
June 6, 2005



Defense Infrastructure

Supply and Storage Joint Cross-
Service Group Data Integrity and
Internal Control Processes for Base
Realignment and Closure 2005
(D-2005-081)

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Acronyms

BRAC	Base Realignment and Closure
COBRA	Cost of Base Realignment Actions
DoD OIG	Department of Defense Office of Inspector General
ICP	Internal Control Plan
IEC	Infrastructure Executive Council
ISG	Infrastructure Steering Group
JCSG	Joint Cross-Service Group
JPAT 7	Joint Process Action Team Criterion Number 7
NDA	Non-Disclosure Agreement
OSD	Office of the Secretary of Defense
SOP	Standard Operating Procedure
S&S JCSG	Supply and Storage Joint Cross-Service Group



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

June 6, 2005

MEMORANDUM FOR CHAIR, SUPPLY AND STORAGE JOINT CROSS-SERVICE
GROUP

SUBJECT: Report on Supply and Storage Joint Cross-Service Group Data Integrity and
Internal Control Processes for Base Realignment and Closure 2005 (Report
No. D-2005-081)

We are providing this report for information and use. The Supply and Storage
Joint Cross-Service Group provided comments. We considered management comments
on the draft of this report in preparing the final report. The complete text of the
comments is in the Management Comments section of the report.

Comments on the draft of this report conformed to the requirements of DoD
Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are
required.

We appreciate the courtesies extended to the staff. Questions should be directed
to Mr. Thomas S. Bartoszek at (703) 604-9619 (DSN 664-9619) or Ms. Nancee K.
Needham at (703) 604-9633 (DSN 664-9633). See Appendix E for the report
distribution. The team members are listed inside the back cover.

By direction of the Deputy Inspector General for Auditing:

A handwritten signature in black ink, appearing to read "Robert F. Prinzbach, II".

Robert F. Prinzbach, II
Acting Assistant Inspector General
for Readiness and Logistics Support

Department of Defense Office of Inspector General

Report No. D-2005-081

June 6, 2005

(Project No. D2003-D000LD-0133.000)

Supply and Storage Joint Cross-Service Group Data Integrity and Internal Control Processes for Base Realignment and Closure 2005

Executive Summary

Who Should Read This Report and Why? Members of the Supply and Storage Joint Cross-Service Group, Office of the Secretary of Defense personnel, and anyone interested in the Base Realignment and Closure (BRAC) process should read this report. The report discusses the validity, integrity, and documentation of data used by the Supply and Storage Joint Cross-Service Group for BRAC 2005.

Background. BRAC 2005 is the formal process outlined in Public Law 101-510, "Defense Base Closure and Realignment Act of 1990," as amended, under which the Secretary of Defense may realign or close military installations inside the United States and its territories. As part of BRAC 2005, the Under Secretary of Defense for Acquisition, Technology, and Logistics issued "Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum One—Policy, Responsibilities, and Procedures," April 16, 2003, requesting that the Department of Defense Office of Inspector General review the accuracy of BRAC data and the certification process. In addition, the Department of Defense Office of Inspector General was responsible for validating that the BRAC data the Joint Cross-Service Groups used for developing recommendations was certified by the appropriate authority.

The BRAC 2005 process was mandated for the United States and its territories and was divided into the following data calls—capacity analysis, supplemental capacity, military value, Cost of Base Realignment Actions, Joint Process Action Team Criterion Number 7, and scenario specific. The supplemental capacity, military value, Cost of Base Realignment Actions, and Joint Process Action Team Criterion Number 7 data calls were collectively known as the second data call. This report is one of seven that discusses the Joint Cross-Service Group involvement in the Base Realignment and Closure process and discusses the Supply and Storage Joint Cross-Service Group.

Supply and Storage Joint Cross-Service Group. The Supply and Storage Joint Cross-Service Group is one of seven Joint Cross-Service Groups and was established by the Under Secretary of Defense for Acquisition, Technology, and Logistics as the Chairman of the Infrastructure Steering Group on March 15, 2003. The Supply and Storage Joint Cross-Service Groups senior members include representatives from the: Army, Navy, Air Force, Marine Corps, Joint Staff, and Defense Logistics Agency. Each Joint Cross-Service Group was responsible for overseeing the joint cross-service analysis of functions within their area. The Supply and Storage Joint Cross-Service Group was responsible for the following areas: fuel, rations, clothing and textiles, repair parts, medical supplies, end-items, construction material, troop support materiel, and test, measurement, and diagnostic equipment.

Results. We evaluated the Supply and Storage Joint Cross-Service Group's use of certified data and whether the Supply and Storage Joint Cross-Service Group had an adequate audit trail for capacity analysis and military value analysis. We evaluated the adequacy of the Supply and Storage Joint Cross-Service Group's audit trail for the input into the Cost of Base Realignment Actions model. The sampling results indicated that the Supply and Storage Joint Cross-Service Group used certified data and had an adequate audit trail for capacity analysis and military value analysis. The Supply and Storage Joint Cross-Service Group also had an adequate audit trail for the input into the Cost of Base Realignment Actions model. In addition, the Supply and Storage Joint Cross-Service Group generally complied with established internal controls from the Office of the Secretary of Defense Internal Control Plan and the Supply and Storage Joint Cross-Service Group standard operating procedures. On completion of our review, no material discrepancies or noncompliance areas remain that affect the reliability and integrity of the Supply and Storage Joint Cross-Service Group process.

Management Comments. Although no comments were required, the Chairman, Supply and Storage Joint Cross-Service Group, concurred with the Finding and stated that their data integrity, analysis, and administrative controls benefited as a result of the review. See the Finding section of the report for a discussion of the management comments and the Management Comments section for the complete text of the comments.

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Background

Base Realignment and Closure 2005. Public Law 101-510, “Defense Base Closure and Realignment Act of 1990,” as amended, established the procedures under which the Secretary of Defense may realign or close military installations inside the United States and its territories. Congress authorized a Base Realignment and Closure (BRAC) 2005.

The law authorized the establishment of an independent Commission to review the Secretary of Defense recommendations for realigning and closing military installations. The deadline for the Secretary of Defense to submit recommendations to the independent Commission was May 16, 2005.

In the Secretary of Defense “Transformation Through Base Realignment and Closure (BRAC 2005) Memorandum,” November 15, 2002, the Secretary established two senior groups to oversee and operate the BRAC 2005 process. The two senior groups were the Infrastructure Executive Council (IEC) and the Infrastructure Steering Group (ISG). Distinct functional boundaries and levels of authority separate the two groups. The Secretary of Defense established and chartered the IEC and the ISG as the BRAC 2005 deliberative bodies responsible for leadership, direction, and guidance.

Infrastructure Executive Council. The IEC, chaired by the Deputy Secretary of Defense and composed of the Secretaries of the Military Departments and their Chiefs of Services, the Chairman of the Joint Chiefs of Staff, and the Under Secretary of Defense for Acquisition, Technology and Logistics, was the policy-making and oversight body for the entire BRAC 2005 process. The IEC was the approval authority for all BRAC recommendations to the Secretary of Defense.

Infrastructure Steering Group. The ISG, chaired by the Under Secretary of Defense for Acquisition, Technology, and Logistics, was composed of the Vice Chairman of the Joint Chiefs of Staff, the Military Department Assistant Secretaries for installations and environment, the Service Vice Chiefs, and the Deputy Under Secretary of Defense for Installations and Environment. The ISG oversaw the joint cross-service analyses of common business-oriented functions and ensured that process was integrated with the Military Department and Defense agency specific analyses of all other functions. The ISG provided progress reports to the IEC. The Under Secretary of Defense for Acquisition, Technology, and Logistics had the authority and responsibility for issuing the operating policies and detailed direction necessary to conduct the BRAC 2005 analyses.

- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum One—Policy, Responsibilities, and Procedures,” April 16, 2003.** Policy Memorandum One applies to the Military Departments, Defense agencies (DoD Components), and Joint Cross-Service Groups (JCSGs) in developing the Secretary of Defense BRAC recommendations for submission to the 2005 BRAC Commission for their review. Policy Memorandum One describes policy, responsibilities, and procedures to be followed by participants in the BRAC process. Additionally, Appendix B of Policy

Memorandum One is the Office of the Secretary of Defense (OSD) internal control plan (ICP) for the BRAC 2005 process, which the JCSGs must use to ensure the accuracy of data collection and analysis.

- **“Policy Memorandum Two—BRAC 2005 Military Value Principles,” October 14, 2004.** Policy Memorandum Two states that all recommendations made by the JCSGs and Military Departments will use military value as the determining factor. When making realignment or closure recommendations, JCSGs and Military Departments apply appropriate use of military judgment to meet all requirements by the Department. Military judgment is applied through the following principles: Recruit and Train; Quality of Life; Organize; Equip; Supply, Service and Maintain; Deploy and Employ (operational); and Intelligence.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Three—Selection Criterion 5,” December 7, 2004.** Policy Memorandum Three describes how BRAC selection criterion 5 will be implemented during the BRAC process. JCSGs and Military Departments will apply selection criterion 5 to their scenarios to estimate the projected costs and savings.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Four—Selection Criteria 7 and 8,” December 7, 2004.** Policy Memorandum Four provides guidance and clarification on the assessment of communities’ infrastructure and consideration of the environmental impacts of realignment and closure scenarios.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Five—Homeland Defense,” December 10, 2004.** Policy Memorandum Five provides guidance that establishes policies and procedures for the Military Departments and the JCSGs to ensure that each Military Department retains the necessary capabilities to support the homeland defense mission.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Six—Selection Criterion 6,” December 20, 2004.** Policy Memorandum Six provides guidance that establishes policies and procedures for the Military Departments and the JCSGs on how to use the Economic Impact Tool when applying BRAC selection criterion 6 to realignment and closure scenarios.
- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Seven—Surge,” January 4, 2005.** Policy Memorandum Seven provides guidance for the Military Departments and JCSGs to meet the DoD statutory requirement to consider surge in realignment and closure scenarios.

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- **“Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum Eight—Selection Criterion 8,” January 4, 2005.** Policy Memorandum Eight provides guidance on how to identify the environmental impacts of a particular scenario in order to provide decision makers with the information they need to fully consider the impacts.

Joint Cross-Service Groups. A primary objective of BRAC 2005, in addition to realigning base structure, was to examine and implement opportunities for greater joint activity. Prior BRAC analyses considered all functions on a Service-by-Service basis and, therefore, did not result in the joint examination of functions that cross Services. The JCSGs addressed issues that affect common business-oriented support functions, examined functions in the context of facilities, and developed realignment and closure recommendations based on force structure plans of the Armed Forces and on selection criteria. The JCSGs reported their results through the ISG to the IEC. OSD established seven JCSGs—Education and Training, Headquarters and Support Activities, Industrial, Intelligence, Medical, Supply and Storage, and Technical.

Supply and Storage Joint Cross-Service Group. The Supply and Storage Joint Cross-Service Group (S&S JCSG) is one of seven Joint Cross-Service Groups and was established on March 15, 2003, by the Under Secretary of Defense for Acquisition, Technology, and Logistics serving as the Chairman of the Infrastructure Steering Group. The S&S JCSG senior members include the Chair, Director, Defense Logistics Agency, and five principals: U.S. Army Deputy, Chief of Staff G-4; Office of the Chief of Naval Operations, Director, Supply, Ordnance and Logistics Operations Division; U.S. Air Force Deputy Chief of Staff for Installations and Logistics; U.S. Marine Corps Director, Logistics Plans, Policies, and Strategic Mobility Division; and Director for Logistics, J-4, the Joint Staff. Each JCSG was responsible for overseeing the joint cross-service analysis of functions within their area. The approved functions for the S&S JCSG to review were:

- **Fuel:** Petroleum fuels, lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gasses, bulk chemical products including fuel additives, coolants, deicing and antifreeze compounds, coal, and missile fuels. This definition includes both bulk and packaged Class III products.
- **Rations:** Food for consumption by personnel, includes rations and packages for group feedings in areas where kitchen facilities are not available.
- **Clothing and Textile:** Includes individual and organizational items of clothing and equipment, as well as tentage and tarpaulins.
- **Repair Parts:** All repair parts and components, to include kits, assemblies, and subassemblies-repairable and non-repairable for maintenance support of all equipment, to include repair parts to support depot level activity.

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- **Medical Supplies:** Medical materiel, including medical-unique repair parts.
 - **End-Items:** A final combination of end products that are ready for intended use, that is, weapons systems.
 - **Construction Material:** All aspects of construction material, including fortification and barriers.
 - **Troop Support Materiel:** Items such as water, water purification sets, shower, bath, laundry, dry-cleaning, and bakery equipment; sets, kits, and outfits.
 - **Test, Measurement, and Diagnostic Equipment:** Items of equipment used to determine the operating efficiency of, or diagnose incipient problems in, systems, components, assemblies, and sub-assemblies of materiel.
 - **Special:** Storage and handling of radiological components related to special weapons and samples used for research and development and test and evaluation. The function also consists of chemical components scheduled for destruction in accordance with treaty requirements. Finally, the Special function includes biological and chemical samples used to support research, test, and evaluation requirements.

BRAC Data Calls. The BRAC 2005 data collection process, mandated for the United States and its territories, was divided into the following data calls: capacity analysis, supplemental capacity, military value, Cost of Base Realignment Actions (COBRA), Joint Process Action Team Criterion Number 7 (JPAT 7), and scenario specific. The supplemental capacity, military value, COBRA, and JPAT 7 data calls were collectively known as the second data call. Each JCSG developed data call questions related to capacity analysis and military value to obtain information about the functions that they reviewed. Each JCSG was required to issue a capacity analysis and military value analysis report. Each data call had a specific purpose as follows.

- The capacity analysis data call gathered data on infrastructure, current workload, surge requirements, and maximum capacity.
- The supplemental capacity data call clarified inconsistent data gathered with the initial capacity analysis data call.
- The military value data call gathered data on mission requirements, land and facilities, mobilization and contingency, and cost and manpower.
- The COBRA data call gathered data to develop cost, savings, and payback (formerly known as return on investments) of proposed realignment and closure actions.

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- The JPAT 7 data call gathered data to assess the community's ability to support additional forces, missions, and personnel associated with individual scenarios.¹
 - The scenario specific data call gathered data related to specific scenario conditions for realignment or closure.

OSD Master Database. The DoD collected certified data for BRAC 2005 using a mix of automated and manual processes. The Services and six Defense agencies used automated tools to collect the data while the other Defense agencies and organizations collected data in electronic format for the data calls. Portions of that automated data were then transferred to OSD and compiled into Microsoft Access databases called Capacity Analysis Database and Military Value Analysis Database. We refer to the Capacity Analysis Database and the Military Value Analysis Database together as the OSD Master Database, which OSD used as the centralized point of data distribution to the JCSGs

COBRA Model. COBRA is a model that provides a uniform methodology for estimating and itemizing projected costs and savings associated with realignment and closure scenarios. The COBRA model calculates the costs, savings, and payback of proposed realignment and closure actions, using data that are readily available without extensive field studies. The COBRA model can also be used to compare the relative cost differences between various stationing alternatives. The model is not designed to produce budget estimates, but instead to provide a consistent method of evaluating the actions. The COBRA model calculates the costs and savings of base stationing scenarios over a period of 20 years. It models all activities (moves, construction, procurements, sales, closures) as taking place during the first 6 years, and thereafter, all costs and savings are treated as steady-state. The key output value produced is the Return on Investment Year. The Return on Investment Year is the point at which realignment or closure has paid for itself and net savings start to accrue (payback period). The COBRA model allowed realignment or closure scenarios to be compared in terms of when payback is achieved.

To perform a COBRA assessment, S&S JCSG loaded scenario-specific data into the COBRA model. The data, used in combination with model algorithms and standard cost factors already developed and pre-loaded into the model, resulted in an estimate of cost, savings, and payback for the proposed realignment or closure scenario. To obtain the needed COBRA model data inputs, S&S JCSG developed COBRA-related questions that were issued as scenario data calls. Those COBRA-related questions focused on data not previously gathered concerning specific losing and receiving installations.

Internal Control Plans. The OSD ICP was distributed as part of the Under Secretary of Defense for Acquisition, Technology, and Logistics' memorandum, "Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum One—Policy, Responsibilities, and Procedures," April 16, 2003. Appendix B of Policy Memorandum One is the ICP for all JCSGs. In addition,

¹ A scenario is a description of one or more potential realignment or closure actions identified for formal analysis by either a JCSG or a Military Department.

each JCSG prepared standard operating procedures (SOPs) that further delineated controls related to the specific JCSG.

The S&S JCSG prepared, “Standard Operating Procedures, S&S JCSG, Base Realignment and Closure 2005,” on March 31, 2004, and then updated the procedures on October 20, 2004, and October 27, 2004. The amended document provided the procedures for safeguarding sensitive information of the S&S JCSG. Sensitive information includes but is not limited to data call field activity responses, information dealing with scenarios, possible alternatives, recommendation candidates and military scoring plans. The document also provided SOPs regarding S&S JCSG specific office and computer security, sensitive information control and storage, and record keeping.

Department of Defense Office of Inspector General Responsibility. The “Transformation Through Base Realignment and Closure (BRAC 2005) Policy Memorandum One—Policy, Responsibilities, and Procedures,” April 16, 2003, required that Department of Defense Office of Inspector General (DoD OIG) provide ICP development and implementation advice, and review the accuracy of BRAC data and the certification process. In addition, the memorandum required DoD OIG personnel to assist the JCSGs and DoD Components as needed. This resulting report summarizes issues related to the S&S JCSG BRAC 2005 process.

Objectives

The overall objective of the audit was to evaluate the validity, integrity, and documentation of data used by the S&S JCSG. Specifically, we determined whether the S&S JCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. In addition, we determined whether the S&S JCSG created an adequate audit trail for their potential candidate recommendations.

We also evaluated whether the S&S JCSG complied with the OSD ICP and the specific JCSG procedures. This report is one of seven on JCSG data integrity and internal control processes for BRAC 2005. See Appendix A for a discussion of the audit scope and methodology and our review of the management control programs related to the objectives. See Appendix B for prior coverage. See Appendix C for a discussion of the review of COBRA model input for potential candidate recommendations.

Supply and Storage Joint Cross-Service Group Data Integrity and Internal Control Processes for BRAC 2005

The sampling results indicated that the S&S JCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. The S&S JCSG also created an adequate audit trail for the input into the COBRA model. In addition, the S&S JCSG generally complied with established internal controls from OSD ICP and S&S JCSG SOPs. The S&S JCSG took immediate action to resolve minor discrepancies identified during the review. As a result, we did not identify any material weakness in the controls that would affect the integrity of the data used to identify the potential candidate recommendations. No material discrepancies or noncompliance areas remain that affect the reliability and integrity of the S&S JCSG process.

S&S JCSG Data Integrity and Documentation for BRAC 2005

The sampling results indicated that the S&S JCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. The S&S JCSG also created an adequate audit trail for the input into the COBRA model. The S&S JCSG took immediate action to resolve minor discrepancies identified during the review.

Capacity Analysis. The sampling results indicated that the S&S JCSG used certified data and created an adequate audit trail for capacity analysis data. We assessed the reasonableness of the S&S JCSG Capacity Analysis Model and performed a review of the capacity analysis data process. We performed two integrity checks of the certified data used by the S&S JCSG that were submitted by the Military Departments and the Defense Logistics Agency to the OSD BRAC Master Database. We obtained the data for our review from the OSD BRAC Master Database, S&S JCSG Production Database, and S&S JCSG Capacity Analysis Model. The first review compared the data used by the S&S JCSG with the OSD BRAC Master Database that was current as of November 9, 2004. The second review was based on data current as of February 28, 2005. We used statistical sampling to verify that the S&S JCSG data in the Capacity Analysis Model matched the submitted certified data.

Capacity Analysis Process and Model. The Capacity Analysis Model and processes were based on sound logic and reasonable assumptions. We analyzed the formulas and calculations used in the model and found them to be consistent and accurate. The S&S JCSG production database was a replica of the OSD BRAC Master Database. The S&S JCSG “pulled” the certified data from the production database, then formatted it for entry into the model, producing an input file. The Capacity Analysis Model was designed as a series of Microsoft Excel spreadsheets that calculated excess capacity available for activities associated with supply, storage, and distribution and then calculated the overall utilization for such activities at the installations. The data source for each

spreadsheet was the input file captured from the certified data “pull.” The model input file also used an additional data source of 34 separate spreadsheets, with 100,000 data points, submitted by the Army directly to the S&S JCSG. Because those spreadsheets were not submitted through the OSD BRAC Master Database, they required separate certification from the Army. The Army sent certifications to the S&S JCSG and subsequently submitted the certified data to the OSD BRAC Master Database.

Data Discrepancies. Based on the results of our audit sampling, the estimated percentage of data errors in the Capacity Analysis Model was within the acceptable percentage criterion. (See Appendix A and D for details). Our first review found one discrepancy in matching the certified OSD BRAC Master Database with the S&S JCSG Capacity Analysis Model input and three inconsistencies within the model. The one discrepancy was in documentation only; the data input was correct. All three inconsistencies within the model were explainable and no data integrity errors resulted. Our second review found no additional errors. No outstanding problems existed with the integrity of data used throughout the capacity analysis process.

Audit Trail. The S&S JCSG had adequate documentation of its capacity analysis process. The OSD “Internal Control Plan for the 2005 BRAC Process” states that the BRAC 2005 process will be recorded and clearly documented to ensure the integrity of the process performed by the JCSGs. The S&S JCSG provided sufficient documentation that identified the process used for analyzing and obtaining capacity data from the certified OSD BRAC Master Database. We were able to trace the capacity analysis process from the documentation provided.

Military Value Analysis. The sampling results indicated that the S&S JCSG used certified data and created an adequate audit trail for military value analysis. All of the inconsistencies that we identified were corrected or the resulting data were not used in the identification of potential candidate recommendations. We assessed the reasonableness of the S&S JCSG Military Value Scoring Model and studied the military value data analysis process. We reviewed the military value data and performed two integrity checks of the certified data used by the S&S JCSG that were submitted by the Military Departments and the Defense Logistics Agency to the OSD BRAC Master Database. The first review compared the data used by the S&S JCSG with the OSD BRAC Master Database that was current as of November 9, 2004. The second review was based on data current as of February 28, 2005. We used statistical sampling to verify that the S&S JCSG data in the military value model matched the submitted certified data.

Military Value Scoring Model and Process. The S&S JCSG Military Value Scoring Model and processes were based on sound logic and reasonable assumptions. We analyzed the formulas and calculations used in the model and found them to be consistent and accurate. The S&S JCSG military value master and production database was a replica of the S&S JCSG related responses contained in the OSD BRAC Master Database. The S&S JCSG process “pulled” the certified data from the production database and then formatted it for entry into the Military Value Scoring Model, producing an input file. The Military Value Scoring Model was designed as a series of Microsoft Excel spreadsheets that calculated military value rankings for Military Department and other DoD organizations associated with supply, storage, and distribution based on the

responses to the military value data call. The data source for each spreadsheet was the input file captured from the certified data “pull.”

Data Discrepancies. Based on the results of our audit sampling, the estimated percentage of data errors in the Military Value Scoring Model was within the acceptable percentage criterion. (See Appendix A for details). In our first review, 130 instances existed where the S&S JCSG used data that did not match the certified data pulled from the OSD BRAC Master Database.

- 12 inconsistencies were the result of uncertified Air Force data being manually inserted into the model
- 32 discrepancies resulted from the S&S JCSG using uncertified data because of the application of remedies to standardize responses in the model that either exceeded capacity or were formatted incorrectly
- 84 discrepancies resulted from the S&S JCSG applying mathematical remedies during the military value data pull process to convert the submitted data into data appropriate for the military value tool to calculate rankings
- 2 errors resulted from the data pull documentation and the military value model data pull results not matching

Certifications were received for all the data discrepancies above except for 8 of the 84 discrepancies where the S&S JCSG applied mathematical remedies. However, the S&S JCSG pursued no realignment or closure scenarios for these activities. In addition, the S&S JCSG fixed the data pull errors, which previously resulted in two errors.

Of those reviewed, 402 occurrences of military value ratios were greater than 100 percent in the Defense Reutilization and Marketing Offices data that were used to develop military value rankings, however, the S&S JCSG pursued no realignment or closure scenarios for the Defense Reutilization and Marketing Offices. We excluded those inconsistencies from further review. Based on the results of our audit sampling, the second review of the military value analysis found no errors or inconsistencies.

Audit Trail. The S&S JCSG adequately documented its military value analysis process. The S&S JCSG provided sufficient documentation that identified the data used from the certified OSD BRAC Master Database and the analysis performed by the S&S JCSG Military Value Scoring Model.

COBRA Model Input. The S&S JCSG used certified data and created an adequate audit trail for the input into the COBRA model. We did not review the COBRA model run footnotes because the footnotes were not entered into the COBRA model by the end of our fieldwork. We reviewed COBRA model input for 29 potential candidate recommendations.

There were four scenarios where the COBRA model data input process contained an algorithm error that caused data to be excluded from being entered into the model. In addition, COBRA model runs for five S&S JCSG scenarios omitted specific data supplied by the Military Departments and the Defense Logistics Agency. Lastly, two scenario COBRA model runs contained outdated preloaded standard cost factors and data input errors.

S&S JCSG re-ran the COBRA model for all scenarios using COBRA model version 6.09 and the most recent scenario-specific data received from the Military Departments and the Defense Logistics Agency after correcting the input algorithm error. We reviewed the revised COBRA model runs for all active scenarios and scenarios where errors were found in prior reviews as of April 15, 2005, and concluded that all errors were corrected. The S&S JCSG maintains adequate documentation to support the COBRA model results. In addition, data entered into the COBRA model were certified by the Military Departments or the Defense Logistics Agency, and S&S JCSG-developed rates and cost factors were reasonable and supported. S&S JCSG since re-ran the scenarios using COBRA model version 6.10, but we did not review those scenarios. See Appendix C for review of the COBRA model runs for potential candidate recommendations.

Supply and Storage Joint Cross-Service Group Internal Control Processes for BRAC 2005

The S&S JCSG generally complied with the OSD ICP. The ICP procedures required that:

- information used in the analysis be certified by the appropriate authority for accuracy and completeness and that the information be used consistently.
- data collected and used for analyses and/or decision making be obtained from appropriate sources.
- Non-Disclosure Agreements (NDA) be maintained for all participants in the BRAC process.
- all correspondence should contain the following information in the header or footer: "Draft Deliberative Document - For Discussion Purposes Only Do Not Release Under FOIA."

The S&S JCSG ensured compliance with the OSD ICP by creating SOPs. The S&S JCSG generally complied with the controls contained in the SOPs. In addition to the ICP requirements, the S&S JCSG SOPs required the following controls.

- All sensitive information produced by or submitted to the S&S JCSG are to be assigned sequential control numbers and a document control log must be maintained.

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- The primary location for use and storage of sensitive information is the S&S JCSG Federal Government office spaces in Arlington, Virginia.
 - Minutes for all JCSG Principal meetings must be signed by the Chairman and maintained in an approved secure office space.
 - Any formula-based tool developed for analyzing data is to be reviewed and approved for use by the DoD Office of Inspector General prior to use.

The S&S JCSG generally complied with the controls by using appropriate sources for data collection and analyses. We verified the use of appropriate sources by regularly attending S&S JCSG Principals meetings, Executive Council meetings, Working Group meetings, and Team meetings. During those meetings, we monitored the types of data used as well as the sources and methods used for collection. We identified some data collections that did not pass through the OSD BRAC Master Database. We reported and monitored the group's compliance to have those data appropriately certified. We confirmed by observance and documentation that the S&S JCSG established procedures that ensured the data used for analysis were properly certified for accuracy and completeness by appropriate authorities.

The S&S JCSG generally complied with their SOPs by appointing a Security Manager and establishing "Desktop Procedures for the Supply and Storage Joint Cross-Service Group Security Manager" for the internal handling and security of sensitive information used by the S&S JCSG. To determine compliance with the SOPs, we evaluated whether S&S JCSG completed and maintained NDAs, properly marked and safeguarded BRAC data and documents, and documented deliberative meetings and oral briefings. We confirmed by observance, testing, and documentation that the S&S JCSG generally complied with the established procedures.

The S&S JCSG completed and maintained NDAs on all personnel attending meetings or visiting the office space. We tested that control twice by comparing all meeting attendees, the point of contact roster, and the visitor log to the file of NDAs. A control log was maintained by the Security Manager for all sensitive documents. Sensitive information was removed from the designated office space only on necessary occasions, and when it was, documents had control numbers and were signed out. We attended and reviewed the minutes for all JCSG Principal meetings and determined the minutes were signed by the JCSG Chair and correctly represented the results of the meetings. We also reviewed formula based tools that were developed for analyzing data, and those tools were approved for use by the DoD Office of Inspector General Quantitative Methods Division. In addition, we reviewed documentation produced by the S&S JCSG and found that correspondence contained the appropriate headers and footers.

Risk Mitigation. The S&S JCSG mitigated risk by preventing the early disclosure of sensitive data, the use of uncertified data, and inaccurate data through the development of policies and procedures to implement the OSD ICP. Also, the S&S JCSG appointed a Security Manager to monitor compliance with the ICP and the SOPs and to control sensitive information. In addition, the S&S JCSG routinely requested data clarification for responses to the capacity analysis,

military value, and scenario specific data calls to ensure that decisions were made using the best available data.

Conclusion

The sampling results indicate the S&S JCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. After our review, the S&S JCSG created an adequate audit trail for the input into the COBRA model. In addition, the S&S JCSG generally complied with established internal controls from the OSD ICP and the S&S JCSG SOPs. The S&S JCSG took steps to resolve all discrepancies noted. On completion of our review, no material discrepancies or noncompliance areas remain that affect the reliability and integrity of the S&S JCSG process.

We discussed the results of the data integrity and ICP reviews with S&S JCSG upon completion of the capacity analysis, military value analysis, and COBRA model input reviews. The S&S JCSG concurred with our findings.

Management Comments on the Finding

Supply and Storage Joint Cross-Service Group. The Chairman of the S&S JCSG concurred with the finding. The Chairman stated that the S&S JCSG data integrity, analysis, and administrative controls benefited as a result of the review.

Appendix A. Scope and Methodology

We evaluated the validity, integrity, and documentation of data used by the JCSGs. Specifically, we determined whether the JCSG used certified data and created an adequate audit trail for their capacity analysis and military value analysis.

We attended meetings of the S&S JCSG from May 2003 through May 2005. We reviewed the formal minutes and briefing charts of the meetings to verify that decisions made by the S&S JCSG were adequately documented. We also reviewed the S&S JCSG SOP for compliance.

We performed validations to determine whether the S&S JCSG used certified data or approved authoritative sources for developing BRAC recommendations.

We evaluated the integrity of the S&S JCSG BRAC 2005 process. Our evaluation included:

- reviewing the automated analysis models for accuracy,
- ensuring methodologies were sufficiently documented, and
- comparing data used to make deliberative decisions to certified or authoritative data.

Scope Limitations. Our scope was limited in that we did not include validation of the footnotes in the COBRA model runs. The S&S JCSG was unable to complete the footnotes prior to the end of our fieldwork. We did not verify the integrity of the COBRA model preloaded data to the original source. Lastly, because COBRA model version 6.10 was issued after the end of our fieldwork on April 15, 2005, we did not review any COBRA model runs that used version 6.10.

Statistical Sampling. The purpose of the statistical sampling plan was to evaluate the validity, integrity, and documentation of data the S&S JCSG used. The sampling plan was also used to determine whether the S&S JCSG maintained data integrity throughout their analysis of certified capacity analysis and military value data. See Appendix D for a description of the sampling plan.

Capacity Analysis. We conducted the reviews in two phases. The first phase was an assessment of the reasonableness of the S&S JCSG Capacity Analysis Model and a study of the capacity data analysis process. The second phase was an integrity check of the certified data the S&S JCSG used that the Military Departments and the Defense Logistics Agency submitted to the OSD BRAC Master Database. We used statistical sampling to verify that the S&S JCSG data in the Capacity Analysis Model matched the submitted certified data. We obtained the data for our review from the OSD BRAC Master Database, the S&S JCSG Capacity Analysis Production Database, and the S&S JCSG Capacity Analysis Model. The data received from the OSD BRAC Master Database were current as of November 9, 2004, and February 28, 2005, for the related sites and questions. The data from the S&S JCSG Capacity Analysis Production Database

and Capacity Analysis Model we used to conduct the integrity checks were also current as of November 9, 2004, and February 28, 2005.

Military Value Analysis. We conducted the review in two phases. The first phase was an assessment of the reasonableness of the S&S JCSG Military Value Scoring Model and a study of the analysis process. The second phase was an integrity check using statistical sampling of the certified data submitted by the Military Departments and the Defense Logistics Agency to the OSD BRAC Master Database. We took four samples of the submitted data. We obtained the data for our review from the OSD BRAC Master Database, the S&S JCSG military value production database, and the S&S JCSG Military Value Scoring Model. We randomly sampled and compared the data used by the S&S JCSG with the OSD BRAC Master Database that was current as of November 9, 2004, and February 28, 2005, for the related sites and questions. The data we used to conduct the integrity checks were also current as of November 9, 2004, and February 28, 2005, and were obtained from the S&S JCSG Military Value Production Database and the Military Value Scoring Model.

COBRA Model Input. As of April 15, 2005, the S&S JCSG ran the COBRA model 388 times while analyzing 51 S&S JCSG proposed realignment and closure scenarios. We reviewed the S&S JCSG SOPs for COBRA model analysis and documentation, the accuracy and completeness of the scenario-specific data input into the COBRA model, and whether the data entered into the COBRA model were certified. In addition, we reviewed the application of the preloaded data provided by the COBRA Program Office to the S&S JCSG.

We did not verify the integrity of the preloaded data to the original source. We did not review the COBRA model run footnotes because the footnotes were not entered into the COBRA model by the end of our fieldwork. The COBRA model used by the S&S JCSG was upgraded and loaded with revised standard cost factors during the review. During our review, we analyzed COBRA model runs from versions 6.04, 6.05, 6.07, 6.08, and 6.09. We reviewed COBRA model input for 29 potential candidate recommendations. We observed and tested input of certified BRAC data in the COBRA model. In addition, we determined whether certified changes to data submissions were correctly adjusted and input into the COBRA model.

We performed a 100 percent review of the COBRA model runs for each of S&S JCSG BRAC scenarios as of February 6, 2005, to test the consistency of the BRAC scenario data between the COBRA model processed data and the scenario data call responses from the Military Departments. We revalidated the COBRA model runs on March 28, 2005, to review changes made to correct errors noted during the first run and to review any new scenario runs since February 6, 2005. In addition, we revalidated and reviewed active COBRA model runs (version 6.09) and COBRA model preloaded data as of April 15, 2005. (See Appendix C.)

We performed this audit from May 2003 through May 2005 in accordance with generally accepted government auditing standards as it was determined that they applied to this BRAC 2005 effort.

Use of Computer-Processed Data. To achieve the audit objective, we extensively relied on computer-processed data contained in the OSD BRAC Master Database. Although we did not perform a formal reliability assessment of the computer-processed data, we did not find errors that would preclude the use of computer-processed data to meet the audit objectives or that would change the conclusions in this report.

Use of Technical Assistance. We received technical assistance from the Quantitative Methods Division, Audit Followup and Technical Support Directorate, and the Data Mining Division, Deputy Inspector General for Audit, DoD Office of Inspector General.

Government Accountability Office High-Risk Areas. The Government Accountability Office has identified several high-risk areas in DoD. This report provides coverage of the Federal Real Property and the DoD Approach to Business Transformation, DoD Support Infrastructure Management high-risk areas.

Management Control Program Review

We evaluated the S&S JCSG management controls for documenting and safeguarding information associated with the BRAC 2005 data calls, as directed by the OSD ICP. Specifically, we reviewed NDAs, deliberative meeting minutes, storage of BRAC data, and the supporting documentation for S&S JCSG BRAC data. Management controls were adequate as they applied to the audit objectives (see finding for specific details). The JCSGs were established as part of the BRAC process and therefore would not have management control programs outside of the BRAC process.

Appendix B. Prior coverage

During the last 5 years, the DoD Office of Inspector General and the Army Audit Agency have issued five memoranda and reports related to the BRAC 2005 Supply and Storage Joint Cross-Service Group and one related to the COBRA model.

DoD OIG

DoD OIG Memorandum, "Validation of the Base Realignment and Closure 2005 Capacity Data Used by the Supply and Storage Joint Cross-Service Group," February 3, 2005

DoD OIG Memorandum, "Validation of the Base Realignment and Closure 2005 Military Value Data Used by the Supply and Storage Joint Cross-Service Group," February 4, 2005

Army Audit Agency

Army Audit Agency Report No. A-2005-0169-ALT, "Validation of Army Responses for Joint Cross-Service Group Questions," April 22, 2005

Army Audit Agency Report No. A-2005-0083-ALT, "Army Military Value Data, The Army Basing Study 2005," December 21, 2004

Army Audit Agency Report No. A-2004-0544-IMT, "Cost of Base Realignment Action (COBRA) Model, The Army Basing Study 2005," September 30, 2004

Army Audit Agency Report No. A-2004-0453-IMT, "Validation of Army Installation Capacity Data for Base Realignment and Closure 2005, Supply and Storage Activity Joint Cross-Service Group," August 16, 2004

Appendix C. Review of COBRA Model Runs for Potential Candidate Recommendations

We performed 3 reviews related to a total of 29 S&S JCSG scenarios. We tested for consistency of the data between the Scenario Data Call responses from the Military Departments and the Defense Logistics Agency as well as the input to the COBRA model. We reviewed 43 COBRA model runs and found a total of 13 discrepancies. All COBRA model discrepancies were corrected or the related scenarios were deleted as a candidate recommendation.

COBRA Model Algorithm Error	4
Current Data Submission Not Included in COBRA Model Run	5
COBRA Model Incorrect Preloaded Data	2
Data Input Error	<u>2</u>
Total	13

First Review. The first review was as of February 6, 2005, and included 25 scenarios. We found eight discrepancies. Four runs had excluded Service-submitted data as the result of a model algorithm error, and four scenarios had received data but that data were not included in the latest COBRA model run.

Table C-2. Scenario COBRA Model Run First Review
(as of February 6, 2005)

<u>Number</u>	<u>Title</u>	<u>Date</u>	<u>Version</u>	<u>Discrepancy</u>
S&S-0003	Regionalization of Strategic Distribution (5 regions)	December 7, 2004	6.04	1. Model algorithm 2. Current data not included in run
S&S-0004	Regionalization of Strategic Distribution (4 regions)	February 3, 2005	6.05	No discrepancies identified
S&S-0005	Consolidate DLA ICPs in a single location	February 1, 2005	6.05	No discrepancies identified
S&S-0006	Consolidate Air Force ICPs in a single location	December 18, 2004	6.05	No discrepancies identified
S&S-0007	Consolidate Naval ICPs in a single location (Philadelphia)	December 15, 2004	6.04	No discrepancies identified
S&S-0010	Consolidate Naval ICPs in a single location (Mechanicsburg)	January 13, 2005	6.05	No discrepancies identified
S&S-0022	Privatize Storage and Distribution on Specific Commodities (Tires)	December 15, 2004	6.05	No discrepancies identified
S&S-0023	Privatize Storage and Distribution on Specific Commodities (Packaged Petroleum, Oils, and Lubricants)	December 14, 2004	6.05	No discrepancies identified
S&S-0024	Privatize Storage and Distribution on Specific Commodities (Compressed Gases)	December 14, 2004	6.05	No discrepancies identified
S&S-0026	Consolidate Air Force ICPs Command and Control Operations	December 16, 2004	6.05	No discrepancies identified
S&S-0027	Consolidate Army ICPs in a single location (Fort Monmouth)	December 17, 2004	6.05	No discrepancies identified
S&S-0028	Transfer Service Common Depot Level Repairables to DLA	January 26, 2005	6.05	3. Model algorithm
S&S-0029	Consolidate Army ICPs in a single location (Redstone Arsenal)	December 15, 2004	6.05	No discrepancies identified
S&S-0030	Realign Storage and Distribution Functions at Sierra Army Depot	January 7, 2005	6.05	4. Model algorithm 5. Current data not included in run
DLA ICP	The Defense Logistics Agency Inventory Control Points			

Table C-2. Scenario COBRA Model Run First Review (cont'd)
(as of February 6, 2005)

<u>Number</u>	<u>Title</u>	<u>Date</u>	<u>Version</u>	<u>Discrepancy</u>
S&S-0031	Consolidate Air Force National ICPs in a single location (Hill Air Force Base)	December 21, 2004	6.05	No discrepancies identified
S&S-0035	Transfer Service ICPs to DLA and Consolidate (include Depot Level Repairables)	No Run	--	6. Current data not included in run
S&S-0036	Establish a Single Army ICP (Select and Related Functions) at Fort Monmouth	February 6, 2005	6.05	No discrepancies identified
S&S-0038	Establish a Single Army Inventory Control Point at Redstone Arsenal	January 4, 2005	6.05	No discrepancies identified
S&S-0040	Consolidate Air Force ICPs in a single location (Robins Air Force Base)	December 21, 2004	6.05	No discrepancies identified
S&S-0041	Consolidate Naval ICP Philadelphia. Retain Warehousing Function at Naval ICP Mechanicsburg	January 7, 2005	6.05	No discrepancies identified
S&S-0042	Consolidate Service and DLA ICPs to Minimize Excess Capacity	January 7, 2005	6.05	No discrepancies identified
S&S-0043	Privatize Supply, Storage, and Distribution on Specific Commodities (Tires)	January 19, 2005	6.05	7. Model algorithm.
S&S-0044	Privatize Supply, Storage, and Distribution on Specific Commodities (Packaged Petroleum, Oils, and Lubricants Products)	February 6, 2005	6.05	No discrepancies identified
S&S-0045	Privatize Supply, Storage, and Distribution on Specific Commodities (Compressed Gases)	February 6, 2005	6.05	No discrepancies identified
S&S-0046	Regionalization of Strategic Distribution (4 regions) - Oklahoma City Option	January 21, 2005	6.05	8. Data not included in run

DLA The Defense Logistics Agency
ICP Inventory Control Points

Second Review. The second review was as of March 28, 2005. We tested for changes made to correct the discrepancies found in the previous review, and for any new or revised runs including one new scenario. We found five discrepancies of the February test remained unchanged, and one additional discrepancy. The COBRA model run for scenario number S&S-0043 omitted data submitted by the Military Departments and the Defense Logistics Agency.

Table C-3. Scenario COBRA Model Run Second Review
(as of March 28, 2005)

<u>Number</u>	<u>Title</u>	<u>Date</u>	<u>Version</u>	<u>Discrepancy</u>
S&S-0003	Regionalization of Strategic Distribution (5 regions)	December 07, 2004	6.04	1. Model algorithm 2. Current data not included in run
S&S-0005	Consolidate DLA ICPs in a single location	February 11, 2005	6.07	No discrepancies identified
S&S-0028	Transfer Service Common Depot Level Repairables to DLA	January 26, 2005	6.05	3. Model algorithm
S&S-0029	Consolidate Army ICPs in a single location (Redstone Arsenal)	December 15, 2004	6.05	No discrepancies identified
S&S-0030	Realign Storage and Distribution Functions at Sierra Army Depot	February 11, 2005	6.07	4. Model algorithm (corrected) 5. Current data not included in run (corrected)
S&S-0035	Transfer Service ICPs to DLA and Consolidate (include Depot Level Repairables)	March 18, 2005	6.07	6. Current data not included in run
S&S-0043	Privatize Supply, Storage and Distribution on Specific Commodities (Tires)	January 13, 2005	6.07	7. Model algorithm. (corrected) 9. Current data not included in run
S&S-0046	Regionalization of Strategic Distribution (4 regions) - Oklahoma City Option	February 8, 2005	6.07	8. Current data not included in run
S&S-0048 (new)	Regional Wholesale Storage and Distribution - Consolidation of S&S at Industrial Installations	February 24, 2005	6.08	No discrepancies identified
DLA ICP	The Defense Logistics Agency Inventory Control Points			

Third Review. The third review was as of April 15, 2005. We tested for changes made to correct the discrepancies found in the previous reviews, and for any new or updated runs including three new scenarios. This review also included a test of the COBRA model preloaded data. We found that all discrepancies identified during the previous reviews were either corrected or the subject scenario was canceled. We also found four additional discrepancies, two with data input errors and two with incorrect preloaded data.

Table C-4. Scenario COBRA Model Run Third Review
(as of April 15, 2005)

<u>Number</u>	<u>Title</u>	<u>Date</u>	<u>Version</u>	<u>Discrepancy</u>
S&S-0003 (canceled)	Regionalization of Strategic Distribution (5 regions)	February 08, 2005	6.07	1. Model algorithm (corrected) 2. Current data not included in run (corrected)
S&S-0028 (canceled)	Transfer Service Common Depot Level Repairables to DLA	February 08, 2005	6.07	3. Model algorithm (corrected)
S&S-0035	Transfer Service ICPs to DLA and Consolidate (include Depot Level Repairables)	April 15, 2005	6.09	6. Current data not included in run (corrected) 10. Data input error (corrected)
S&S-0043 (merged to S&S-0043R)	Privatize Supply, Storage and Distribution on Specific Commodities (Tires)	April 01, 2005	6.09	7. Model algorithm. (corrected) 9. Current data not included in run (scenario canceled)
S&S-0043R (new)	Privatize Supply, Storage and Distribution on Specific Commodities (Tires, Packaged Petroleum, Oils, and Lubricants Products, Compressed Gases)	April 14, 2005	6.09	No discrepancies identified
S&S-0044 (merged to S&S-0043R)	Privatize Supply, Storage and Distribution on Specific Commodities (Packaged Petroleum, Oils, and Lubricants Products)	April 14, 2005	6.09	11. Data input error (corrected)
DLA ICP	The Defense Logistics Agency Inventory Control Points			

Table C-4. Scenario COBRA Model Run Third Review (Cont'd)
(as of April 15, 2005)

<u>Number</u>	<u>Title</u>	<u>Date</u>	<u>Version</u>	<u>Discrepancy</u>
S&S-0045 (merged to S&S-0043R)	Privatize Supply, Storage and Distribution on Specific Commodities (Compressed Gases)	April 1, 2005	6.09	No discrepancies identified
S&S-0046 (merged to S&S-0043R)	Regionalization of Strategic Distribution (4 regions) - Oklahoma City Option	March 08, 2005	6.07	8. Current data not included in run (corrected)
S&S-0048 (revised as S&S-0051)	Regional Wholesale Storage and Distribution - Consolidation of S&S at Industrial Installations	March 18, 2005	6.08	12. Incorrect preloaded data (scenario canceled)
S&S-0051 (new then revised as S&S-0051R)	Regionalize Wholesale Storage and Distribution - Consolidation S&S at Industrial Installations	April 08, 2005	6.09	13. Incorrect preloaded data (corrected)
S&S-0051R (new)	Depot Retail Supply	April 14, 2005	6.09	No discrepancies identified
DLA ICP	The Defense Logistics Agency Inventory Control Points			

Potential Candidate Recommendations. As of April 15, 2005, the following scenarios remained as potential candidate recommendations. We found the COBRA model runs used certified data for input to the model, files were adequately documented with appropriate audit trails, analysis methodologies were sufficient, and when applicable, military judgment was used with adequate justification.

Table C-5. Potential Candidate Recommendations						
	<i>Used certified data</i>	<i>Data changed by JCSG¹</i>	<i>Adequate documentation</i>	<i>Sufficient methodologies</i>	<i>Cost or Savings not included</i>	<i>Use of military judgment²</i>
S&S-0035	X	X	X	X		X
S&S-0043R	X		X	X		X
S&S-0051R	X		X	X		X
¹ Cost factor developed by S&S JCSG (Labor)						
² Cost factor developed by S&S JCSG (Handling & Storage)						

Appendix D. Statistical Sampling Methodology

Sampling Plan

Sampling Purpose. The purpose of the statistical sampling plan was to determine whether the S&S JCSG maintained data integrity throughout their analysis of certified capacity analysis and military value data.

Sampling Process. We drew a total of 15 samples in the verification process that consisted of 3 stages. The first stage of the process was a comparison of the certified responses contained in the OSD BRAC Master Database to the S&S JCSG Master Database and to the S&S JCSG Production Database. The second stage of the process was a comparison of the S&S JCSG Production Database to the input file for the S&S JCSG analysis models. The final stage of the process was a review of the data being transferred from the input file into the S&S JCSG analysis models. We used a statistical sampling program to generate the random items from each sample selection. We calculated the upper statistical error rate by using a 95-percent confidence level. We then compared the upper calculated error rate with the management criterion of 5-percent error rate. The data integrity reviews were completed for both capacity analysis and military value data.

We also validated the formulas in both the capacity analysis and military value models and concluded that the formulas were accurate and reasonable. Methods of verification included size checks, record count, and field-by-field verification to provide reasonable assurance that data originating from the OSD BRAC Master Database maintained its integrity through each stage.

Universe Represented. The overall universe was the data submitted by the Military Departments and the Defense Logistics Agency in response to the capacity analysis and the second data call. The universe for each sample varied depending on the stage of the review and whether data provided by the Military Departments and Defense Logistics Agency were updated between November 2004 and March 2005. See the following table for a breakdown of the samples.

Sample Selection
(as of November 9, 2004)

<u>Sample</u>	<u>Description</u>	<u>Population</u>	<u>Sample Size</u>	<u>Errors</u> ¹
1	S&S JCSG Capacity Master Database to the S&S JCSG Capacity Production Database	208,561	45	0
2	S&S JCSG Capacity Production Database to the input file for the S&S JCSG Capacity Analysis Model	19,783	72 ²	0
3-6	S&S JCSG Capacity input file to the Capacity Analysis Model:			
	for Inventory Control Points	1,168	68	0
	for Defense Distribution Depots	1,387	69	0
	for Defense Reutilization and Marketing Offices	4,824	71	0
	for All Others	12,337	72	0
7	OSD BRAC Master Database to the S&S JCSG Military Value Master Database to the S&S JCSG Military Value Production Database	276,532	72	0
8	S&S JCSG Military Value Production Database to the input file for the S&S JCSG Military Value Scoring Model	42,552	-147	2
9	S&S JCSG Military Value Scoring Model input file to the Military Value Scoring Model	42,552	208	0
(as of February 28, 2005)				
10	OSD BRAC Master Database to the S&S JCSG Capacity Master Database to the S&S JCSG Capacity Production Database	110,916	72	0
11	S&S JCSG Capacity Production Database to the input file for the S&S JCSG Capacity Analysis Model	19,783	72	0
12	S&S JCSG Capacity Analysis Model input file to the Capacity Analysis Model	2,555	70	0
13	OSD BRAC Master Database to the S&S JCSG Military Value Master Database to the S&S JCSG Military Value Production Database	226,667	72	0
14	S&S JCSG Military Value Production Database to the input file for the S&S JCSG Military Value Scoring Model	5,265	71	0
15	S&S JCSG Military Value Scoring Model input file to the Military Value Scoring Model	5,265	143	0

¹Represents errors that had an impact on data integrity.

²A supplemental judgment sample of two records was performed because the Army data was not adequately represented in the random sample.

Sampling Results

Sample 1. We reviewed the integrity of all data being transferred to the S&S JCSG Capacity Production Database. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 208,561 responses is less than 6.44 percent.¹

Sample 2. We reviewed the integrity of data being transferred from the S&S JCSG Production Database to the input file for the S&S JCSG Capacity Analysis Model. This review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 19,783 responses is less than 4.07 percent. We concluded that no errors were in the judgmentally sampled responses.

Sample 3. We reviewed the integrity of data being transferred from the input file for the S&S JCSG Capacity Analysis Model to the Capacity Analysis Model for Inventory Control Points. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 1,168 responses is less than 4.20 percent.

Sample 4. We reviewed the integrity of data being transferred from the S&S JCSG input file for the S&S JCSG Capacity Analysis Model to the Capacity Analysis Model for Defense Distribution Depots. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 1,387 responses is less than 4.18 percent.

Sample 5. We reviewed the integrity of data being transferred from the input file for the S&S JCSG Capacity Analysis Model to the Capacity Analysis Model for Defense Reutilization and Marketing Offices. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 4,824 responses is less than 4.10 percent.

Sample 6. We reviewed the integrity of data being transferred from the input file for the S&S JCSG Capacity Analysis Model to the Capacity Analysis Model for All Others. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 12,337 responses is less than 4.07 percent.

Sample 7. We reviewed the integrity of data being transferred from the OSD BRAC Master Database to the S&S JCSG Military Value Master Database, and then to the S&S JCSG Military Value Production Database. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 276,532 responses is less than 4.21 percent.

Sample 8. We reviewed the integrity of data being transferred from the S&S JCSG Military Value Production Database to the input file for the S&S JCSG Military Value Scoring Model that resulted in two errors. The two errors resulted from the data pull documentation and the military value model data pull results

¹ The confidence level for this sample exceeds the acceptable percentage criterion of less than 5 percent. However, the S&S JCSG Production Database is an exact copy of the OSD BRAC Master Database; therefore we are accepting 6.44 percent confidence level as reasonable.

not matching. As a result, we are 95 percent confident that actual error rate in the population of 42,552 responses has a projected error rate of less than 1.42 percent.

Sample 9. We reviewed the integrity of data being transferred from the input file for the S&S JCSG Military Value Scoring Model to the Military Value Scoring Model. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 42,552 responses is less than 4.07 percent.

Sample 10. We reviewed the integrity of data being transferred from the OSD BRAC Master Database to the S&S JCSG Capacity Master Database, and then to the S&S JCSG Capacity Production Database. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 110,916 responses is less than 4.07 percent.

Sample 11. We reviewed the integrity of data being transferred from the S&S JCSG Capacity Production Database to the input file for the S&S JCSG Capacity Analysis Model. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 19,783 responses is less than 4.07 percent.

Sample 12. We reviewed the integrity of data being transferred from the input file for the S&S JCSG Capacity Analysis Model to the Capacity Analysis Model for Internal Control Points and Defense Distribution Depots.² That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 2,555 responses is less than 4.15 percent.

Sample 13. We reviewed the integrity of data being transferred from the OSD BRAC Master Database to the S&S JCSG Military Value Master Database, and then to the S&S JCSG Military Value Production Database. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 226,667 responses is less than 4.07 percent.

Sample 14. We reviewed the integrity of data being transferred from the S&S JCSG Military Value Production Database to the input file for the S&S JCSG Military Value Scoring Model. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 5,265 responses is less than 4.12 percent.

Sample 15. We reviewed the integrity of data being transferred from the S&S JCSG Military Value Scoring Model input file to the Military Value Scoring Model. That review resulted in zero errors. As a result, we are 95 percent confident that the actual error rate in the population of 5,265 responses is less than 2.05 percent.

² Due to the S&S JCSG decision not to pursue any candidate recommendations related to the Defense Reutilization and Marketing Offices or the All Others category, we determined that the overall universe size of Inventory Control Points and Defense Distribution Depots was reasonable enough to combine the reviews and complete one sample.

Appendix E. Report Distribution

Office of the Secretary of Defense

Director, Base Realignment and Closures (Installations and Environment)

Chairman, Supply and Storage Joint Cross-Service Group

Non-Defense Federal Organizations

Government Accountability Office

Supply and Storage Joint Cross-Service Group Comments



DEFENSE LOGISTICS AGENCY

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19 May 2005

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE, PROGRAM DIRECTOR, READINESS AND LOGISTICS SUPPORT

SUBJECT: Report on Supply and Storage Joint Cross Service Group Data Integrity and Internal Control processes for Base Realignment and Closure 2005 (Project No. D2003-D000LD-0133)

Concur with subject report. Personnel from the Department of Defense Inspector General (DODIG) that monitored the Supply and Storage Joint-Cross Service Group (S&S JCSG) were very helpful. Our data integrity, analysis and administrative controls clearly benefited as a result.

A handwritten signature in black ink, appearing to read "K. Lippert".

KEITH W. LIPPERT
VADM, SC, USN
Director, Defense Logistics Agency
Chairman,
Supply and Storage Joint Cross-Service Group

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