June 9, 2005

Defense Infrastructure

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

(D-2005-082)

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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
FRC	Fleet Readiness Center
FTP	File Transfer Protocol
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
OSD	Office of the Secretary of Defense
SOP	Standard Operating Procedures

INSPECTOR GENERAL
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June 9, 2005

MEMORANDUM FOR PRINCIPAL DEPUTY UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS

SUBJECT: Report on Industrial Joint Cross-Service Group Data Integrity and Internal Control Processes for Base Realignment and Closure 2005 (Report No. D-2005-082)

We are providing this report for information and use. We considered management comments on a draft of this report in preparing the final 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. The complete text of the comments is in the Management Comments section of the report.

We appreciate the courtesies extended to the staff. Questions should be directed to Mr. Robert F. Prinzbach II at (703) 604-8907 (DSN 664-8907) or Mr. Douglas P. Ickes at (703) 604-8763 (DSN 664-8763). The team members are listed inside the back cover. See Appendix D for the report distribution.

By direction of the Deputy Inspector General for Auditing:

Donald A. Bloomer
Program Director
Readiness and Logistics Support Directorate

Department of Defense Office of Inspector General

Report No. D-2005-082 **June 9, 2005**
(Project No. D2003LH-0131.000)

Industrial 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 Industrial Joint Cross-Service Group (JCSG), 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 Industrial JCSG 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, to request 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 used by the JCSGs 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 JCSG involvement in the BRAC process.

Industrial Joint Cross-Service Group. The Industrial JCSG is one of six JCSGs established by the Under Secretary of Defense for Acquisition, Technology, and Logistics as the Chairman of the ISG on March 15, 2003, a seventh JCSG was later added. Each JCSG is responsible for overseeing the joint cross-service analysis of functions within their area. The Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics was appointed the chair for the Industrial JCSG. The scope of the Industrial JCSG is composed of three functional areas: Maintenance; Munitions and Armaments, formerly named Ammunitions and Armaments; and Ship Overhaul and Repair, formerly named Shipyards Overhaul and Repair.

Results. We evaluated the Industrial JCSG use of certified data and evaluated whether the Industrial JCSG had an adequate audit trail for capacity analysis and military value

analysis. We also evaluated the adequacy of the Industrial JCSG audit trail for the Cost of Base Realignment Actions model inputs for 25 potential candidate recommendations. The sampling results indicate that the Industrial JCSG used certified data and had an adequate audit trail for capacity analysis and military value analysis. The Industrial JCSG had an adequate audit trail for the input into the Cost of Base Realignment Actions model. In addition, the Industrial JCSG complied with established internal controls from the Office of the Secretary of Defense Internal Control Plan and the Industrial JCSG standard operating procedures. However, minor discrepancies were discovered in the capacity and military value production databases, which the Industrial JCSG took immediate action to resolve. As a result, no material discrepancies or noncompliance areas remain that affect the reliability and integrity of the Industrial JCSG process.

Management Comments. Although no comments were required, the Chairman, Industrial JCSG stated he had no comments or suggested changes. 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 those 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 policymaking 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 was chaired by the Under Secretary of Defense for Acquisition, Technology, and Logistics and 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 Installations and Environment. The ISG oversaw the joint cross-service analyses of common business-oriented functions and ensured the 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 in order 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 in order 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 gives guidance that establishes policies and procedures for the Military Departments and the JCSGs, to ensure that the 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.

- **"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.

Industrial Joint Cross-Service Group. The Industrial JCSG was one of six JCSGs established on March 15, 2003, by the Under Secretary of Defense for Acquisition, Technology, and Logistics. Later, a seventh JCSG was added. Each JCSG was responsible for overseeing the joint cross-service analysis of functions within their area. The Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics was appointed the chair for the Industrial JCSG. The purpose of the Industrial JCSG was to identify opportunities for consolidation, closure, or downsizing of the DoD Industrial Base. The scope of the Industrial JCSG is composed of three functional areas: Maintenance; Munitions and Armaments, formerly named Ammunitions and Armaments; and Ship Overhaul and Repair, formerly named Shipyards Overhaul and Repair.

Maintenance (Depot and Intermediate). The Maintenance Subgroup was initially chaired by the Principal Deputy Assistant Secretary of the Air Force, Installations, Environment, and Logistics. Analysis was conducted for both the Depot and Intermediate Maintenance functional levels. Each function was assessed at the Commodity group level.

Munitions and Armaments. The Munitions and Armaments Subgroup, formerly named Ammunitions and Armaments, was initially chaired by the Commander, Operations Support Command, Rock Island, Illinois. The subgroup addressed the entire life cycle of munitions (except Research, Development, Test and Evaluation (RDT&E)) and armaments. The Munitions and Armaments Subgroup evaluated the military value of installations based on five key functions. Of those functions, four related to the Munitions: production, maintenance, storage/distribution, and demilitarization; one function related to Armaments: manufacturing/production within the government-owned Industrial base.

Ship Overhaul and Repair. The Ship Overhaul and Repair Subgroup, formerly named Shipyards Overhaul and Repair, was initially chaired by the Deputy Commander, Maintenance and Intermediate and Depot Operations, Naval Sea Systems Command. Analysis was conducted for both the Depot and Intermediate Maintenance functional levels.

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), and 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 costs, savings, and payback (formerly known as return on investments) of proposed realignment and closure actions.
- 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 manually in an electronic format for the data calls. Portions of that automated data were then transferred to OSD and compiled into Microsoft Access 2003 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 was a model used that provided a uniform methodology for estimating and itemizing projected costs and savings associated with realignment and closure scenarios. The COBRA model calculated the costs, savings, and payback of proposed realignment and closure actions, using data that were readily available without extensive field studies. The COBRA model can also be used to compare the relative cost differences between various stationing

[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.

alternatives. The model is not designed to produce budget estimates, but to provide a consistent method of evaluating these actions. COBRA calculated the costs and savings of base stationing scenarios over a period of 20 years. In addition, COBRA modeled 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, which is the point in time when the realignment or closure has paid for itself and net savings start to accrue (payback period). COBRA allowed realignment or closure scenarios to be compared in terms of when payback was achieved.

To perform a COBRA assessment, Industrial JCSG loaded scenario-specific data into the COBRA model. Those 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 data inputs, Industrial 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, each JCSG prepared Standard Operating Procedures (SOPs) that further delineated controls related to the specific JCSG.

The Industrial JCSG prepared, "Office Procedures for the Industrial Joint Cross-Service Group Base Realignment and Closure 2005," (also known as SOPs) on April 20, 2004. The office procedures addressed Industrial JCSG specific storage requirements, document control, use of communication devices, public affairs guidance, and office security.

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 the Department of Defense Office of Inspector General (DoD OIG) to 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. The resulting report summarizes issues related to the Industrial Joint Cross-Service Group BRAC 2005 process.

Objectives

The overall objective of the audit was to evaluate the validity, integrity, and documentation of data used by the Industrial JCSG. Specifically, we determined whether the Industrial JCSG used certified data and created an adequate audit trail

for capacity analysis and military value analysis. In addition, we determined whether the Industrial JCSG created an adequate audit trail for their potential candidate recommendations.

Also, we evaluated whether Industrial JCSG complied with the OSD ICP and the specific Industrial JCSG SOP. This report is one in a series 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 input for potential candidate recommendations.

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

The sampling results indicated that the Industrial JCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. The Industrial JCSG created an adequate audit trail for the COBRA model input for 25 potential candidate recommendations. In addition, the Industrial JCSG complied with established internal controls from the OSD ICP and Industrial JCSG SOP. However, minor discrepancies were discovered in the capacity analysis and military value production databases, which the Industrial JCSG took immediate action to resolve. As a result, no material discrepancies or noncompliance areas remain that affect the reliability and integrity of the Industrial JCSG process on data.

Industrial JCSG Data Integrity and Documentation for BRAC 2005

The sampling results indicated that the Industrial JCSG used certified data and created an adequate audit trail for the capacity analysis and military value analysis. In addition, the Industrial JCSG created an adequate audit trail for the inputs into the COBRA model. The certified data responses were collected from the installations as a result of formal data calls generated by OSD using the Industrial JCSG questions. The responses were received through formal data transfers from the OSD BRAC office to the Industrial JCSG which maintained the data within six production databases. As a result of diligence in maintaining data integrity, the Industrial JCSG had no material discrepancies that affect the reliability and integrity of their data process.

Production Database. The Industrial JCSG had an adequate electronic audit trail that was transparent to the audit team. In addition, the Industrial JCSG prepared a written data management plan for the production database. The Industrial JCSG maintained all the BRAC 2005 capacity and military value data responses electronically in a total of six production databases that were partitioned along three functional subgroups (Maintenance, Ship Overhaul and Repair, and Munitions and Armaments) for capacity analysis and military value data. The databases were managed on a centralized server in the form of Microsoft Access 2003 Databases. The database manager prepared the "Industrial Joint Cross-Service Group BRAC Database Management Plan, May 10, 2004," document #IND-JCSG-D-04-003, outlining how data for the Industrial JCSG were processed, updated, and controlled. The plan listed only four named users with direct access to the data. The Industrial JCSG provided extensive documentation to support the electronic processing of data. However, we did identify areas in their data management plan that needed additional documentation. As a result of the potential weakness brought to the attention of the Industrial JCSG, the plan was revised.

Capacity Analysis Data. The sampling results indicated that the Industrial JCSG used certified data for capacity analysis. The Industrial JCSG subgroups identified capacity measurements related to their respective assigned functions. The measurements were used to develop questions that were designed to gain certified responses from installations that would be used for analysis. The Industrial JCSG asked both initial and supplemental capacity analysis questions to obtain the required information for use in the BRAC 2005 analysis of the Industrial Base. An initial validation was conducted early in the process to determine whether the data elements within the Industrial JCSG Production Databases were certified responses obtained from the OSD File Transfer Protocol (FTP) Site. A second validation of the capacity analysis data was conducted in March 2005, using a statistical sampling plan (see Appendix A for details). Based on the results of our audit sampling, the estimated percentage of errors in the capacity analysis databases was below the acceptable percentage criteria.

The Industrial JCSG created an adequate electronic audit trail for capacity analysis. The capacity analysis data contained in the production databases were used to populate the Industrial JCSG Capacity Report. The audit trail was transparent in that the data manager developed reports within the production databases that contained data queried directly from the tables populated from the files received from OSD-certified sources. The queries applied equations that produced results that were used by the subgroups in their analysis. During a review of results contained in the Industrial JCSG Capacity Report, an incorrect equation was discovered in the row entitled "Percentage of Capacity not Utilized." The results of the validation were discussed with the Industrial JCSG on November 9, 2004. As a result, the Industrial JCSG took immediate corrective action and resolved the error.

Military Value Data. The sampling results indicated that the Industrial JCSG used certified data for military value analysis. The Industrial JCSG subgroups developed military value attributes, metrics and questions for each of the four military value criteria, defined in the Policy Memorandum "2005 Base Closure and Realignment Selection Criteria, January 4, 2005." The questions were designed to obtain certified responses from installations that would be used for analysis. The initial validation of the military value data found that the Industrial JCSG used certified data. A second validation of the military value data was conducted in March 2005, using a statistical sampling plan (see Appendix A for details). We determined that although some of the files had been reformatted, the estimated percentage of errors in the sample results for military value databases was below the acceptable percentage criteria.

The Industrial JCSG created an adequate electronic audit trail for military value analysis. The audit trail was transparent in that the data manager developed military value reports from the production databases that contained data queried directly from the tables populated from the files received from OSD certified sources. The queries applied algorithms that produced results that were used by the subgroups in their analysis. The "Industrial Joint Cross-Service Group Military Value Analysis Report, June 28, 2004" listed the attributes, metrics, a quantitative scoring plan, and data call questions to assess the military value of DoD Industrial facilities. That report provided the framework for the Industrial JCSG military value model for calculating scores. During a review of the results contained in the military value scoring plan for the Munitions and Armaments

subgroup, one database query error was discovered. We discussed the results of the validation with the Industrial JCSG on December 15, 2004. As a result, immediate corrective action was taken and the error was resolved.

COBRA Input. The Industrial JCSG created an adequate audit trail for the COBRA model input for 25 potential candidate recommendations. The Industrial JCSG used the certified responses from the scenario data calls to populate the COBRA model. In addition, in some instances, the Industrial JCSG subgroups used data derived from the certified responses to conduct their analysis. The derived data was documented throughout the process. We reviewed 25 out of 31 scenario packages that the Industrial JCSG proposed as candidate recommendations (see Appendix C). At the time of our review, all scenarios had been processed using COBRA version 6.08. The main issues identified were the need for additional supporting documentation and additional footnotes in the COBRA model to further explain results. The Industrial JCSG took the appropriate steps to address the footnoting and documentation. The Industrial JCSG maintained a sufficient audit trail supporting their recommendations. Therefore, no material issues remain outstanding.

Risk Mitigation. The Industrial JCSG planned and executed risk mitigation actions that preserved data reliability throughout their entire BRAC process. Some of the actions that were undertaken by the Industrial JCSG subgroups included: BETA testing, data standardization, and data clarifications from Service representatives. Risk mitigation was the effort that the various BRAC Joint Cross-Service Groups went through to improve the quality and accuracy of data that were collected from all military service installations within DoD. The data collected by the Industrial JCSG under the BRAC process were the building blocks that would be used to render future realignment and closure actions within the DoD. The DoD OIG performed a limited review of the data that the Industrial JCSG subgroups collected and processed during the two BRAC data calls to access the subgroup's success at resolving data errors in the capacity analysis and military value databases. The review concluded that the subgroups of the Industrial JCSG successfully reduced the number of data errors in the capacity analysis and military value databases that significantly improved the reliability of the data that was used to decide BRAC actions.

Industrial Joint Cross-Service Group Internal Control Processes for BRAC 2005

The Industrial JCSG complied with the OSD ICP. The OSD ICP formed the foundation for the Industrial JCSG SOP. To evaluate compliance of the Industrial JCSG, each area of the Industrial JCSG SOP was compared to the respective area in the OSD ICP to ensure that the Industrial JCSG adequately addressed all areas of concern. Additionally, the Industrial JCSG was observed as they employed the policies and procedures in performance of their daily activities. Also, an extensive comparison of the Industrial JCSG nondisclosure agreements to the various meeting attendees list was conducted. As a result of the Industrial JCSG compliant actions, their data integrity was maintained.

Compliance with OSD ICP. The Industrial JCSG complied with the OSD ICP procedures. The ICP procedures required that:

- the BRAC 2005 process be clearly recorded;
- 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;
- minutes be recorded for all deliberative meetings;
- oral briefings be captured in minutes;
- outside studies be brought to the attention of any BRAC group;
- technical experts submit information or data in writing with the required certification if the JCSG considers the data relevant;
- nondisclosure agreements be maintained for all participants in the BRAC process; and
- BRAC 2005 documents be marked as draft deliberative and/or sensitive.

Compliance with Standard Operating Procedures. The Industrial JCSG complied with their SOPs. The foundation of the SOPs was the OSD ICP. The Industrial JCSG was located in leased office space; internal controls to ensure data management and security were an utmost priority. DoD OIG auditors continuously reviewed the Industrial JCSG implementation of the procedures, attended meetings on a regular basis, and validated the data maintained in the production databases. As a result of the Industrial JCSG compliance with the standards, data integrity and security were maintained.

Conclusion

The sampling results indicate that the Industrial JCSG used certified data and created an adequate audit trail for capacity analysis and military value analysis. After our review, we determined the Industrial JCSG created an adequate audit trail for the input into the COBRA model for 31 potential candidate recommendations. In addition, the Industrial JCSG complied with established internal controls from the OSD ICP and the Industrial JCSG SOPs. The Industrial JCSG took steps to resolve the discrepancies noted. No material discrepancies remain unresolved that would affect the reliability and integrity of the Industrial JCSG process.

Management Comments of the Finding

Industrial Joint Cross-Service Group. Although no comments were required, the Chairman, Industrial JCSG stated he had no comments or suggested changes. 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.

Appendix A. Scope and Methodology

We evaluated the validity, integrity, and documentation of data used by the Industrial JCSG. Specifically, we determined whether the Industrial JCSG had used certified data and had created an adequate audit trail for capacity analysis and military value analysis. In addition, we determined whether the Industrial JCSG had created an adequate audit trail for their potential candidate recommendations. We also evaluated whether the Industrial JCSG complied with the OSD ICP and the specific Industrial JCSG SOP.

Over the 2-year period beginning in May 2003, we attended meetings of the Industrial JCSG. We reviewed the formal minutes and briefing charts of the meetings to verify that decisions made by the Industrial JCSG were adequately documented. In addition, we reviewed the Industrial JCSG SOP for compliance. We also conducted reviews of the nondisclosure agreements maintained by the Industrial JCSG to the attendees list prepared at specific Industrial JCSG meetings.

We performed validations to determine whether the Industrial JCSG used certified data or approved authoritative sources for developing BRAC recommendations. We evaluated the integrity of the Industrial 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. Because of time constraints, the audit team was not able to review the six Fleet Readiness Center (FRC) scenarios (IND-0103; IND-0104; IND-0123; IND-0124; IND-0125; IND-0126) developed by the Maintenance subgroup. At the time of our review, the Maintenance subgroup was still awaiting data from the Navy in order to process these scenarios.

Capacity Analysis. For the initial capacity analysis data validation, we obtained a copy of the Industrial JCSG production database as of November 1, 2004, and compared the data with the OSD master database file downloaded by the Industrial JCSG from the OSD FTP site, as of November 1, 2004. The Industrial JCSG database manager downloaded the master database from an FTP site OSD established to transfer certified data. We compared positive responders in the Industrial JCSG production database to the data downloaded from the OSD FTP site. Positive responders were activities that provided actual data as a response to a question. "Not applicable" or a blank was not considered a positive response. The Industrial JCSG asked a total of 175 capacity analysis questions. For the initial capacity analysis validation, we reviewed a judgmental sample of 89 questions. The 89 questions contained 164,013 lines of data; 5,947 lines of data were positive responders. Using a judgmental sample, we reviewed 948 lines of the positive responders for accuracy.

The final validation of the capacity analysis data took place in March 2005. Using a statistical sample plan, we compared data the OSD BRAC office provided to production data collected from the Industrial JCSG. We reviewed a total of
624 lines of data, with 208 in each of the three subgroups (see Table 1, Capacity Analysis).

The Industrial JCSG provided a copy of the capacity report as of November 1, 2004, which was electronically generated from the Industrial JCSG production database without manual entry. The report was organized into separate sections. We also compared the data in the "Capacity by Site" section of the report to data in the "Capacity by Commodity" section and verified the calculations within the report.

Military Value Analysis. The Industrial JCSG asked a total of 350 military value questions. For the initial military value data validation, we reviewed a judgmental sample of 176 questions. The 176 questions contained 51,433 lines of data. We obtained the Industrial JCSG production database for our validation from the Industrial JCSG database manager on December 2, 2004. We then compared the positive responders in the Industrial JCSG database to the data from the OSD BRAC master database downloaded by the Industrial JCSG from the OSD FTP site as of November 29, 2004. Of the 51,433 lines, 15,362 were positive responders. Using a judgmental sample, we reviewed 1,859 of the 15,362 positive responders. Additionally, we used the Industrial JCSG approved Military Value Analysis Report, June 28, 2004, to validate the formulas contained in the military value scoring model for the related sites and questions.

The final validation of the military value data took place in March 2005. Using a statistical sample plan, we compared data the OSD BRAC office provided to production data collected from the Industrial JCSG. We reviewed a total of 624 lines of data, with 208 in each of the three subgroups (see Table 2, Military Value Analysis).

COBRA Input. We reviewed COBRA data contained in 25 of the 31 potential candidate recommendations (see Appendix C). We used COBRA model version 6.08 as of March 28, 2005, for our review. Subsequent versions of COBRA have been released; however, because of time constraints we did not revalidate. We compared the data in the COBRA model to the master or control data downloaded from the various Service and OSD portals. We reviewed static data as well as inputs for screens five and six. As of the date of our review, the six FRC recommendations (IND-0103; IND-0104; IND-0123; IND-0124; IND-0125; IND-0126) of the Maintenance Subgroup were not ready for review.

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.

Use of Computer-Processed Data. We relied on computer-processed data from the Industrial JCSG Production Database, the OSD Master Database, and the OSD FTP Site Master Data Files. Our review of the system controls over the

Industrial JCSG Production Database provided reasonable assurance on the data's validity.

Sample Design. The Industrial JCSG capacity analysis and military value data are maintained on production databases. The final validation of the Industrial JCSG capacity analysis and military value data was conducted using a statistical sample plan, and by selecting simple random samples of lines of data derived from the six production databases, three each for capacity analysis and military value, reported as of March 2, 2005, and listed below:

Table 1. Capacity Analysis

No.	Database	Population	Sample
1	Maintenance	171,540	208
2	Ship Overhaul and Repair	36,366	208
3	Munitions and Armaments	76,972	208
	Total		**624**

Table 2. Military Value Analysis

No.	Database	Population	Sample
1	Maintenance	95,066	208
2	Ship Overhaul and Repair	6,083	208
3	Munitions and Armaments	5,353	208
	Total		**624**

The sample size of 208 lines of data for each subgroup's database was determined by using a 95-percent confidence level with a maximum tolerance error rate of 3 percent with no more than 2 sample errors per database. We validated each database by analyzing the respective sample results which showed that the estimated proportion of errors in each database was below the percentage criteria. However, reformatting discrepancies were noticed in certain line items that were subsequently clarified and resolved.

Use of Technical Assistance. Statisticians from the Analysis, Planning, and Technical Support Directorate, Quantitative Methods Division, Office of the Deputy Inspector General for Auditing, provided assistance in designing a random statistical sampling plan for performing the final validation.

Audit Type, Dates, Standards. We performed this audit from May 2003 through May 2005 in accordance with generally accepted government auditing standards.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available on request.

Management Control Program Review

We evaluated the Industrial JCSG management controls for documenting and safeguarding information associated with the BRAC 2005 data calls, as directed by the OSD ICP. Specifically, we reviewed nondisclosure agreements, deliberative meeting minutes, proper markings and storage of BRAC data, and the supporting documentation for Industrial 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 OIG and the Army Audit Agency have issued five memorandums and audit reports discussing the Industrial JCSG BRAC 2005 data validations and one report on the COBRA Model.

Department of Defense Inspector General

DoD IG Memorandum, "Validation of the Base Realignment and Closure 2005 Capacity Data Used by the Industrial Joint Cross-Service Group," March 11, 2005

DoD IG Memorandum, "Validation of the Base Realignment and Closure 2005 Military Value Data and Military Value Model Used by the Industrial Joint Cross-Service Group," March 11, 2005

Army

Army Audit Agency Report A-2005-0169-ALT, "Validation of Army Responses for Joint Cross-Service Group Questions," April 22, 2005

Army Audit Agency Report A-2005-0083-ALT, "Army Military Value Data The Army Basing Study 2005," December 21, 2004

Army Audit Agency Report A-2004-0544-IMT, "Cost of Base Realignment Action (COBRA) Model The Army Basing Study 2005," September 30, 2004

Army Audit Agency Report A-2004-0459-IMT, "Validation of Army Installation Capacity Data for Base Realignment and Closure 2005 Industrial Joint Cross-Service Group," August 24, 2004

Appendix C. Review of Potential Candidate Recommendations

Tables C-1 through C-3 identify the 31 Potential Candidate Recommendations prepared by the Industrial JCSG as of the IEC meeting May 4, 2005. Of the 31 recommendations, 25 were included in our review. All of the issues identified were called to the attention of the responsible Subgroup for action. The Industrial JCSG Subgroups took immediate action to comply with the DoD OIG issues.

Table C-1. Ship Overhaul and Repair

Industrial JCSG Potential Candidate Packet Review											
Scenario No.	Scenario Short Title	Quad Chart - Candidate Recommendation	Justification	COBRA Version 6.08	Criterion 6	Criterion 7	Criterion 8	Force Structure Plan	Capacity Analysis	Military Value Analysis	Certification Letters
Shipyards Overhaul and Repair											
IND-0019	Sima Pascagoula, MS	Y	Y	Y	Y	Y	Y	Y	Y	P*	Y
IND-0024	Sima Norfolk, VA	Y	Y	Y*	Y	Y	Y	Y	Y	P*	Y
IND-0030	Sima NRMF Ingleside, TX	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0037	New London, CT	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0056	Portsmouth, NH	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0095	Puget Sound Det, MA	Y	Y	Y*	Y	Y	Y	Y	P*	Y	Y
IND-0096	NNSY Det NAVPESO, MD	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0097	NNSY Det NAVSHIPSO, PA	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Y - Included / P - Partial / * - Exception Noted

Ship Overhaul and Repair. We reviewed eight potential candidate recommendations for the Ship Overhaul and Repair Subgroup. Subsequent to issuance of the Draft Report, candidate recommendations IND-0019, IND-0030, IND-0037, and IND-0056 were absorbed into larger Navy candidate recommendations. Additionally, the subgroup took corrective action and resolved the following exceptions:

- IND-0024 Insert military value analysis data.
- IND-0095 Insert capacity analysis sheet.
- Additional footnotes for clarification in COBRA.

As a result, no material discrepancies or noncompliance areas remain which affect the reliability and integrity of the Ship Overhaul and Repair Subgroup candidate recommendations.

Table C-2. Maintenance

Industrial JCSG Potential Candidate Packet Review											
Scenario No.	Scenario Short Title	Quad Chart - Candidate Recommendation	Justification	COBRA Ver 6.08	Criterion 6	Criterion 7	Criterion 8	Force Structure Plan	Capacity Analysis	Military Value Analysis	Certification Letters
Maintenance											
IND-0083A	Rock Island, IL	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0083B	Seal Beach, CA	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0086	Lackland AFB, TX	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0127A	Barstow, CA	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0127B	Red River, TX	Y	Y	Y*	Y	Y	Y	Y	Y	Y	Y
IND-0103	FRC West	Candidate Recommendation Packets not prepared at time of vaildation**									
IND-0104	FRC Northwest										
IND-0123	FRC East										
IND-0124	FRC Southeast										
IND-0125	FRC Southwest										
IND-0126	FRC Mid-Atlantic										

Y - Included / P - Partial / * - Exception Noted

** Subsequent to the issuance of the draft report, the six FRC recommendations were combined into one recommendation with the number IND-0103R. Due to time constraints, we were unable to validate the data in this recommendation.

Maintenance. We reviewed 5 of 11 potential candidate recommendations for the Maintenance Subgroup. Subsequent to issuance of the Draft Report, candidate recommendation IND-0127A was absorbed into a larger Navy candidate recommendation and candidate recommendation IND-0127B was absorbed into a larger Army candidate recommendation. Additionally, the subgroup took corrective action and resolved the following exception:

- Additional footnotes for clarification in COBRA.

As a result, no material discrepancies or noncompliance areas remain which affect the reliability and integrity of the Maintenance Subgroup candidate recommendations.

Table C-3. Munitions and Armaments

Industrial JCSG Potential Candidate Packet Review											
Scenario No.	Scenario Short Title	Quad Chart - Candidate Recommendation	Justification	COBRA Ver 6.08	Criterion 6	Criterion 7	Criterion 8	Force Structure Plan	Capacity Analysis	Military Value Analysis	Certification Letters
Munitions and Armaments											
IND-0106	Kansas Army Ammunition Plant	Y*	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0108	Hawthorne Army Depot, NV	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0110	Mississippi Army Ammunition Plant	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0111	Red River, TX	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0112	Riverbank, CA	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0113	Sierra Army Depot, CA	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0114	Watervliet, NY	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0115	Lima, OH	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0117	Deseret Chemical Depot, UT	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0119	Newport Chemical Depot, IN	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y
IND-0120	Umatilla Chemical Depot, OR	Y	Y	Y*	Y	P*	P*	Y	P*	Y*	Y
IND-0122	Lone Star, TX	Y	Y	Y*	Y	Y	Y	Y	Y*	Y*	Y

Y - Included / P - Partial / * - Exception Noted

Munitions and Armaments. We initially reviewed the 12 potential candidate recommendations for the Munitions and Armaments Subgroup. Subsequent to issuance of the Draft Report, candidate recommendation IND-0111 was absorbed into a larger Army candidate recommendation. Additionally, the subgroup took corrective action and resolved the following exceptions:

- IND-0106 Address all action items in the Quad Chart
- IND-0120 Update Criteria 7 and 8 and capacity analysis
- Update capacity and military value analysis with an “as of date”
- Additional footnotes for clarification in COBRA

As a result, no material discrepancies or noncompliance areas remain which affect the reliability and integrity of the Munitions and Armaments Subgroup candidate recommendations.

Appendix D. Report Distribution

Office of the Secretary of Defense

Director, Base Realignment and Closures (Installations and Environment)

Chair, Industrial JCSG, Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics

Non-Defense Federal Organizations

Government Accountability Office

Industrial Joint Cross-Service Group Comments

THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

MAY 25 2005

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL,
PROGRAM DIRECTOR, READINESS AND LOGISTICS
SUPPORT, ATTN: MR. ROBERT F. PRINZBACH II

SUBJECT: DoDIG Draft Report, Industrial Joint Cross-Service Group Data integrity and Internal Control Processes for Base Realignment and Closure 2005, dated May16, 2005 (Project No. D2003LH-0131.000)

I have received and reviewed the subject report and have no comments or suggested changes.

I would like to thank the DoDIG team of Doug Ickes, Teena Propst, Beth Sakshaug, and Steve Schaefer for their professionalism and cooperation through this difficult process.

Michael W. Wynne
Chairman, Industrial Joint Cross
Service Group

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