

Criterion 5 and Cost of Base Realignment Action Joint Process Action Team

Purpose

This report summarizes and documents the approach used by the Base Realignment and Closure (BRAC) 2005 Criterion 5 and Cost of Base Realignment Action (COBRA) Model Joint Process Action Team (JPAT).

Criterion 5

“The extent and timing of potential costs and savings, including the number of years, beginning with the date of completion of the closure or realignment, for the savings to exceed the costs.”

Executive Summary

This Office of the Secretary of Defense (OSD)-chartered JPAT was established to develop a Department of Defense (DoD)-wide approach to apply BRAC Selection Criterion 5. The JPAT was tasked to prepare the COBRA model for validation by updating the model’s standard factors and enhancing the algorithms and functions to capture new technologies, business practices, and Joint Service requirements.

Authority

The BRAC statute requires that the foundation for Secretary of Defense base realignment and closure recommendations be “the force structure plan and infrastructure inventory prepared by the Secretary under section 2912 and the final selection criteria prepared by the Secretary under section 2913.” As such, the Joint Cross-Service Groups and Military Departments need to ensure that all eight selection criteria are considered in developing recommendations that will be forwarded to the Secretary of Defense.

Establishment

Exercising authority provided by the BRAC 2005 Infrastructure Steering Group (ISG), the OSD BRAC Director and the Military Department Deputy Assistant Secretaries responsible for the BRAC process (known as the “BRAC DASs”), established a JPAT for Selection Criterion 5, commonly known as the “COBRA JPAT.” The Army was designated the lead MilDep for the effort.

Charter

The BRAC DASs chartered the JPAT to develop a DoD-wide approach to apply BRAC Selection Criterion 5.

Mission and Concept

The COBRA JPAT provided an auditable COBRA model for the Services and the Joint Cross Service Groups (JCSG), which all groups used during scenario analysis. COBRA had not been used since BRAC 1995. Subjects such as privatization, partnerships, and contracted work all needed to be integrated into COBRA. Also technology improvements have allowed us to collect more specific data and avoid national averages within the model's equations. Because of this, the JPAT did the following:

- a. Provided the Services and the JCSG's COBRA training that ensured a thorough understanding of COBRA data, functionality, limitations, and updates.
- b. Verified and validated model inputs and outputs.
- c. Reviewed, refined, and verified model algorithms, operations, and functionality.
- d. Ensured that COBRA complies with BRAC 2005 Public Law.
- e. Revised and enhanced the COBRA model as dictated within the JPAT.

Organization and Responsibilities

The Army BRAC DAS (DASA (IA)) was designated the Executive Agent for the JPAT. In that role, he was responsible for:

- a. Overseeing the work of the JPAT
- b. Assigning a representative to provide program management and contractor supervision for the COBRA model.
- c. Presenting modification recommendations to the Infrastructure Steering Group (ISG).
- d. Providing contractor support for the COBRA JPAT proceedings and products.

The Army BRAC DAS subsequently identified a representative from the Army Basing Study (TABS) to provide day-to-day guidance and support to the JPAT.

The JPAT was composed of standing members from each of the Military Departments, JCSG's and the Office of the Secretary of Defense (Acquisition, Technology and Logistics). Contributing members included R&K Engineering and other Defense Agencies. The DoD IG, General Accounting Office, and the Army Audit Agency were process observers.

JPAT members were responsible for the following:

- a. COBRA content and accuracy with a focus on the standard factors and underlying algorithms.
- b. Reviewing the BRAC 2005 Law and ensuring that COBRA complies.

Approach

The JPAT was formed on July 17, 2003 with a kickoff meeting followed by COBRA training sessions for all members. From August 7, 2003 to November 13, 2003, the JPAT worked based on a standard schedule. On the Monday of each week, the Executive Agent's Representative issued a read ahead to present the topics for the Thursday JPAT meeting. JPAT members then familiarized themselves with the read ahead topics, determined what issues affected their organization, and came to the meeting prepared to discuss these issues and their positions. To help set the agenda for the Thursday meeting, a special topic working group meeting was held on Wednesday of the week before the Thursday meeting. Only those members with specific issues and invited subject matter experts attended these special topic meetings.

The JPAT considered only cost related factors used to determine a candidate recommendations overall cost. The JPAT did not resolve policy issues, but brought costing issues that JPAT members raised to the Executive Agent. In order to maintain their status as independent agencies, GAO, DoD IG, and AAA were present only to observe the process. They advised the JPAT on issues, but were not voting members and did not make managerial decisions.

The JPAT used a consensus decision-making process to prepare recommendations. All unresolved issues were deferred until the JPAT members completed additional research or coordination. The Executive Agent's Representative compiled recommendations, including minority opinions, and presented them to the Executive Agent for a decision. The Executive Agent then presented the recommendations to OSD and the other BRAC DASs for coordination. Finally, the recommendations along with any residual issues, were presented to the ISG for final resolution. Each JPAT meeting produced minutes and issues for discussion at future meetings

At the conclusion of the development sessions, the JPAT produced the following products:

- a. COBRA program CD
- b. COBRA Users Manual
- c. A COBRA Algorithm Manual which is divided into four sections. The first section contains a picture of each input screen with each input field and the applicable algorithms listed. The second section contains an example of each output report listing with which algorithm or input screen field provides each data element. The third section contains an English description of all algorithms used by this program with formulae if necessary. Finally, there is a table containing definitions of acronyms used in the document.
- d. A COBRA User's Checklist which was designed to help a COBRA user enter all of the required data into the program.
- e. A COBRA Analyst Template which was designed for an analyst to fill out and then turn over to a COBRA user for data entry into the program.

The COBRA program, along with all documentation, was issued to all JPAT members on a CD. All requests for changes to the algorithms or the underlining data were routed through TABS with all changes approved by the COBRA Executive Agent.

Standard Factors, Installation Static Data, and Algorithms

COBRA contains 33 different installation static data factors for each of the over 600 installations within the COBRA installation data base. COBRA also contains 61 standard factors which are applied to all installations within the COBRA database. These factors were collected using corporate databases, DoD and other government references, or by data call. The installation static data factors and the standard factors are defined in the COBRA User's Manual. COBRA uses these factors in 183 different algorithms to determine the extent and timing of costs and savings. Each of these algorithms is defined in the COBRA Algorithm Manual.

COBRA Reports

COBRA outputs are presented through a series of reports which are outlined below.

- a. COBRA REALIGNMENT SUMMARY REPORT - The key output of the model is the Realignment Summary. This report is contained on one or two pages that display key values with which to evaluate the modeled scenario and compare it with other scenarios. The Positions Eliminated/Realigned data can also be displayed as a bar graph.

b. **NET PRESENT VALUES REPORT** - Another key report is the Net Present Values Report. This is usually contained on a single page which displays the cost and discounted cost for each year and NPV of the cost of the realignment for each year of the analysis period. The point where the NPV goes from a positive value (a cost) to a negative value (a savings) is the payback year of the scenario; also shown on the Realignment Summary Report. This report can also be displayed as a graph.

c. **REALIGNMENT DETAIL REPORT** - This report provides detailed yearly costs, savings, and net costs of the closure/realignment. If the total net costs have not become a negative number (meaning a net savings) at or before the "Beyond" year, no savings are realized for the closure/realignment action. Note that this report may contain pages for each individual base depending upon the settings in the Report Options. The One-Time Net Costs and Recurring Net Costs from this report can be displayed as graphs.

d. **TOTAL ONE-TIME COST REPORT** - This report provides the Total One-Time Costs, Total One-Time Savings, and Total Net One-Time costs for the total scenario. The total of the yearly one-time net costs shown on the Appropriations Detail Report is identical to the Total Net One-Time Costs shown on this report. Note that this report may contain pages for each individual base depending upon the settings in the Report Options.

e. **SUSTAINMENT/RECAP/BOS/HOUSING CHANGE REPORT** - This report shows Net Changes in Sustainment Change, Recapitalization Change, Base Operations Support (BOS) Change, Housing Change and **TOTAL CHANGES** (costs) for each year of the scenario.

f. **PERSONNEL/SF/SUSTAINMENT/RECAP/BOS DELTAS REPORT** - This report shows, for each base, "Start" and "Finish" data so that only changes attributable to the BRAC action are reflected in the report. It also shows the specific values and percent change that occur in Personnel, Square Footage, Base Operations Support costs, Sustainment costs, Recapitalization costs, and a sum of combined Sustainment + Recap + BOS costs. Also, the last table shows the ratio of changes in BOS, Sustainment, Sustainment plus BOS, acreage, and square footage to changes in personnel.

g. **TOTAL MILITARY CONSTRUCTION ASSETS REPORT** - This report provides a single-page summary of costs for all bases involved in the closure/realignment where construction or rehabilitation will be required. The cost of each requirement includes not only the construction costs, but also the design, SIOH, site preparation, information management, and contingency costs. Also shown are construction avoidances. Note that this report may contain pages showing requirements and costs for each individual base depending upon the settings in the Report Options.

h. **PERSONNEL IMPACT REPORT** - This report shows a one-page summary of yearly civilian personnel realignments (**CIVILIAN POSITIONS REALIGNING OUT** and **CIVILIAN POSITIONS REALIGNING IN**) and eliminations (**CIVILIAN POSITIONS ELIMINATED**) for the entire scenario. Note that this report may contain pages for each individual base depending upon the settings in the Report Options.

i. **PERSONNEL YEARLY PERCENTAGES REPORT** - This report shows the yearly number and percentage of personnel changes at each base (used for automatic scheduling of construction and facilities to be shut down). Also shown are the time-phases as calculated from the yearly personnel changes. This report is only generated if the "Auto Time-Phase" option on Screen One is enabled.

j. **PERSONNEL SUMMARY REPORT** - This report totals all personnel force structure changes, scenario changes, and positions realigning to and from each base.

k. **INPUT DATA REPORT** - This report is a printout of all data entry screens (Screen One through Screen Eight) and standard factors tables (Tables One through Table Three) selected on the Report Options screen, showing the scenario inputs upon which the other reports are based.

l. **SCENARIO ERROR REPORT** - This report is created only if inconsistencies are found in the scenario data. Since all reports are generated at once, the other reports will have been made using potentially incorrect data. So, when a Scenario Error Report is present, it should be checked immediately to determine if data corrections should be made. Once corrections are made to scenario data, the reports must be executed again before they are used for analysis purposes. The specific data inconsistencies that are checked for are: