses. The work group issued requests for clarification when it detected problems with data call replies. And it issued a supplemental data call to obtain new data on ranges. The Army had responded to all requests at the time we prepared this report in November 1994.

Objective: To determine whether data reported was accurate and adequately supported.

Conclusion: Generally, Army Materiel Command and Operational Test and Evaluation Command submitted accurate and adequately supported data to the Basing Study Office. They agreed to correct and resubmit inaccurate or incomplete responses that we identified. However, some corrections hadn't been submitted at the time we prepared this report in November 1994.

We evaluated the accuracy of the initial data call responses from four activities and supplemental data call responses from two activities. Here are our results from each activity reviewed:

U.S. Army Aviation Technical Test Center, Fort Rucker (Audit Report: CR 94-707)

The Aviation Technical Test Center's responses were generally accurate. It reported accurate data for 15 of the 22 data elements. For the other seven data elements:

- Replies to three data elements included mistakes which the center agreed to correct.

- Replies to three data elements needed to be reinterpreted. The center interpreted the requirements differently than the auditors did. After a meeting, the center agreed with the auditors' interpretation and revised the data call.
- Replies to one data element needed additional supporting documentation. The center agreed and accumulated the additional documentation.

The center took the necessary actions, had them confirmed by the audit team, and resubmitted revised data elements.

U.S. Army Intelligence and Electronic Warfare Directorate, Fort Huachuca (Audit Report: WR 94-705)

The Intelligence and Electronic Warfare Directorate reported accurate data for 19 of the 20 data elements it answered. Two data elements weren't applicable to the directorate:

- Directed energy weapon system tests.
- Area available for live rocket, missile, and bomb tests.

The directorate omitted \$8.4 million in projects from its reported capital improvements. The directorate agreed to add \$8.4 million to capital improvements and resubmit the data.

As we prepared this report, the directorate still hadn't submitted a change showing the \$8.4 million increase in capital improvements.

U.S. Army Redstone Technical Test Center, Redstone Arsenal (Audit Report: CR 94-710, Initial Data Call and Audit Report: CR 94-718, Supplemental Data Call)

The Redstone Technical Test Center accurately reported data for 18 of the 22 elements. It incorrectly responded to four data elements. The center agreed that:

- It reported facilities acquisition cost as replacement cost and understated the actual cost to replace the facilities.

- It understated the maximum capacity of the Component Test Facility by 1.2 million hours. The correct number was 1.3 million hours instead of the reported 0.1 million hours.
- It didn't include \$1.4 million of upgrades planned for the Component Test Facility and the Induced Environment Facility.

The Test Center made changes to its data and submitted it to the Basing Study Office.

The Test Center completed the supplemental data call accurately.

The Test Center generally maintained sufficient supporting documentation for all the data elements or recorded its logic and any assumptions for those data elements without documentation.

U.S. Army White Sands Missile Range (Audit Report: WR 94-709, Initial Data Call and Audit Report: WR 94-713, Supplemental Data Call)

The Missile Range reported generally accurate data for the 22 data elements. Its response also included data from its subordinate activity, the Electronic Proving Ground, Fort Huachuca.

The Missile Range had minor mathematical and typographical errors in five data elements and needed additional documentation to support three data elements. The Missile Range accumulated the additional documentation during the review. However, as of this report, the Missile Range hadn't submitted corrections for the five minor mathematical and typographical errors to the Basing Study Office.

The Missile Range reported U.S. Air Force data for the air-to-air missile category in the supplemental data call. However, the National Range Directorate had documentation to support a larger land space requirement for the same weapon system. The cross-service work group needs to review the data to make sure it uses accurate data.

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COMMAND ACTIONS

Command personnel at each of the test and evaluation activities agreed with our conclusions. They stated that they would resubmit corrected data elements to the Basing Study Office through the major commands. However, some changes weren't made at the time of this report in November 1994.

Our suggested actions to address this issue follow.

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SUGGESTED ACTIONS AND COMMENTS

For the Director,
The Army Basing Study

1. **Suggested Action:** Direct the Intelligence and Electronic Warfare Directorate to submit a corrected capital improvements plan that includes the \$8.4 million not in the data call response.

2. **Suggested Action:** Direct the White Sands Missile Range to submit corrected data for the five minor mathematical and typographical errors in its data call response.

3. **Suggested Action:** Advise the cross-service work group about the difference between U.S. Air Force and National Range data for air-to-air missiles at White Sands Missile Range and the need for Air Force data to correct the problem.

Command Comments: The Basing Study Office, Army Materiel Command, and Operational Test and Evaluation Command agreed. Operational Test and Evaluation Command stated that it directed the Intelligence and Electronic Warfare Directorate to submit corrections to the capital improvements data element. Army Materiel Command stated that it directed White Sands Missile Range to correct the minor arithmetical and typographical errors and to resolve the differences in the Air Force and National Range data.

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GENERAL INFORMATION

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AUDIT SCOPE

We performed the audit:

- At the request of the Director of Management.
- From June through November 1994.

We made the audit, in most material respects, in accordance with generally accepted government auditing standards. Accordingly, we tested internal controls to the extent we considered necessary under the circumstances. We didn't follow certain aspects of the fieldwork and reporting standards. In our opinion, however, not following those standards had no material effect on the results of our audit.

We reviewed data call responses from four of the eight test and evaluation activities that completed data calls:

- U.S. Army Redstone Technical Test Center, Redstone Arsenal.
- U.S. Army Aviation Technical Test Center, Fort Rucker.
- U.S. Army White Sands Missile Range.
- U.S. Army Intelligence and Electronic Warfare Directorate, Fort Huachuca.

We audited supplemental data calls from the Redstone Technical Test Center and White Sands Missile Range.

The audit covered transactions representative of operations current at the time of the audit.

AUDIT METHODOLOGY

To do the audit, we:

- Reviewed cross-service work group, DA, and major command guidance and compared it with procedures activities followed to respond to the cross-service group data call.
- Interviewed personnel from the test and evaluation cross-service work group, U.S. Army Materiel Command, U.S. Army Operational Test and Evaluation Command, their major subordinate commands, and test and

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evaluation activities who helped prepare, review, and validate responses to data elements.

- Tracked responses to data elements to supporting documentation including DOD National Range Information Management System, Integrated Facilities System, Status of Funds Report, local regulations, historical information, and completed test plans.
- Tested the accuracy of selected supporting documentation.
- Verified calculations of data values.

RESPONSIBILITIES

The Assistant Secretary of the Army (Installations, Logistics and Environment) is responsible for policy and management of all base realignment and closure initiatives. The Army Basing Study Office, established 1 August 1993, serves as the single Army Staff point of contact for Base Realignment and Closure 1995. The Director, The Army Basing Study has staff responsibility for:

- Maintaining Army liaison with joint cross-service work groups.
- Establishing and disseminating cross-service and DA guidance to major commands and reporting activities.

As the Army's single point of contact for base realignment and closure, the Basing Study Office was also responsible for:

- Receiving and reviewing cross-service data furnished by major commands and reporting activities.
- Forwarding data to the cross-service work groups.
- Reviewing and supporting Army recommendations to the cross-service work groups.

Chiefs of Staff at major commands and test and evaluation activities were responsible for:

- Certifying the accuracy and completeness of the data.
- Forwarding the data to the next higher command level.

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ANNEXES

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DATA ELEMENTS REVIEWEDInitial Data Call

1. Appropriations expected to generate a test.
2. Amount of test work done at facility.
3. Maximum capacity of the facility.
4. Facility's wartime role.
5. Condition of the facility.
6. Current or future environmental and encroachment factors.
7. Number of tests canceled because of non-DOD factors.
8. Special factors enabling the facility to expand output.
9. DOD's ability to control adjacent areas for tests.
10. Facility support for secure operations.
11. Capital improvements under way or planned for FY 95 and beyond.
12. Number of square miles available for testing.
13. Maximum straight line in nautical miles of airspace available.
14. Facilities physical characteristics including vegetation.
15. Percentage of time the weather restricted tests.
16. Brief description of airfield and support facilities.
17. Types of air vehicle testing the facility can support.
18. Maximum number of simultaneous missions using telemetry.
19. Number and type of simultaneous electronic combat threats.
20. Limitations on weapon system tests.
21. Directed energy weapon system tests.
22. Area available for live rocket, missile, or bomb tests.

Supplemental Data Call

1. Required airspace.
2. Restricted airspace.
3. Required total land space.
4. Required DOD land space.
5. Required sea space.
6. Required straight-line segment.

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ACTIVITIES INCLUDED IN THE AUDIT

<u>Activity</u>	Information Memorandum	
	<u>Number</u>	<u>Issued Date</u>
Army Basing Study Office	<u>a/</u>	
U.S. Army Materiel Command	<u>a/</u>	
U.S. Army Aviation Technical Test Center; Fort Rucker, Alabama	CR 94-707	8 Aug 94
U.S. Army Redstone Technical Test Center; Redstone Arsenal, Alabama	CR 94-718	7 Sep 94
U.S. Army Redstone Technical Test Center; Redstone Arsenal, Alabama	CR 94-710	5 Aug 94
U.S. Army White Sands Missile Range, White Sands Missile Range, New Mexico	WR 94-709	15 Jul 94
U.S. Army White Sands Missile Range, White Sands Missile Range, New Mexico	WR 94-713	7 Sep 94
U.S. Army Operational Test and Evaluation Command	<u>a/</u>	
U.S. Army Intelligence and Electronic Warfare Directorate, Fort Huachuca, Arizona	WR 94-705	12 Jul 94
U.S. Army Test and Experimentation Command, Fort Hood, Texas	WR 94-707	14 Jul 94

a/ This report includes results from the audit of this activity. We didn't report the results separately.

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OTHERS RECEIVING COPIES OF THE REPORT

Assistant Secretary of the Army (Civil Works)
 Assistant Secretary of the Army (Financial Management and
 Comptroller)
 Assistant Secretary of the Army (Installations, Logistics and
 Environment)
 Assistant Secretary of the Army (Manpower and Reserve Affairs)
 Assistant Secretary of the Army (Research, Development and
 Acquisition)
 General Counsel
 Director of the Army Staff
 The Inspector General
 Chief of Legislative Liaison
 Chief of Public Affairs
 Deputy Chief of Staff for Operations and Plans
 Deputy Chief of Staff for Personnel
 Deputy Chief of Staff for Logistics
 Assistant Chief of Staff for Installation Management
 Deputy Assistant Secretary of the Army for Budget
 Director of Management
 Director, Program Analysis and Evaluation
 Commanders
 U.S. Army Materiel Command
 U.S. Army Test and Evaluation Command
 U.S. Army White Sands Missile Range
 U.S. Army Redstone Technical Test Center
 U.S. Army Aviation Technical Test Center
 U.S. Army Operational Test and Evaluation Command
 U.S. Army Intelligence and Electronic Warfare Directorate
 U.S. Army Test and Experimentation Command
 Director, Center for Army Lessons Learned

 Comptroller, Department of Defense
 Inspector General, Department of Defense
 Director, Defense Intelligence Agency
 Auditors General
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