

Army Capacity Data

The Army Basing Study 2005

30 November 2004
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Director, The Army Basing Study Group

This is the report on our validation of Army capacity data. We performed the validation as part of our overall audit of the 2005 Army Basing Study. We will include the results of this effort in a summary report at the end of the study.

Because corrective actions were taken during the validation, we are making no recommendations, and the report is not subject to the command-reply process that Army Regulation 36-2 prescribes. However, you chose to comment and we have included your verbatim command comments in Annex D.

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

FOR THE AUDITOR GENERAL:

A handwritten signature in black ink that reads "David H. Branham".

DAVID H. BRANHAM
Program Director
Installations Studies

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INTRODUCTION

WHAT WE VALIDATED

The Director, The Army Basing Study Group asked that we evaluate the Army's process for collecting certified installation and leased facility capacity data as part of our audit support of The Army Basing Study 2005. We focused on determining whether:

- The Study Group had a sound process in place to collect certified capacity data and whether the data collected was adequately supported with appropriate evidentiary matter and accurate.
- Base Realignment and Closure (BRAC) 2005 management controls were in place and operating during the capacity data call.

We conducted our validation efforts at The Army Basing Study Group Office, at a third of the Army installations and leased facilities in the BRAC 2005 study inventory, and at Headquarters, DA (HQDA) activities. We also discussed our data validation results with key Army representatives from the Study Group and the six Joint Cross-Service Groups¹ and determined what actions the groups took to mitigate any potential risk from using unsupported, inaccurate, or inconsistent capacity data in their respective BRAC analyses.

RESULTS IN BRIEF

The Army Basing Study Group had a sound process for collecting certified capacity data. We reviewed the processes to collect certified capacity data and concluded that they worked as intended. In most cases, data was collected using the online data collection tool. Other data was collected from three Army corporate databases or by hardcopy submissions. Capacity data was collected, reviewed, and certified as accurate and complete when submitted to the Study Group. In turn, the Study Group submitted certified Army capacity data to the six Joint Cross-Service Groups. When either group subsequently determined that data needed correction, an adequate process was in place to review, recertify, and resubmit the data.

¹ The Study Group did not collect capacity data for a seventh group—the Intelligence Joint Cross-Service Group. Accordingly, we will report data validation results for that group to the Deputy Chief of Staff, G-2.

Our validation of capacity data at 33 Army installations and leased facilities showed that, in general, certified responses to capacity data call questions were adequately supported with appropriate evidentiary matter and were reasonably accurate, based on the criteria we applied to the responses included in our samples. (Details on the criteria are in Annex A, beginning on page 33). Specifically:

- Our validation showed that 1,570 of 1,812 responses from installations and leased facilities were adequately supported; 1,009 of 1,471 responses were accurate.
- We concluded that the 9,128 responses to questions that the 33 Army activities answered as “not applicable” were generally appropriate.

With few exceptions, Army activities were able to provide better documentation for the 242 responses that we identified as not adequately supported. In many cases, once adequate documentation was available, inaccurate answers were corrected. Overall, the significance of most inaccurate responses was minor in nature and the errors resulted from mathematical mistakes, inappropriate inclusions or omissions during compilation, wrong units of measure or time periods, and so on. The Army activities generally corrected these errors immediately and submitted recertified responses to the Study Group.

We also concluded that responses to 31 capacity questions were systematically problematic based on the frequency of inadequate support, inaccurate answers, or inconsistent responses. We discussed the potential risk of using the data from these responses in BRAC 2005 analyses with the Study Group or the Army representative on the applicable Joint Cross-Service Group. Both the Study Group and the representatives reported that they would not use some of the data, would ask new questions to replace some of the questions, would request clarification for some answers, and would gather additional data for some questions during scenario data development. These actions should help mitigate the potential risk of using inaccurate or inconsistent data responses in the groups’ analyses.

We also concluded that management controls for BRAC 2005 were in place and operating during the capacity data call. Only 1 of the 33 Army installations and leased facilities we visited did not fully comply with BRAC 2005 management controls. Installation personnel, in conjunction with the appropriate U.S. Army Installation Management Agency region

office, took corrective actions to fix the control weaknesses during the validation.

BACKGROUND

The Secretary of Defense initiated BRAC 2005 on 15 November 2002. The Secretary of the Army established the Deputy Assistant Secretary of the Army (Infrastructure Analysis) to lead the Army's efforts to support BRAC 2005. The Deputy Assistant Secretary directs The Army Basing Study Group, an ad hoc, chartered organization that serves as the Army's single point of contact for planning and executing the Army's responsibilities in the development of recommendations for BRAC 2005. The Study Group will:

- Assess the capacity and military value of Army installations.
- Evaluate BRAC alternatives.
- Develop recommendations for BRAC 2005 on behalf of The Secretary of the Army.

To accomplish this, the Study Group will obtain and analyze certified data from Army installations, industrial base sites, and leased facilities; Army corporate databases; and open source data. The Army's inventory included 88 installations and 11 leased facilities that met the BRAC 2005 threshold for study. For the capacity data call, the Study Group sent each installation a total of 552 questions:

- 548 questions were sent using an online data collection tool.
- Responses for four questions were pre-populated from Army databases.

The Study Group also sent selected questions to each leased facility and 16 questions to HQDA activities. A flowchart of the 2005 Army basing study process is in Annex B on page 37.

RESPONSIBILITIES

The Office of the Assistant Secretary of the Army (Installations and Environment) is responsible for policy development, program oversight, and coordination of Army activities related to Army installations; privatization of the Army's infrastructure; environmental programs; and safety and occupational health programs.

The Deputy Assistant Secretary of the Army for Infrastructure Analysis, who is under the Assistant Secretary of the Army (Installations and Environment), oversees The Army Basing Study Group. The Study Group is responsible for:

- Examining the issues surrounding the realignment and closure of Army installations within the 50 States, the District of Columbia, and U.S. Commonwealths, territories, and possessions.
- Making recommendations to The Secretary of the Army and Chief of Staff, Army concerning potential realignments and closures.
- Serving as the Army's single point of contact for BRAC 2005.
- Establishing processes to collect and certify data from Army installations, industrial base sites, and leased facilities, and establishing management controls over the Army Basing Study process.
- Reviewing certified responses and having Army activities make changes when corrections were needed.
- Providing applicable certified responses to the six Joint Cross-Service Groups and having Army activities revise responses when corrections were needed.

The Office of the Assistant Chief of Staff for Installation Management, who is the proponent of the Army Stationing and Installation Plan, Real Property Planning and Analysis System, and Installation Status Report, was responsible for signing and forwarding an overall certification statement to The Army Basing Study Office attesting that corporate database information received from the Installation Management Agency was certified.

Installation Management Agency, which has seven regions to manage Army installations and industrial bases sites, was responsible for regionally reviewing and certifying corporate database information received from installations and base sites. The agency was also responsible for:

- Providing a certification document for corporate database information to the Office of the Assistant Chief of Staff for Installation Management.
- Reviewing precertified capacity data collected through the online data collection tool, which contained a majority of the collected data for the BRAC 2005 process.

Major commands, such as U.S. Army Forces Command, U.S. Army Materiel Command, and U.S. Army Training and Doctrine Command, were responsible for reviewing precertified data collected through the online data collection tool.

Army installations, industrial base sites, and leased facilities were responsible for providing certified capacity data for the BRAC 2005 process. Army installations and industrial bases sites were responsible for:

- Collecting and reviewing data to answer questions received through the online data collection tool, precertifying responses, and making responses available for higher headquarters review. After the precertification review, the senior mission commander was responsible for certifying responses in the tool and submitting the certified responses to The Army Basing Study Office.
- Updating, reviewing, and certifying information in three Army corporate databases—Army Stationing and Installation Plan, Real Property Planning and Analysis System, and Installation Status Report—and forwarding a certification statement to the appropriate Installation Management Agency region office.
- Changing submitted responses when corrections were needed. Also, the senior mission commander was responsible for preparing a memorandum recertifying the response and resubmitting the information to The Army Basing Study Office.

Army leased facilities, such as U.S. Army Test and Evaluation Command and U.S. Army Human Resources Command, were responsible for:

- Answering questions received from The Army Basing Study Office using a hardcopy format.
- Making changes to submitted responses when corrections were needed.

The senior ranking official was responsible for preparing a memorandum certifying the responses, recertifying the responses when necessary, and forwarding the information to The Army Basing Study Office.

The six Joint Cross-Service Groups (Education and Training, Headquarters Support Activities, Industrial, Medical, Supply and Storage, and Technical) were responsible for using certified data from Army installations and leased facilities, as well as certified data from other Services and Defense agencies, to make recommendations to The Secretary of Defense concerning potential realignments and closures.

OBJECTIVES AND CONCLUSIONS

A – CERTIFIED CAPACITY DATA

OBJECTIVE

Did The Army Basing Study Group have a sound process in place to collect certified data and was the capacity data adequately supported with appropriate evidentiary matter and accurate?

CONCLUSION

Yes. The Army Basing Study Group had a sound process in place to collect certified data. Generally, capacity data was adequately supported and reasonably accurate based on the criteria we applied, although responses to certain questions frequently were not adequately supported, were inaccurate, or were inconsistent. However, the Study Group and the Joint Cross-Service Groups acted to mitigate potential risks associated with using data that may have been systemically problematic.

Our detailed discussion of these conditions starts on page 14. Because corrective actions were taken during the validation, we are making no recommendations.

BACKGROUND

The Army Basing Study Group requires certification of all data from Army installations, industrial base sites, and leased facilities; Army corporate databases; and open sources. In most cases, data was collected using the Army's online data collection tool, which was an automated tool developed for BRAC 2005 to collect data from Army installations. The Army's BRAC 2005 Internal Control Plan contains certification procedures to ensure that the information received is accurate and complete to the best of the certifiers' knowledge and belief.

The Army’s inventory included 88 installations and 11 leased facilities that met the BRAC 2005 threshold for study. For the capacity data call, the Study Group sent each installation a total of 552 questions: 548 questions were sent using an online data collection tool and 4 questions were pre-populated from Army databases. The Study Group also sent selected questions to each leased facility via spreadsheets. The Study Group and the six Joint Cross-Service Groups (excluding Intelligence) had an interest in certain questions, some the same and some different. Their interest was as follows:

Activity	Number of Questions
Army	311
Medical	29
Industrial	45
Supply and Storage Activities	57
Technical	68
Headquarters and Support Activities	127
Education and Training	118

In addition to the 552 questions sent to installations, HQDA activities answered 16 capacity data questions. During our validation efforts, we judgmentally selected and visited 31 installations and 2 leased facilities. We validated responses to a sample of the 552 questions at each installation we visited: 50 that we judgmentally selected and a random selection of the remaining 502 questions. We validated responses to all questions sent to the two leased facilities. In total, we reviewed the adequacy of support for 1,812 responses, the accuracy of 1,471 responses, and the appropriateness of 9,128 responses that were “not applicable.” We also validated responses to all 16 questions sent to HQDA. (More complete details about our scope of review are in Annex A beginning on page 33.)

DISCUSSION

In this section we discuss three areas:

- Process for collecting certified data.
- Validation of certified data.

- Review of data.

Process for Collecting Certified Data

The Study Group had a sound process in place to collect certified capacity data for the Army and six Joint Cross-Service Groups. The Study Group obtained data through three different methods:

- Corporate databases.
- Online data collection tool.
- Hardcopy submissions.

We reviewed these processes, which were outlined in the Army's Internal Control Plan. We concluded that the processes worked as intended and resulted in the submission of certified capacity data to the Study Group and, subsequently, the six Joint Cross-Service Groups.

Corporate Databases

The Study Group received certified capacity data for four questions from three corporate databases: the Army Stationing and Installation Plan, the Real Property Planning and Analysis System, and the Installation Status Report. Certification procedures were established to ensure that data was:

- Collected. Installation personnel made changes to the three corporate databases during the last annual editing cycle.
- Reviewed. Garrison commanders reviewed the content for accuracy, certified that the data was accurate and complete, and forwarded it to their appropriate U.S. Army Installation Management Agency region director.
- Certified. Installation Management Agency's region directors signed a certification document for all installations within their applicable region and forwarded the package of certification statements to the agency's headquarters. Headquarters personnel forwarded all packages of certification statements to the Assistant Chief of Staff for Installation Management, who signed an overall

certification document certifying receipt of certified data and forwarded all documents to the Study Group.

We reviewed the responses to the 4 questions pre-populated with corporate database information at 31 of the 88 installations and industrial base sites during our validation of certified capacity data. We discuss the results in the next section of this report, entitled “Validation of Certified Data,” which begins on page 18.

Online Data Collection Tool

For 548 questions, the Study Group and six Joint Cross-Service Groups received certified capacity data pertaining to garrison and mission areas of the installations and industrial base sites under study through the Army’s online data collection tool. Certification procedures were established to ensure that data was:

- Collected. Installation and industrial base site personnel answered questions assigned to them by the installation administrator.
- Reviewed. Garrison or industrial base site commanders and senior mission commanders reviewed the content for accuracy, pre-certified the data, and made it available for major command review—that is, by the major subordinate command, major command (mission), or Installation Management Agency regions.
- Certified. At the end of the review period, the senior mission commander certified the responses in the data collection tool.

During our validation of certified capacity data, we reviewed the responses to judgmentally and randomly selected questions sent to 31 of the 88 installations and industrial base sites through the tool. We discuss the results of this review in the section entitled “Validation of Certified Data.”

Hardcopy Submissions

The Study Group received certified capacity data through hardcopy submissions when it was impractical to collect the information through the data collection tool (such as at leased facilities). Certification procedures were established to ensure that data was:

- Collected. All activities answered questions assigned to them by the Study Group or the activity's trusted agent. Activities received questions via e-mail containing a spreadsheet or a memorandum requesting specific information.
- Certified. Once data collection was completed, a senior ranking official at the activity signed a certification document, attached a hardcopy of the questions and answers, and forwarded the package by certified mail to the Study Group.

The review process for hardcopy data call submissions was not applicable to major commands or Installation Management Agency regions because information was collected from an HQDA activity. We reviewed all the responses to questions sent via hardcopy to 2 of the 11 leased facilities plus HQDA. We discuss the results in this review in the next section of the report.

In addition, hardcopy submissions were used to collect, review, recertify, and resubmit data when it was determined that data needed correction. Regardless of the source of the required change, the activities verified and agreed to the changes, prepared a memorandum with the senior ranking official's signature certifying the data, and forwarded the changes to The Army Basing Study Group, which forwarded the changes to the applicable Joint Cross-Service Group, if necessary. (We plan to verify that required changes were processed into the data warehouse during our audit of the Study Group's process and controls.)

Review of Data Call Process

The three methods worked as intended and resulted in the submission of certified capacity data to the Study Group and six Joint Cross-Service Groups.

Although the Study Group developed these processes, we reviewed them to ensure that they were sound and in accordance with DOD guidance. We also coordinated the Army's process with the U.S. Government Accountability Office, which is required to submit a report to Congress and the Defense Base Closure and Realignment Commission containing a detailed analysis of DOD's recommendations and selection process shortly after BRAC 2005 recommendations are provided to the Commission. The office reviewed the process and agreed it should result in certified data.

At the conclusion of the capacity data call, we visited 33 judgmentally selected installations and leased facilities to validate data for the adequacy of supporting evidentiary matter and accuracy. The sites we visited had certified the data provided to the Study Group and six Joint Cross-Service Groups, whether it was submitted through the corporate databases, the online data collection tool, or in hardcopy form. We also found no instances where the collection process for capacity data resulted in any information not being certified from installations, leased facilities, HQDA, or any other source of information. Consequently, we concluded that the Study Group had a sound process for collecting certified capacity data.

Validation of Certified Data

The Study Group collected certified capacity data that was generally adequately supported with appropriate evidentiary matter and was accurate based on the criteria we applied. We found that the “not applicable” responses provided for 9,128 capacity questions were appropriate; 1,570 of the 1,812 responses were adequately supported with appropriate evidentiary matter; and 1,009 of the 1,471 responses were accurate. In addition, we determined that all 16 responses for the HQDA questions were adequately supported and 13 of 16 responses were accurate. The 242 responses were not adequately supported primarily because:

- Army activities submitted answers that differed from supporting evidence.
- Functional responders provided estimates, but did not gather or keep any evidence to support their answers.

The 465 responses were not accurate primarily because Army activities:

- Excluded or inappropriately included data and attributes needed to correctly answer the questions.
- Used undocumented estimating methods that we could not use to replicate certified answers.
- Made mathematical errors.

The Army activities we visited satisfactorily corrected most of the problems we identified with supporting documentation. In many cases, inaccurate answers were corrected once adequate documentation was available. Activities corrected answers that were not accurate, recertified them, and resubmitted the responses to the Study Group, which in turn provided the corrected and recertified responses to the Joint Cross-Service Groups, as necessary.

Here’s a breakdown of the number of certified responses we reviewed at the Army installations and leased facilities we visited that the Army and the six Joint Cross-Service Groups had an interest in:

Group	Reviewed for Adequacy	Adequate	Reviewed for Accuracy	Accurate
Army	1,060	936	850	610
Industrial	173	152	160	115
Supply and Storage Activities	363	285	317	186
Education and Training	344	301	296	206
Technical	183	164	169	115
Headquarters and Support Activities	553	481	464	310
Medical	209	194	185	144

Review of Data

Responses to 30 judgmentally and 1 randomly selected questions were frequently inadequately supported and/or inaccurate at more than 3 of the 33 Army installations and leased facilities we visited. Also, some Army activities may not have consistently interpreted and answered some of these questions in accordance with guidance for question amplification and clarification. Here’s a breakdown of the 31 questions with their interest by group (some groups had an interest in the same questions):

Group	Inadequate	Inaccurate*	Potentially Misinterpreted**
Army	8	19	0
Industrial	2	5	2
Supply and Storage Activities	8	10	7
Education and Training	4	9	5
Technical	1	5	1
Headquarters and Support Activities	4	14	8
Medical	2	4	1

* Includes the questions that were inadequate more than three times.

** Includes the questions that were inadequate and/or inaccurate more than three times.

We did not identify any systemic data issues with the HQDA questions. The three inaccurate responses we identified were corrected and changes were forwarded to the Study Group and appropriate Joint Cross-Service Groups. However, during our validation efforts we also noted that certain installations had a higher frequency of responses that were inadequately supported or inaccurate. For example, based on the criteria we used to assess accuracy, seven installations and leased facilities answered more questions inaccurately than accurately:

Activities	Sample	Accurate
A	17	6
B	50	20
C	51	19
D	26	12
E	31	15
F	59	29
G	50	24

In our opinion, the Army and six Joint Cross-Service Groups would have assumed a higher degree of risk if they used in their analyses Army responses that were frequently inaccurate, or responses to questions that Army activities did not consistently answer. We discussed the potential risk with members of The Army Basing Study Office and the six Joint Cross-Service Groups to determine what—if any—actions the Army and the groups needed to take for the questions we identified with systemic data problems. We also reviewed the inaccuracies we identified at the top five installations shown in the chart to determine whether the magnitude of the errors was significant.

We did not identify any systemic data issues that would pose a potential risk to the BRAC process. Various actions taken by the Study Group

and six Joint Cross-Service Groups should help mitigate the potential risk of using inaccurate or inconsistent data responses in their analyses.

The Army Basing Study Office

We concluded that responses to 19 judgmentally selected questions the Army was interested in frequently were not accurate at the 33 installations and leased facilities we visited. We discussed the potential risk of using the data for the Study Group's analysis. The Study Group responded that it:

- Would not use data in responses to 15 questions (nos. 11, 19, 20, 22, 31, 98, 99, 100, 304, 307, 324, 327, 341, 486, and 487).
- Requested clarification from Army installations for one question (no. 30).
- Would not use data in responses to two questions (nos. 343 and 635) and replaced it with more reliable data from other questions.
- Reissued one question (no. 157) to obtain more accurate data.

We believe these actions acknowledged the potential risk and should help mitigate the risk of using inaccurate responses in the Army's analyses.

Joint Cross Service Groups

More specific information on the results of our validation of data each Joint Cross-Service Group was interested in, as well as the groups' actions to mitigate potential risk associated with using the data, is in the Joint Cross-Service Group summary reports. A list of the reports is in Annex C, beginning on page 38.

For the questions the Joint Cross-Service Groups were interested in, we concluded that responses to 31 questions were potentially risky to use in analyses. The groups responded that they:

- Requested clarification from Army installations for some questions.

- Would ask new questions in supplemental data calls to replace some questions.
- Would not use data for some questions.
- Would gather additional data for some questions during scenario development.

For a few questions, two Joint Cross-Service Groups still plan to use the data because no other source of data is available to cross-check responses for accuracy.

We concluded that the Joint Cross-Service Groups' actions acknowledged the potential risk and should help mitigate the risk of using inaccurate or inconsistent responses in the analyses by the six groups.

Installations

Our review of five of the seven installations with the highest frequency of inaccurate responses showed that the magnitude of the errors was not significant enough to pose potential risks in the BRAC 2005 analytical process. The installations corrected all the inaccuracies we identified. Here are the numbers of inaccuracies that we concluded were immaterial at the five installations:

Installation	Inaccurate	Immaterial
B	30	26
C	32	24
D	14	9
E	16	14
F	30	22

Other actions the Study Group and six Joint Cross-Service Groups took to mitigate risk should result in better data from the Army installations and leased facilities. Specifically:

- The Army Basing Study Office and all six Joint Cross-Service Groups requested data clarification from specific Army installations when questions appeared inaccurate or inconsistent. From June to September 2004, the office and groups sent Army installations more than 4,400 requests to clarify data.

- All six Joint Cross-Service Groups issued additional questions in supplemental data calls when it was determined that certain questions were inappropriately worded, responses were inconsistent and inaccurate, or additional data was needed. In total, the groups asked 277 questions in supplemental data calls for capacity information.

Further, The Army Basing Study Office issued guidance multiple times during the capacity data call reminding installations to maintain supporting evidence for responses to data call questions. The office also issued guidance instructing installations and leased facilities to maintain supporting documentation. One message stated that each installation administrator was responsible for ensuring that adequate documentation existed and was available upon request. The message also stated that documentation should be:

- Marked adequately (referencing the DOD question number).
- Secured in a known location (not in someone's desk drawer or personal computer files) and complete (supported the response).

B – MANAGEMENT CONTROLS

OBJECTIVE

Were Base Realignment and Closure 2005 management controls in place and operating during the capacity data call?

CONCLUSION

Generally, yes. Management controls for BRAC 2005 were generally in place and operating for the capacity data call.

During a previous review, we concluded that the online data collection tool had process controls that should minimize the risk of processing corrupted data. Although we found two problems during the Study Group's actual use of the tool during the data call, the problems were immaterial to the analytical process because they did not affect the data collected. In addition, our review at the Army activities where we validated capacity data showed that appropriate management controls were in place and operating relative to:

- Certification of data and the use of government e-mail for requests by the Study Group and responses by Army activities.
- Completion of nondisclosure agreements and compliance with DOD public affairs guidance.

Although we found one instance where a specific Army installation did not comply with the management controls established for BRAC 2005, the installation and its major command took corrective action to fix the control weaknesses.

Our detailed discussion of these conditions starts on page 26. We are making no recommendations.

BACKGROUND

Review of the Army's Online Data Collection Tool

In June 2003 The Army Basing Study Group awarded a contract to develop an online data collection tool. The Study Group used this tool to obtain certified data from Army installations and industrial base sites for its analysis and for the six Joint Cross-Service Groups (excluding Intelligence) to use. Data collected in the tool was stored in a data warehouse where it is available for analysis.

From October to December 2003, we performed a limited scope review of the data collection tool (Audit Report: A-2004-0184-IMT, 20 February 2004, Review of Online Data Collection Tool: Process Controls) to determine whether the tool has controls that minimize the risk of processing corrupted data. We limited the scope of the review based on the Study Group's planned use of the tool (data collected will pass through the tool to a data warehouse) and our plans to review subsequent samples of collected data to verify that the data is supported and accurate. We concluded that the tool has process controls that should minimize the risk of processing corrupted data. Specifically:

- Access controls prevented unauthorized users from logging in and required authorized users to sign nondisclosure agreements.
- Data entry and submission controls prevented users from submitting answers to questions without citing sources, submitting text answers for questions that require numeric answers, and changing answers after submission without including reasons why the answers were changed.

The data collection tool did allow responders to submit blank answers to questions by using the space bar, and they could enter numeric data for questions that require text answers. In addition, data review and certification controls prevented:

- Senior managers from reviewing answers before precertification by garrison commanders.
- Major command or Installation Management Agency region personnel from using the tool to change answers during the open review period before certification by senior mission commanders.

We suggested that the Study Group:

- Instruct installations to review answers before certification to make sure all questions are answered and text answers do not include numeric data.
- Review all data received from installations to ensure that questions are answered and answers are in the appropriate format. The Study Group should follow up with installations to obtain corrected data as necessary.

The Study Group agreed to implement our suggested actions by issuing guidance to the field and reviewing the certified data upon receipt.

Army's Internal Control Plan

The Study Group also established controls in the Army Internal Control Plan consistent with the DOD Internal Control Plan. These included controls for the organization, information, communication, and stakeholder and congressional relations and interactions. Some specific examples related to Army activities included management controls for certification of data, use of government e-mail, completion of nondisclosure agreements, and compliance with DOD public affairs guidance.

DISCUSSION

In this section we discuss two areas:

- Process controls in the data collection tool.
- Controls at Army activities.

Process Controls in the Data Collection Tool

The data collection tool the Study Group used to collect data from installations and industrial base sites had process controls that minimized the risk of processing corrupted data. During our prior review, we concluded that the tool had controls for access, data entry, and submission, and for

data review and certification. We gave the Study Group two suggested actions, which it agreed to implement, to ensure the maximum integrity of the data.

During our validation effort we determined that the Study Group implemented our suggested actions by providing instructions to installations on a weekly basis and by periodically reviewing the data before and after certification. For example, the Study Group instructed installations:

- Not to leave responses to questions blank if they could not answer them 100 percent accurately. Instead, the Study Group advised the installations to answer the questions using the best possible data and to document the methodology used to explain how and why they arrived at the answer.
- To answer “not applicable” questions with an “N/A” instead of a “0” or “no.”

Although the Study Group implemented our suggested actions, we found two problems involving the correction of certified data and “not applicable” responses during the Study Group’s actual use of the tool during the capacity data call. However, the problems were immaterial to the analytical process because they did not affect the data collected.

Corrections to Certified Data

To correct certified data in the data collection tool, the database manager at the Study Group had to “decertify” the response, then change it to the correct answer. The response appeared as if it was not certified in the tool even though it was. If an installation did not have information in the Army databases to pre-populate one of the four questions, the answer appeared as a blank in the tool. Consequently, when the database manager queried the tool for the number of questions answered and the number of questions that were “not applicable,” the numbers sometimes did not add up to 552—the combined number of questions sent to the installations and pre-populated from Army databases.

Not Applicable Responses

If an installation did not identify a question as “not applicable” but instead typed in the phrase “not applicable” (or a zero if the question required a numeric answer) in the answer cell, the question appeared as

answered, not as “not applicable.” Consequently, when the database manager queried the data collection tool for the number of questions answered and the number of questions that were “not applicable” for each installation, the numbers may have been incorrect.

Effect on the Process

We concluded that the problems involving the corrections to data and “not applicable” responses to be immaterial to the analytical process. The problems did not have any effect on the:

- Status of the data in the data warehouse.
- Ability to use the data for analysis.

However, if the data collection tool were used after BRAC 2005, it could pose problems for the users. Consequently, we asked the Study Group if the Army had any planned uses for the tool after BRAC 2005, and it responded that the tool would be scrapped after the process. Although no further action is necessary regarding the problems we identified with the tool, we plan to review the effect of the tool’s use after the military value data call to ensure that it does not affect the data in the warehouse or the usefulness of the data for analysis.

Controls at Army Activities

BRAC 2005 management controls were in place and operating at Army installations, industrial base sites, and leased facilities. At the 33 sites we visited during our validation, we determined that:

- Senior mission commanders provided a signed statement to the Director, The Army Basing Study Group certifying that information the installations gave the Study Group was accurate and complete to the best of their knowledge and belief.
- Requests sent by the Study Group to Army activities were transmitted through official government e-mail.
- Responses by Army activities were transmitted to the Study Group through official government e-mail.

- Personnel assigned to or connected with the BRAC 2005 process signed nondisclosure agreements.
- Army activities followed DOD public affairs guidance if they received requests for information from organizations outside the Army.

However, we found one instance where one Army installation did not comply with the management controls established for BRAC 2005. Specifically, the installation did not have some employees who submitted data call responses sign nondisclosure agreements, and the installation administrator received BRAC-related e-mail through nongovernment e-mail. The auditors notified the Installation Management Agency region office of the noncompliance. The region office and the installation took corrective action to fix the control weaknesses.

Therefore we concluded that BRAC 2005 management controls were in place and operating at installations relative to:

- Certification of data.
- Use of government e-mail for requests by the Study Group and responses by installations and leased facilities.
- Completion of nondisclosure agreements.
- Compliance with DOD public affairs guidance.

ANNEXES

SCOPE AND METHODOLOGY

We conducted our validation:

- From April through September 2004.
- In accordance with generally accepted government auditing standards, which include criteria on the adequacy and appropriateness of evidentiary matter, accuracy, and management controls.

We conducted our validation efforts at The Army Basing Study Group Office, 33 judgmentally selected Army installations and leased facilities, and HQDA. We also spoke with key Army representatives from the Study Group and six Joint Cross-Service Groups (excluding the Intelligence Group) that will use the data for BRAC analyses. The six groups were Education and Training, Headquarters and Support Activities, Industrial, Medical, Supply and Storage, and Technical.

We judgmentally selected the sites for the capacity data call based on guidance from the U.S. Government Accountability Office and the Office of the Inspector General, DOD, who wanted to ensure that we provided adequate coverage for the Army and each of the six Joint Cross-Service Groups. We judgmentally selected 31 Army installations and 2 leased facilities from the Army's inventory of 99 Army activities (88 installations and 11 leased facilities) that met the BRAC 2005 threshold for study. We selected activities using the following criteria:

- At least one-third of Army installations and leased facilities with representation from each U.S. Army Installation Management Agency region, each major command, and types of installations (such as depots, arsenals, ammunition plants, leases).
- All Army activities with representation by four or more Joint Cross-Service Groups—based on input from the Study Group and Joint Cross-Service Groups at the beginning of the BRAC 2005 process.
- About 50 percent of Army activities with representation by three Joint Cross-Service Groups and about 25 percent of Army activities with representation by two or less Joint Cross-Service Groups—based on input from the Study Group and Joint Cross-Service Groups at the beginning of the BRAC 2005 process.

For the capacity data call, the Study Group sent each installation a total of 552 questions: 548 questions to answer and 4 questions pre-populated from Army databases. The Study Group sent selected questions to each leased facility. For the 31 Army installations, we judgmentally selected 50 questions to test at all sites, if answered, based on these criteria:

- Interest from the Army and the six Joint Cross-Service Groups. (We selected questions that were of interest to more than one user and also questions that were of interest to only one user.)
- Joint Action Scenario Team, which will assist the Military Departments in assessing installations regarding joint basing scenarios and interest.
- Questions that were answered with pre-populated information from corporate databases.

We also selected questions that were related to buildable acres, military construction and capacity, and military value analysis. We randomly selected from the remaining 502 questions to ensure that our sample included at least 50 questions or 20 percent of the answers, whichever was greater. We also selected for review all the questions that the installations answered “not applicable,” all questions that the 2 leased facilities answered, and all 16 questions for HQDA activities.

We assessed the accuracy of installation answers using these specific criteria:

- For questions with a single answer and minimal support requirements, we did not allow any margin for error except for answers reporting square footage.
- For questions with answers involving square footage, we defined significant errors as greater than 10 percent.
- For questions with multiple answers and single answers with voluminous supporting documentation, we allowed errors up to 25 percent in the samples we reviewed, provided the errors were not significant (determined by auditor judgment except for answers reporting square footage).

We did not rely on computer-generated data to validate responses from Army corporate databases, but instead validated the accuracy of the data by comparison with installation source documents or physical attributes.

When practicable, we also validated installation responses from other databases in the same manner. For all other responses, we worked with the installation administrators to obtain the evidence needed to answer our objectives.

To determine if the Study Group had a sound process in place to collect certified data and the responses to capacity data call questions they collected were adequately supported with appropriate evidentiary matter and accurate, we:

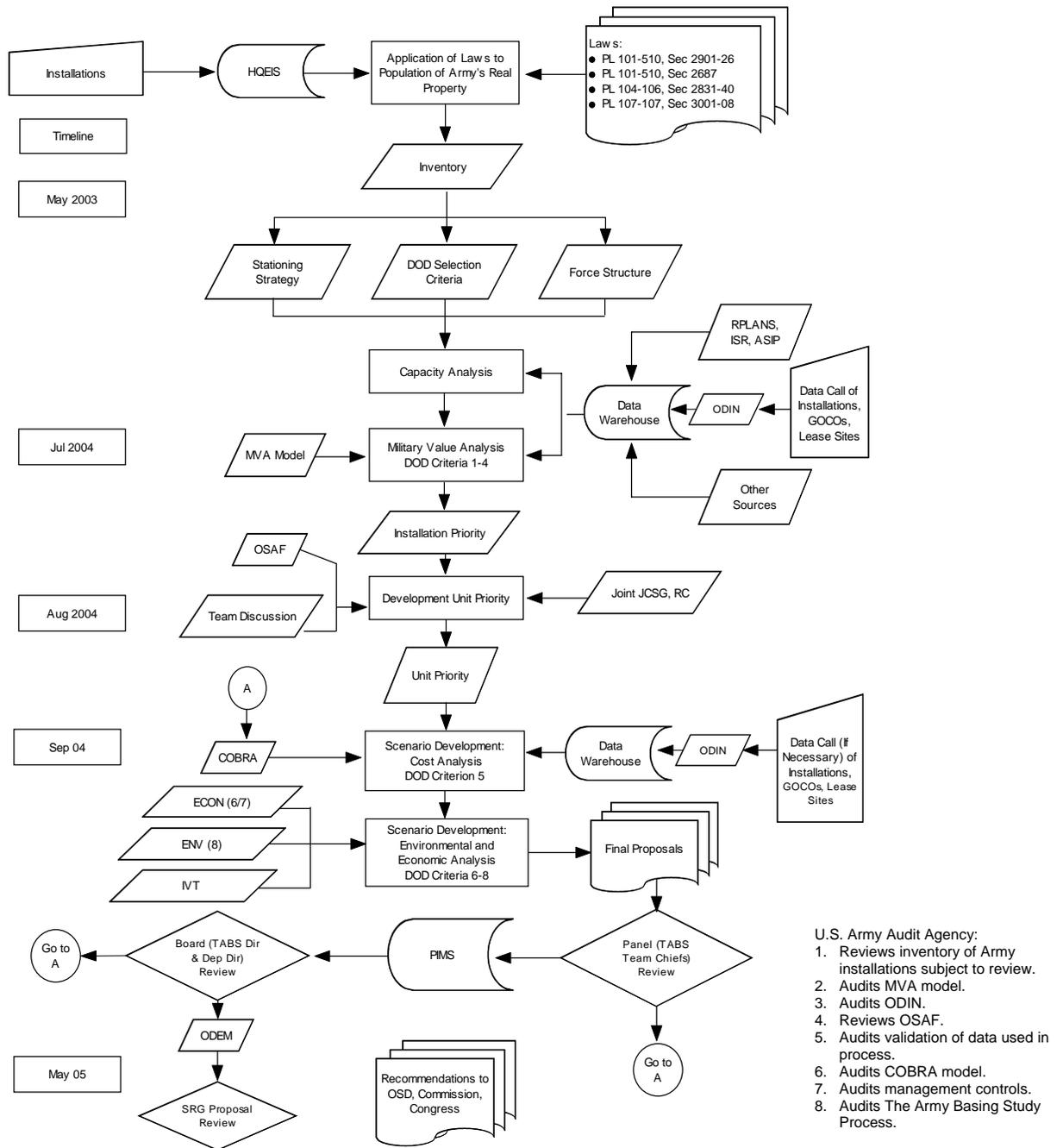
- Reviewed the Army’s Internal Control Plan for BRAC 2005 and identified and reviewed the processes—corporate databases, online data collection tool, and hardcopy submission—to collect, review, and certify data.
- Coordinated with the Government Accountability Office.
- Visited 33 Army activities and tested 1,812 of 8,022 total responses for adequacy of support and 1,471 responses for accuracy. We also reviewed all 9,128 responses to questions the 33 Army activities answered as “not applicable” to determine if those answers were appropriate.
- Visited HQDA and tested all responses to 16 questions for adequacy of support and accuracy.
- Reviewed responses that were frequently inadequately supported, inaccurate, or inconsistent at more than three of the Army activities we visited and evaluated the magnitude of the errors.
- Evaluated actions taken by the Study Group and Joint Cross-Service Groups to mitigate the potential risk of using inaccurate and inconsistent data in analyses.
- Reviewed responses for five of the seven Army activities in our sample with the highest frequency of inaccurate responses and evaluated the magnitude of the errors.

To determine if BRAC 2005 management controls were in place and operating for the capacity data call, we reviewed actions the Study Group took to implement suggested actions from a prior audit report. We also evaluated the installations’ compliance with the BRAC 2005 Internal Control Plan by testing controls for:

- Certification of data by the senior mission commander.

- Use of official government e-mail.
- Completion of nondisclosure agreements.
- Compliance with DOD public affairs guidance.

FLOWCHART OF BRAC 2005 STUDY PROCESS



Acronyms and Abbreviations Used:

ASIP = Army Stationing and Installation Plan
 COBRA = Cost of Base Realignment Action Model
 ECON = Economic Model
 ENV = Environmental Model
 GOCO = Government-Owned, Contractor-Operated
 HQEIS = Headquarters Executive Information System

ISR = Installation Status Report
 IVT = Installation Visualization Tool
 JCSCG = Joint Cross-Service Group
 MVA = Military Value Analyzer Model
 ODEM = Option Determination and Evaluation Model
 ODIN = Online Data Interface Collection

OSAF = Optimal Stationing of Army Forces
 OSD = Office of the Secretary of Defense
 PIMS = Proposal Information Management System
 PL = Public Law
 RC = Reserve Components
 RPLANS = Real Property Planning and Analysis System
 SRG = Senior Review Group

RELATED AUDIT REPORTS

Site	Report Number	Date
Review of Online Data Collection Tool: Process Controls	A-2004-0184-IMT	20 Feb 04
Headquarters, Army Test and Evaluation Command	A-2004-0360-IMT	28 Jun 04
Schofield Barracks	A-2004-0366-IMT	29 Jun 04
Fort McCoy	A-2004-0376-IMT	29 Jun 04
Aberdeen Proving Ground	A-2004-0377-IMT	29 Jun 04
Fort Shafter	A-2004-0379-IMT	29 Jun 04
Tripler Army Medical Center	A-2004-0380-IMT	29 Jun 04
Tobyhanna Army Depot	A-2004-0381-IMT	30 Jun 04
Corpus Christi Army Depot	A-2004-0383-IMT	30 Jun 04
Picatinny Arsenal	A-2004-0384-IMT	30 Jun 04
Fort Drum	A-2004-0385-IMT	30 Jun 04
Detroit Arsenal	A-2004-0386-IMT	30 Jun 04
Fort Eustis	A-2004-0391-IMT	12 Jul 04
Fort Gordon	A-2004-0392-IMT	12 Jul 04
Fort Campbell	A-2004-0393-IMT	12 Jul 04
Fort Lee	A-2004-0396-IMT	13 Jul 04
Fort Bragg	A-2004-0397-IMT	13 Jul 04
Blue Grass Army Depot	A-2004-0398-IMT	13 Jul 04
Fort Stewart/Hunter Army Airfield	A-2004-0399-IMT	13 Jul 04
Lima Army Tank Plant	A-2004-0402-IMT	15 Jul 04
Redstone Arsenal	A-2004-0404-IMT	16 Jul 04
McAlester Army Ammunition Plant	A-2004-0405-IMT	19 Jul 04
Red River Army Depot	A-2004-0406-IMT	19 Jul 04
Fort Hood	A-2004-0407-IMT	20 Jul 04
Anniston Army Depot	A-2004-0411-IMT	20 Jul 04
Headquarters, Human Resources Center	A-2004-0412-IMT	20 Jul 04
Fort Lewis	A-2004-0413-IMT	20 Jul 04
Fort Huachuca	A-2004-0415-IMT	20 Jul 04
Radford Army Ammunition Plant	A-2004-0418-IMT	21 Jul 04
Fort Rucker	A-2004-0419-IMT	23 Jul 04
Fort Benning	A-2004-0420-IMT	23 Jul 04
Fort Sam Houston	A-2004-0421-IMT	22 Jul 04
Fort Bliss	A-2004-0422-IMT	26 Jul 04
Fort Belvoir	A-2004-0425-IMT	27 Jul 04
Medical Joint Cross-Service Group	A-2004-0441-IMT	5 Aug 04
Supply and Storage Activity Joint Cross-Service Group	A-2004-0453-IMT	16 Aug 04
Education and Training Joint Cross-Service Group	A-2004-0456-IMT	17 Aug 04
Industrial Joint Cross-Service Group	A-2004-0459-IMT	24 Aug 04
Technical Joint Cross-Service Group	A-2004-0476-IMT	30 Aug 04
Headquarters and Support Activities Joint Cross-Service Group	A-2004-0484-IMT	2 Sep 04

VERBATIM COMMENTS BY COMMAND



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY ASSISTANT SECRETARY OF THE ARMY
(INFRASTRUCTURE ANALYSIS)
1400 KEY BLVD
ARLINGTON, VA 22209

SAIE-IA

9 November 2004

MEMORANDUM FOR Office of the Deputy Auditor General, Acquisition and Logistics
Audits, 3101 Park Center Drive, Alexandria, VA 22303-1596

SUBJECT: Draft Audit of the Army Capacity Data

1. Reference: Audit Report A-2004-XXX-ALT, Army Capacity Data, The Army Basing Study 2005, October 2005.
2. We concur with the audit report in its entirety and consider the report to be accurate and factual.
3. POC for capacity data is Mr. Larry Wright. He can be reached at larry.wright@hqda.army.mil, or by telephone (703) 696-9588, DSN 426-9588.

Craig E. College
Deputy Assistant Secretary of the Army
Infrastructure Analysis

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OTHERS RECEIVING COPIES OF THIS REPORT

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Auditor General, Air Force Audit Agency
Auditor General, Naval Audit Service
Comptroller General, U.S. Government Accountability Office

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