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# Theater Military Intelligence Brigade (TMIB) Mission Area Assessment Support

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# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| ADCON | Administrative Control |
| ADP | Army Doctrine Publication |
| ADRP | Army Doctrine Reference Publication |
| ASCC | Army Service Component Command |
| AR | Army Regulation |
| ARFORGEN | Army Force Generation |
| CCDOR | Combatant Commanders Daily Operating Requirements |
| CI | Counterintelligence |
| COCOM | Combatant Command |
| DAMO-FM | Department of the Army Military Operations Force Management |
| DOCEX | Document Exploitation |
| EEA | Essential Elements of Analysis |
| ECB | Echelon Corps and Below |
| FDU | Force Design Update |
| FM | Force Management |
| HQDA | Headquarters Department of the Army |
| HUMINT | Human Intelligence |
| ICoE | Intelligence Center of Excellence |
| INSCOM | Intelligence and Security Command |
| IRIS | INSCOM Reporting and Investment System |
| JWICS | Joint Worldwide Intelligence Communication System |
| MAA | Mission Area Assessment |
| MASINT | Measures and Signatures Intelligence |

| | |
|---|---|
| MI | Military Intelligence |
| NIPR | Non-Classified Internet Protocol Router Network |
| OCAR | Office of the Chief of Army Reserves |
| OPCON | Operational Control |
| RFF | Request For Forces |
| SIGINT | Signals Intelligence |
| SIPR | Secure Internet Protocol Router Network |
| SME | Subject Matter Expert |
| SRC | Standard Requirements Code |
| TDA | Tables of Distribution and Allowances |
| TMIB | Theater Military Intelligence Brigade |
| TRAC | Training and Doctrine Command Analysis Center |
| TRADOC | Training and Doctrine Command |
| TSCM | Technical Surveillance Counter Measures |
| USAFRICOM | United States Africa Command |
| USCENTCOM | United States Central Command |
| USEUCOM | United States European Command |
| USFK | United States Forces Korea |
| USNORTHCOM | United States Northern Command |
| USPACOM | United States Pacific Command |
| USSOUTHCOM | United States Southern Command |
| URS | Unit Reference Sheet |

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# SECTION 1. BACKGROUND

TRADOC Analysis Center (TRAC) support to this one piece of the Theater Military Intelligence Brigade (TMIB) Mission Area Analysis (MAA) was limited strictly to reviewing the methodology, data collection, and processes described in detail in this technical memorandum that were used to determine the required number of soldiers needed to meet the USEUCOM (66th MI BDE) theater intelligence combatant commander's daily operating requirements (CCDOR). Much of the background information applies to the entire MAA involving all seven Combatant Commands (COCOMs) but is beyond the scope of this TRAC effort. TRAC's review of the processes used during this MAA and subsequent recommendations are incorporated throughout this document.

## 1.1. HQDA GUIDANCE

The TMIB MAA is a Department of the Army (DA) G-2 directed action tasked to the Army Intelligence and Security Command (INSCOM) with support from the US Army Intelligence Center of Excellence (ICoE). The requirement to conduct the MAA was generated by two key changes to force design guidance. First, the new Defense Strategic Guidance, as referenced in HQDA EXORD 246-12, stipulates the focus of providing forces will be on phases 0 (Deter) and 1 (Shape) across the spectrum of military operations. This strategic guidance has further been addressed and refined in the Army 2020 and Intel 2020 concepts. The second factor generating and impacting the MAA was the directive to realign limited existing resources to provide dedicated support to all seven geographically aligned Army Service Component Commands (ASCC). This necessitated the redesign of existing TMIBs within USEUCOM, USCENTCOM, USSOUTHCOM, USPACOM, and sub-unified command USFK, in order to provide dedicated Combatant Command (COCOM) assigned Theater Intelligence Groups to USAFRICOM and USNORTHCOM. Data and recommendations derived during this MAA will inform a TMIB FDU proposed to provide synergistic and like intelligence capability packages to all seven geographically aligned unified commands and their

respective ASCCs within current (FY 14) resource constraints and their associated limitations, and intended to compete in TAA 16-20.

## 1.2. TMIB MISSION

The TMIB core mission is to conduct multidiscipline intelligence operations in support of geographically aligned unified command and their respective ASCCs where Operational Control (OPCON) has been delegated by the combatant commander. Specifically, the TMIB provides persistent surveillance and intelligence over-watch of non-contiguous theater operational environment, developing unique intelligence problem sets as needed to support all other related CCDOR conducted in phases 0, and 1.

## 1.3. CURRENT TMIB STRUCTURE GAPS

Today's theater MI structure is based on the forward deployed modular concept with five regionally focused MI Brigades. These TMIBs have distinctly different capacities and in some cases have different capabilities. As a result of these differences and inconsistencies, the current TMIB structure is not flexible enough to meet the full range of CCDOR related missions addressed in Army and Intelligence 2020. These inconsistencies in TMIB structure further exacerbate the ability of the Army to plan for providing MI force packages to support the geographically aligned unified commands when requested to meet contingency missions (e.g., Requests For Forces (RFF) and ARFORGEN requirements). Under the legacy forward deployed modular construct these forces were intended, when fully resourced, to provide intelligence support in phases 3 & 4 and portions of phase 5. However, the TMIBs were never fully resourced / implemented and therefore provided varying degrees of theater intelligence support depending on the relative resources located within each TMIB. As a result of the current forward deployed modular construct, some theaters are not full spectrum capable and therefore not fully optimized to support current Army and Intelligence 2020 related requirements. The recent changes to national and supporting Army guidance to focus on phases 0 and 1 in geographically aligned unified commands prescribes a new construct in which the emphasis is to provide sufficient forces in theater to preclude the potential escalation to the conflict related phases across the spectrum of military operations.

## 1.4. SCOPE

This MAA in total applies to the seven Theater Military Intelligence Brigades assigned to the geographic unified COCOM, further delegated OPCON to the ASCC by the unified command. They are ADCON to INSCOM IAW AR 220-5, Army assignment procedures. Results will inform the Theater Intelligence Brigade Force Design Update which, in conjunction with the recent Office of the Chief of Army Reserves (OCAR) Theater Intelligence FDU, will provide dedicated, combatant command assigned Theater-level Intelligence support to USAFRICOM and USNORTHCOM. The TIB FDU will also realign intelligence support to the remaining five geographically aligned unified commands and sub-unified commands.

As mentioned earlier, TRAC's support for this effort, however, only applies to the determination of the USEUCOM / 66$^{th}$ MI BDE manpower requirements.

## 1.5. CONSTRAINTS

**1.5.1.** HQDA G-3 (DAMO-FM staff) guidance is that theater committed structure will be determined based solely on meeting the CCDOR steady-state requirements as documented within the respective unified command plans and JP 3.0. Additionally, only CCDOR applicable to phases 0 and 1 of the spectrum of military operations would be determining factors, vice all 5 phases for echelon Corps and below (ECB) capabilities.

**1.5.2.** HQDA G-3 provided guidance via the 19 October 2012 Intel 2020 Redesign that directs TRADOC provide the Theater structure requirements to HQDA no later than 30 July 2013 for consideration in TAA 16-20. Subsequent TRADOC guidance to the proponents was to provide the FDUs competing in TAA 16-20 no later than 1 May 2013. HQDA G-2's directive to conduct a TIB MAA in conjunction with ICoE and the seven ASCCs further compressed the time necessary to develop a comprehensive manpower determination metric that could effectively account for CCDOR requirements in phases 0 and 1.

**1.5.3.** Zero growth (resource neutral) design constraint for the theater intelligence structure as imposed by the DA G-2.

## 1.6. LIMITATIONS

The above imposed constraints necessitated an abbreviated manpower determination process. This time constraint did not allow for a fully comprehensive data

collection and analysis process based on a representative sample of independently observed troops-to-tasks.

## 1.7. ASSUMPTIONS

**1.7.1.** Unit-reported requirements for product outputs of processes required to support CCDOR were determined to be the most consistently quantifiable observable given the time constraint.

**1.7.2.** Each product output corresponds to a validated mission requirement, meaning that any additional work currently performed by the Theater MIB will be considered superfluous, and therefore will not be accounted for.

**1.7.3.** "Daily" and "Yearly Outputs" correspond to the number of products / intelligence reports produced during a respective time period, it is not a measurement of time.

**1.7.4.** The complexity of effort required to produce the outputs vary by intelligence discipline and intelligence competency as defined in ADP 2.0 and ADRP 2.0. To account for the variation in complexity required to produce the different outputs, a complexity multiplier titled "competency category" will be applied to each output. This complexity multiplier will be an integer between two and four, and will be determined using doctrinal guidelines. By applying this complexity multiplier, the modified output values will be able to be compared directly.

**1.7.5.** On average, it takes one soldier one hour to produce one output (with complexity multiplier applied). This enables the calculation of total yearly required outputs to be translated into both hours and soldier/manpower requirements.

**1.7.6.** AR 570-4 Manpower Management peacetime values will be used for soldier availability to perform CCDOR / steady-state operations; i.e. 250 available days per year, 1740 available hours per year.

**1.7.7.** Man-Year calculations will be rounded at the section level using a ceiling function and then summed, meaning that any number with a decimal part greater than zero at the section level will be expressed as the next highest whole number before the numbers are added together at the platoon/company/battalion/brigade level. This will affect the total manpower calculation versus if the rounding had been done after the summation. This is necessary to support development of Unit Reference Sheet (URS) by team-level Standard Requirements Code (SRC).

**1.7.8.** The foundational structure of the TIBs is known: Each brigade will consist of two battalions, with one battalion conducting forward collection

operations and one performing analysis and fusion. Leadership, staff, operational management, support and sustainment will be determined in accordance with AR 71-32 Force Development and Documentation – Consolidated Policies.

# SECTION 2. ICOE PROBLEM STATEMENT

## 2.1. STUDY ISSUE

What is the minimum number of soldiers, by intelligence discipline, required to meet Theater Intelligence CCDOR?

## 2.2. ESSENTIAL ELEMENTS OF ANALYSIS (EEA)

**2.2.1.** EEA 1. What is the complexity (number of intelligence competencies) required to produce each output?

**2.2.2.** EEA 2. How many Soldiers are required, per functional team, to produce the average yearly outputs required to meet Theater Intelligence CCDOR?

# SECTION 3. METHODOLOGY

This MAA methodology is based on unit (organizational) manpower measurement of mission requirements in order to be more effectively applied and integrated into the previously addressed Army processes (i.e., FDU, TOE development and TAA requirements validation and resource prioritization). The MAA results will provide the ASCC, MI Proponent, TRADOC, and HQDA quantitative and auditable Army military intelligence (MI) manpower data directly associated with meeting COCOM operational requirements. This data will be the basis for adjusting the current Theater MI TO&Es.

## 3.1. IRIS OVERVIEW

The INSCOM Reporting and Investment System (IRIS) is an online tool developed by the INSCOM G3-FM and G6 in accordance with guidance from the Commanding General, INSCOM. Its overall intent is to bring together disconnected data in various manpower, mission requirement, and resource management systems used throughout the command across NIPR, SIPR, and JWICS security domains. The IRIS MAA Module is the one function within IRIS which allows operational users in the ASCCs and associated MIBs a virtual, remote, concurrent interaction capability to collect and catalog elements of the manpower requirements determination process. It provides visibility of numerous data elements, some of which are used for data tracking and cataloging and are therefore not specifically pertinent to manpower requirements.

## 3.2. DATA COLLECTION

Initial data collection focused only on the 66$^{th}$ MI Brigade. As mentioned earlier, data from the other theaters will be incorporated and analyzed, but TRAC's support to this effort ends with the 66$^{th}$ data. Data was collected from a combination of four different sources.

**3.2.1.** 24th MI Battalion FY 12 Annual Production Briefing.

**3.2.2.** 2nd MI Battalion FY 12 HUMINT & Counterintelligence Activity Log.

**3.2.3.** Subject Matter Expert interviews.

**3.2.4.** Direct observation of collection level battalion section-level daily activities during a normal work schedule from 09 October to 09 November 2012 as follows:

(1) CI Operations Management – 14 soldiers

(2) 3 x CI Operations Teams – 24 soldiers

(3) TSCM Team – 3 soldiers

(4) HUMINT Operations Management – 30 soldiers

(5) HUMINT Collection Team – 40 soldiers

(6) DOCEX Team – 9 soldiers

(7) SIGINT Collection Management – 14 soldiers

(8) 2 x SIGINT Collection Teams – 30 soldiers

(9) 3 x SIGINT Analysis Teams – 43 soldiers

(10) 3 x Crypto-linguist Teams – 44 soldiers

(11) Communication Intercept / Location Team – 6 soldiers

(12) MASINT Team – 7 soldiers

## 3.3. DATA VALIDATION

The 66th MI Brigade S-3 gathered and consolidated data from the sources and SMEs described above, by each intelligence discipline for all collection and analysis functions performed by the theater MIB. The SMEs confirmed the mission sets as well as the average time to provide directed products (outputs) to validate the complexity required to produce the end-state product or output. The S-3 staff further observed and interviewed SMEs and soldiers to confirm the number and complexity averages for outputs for each discipline and for the purpose of standardizing the output results in order to ensure the reported / observed outputs and complexity assessment was consistent throughout the data collection process. Outliers and inconsistencies in reporting, product

output, complexity assessments were identified, traced, and corrected as necessary by the SMEs. Quality control at this lower level, by team/section, discipline, function and mission, resulted in aggregated annual outputs at the functional team/section level. This resulted in data points that could be audited and uniformly adapted to all disciplines. Additionally, the ASCC staff provided further guidance to the SMEs addressed above relating to types of COCOM directed missions requiring products or outputs. This further confirmed the mission-to-output data, as no output data was entered into IRIS that did not correspond to a documented CCDOR.

### 3.4. COMPLEXITY DETERMINATION

One of the key factors of the abbreviated manpower determination process was the application of a standardized "competency" factor that was applied to each output production process by discipline. This competency factor was used to determine the degree of complexity required to produce an output in a given discipline and function. The complexity was determined by SMEs based on the doctrinal steps in the intelligence production process. For example, production of SIGINT and HUMINT outputs involves four MI competencies: Collect (pre-processing), Process (processing), Analyze (post-processing) and Fuse (presentation). All-Source Intelligence involves three competencies: Process, Analyze and Fuse, because it does not involve direct collection and pre-processing of raw source data. A single line entry was created in IRIS for each step or competency category for each output. The "Present/Integrate" line totaled all the steps/competencies involved in the production of the output, resulting in an integer from 1 to 4, the value of the complexity multiplier.

### 3.5. MANPOWER CALCULATION

The total manpower was determined by multiplying the number of outputs per day by type of required output, by the complexity multiplier. This result is the number of output-segments required per day. The number of output-segments was multiplied by the amount of available days per year during peacetime/steady-state operations (i.e. 250, as referenced in AR 570-4), resulting in the required number of output-segments per year. The AR 570-4 references for peacetime/steady-state were used because of the guidelines to meet CCDOR during Phases 0

and 1. These mission parameters were comparable to the same level of effort identified for TDA manpower determination. The number of output-segments per year was then divided by the number of available man-hours per year during peacetime/steady-state operations (1740 hours as given in AR 570-4), resulting in the required output segments per hour. Applying the assumption that one soldier can complete one output-segment per hour, the required output-segments per hour value correlates directly to the required man-hours. This calculation is how manpower requirements were determined.

As an example, say we select "Indications & Warning" (I&W) as our task or MI Function, and we estimate, based on SME input as described above, that each I&W instance will take approximately 4 hours to accomplish – the 4 hours is a cumulative amount of time involving multiple actions (pre-processing, processing, post-processing and presentation). The 4 hours addressed above may involve up to four individuals – however, it can be less. Regardless, the 4 hours does not represent the amount of time that a single soldier works. The 4 hours simply represents the amount of time allocated against a single line of entry in the MAA Module for a specific mission requirement. If there are 10 such I&W instances, we then multiply by 4 hours = 40 (amount of time to complete pieces/parts of a report). The number forty is then multiplied by 250 days (allocated in AR 570-4 with all the subtractions directed by DA) which equals 10,000 hours. The 10,000 hours is then divided by 1740 (already discussed/referenced in AR 570-4) which results in the manpower requirements for CCDOR against this specific MAA line of entry (5.74 or 6 manpower requirements).

# SECTION 4. RESULTS

The IRIS database with the data used in this analysis, the actual calculations done, and the resulting number of MI soldiers needed, by discipline, in order to support CCDOR in the USEUCOM (66th MI Brigade) AOR is classified, but available on SIPR. Please contact authors of this technical memorandum for assistance.