THE UNDER SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-3010

ACQUISITION,
TECHNOLOGY
AND LOGISTICS

MAR 4 2004

MEMORANDUM FOR CHAIRMAN, TECHNICAL JOINT CROSS SERVICE GROUP

SUBJECT: Infrastructure Steering Group (ISG) Comments on the Technical Joint Cross-Service Group Draft Military Value Report

The ISG has reviewed the draft Technical Joint Cross-Service Group (TJCSG) Military Value Report, briefed to it on February 17, 2004.

The ISG appreciates the military judgment and dedicated effort that your members, as the experts in their field, put into the report. As you prepare your final report for formal coordination, please consider the following comments, consolidated from those submitted on behalf of ISG members. For your convenience, the original comments are also enclosed. Please note that the general comments provided by the Air Force are for ISG consideration rather than your direct response. If the judgment of your group is not to incorporate any of the following suggestions, please provide a brief rationale in the memorandum transmitting your final report. Your final report is due to the OSD Base Realignment and Closure (BRAC) office on or before March 22, 2004. Additionally, please plan to attend the April 2, 2004 ISG meeting (1030-1230) and be prepared to respond to any questions about your final report.

General Comments

As you mentioned in your draft report, essential elements of the report need to be completed. These include questions, certain weights and scores, and the "future war fighting concepts group" assessment upon which certain weights and scores are based.

To the extent possible, your report should be a complete, stand-alone document that contains the reasons for selecting attributes and metrics and assigning weights and scores, supported by official records of deliberation. Similarly, if your analysis relies on questions from the initial data call, the text of those questions, rather than just the reference number, should be included in the report.

The final report should reflect the rationale to support all aspects of the scoring plan, including assignment of attributes, metrics, weights, and scoring. For example, as your draft report included many different function/capability combinations with similar weights for criteria and attributes, and many similar capability/attribute combinations with widely different scoring, your report needs to reflect an explanation for these.

Your approach to military value would benefit from a sensitivity analysis using notional, publicly available data to determine the viability of the weights, scoring, and formulas in the report. A sensitivity analyses should point out where skewed and unintended results might occur, giving the TJCSG the information it needs to make modification now. Please include a discussion of the results of this analysis in your final report.

Similarly, it is unclear whether your scoring plan values those attributes you consider important, particularly in the Operational Impact area. Metrics that vary between .9 and 1 or .95 and 1 are not nearly as valuable for discriminating as those that vary between .5 and 1 or 0 and 1. Please review your metric scoring and consider whether it will allow you to discriminate among installations, while still capturing the factors that are important for the defense of your analysis.

The ISG is generally concerned about the coordination of effort on ranges. Please recall the ISG's decision, ratified by the Secretary of Defense, that the Education and Training (E&T) Joint Cross Service Group would have the lead on the analysis of ranges. Within the E&T JCSG there would be a discrete subgroup on ranges, with members from the TJCSG. At its last meeting, the ISG also agreed that while there could be more than one score for the military value of ranges (one for the training function and one for the test and evaluation function) there should be only one set of data questions for ranges, and only one group (the ranges subgroup of the E&T JCSG) responsible for the analysis. The E&T and TJCSGs need to coordinate efforts in the analysis of ranges, especially with regard to determining military value. Your final report should set out this coordinated process.

The complexity of some questions and the resulting data requirements may be more than installations can accurately support. Please review the questions and resulting data requirements for the ability of an installation or facility to answer it within the time available.

Your final report should include a complete set of questions your JCSG will need to support the military value scoring plans. The questions should also clearly distinguish between those questions that have already been asked in the first data call and those that will be included in the next data call. Each JCSG will also be required to review the totality of its questions to ensure redundant questions (questions that will result in the same response) are eliminated. Additionally, the second data call will provide an opportunity to include questions to support your capacity analysis that were either omitted in the first data call or, based on what you have learned through feedback from the query process, clarify existing questions to ensure data received is consistent with your capacity analysis framework. These additional capacity-related questions should be included in a new section to your report.

As was done for the first data call, an Input Question Tool (IQT) will be provided to each JCSG through the Data Standardization Team (DST). Each JCSG and Military Department is required to submit their final questions in this tool, with appropriate amplification and references, no later than seven days after submission of their final report. The DST will provide guidelines for inputting questions in this tool (e.g., tables are restricted to nine total columns, avoid submitting multiple questions in a single question, etc.). The DST review will vary from the one conducted for the first data call. The primary focus of this review will be on clarity, format (i.e., correct use of tables), and, to a smaller extent, duplication. Merging questions across JCSGs and the Military Departments is not the intent of this review.

In reviewing other military value reports, we have noticed the use of various dates for defining the data input boundary (e.g., POM 06, FY 03, etc.). To ensure the data received is consistent for analysis, we will be issuing policy that will define the "cut off" dates that should be used in your analysis.

The February 12, 2004, Federal Register notice publishing the proposed final selection criteria makes a number of commitments related to how the Department will interpret and apply the final selection criteria. Please review this notice to determine if such commitments should be built into your military value approach.

Specific Comments:

1) Update the selection criteria throughout the report to reflect the proposed final criteria published in the Federal Register on February 12, 2004.

2) It would be particularly helpful if the report identified what questions required for the military value analysis were already asked in the first data call.

3) Consider expanding the report's discussion of the analysis of intellectual capital.

4) Bounding Parameters (BP). For this concept to be useful, the report should include a finite list, standardized unit of measure, or commensurate method to compare the data from this question. The text implies TJCSG will sum all BPs without regard to number or unit of measure. One particularly tight BP at one installation may be much worse than 10 relatively non-binding BP's at another. You may even want to consider deleting this concept all together.

5) Future War fighting Capability.
   a) The report should explain what weights will be applied to the DTAP Area and Sub-Areas and how those weights were derived.

b) Please consider mapping "Future Warfighting Concepts" to validated plans/guidance in order to show how the list of future technologies/capabilities is justified by other official studies and plans.
c) Consider the effectiveness of the question requesting funding plans for "high value warfighting capabilities/technology." The detail level required to map future year funding plans to these technologies may not be available in all Military Departments in auditable form.

6) Several concepts in the report are insufficiently clear to engender data that will be useful to the TJCSG. For example:
   a) Page 21, Uniqueness. Because nearly all our capabilities are unique is some respect, the report should define what is meant by "a validated DoD unique technical capability". The variability of these capabilities should be defined by parameters set out in the report.
   b) Page 30, Synergy. It is not clear how the proposed question gets at the issue of synergy.
   c) Page 31, Proximity. The report should clarify the CUST element. As written, it is not clear what level or type of organizations constitute customers or users, or whether respondents need to know the results of Data Call #1 to assess OF. It is also not clear whether respondents know TJCSG's assignment of S&T, D&A, or T&E to other sites.
   d) Page 32, Dual-Use Capacity. The report should further define and explain the use of technical infrastructure. For example, it is unclear whether "use of technical infrastructure" would result from a university holding a conference at one of our facilities and training at a lab or a range.
   e) Regarding workload metrics, in questions where "Total Funding Executed" is requested, consider whether "In House Funding Executed", "Out-of-House (Other Government Activity) Funding Executed", and "Contractor Funding Executed" should also be requested.

7) The report should clarify maximum metric scores. It appears that the JCSG's weighting plan sets the maximum score for every metric at 1, but the report is not entirely clear.

8) Does a facility answer the questions for each of the 12 grouped areas or just for its major area of activity or for those areas it believes it supports? The report is unclear on this issue and this will impact our multi-functional activities.

9) The Sum of Patents, Publications, and Awards metric's current denominator is the installation's population. Consider using the professional population instead, which may more accurately capture the apparent intent of the metric.

10) In paragraph 1.2, update the status of participation in the CIT to reflect Joint Staff and Marine Corps participation.

11) The report should ensure metrics to measure and compare program accomplishment are complete. In questions measuring program accomplishment (ACAT programs, ACTDs, ATD's, UNS, and Rapid Response projects), the measurement is limited to numbers of programs. Because program scope can vary widely, consider adding another factor, such as cost or FTEs expended, as a discriminating measure.

12) Reconsider assigned weights for Selection Criteria #4 as a whole. There are technical areas under consideration in which the cost of operations and the manpower implications could be significant factors.

13) Consider the level at which your analysis should be conducted. Presently, the analysis construct seems to go no lower than the function/capability level. For example, the "Research/Weapons" function/capability area has several significant sub-areas, i.e., Aviation Weapons Systems, Undersea Weapons Systems, Sea Surface Weapons Systems, and Land Weapons Systems.

14) On page 6, Section 2.2d, first paragraph, revise the last sentence to read "The weighting or T&E differ from the weightings for research and D&A." As currently written it seems to express the opposite.

15) In the Operational Impact area, please consider whether your Workload Focus metric appropriately considers contracted work managed by government personnel.

If you have any questions regarding these comments, please contact Peter Potochney, OSD Director Base Realignment and Closure, at 614-5356

Michael W. Wynne
Acting USD (Acquisition, Technology & Logistics)
Chairman, Infrastructure Steering Group

Attachments: As stated

cc: Chairman, Education and Training Joint Cross-Service Group
Military Department BRAC Deputy Assistant Secretaries

DCN 2527

DEPARTMENT OF THE ARMY
OFFICE OF ASSISTANT SECRETARY
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110 ARMY PENTAGON
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SAIE-IA

25 February 2004

MEMORANDUM FOR Mr. Peter Potochney, Director, OSD BRAC Office, OUSD (ATL)

SUBJECT: Technical JCSG Military Value Analysis Report and ISG Briefing

1. I appreciate the opportunity to review the draft Military Value (MV) Analysis Report. In general, we found the report sufficiently detailed to understand the MV approach; the approach is generally sound and adequate to the task.

2. The Vice Chief of Staff, Army expressed concern at the ISG about the coordination of effort on ranges. The Army continues to support Mr. Wynne's decision to give the E&T JCSG the lead on the analysis of ranges. We request that the E&T and Technical JCSGs coordinate efforts in the analysis of ranges, especially with regard to determining military value. The Army will require that a coordinated approach be reflected in the final MV Analysis Reports to secure our concurrence.

3. Additionally, to offer our concurrence, we will need to review the final and complete list of questions and data elements (Appendix C) that will be included by the TJCSG in Data Call #2. It would be particularly helpful to identify what portion of the data elements required for the MV Analysis were already acquired in Data Call #1.

4. The complexity of some questions and the resulting data requirements may be more than installations can accurately support. We provide examples in the attachment, and recommend that the TJCSG review their MV approach with this in mind.

5. TABS looks forward to continuing to work with the TJCSG on MV and other efforts.

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

Encl
as

CF:
VCSA
ASA (I&E)
Dr. John Foulkes, Army Rep, Technical JCSG

Printed on Recycled Paper

Specific Comments

1. It remains unclear to us if the max score for every attribute and metric is 1. That appears to be the case, and that is an important characteristic so that the proposed weighting scheme works as envisioned by the TJCSG.

2. Also key to getting results that discriminate among facilities is the variability of your metrics and attributes. Attributes that vary between .9 and 1 or .95 and 1 are not nearly as valuable for discriminating as those that vary between .5 and 1 or 0 and 1. ORSA theory strongly suggests reducing the weights or completely eliminating those characteristics with little variability. Particularly in the Operational Impact area, we question the degree of variability the data may exhibit. Army recommends that:

- TJCSG review these and other metrics now and modify weights as appropriate
- TJCSG reserve the opportunity to modify weights when the actual data come in

3. Does a facility answer these questions for each of the 12 grouped areas or just for its major area of activity or for those areas it believes its supports? The report is unclear on this issue; our multi-functional activities will need to know to answer the question as intended.

4. The S(ppa) metric's current denominator is the installation's population. TABS suggests using the professional population instead, which would more accurately capture the intent of the metric

5. Pending the actual questions to be used in Data Call #2, several concepts in the report are insufficiently clear to engender data that will be of use to TJCSG. For example:

p. 21 Uniqueness. Can we define "a validated DoD unique technical capability?" Nearly all our capabilities are unique in some aspect. What is unique? How variable are these data apt to be? Can a local activity director "game" his answer?

p. 21 Bounding Parameters. We don't see a finite list, standardized unit of measure, or commensurate method to compare the date from this question. The text implies TJCSG will sum all BPs without regard to number or unit of measure. One particularly tight BP at one installation may be much worse than 10 relatively non-binding BP's at another. The concept requires much additional work for us to support.

p.25 Future War fighting Capability. What weights will be applied to the DTAP Area and Sub-Areas? How were these derived? Why is total funding weighted so low and FTEs so high? In-house FTEs seems to be much less important than the throughput of the facility – whether completed in-house or contracted.

p.31 Proximity. The CUST element is not well-defined. What level or type of organizations constitute customers or users? Do respondents need to know the results of Data Call #1 to assess OF? Do respondents know TJCSG's assignment of S&T, D&A, or T&E to other sites?

p.32. Dual-Use Capacity. Define use and technical infrastructure. If a university holds a conference at one of our facilities and trains at the lab or a range, does that count as "use of technical infrastructure?"

DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
(INSTALLATIONS AND ENVIRONMENT)
1000 NAVY PENTAGON
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24 February 2004

MEMORANDUM FOR DIRECTOR, BASE REALIGNMENT AND CLOSURE

SUBJECT: DON comments on the Technical Joint Cross-Service Group Military Value Report

We have conducted a detailed review of the draft Technical Joint Cross-Service Group Military Value Report, and provide the following recommendations to make the written report a more complete product:

Major Concerns:

1. As discussed at the ISG meeting, we need to develop a process for establishing consistency of terminology and Military Value attributes/metrics/weights/scores assignment across the Technical JCSG and like areas of other JCSGs. This will become particularly important during the scenario phase as inter-JCSG negotiations become necessary and during review by higher level and external organizations.

Examples: Although the terminology is different, there is good correlation between the weights and scores assigned to the "people" and "synergy" attributes of both the Technical and Industrial JCSGs, which may well be reviewing elements of the same activities. However, Education and Training ranges and Test and Evaluation ranges have very different analytical constructs, which may create difficulties if we try to analyze the potential for use of one type of range by the other function. A single set of questions with a common analytical construct would be preferable to allow comparability and use by both the Technical and E&T JCSGs.

2. Essential elements of the report need to be completed. These include 10 of 26 questions, certain weights and scores, and the "future war fighting concepts group" assessment upon which certain weights and scores are based.

3. We need to ensure there is rationale to support all aspects of the scoring plan, including assignment of attributes, metrics, weights and scoring. Many different function/capability combinations have similar criteria and attribute weights, and many similar capability/attribute combinations have widely different scoring, with no explanation in the body of the report. To the extent possible, we should strive to have these reports be complete, stand-alone documents that contain the reasons for selecting attributes and metrics and assigning weights and scores, supported by official records of deliberation.

Example from the scoring plan waterfall charts: Air, Land, Sea, Space Capability – Research function – Criteria 1 – Attribute 5 (Synergy) – Metric 3 (Proximity) is scored

as 40%. In the Weapons and Armaments Capability Area, the same combination of Function/Criteria/Attribute/Metric is scored as 20%. There is great similarity within the elements of these two capability/function/criteria/attribute/metric sets, but no explanation of the difference in scores.

4. The Technical JCSG should conduct sensitivity analyses using notional data to determine the viability of the weights, scoring and formulas in the Military Value Report. It is unclear whether their scoring plan values those attributes they consider important. Sensitivity analyses should point out where skewed and unintended results might occur.

Specific Recommendations:

1. In paragraph 1.2, strike the phrase "the Joint Staff and Marine Corps chose not to be active participants in the CIT." We understand this to be factually incorrect, as both organizations are now represented at CIT meetings.

2. Map "Future Warfighting Concepts" to validated plans/guidance. The current list of future technologies/capabilities is not sufficiently justified by other official studies and plans.

3. Ensure workload metrics are used that are meaningful to BRAC deliberations. In questions where "Total Funding Executed" is requested, "In House Funding Executed", "Out-of-House (Other Government Activity) Funding Executed", and "Contractor Funding Executed" should also be requested, so analysis can provide a complete picture of an activity's/organization's military value. (Note: Final questions numbers and terminology were not available at the time of these comments).

4. Ensure metrics to measure and compare program accomplishment are complete. In questions measuring program accomplishment (ACAT programs, ACTDs, ATD's, UNS, and Rapid Response projects), the measurement is limited to numbers of programs. Because program scope can vary widely, another factor, such as cost or FTEs expended, should be used as an additional, discriminating measure.

5. Reconsider assigned weights for Selection Criteria #4 as a whole. This Selection Criteria appears not to have been well understood, and thus results in less consideration than the other 3 criteria (para 2.2.d). There are technical areas under consideration in which the cost of operations and the manpower implications could be significant factors.

6. Delete the question requesting funding plans for "high value warfighting capabilities/technology." The detail level required to map future year funding plans to these technologies is not available in all Military Departments in auditable form.

7. Delete the questions under the heading of "bounding parameter." This has been the subject of much discussion related to the scoring and weighting of physical

structures and equipment, with no agreement reached. This metric contains greater risk for skewing an analysis than any other, even if consensus is reached on weighting and scoring.

8. Data gathering and analysis should be planned for the lowest level that will be significant for BRAC actions across all Military Departments. Presently, the data gathering and analysis construct goes no lower than the function/capability level. Plans should be adjusted based upon an understanding of the distribution of functions/sub-functions and capabilities across the Military Departments to allow discrimination between the many "technical facilities." In some cases, functional/capability level is sufficient; in others, sub-function or lower is required. A symmetrical construct will not allow the analysis required.

Example: The "Research/Weapons" function/capability area has several significant sub-areas that need to be visible and analyzed separately to allow BRAC decisions, i.e., Aviation Weapons Systems, Undersea Weapons Systems, Sea Surface Weapons Systems, and Land Weapons Systems.

My office stands ready to further clarify these issues and assist in implementation of the recommendations as necessary.

Anne R Davis

Anne Rathmell Davis
Deputy Assistant Secretary of the Navy
Infrastructure Strategy and Analysis

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DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

MAR 0 1 2004

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (ACQUISITION, TECHNOLOGY AND LOGISTICS)

FROM: SAF/IEB

SUBJECT: Commentary on Technical Joint Cross Service Group (TJCSG) Military Value Analysis Report

References: (a) OSD e-mail: Review and Approval of JCSG Military Value Report
(b) TJCSG Military Value Analysis Report

Per Infrastructure Steering Group (ISG) direction, (reference a), we provide the following comments regarding subject report. Air Force input falls essentially into the categories of cross cutting issues, guiding principles, imperatives/considerations, and other substantive comments.

Crosscutting issues. We've identified several issues that we believe affect more than one of the JCSGs. Recommend these be provided to each of the JCSGs for staffing, and/or consideration/resolution at the 2 April 2004 ISG.

a. What is the interpretation of the Selection Criteria? The Federal Register Notice of 12 Feb 04 makes a number of "promises" related to how we will interpret and apply the final selection criteria. Also, each Service and JCSG is interpreting the Selection Criteria to facilitate its analysis. How can the ISG be reasonably assured that these interpretations are compatible?

b. Military Value. Recommend each JCSG discussion of military value include the following: the fact that their military value determinations should be based upon DoD military requirements, that a primary task to the JCSG is to determine where joint consolidation or restructuring can either add tangible military value to the Services or provide the same military value at a tangible net savings, and that JCSG will provide military value recommendations (or when driven by imperatives/considerations, basing recommendations) to the Services for incorporation to the overall Service-wide recommendations. Military value weighting schemes for JCSGs should indicate how the schemes would produce the above deliverables.

c. Attributes. Each Service and JCSG uses different descriptions of attributes that comprise military value; one JCSG has a different attribute set for each of its subgroups. We recognize the attribute "buckets" cannot be fully congruent, but in several instances, the same attribute is described in several different ways. As this may prove problematic later in the BRAC process as we make comparisons and tradeoffs between and among Services and JCSGs, we recommend that the attributes be more standardized. Here's a proposed strawman:

- Installation mission infrastructure...e.g., in the case of the AF, things like runway and ramp and space launch

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- Installation combat service support infrastructure...e.g., in the case of the AF, mobilization and base operations
- Production and throughput...e.g., sorties or students
- Installation physical maneuver space...e.g., in the case of the AF, airspace
- Installation non-physical maneuver space...e.g., in the case of the AF, electromagnetic spectrum and bandwidth
- Ranges...land, sea, air
- Beneficial Relationships/Synergy...operational, professional, joint/interagency

d. Terminology. We need to achieve a common understanding of the terms we're using, to include imperative, consideration, principle, military value, attributes, and metrics.

e. Open Air Ranges (OARs). The ISG tasked the Education and Training JCSG (E&TJCSG) to establish a Ranges Subgroup, with TJCSG support, to address OARs during the BRAC 05 deliberations. To harmonize the independent efforts of the two JCSGs, the TJCSG prepared a Memorandum of Agreement (MOA) to define roles and responsibilities. The draft MOA is available; however, we understand there has been neither interaction between the two chairs on this matter nor formal coordination between the two JCSGs on this matter. The approach being implemented has the E&TJCSG & TJCSG independently considering OARs from both a capacity and Military Value perspective. Because there are T&E ranges that also support training, and Training Ranges that also support T&E, there must be at some point in the process an integrated consideration of the capacity load and an appropriate Military Value for the combined use of ranges. Although we expect that there will be two different military values for the same range as a result, the differences in analytical constructs between the two JCSGs may impede the eventual integration of the TJCSG and E&TJCSG. Without such integration, each JCSG could propose conflicting scenarios that would require adjudication by the ISG

Guiding Principles. Where there are principles that shape military value in a JCSG area of responsibility, the JCSG military value report should clearly state them. Air Force suggestions for the TJCSG follow:

- Retain in place major facilities and equipment that exist primarily to meet military capability requirements, especially if they are unique national capabilities and/or are impractical or extremely costly to move or reconstitute.
- Ensure that licenses/permits/frequencies currently granted to/needed by the military departments are transferable/available to support any proposed BRAC technical infrastructure realignments.

- Activities for weapon system capability areas used by more than one military department are a priority for scenario development.
- Air Force will retain the key capabilities for design, development, and testing (DD&T) of manned and unmanned air and space weapons systems
- Air Force will retain the key capabilities for DD&T of air and space armaments
- Air Force will retain the key capabilities for DD&T of the C4ISR network required to achieve predictive battlespace awareness and full spectrum C2 of air and space forces
- Air Force will retain the key capabilities for S&T related to air and space vehicles and materials, sensors, air and space propulsion, directed energy and air munitions
- Retain at least sufficient technical infrastructure and intellectual capital to effectively perform in-house and/or manage the contracted research, acquisition and development, and T&E of weapon system capabilities under the purview of the military department that has the preponderance of the DoD force structure in that capability.

Other Comments.

a. Intramural versus extramural funding bias. The Navy and Army perform a significant portion of their research, development, and acquisition activities with organic assets, whereas the Air Force balances its organic efforts for these activities with a larger percentage of contracted (extramural) efforts managed by organic personnel. We believe the TJCSG metrics to consider work effort under their Operational Impact attribute has significant bias toward intramural sourcing. Specifically, the weighting factors for research, acquisition and development, and T&E are 90/10, 80/20, and 100/0, respectively. All three services have business approaches that result in delivering warfighting products, but the "Workload Focus" metric inappropriately devalues the AF paradigm.

b. Page 6, 1st Paragraph: Recommend this discussion crosswalk with the titles used in the table on page 7 and throughout the report. Rationale: clarity

Headquarters AF POCs are Mr. Tim Beyland, AFPEO/CM (703) 588-7190 and Lt Col Nancy Combs, SAF/IEBJ, (703) 614-0462.

MICHAEL A. AIMONE, PE
Deputy Assistant Secretary
(Basing & Infrastructure Analysis)

cc:
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DASN IS&A
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HQ AFMC/CD
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