24 March 2004

MEMORANDUM FOR RECORD

FOR DEPUTY ASSISTANT SECRETARY OF THE ARMY FOR INFRASTRUCTURE ANALYSIS (DASA (IA))

SUBJECT: Concurrence with 2005 Base Realignment and Closure Military Value (MV) Model Attribute

1. I have reviewed and concur with the below listed BRAC 05 MV attributes:

a. **C2 TARGET FOR FOCUS FACILITIES**

2. This concurrence signifies that, for the above listed attributes:

a. The attribute (s), as defined, is an effective installation military value measure for its stated purpose(s) and the DOD criteria.

b. That the methodology supports the purpose.

c. That the data required supporting the model are available either within existing Army databases or from the installations.

d. That any weights applied within the equation are valid.

e. That the curve of the value function is consistent with the military value of the attribute.

3. POC for this action is the undersigned at Christie P. Smith, 703-604-2450, Christie.Smith2@hqda.army.mil.

Encl *(dated attribute narratives)*

PETER F. PORCELLI
COL, GS
Chief, Plans and Operations Division

C2 TARGET FOR FOCUS FACILITIES

As of: 23 Mar 04 -- DRAFT

1. **DEFINITION:** A combination of an installation's total square footage of the ACSIM designated focused set of facilities and the funding required to achieve an ISR quality rating of C-2 for those facilities as compared to the total square footage and funding required for other installations.
2. **PURPOSE:** Measures an installation's overall facility quality, using the installation's contributions to the total cost to improve its focus facilities to C2, as compared to other installations.
3. **SOURCE:** ACSIM and HQRPLANS, no installation data call is required
4. **METHODOLOGY:**
   a. Background – the Army has a defined a set of focus facilities that impact stationing and help estimate the quality of the installation's current infrastructure. TABS uses these facilities and the cost to bring them to C-2 as a proxy for the overall value of an installation's facilities and future facility costs.
   b. Method
      i. TABS uses a two-dimensional constructed measure to evaluate an installation's focus facilities. The two-dimensional constructed measure combines metrics that cannot be defined using a single direct measure.
      ii. ACSIM provides the square footage for the following focus facility groups for TABS installations: General Instruction Buildings (FCGs F17120 and F85210), Tactical Vehicle Maintenance Shops (FCG F21410), Trainee Barracks (FCGs F72181 and F72121), Physical Fitness Centers(FCG F74028), Chapels(FCG F73017), Army Guard Readiness Centers (FCGs F17180, F21407, and F17142), and Army Reserve Training Centers (FCGs F17140, F21409, and F17142).
      iii. ACSIM will also provide the cost to bring the focus facilities defined in 4.b.ii, to a C2 level of quality.
      iv. TABS combines the data that is defined in 4.b.ii and 4.b.iii and calculates military value.
5. **QUESTIONS THAT DEFINE DATA:**
   a. What is the cost to bring the installation's focus facilities to C2?
   b. What is the total size in SQ FT of the installation's focus facilities?
6. **REFERENCES:** HQRPLANS, ISR
7. **UNIT OF MEASURE:** Matrix index
   a. **EQUATION: N/A**

8. MODEL REQUIREMENTS:

a. Model Inputs:

i. The installation's costs to bring focus facilities to C2 and the quantity in square feet of those facilities are the model's two primary inputs.

	Quantity (SQ FT)		
Cost (%)	Small	Med	Large
High	Label 1	Label 2	Label 3
Med	Label 4	Label 5	Label 6
Low	Label 7	Label 8	Label 9

ii. The maximum value of 10 will be given to the installations with a large amount of facilities and a low cost.

iii. The minimum value of 0 will be given to an installation if it has no focus facilities.

iv. The below two-dimensional matrix has a Label for any combination that can exist for the value measure and an X if the combination cannot exist on an installation.

b. Value Function

i. The value function is a representation of the military value of an installation's focus facilities and converts the raw data that TABS plots into the above matrix into a military value for the installation.

ii. The assessment of the function is determined by TABS and coordinated with ACSIM.

iii. Assessment Results.

1. The table below illustrates the assessment's values, which consists of a series of pair-wise comparisons between the different Labels (range from 1 to 9, comparison of "1" indicates that the preferences are equal between the Labels and a "9" indicates that the preference of one Label to another is extreme).

C.R. = 0.009	Label 1	Label 2	Label 3	Label 4	Label 5	Label 6	Label 7	Label 8	Label 9
Label 1	0	0.333	0.2	0.333	0.2	0.125	0.2	0.125	0.111
Label 2								0.333	0.25
Label 3								0.5	0.333
Label 4								0.333	0.25
Label 5								0.5	0.333
Label 6	8	3	2	3	2	6.036	2	1	0.5
Label 7	5	2	1	2	1	0.5	3.04	0.5	0.333
Label 8	8	3	2	3	2	1	2	6.036	0.5
Label 9	9	4	3	4	3	2	3	2	10

NOT Finished

2. The assessment converts the pair-wise comparisons into the value that an installation will receive for meeting the requirements at a given label.

3. For example (refer to the grey cells in column 2 of the below matrix), the SME indicates that Label 2 is *extremely* (scores a XXX) preferred over Label 1, and Label 5 is *moderately* (scores a XXX) over Label 1.
4. The above matrix has a consistency ratio (CR) of XXX that indicates that the pair-wise comparisons are *consistent* across all Labels. A CR < 0.1 is considered adequate. For example, a consistent ranking between Labels would mean that if A > B and B > C then A > C. However, if A < C, then the ranking would be considered inconsistent.

	Quantity (SQ FT)		
Cost (%)	Small	Med	Large
High	0.00	1.24	3.04
Med	1.6	3.04	6.04
Low	3.04	6.04	10.00

c. Model Outputs

i. The above matrix represents the model's results (the diagonal of the assessment matrix). Each installation will have costs and quantity characteristics that fit into this matrix. If the installation does not fall on the matrix, it receives "0" value for this attribute.

ii. The raw scores were normalized on a scale of zero to ten based on the pair-wise assessment results.

iii. The histogram for the Value Function provides a graphical representation of the previous matrix. The military values shown in the following graph are ordered according to increasing value based on the assessment. The values show that there are several combinations for this attribute that have the same military value.