

Department of the Army
Headquarters, United States Army
Training and Doctrine Command
Fort Monroe, Virginia 23651-1047

*TRADOC Regulation 10-5-7

20 July 2010

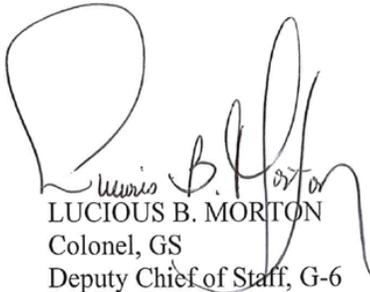
Organization and Functions

UNITED STATES ARMY TRADOC ANALYSIS CENTER

FOR THE COMMANDER:

OFFICIAL:

JOHN E. STERLING, JR.
Lieutenant General, U.S. Army
Deputy Commanding General/
Chief of Staff



LUCIOUS B. MORTON
Colonel, GS
Deputy Chief of Staff, G-6

History. This publication is a major revision. The portions affected by this major revision are listed in the summary of change.

Summary. This regulation prescribes the organization, mission, and functions of the U.S. Army Training and Doctrine Command (TRADOC) Analysis Center.

Applicability. This regulation applies to all elements of TRADOC Analysis Center (TRAC).

Proponent and exception authority. The proponent of this regulation is the Headquarters (HQ), TRAC (ATRC), 255 Sedgwick Avenue, Fort Leavenworth, KS 66027-2345. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations.

Army management control process. This regulation does not contain management control provisions.

Supplementation. Supplementation of this regulation is prohibited unless specifically approved by the Director, TRAC (ATRC), 255 Sedgwick Ave, Fort Leavenworth, KS 66027-2345.

* This regulation supersedes TRADOC Regulation 10-5-7, dated 29 December 2005.

TRADOC Reg 10-5-7

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 1045 (Army Ideas for Excellence Program (AIEP) Proposal) directly to Director, TRAC, (ATRC-PR), 255 Sedgwick Avenue, Fort Leavenworth, KS 66027-2345.

Availability. This publication is available in electronic media only and is published on the TRADOC homepage at <http://www.tradoc.army.mil/tpubs/regndx.htm>.

Summary of Change

TRADOC Regulation 10-5-7

U.S. Army Training and Doctrine Command Analysis Center

This major revision, dated 20 July 2010-

- o Updates procedures for organizational changes, with the current approval coordination chain from U.S. Army Training and Doctrine Command Regulation 25-35, and in accordance with 10 July 2007 reorganization of the Headquarters, U.S. Army Training and Doctrine Command into a G-staff configuration (para 1-7).
- o Reflects changes to U.S. Army Training and Doctrine Command core functions and enablers.
- o Updates U.S. Army Training and Doctrine Command Analysis Center lead and assist functions.
- o Makes revisions to directorates and divisions of U.S. Army Training and Doctrine Command Analysis Center at Fort Leavenworth.
- o Updates the functional organization at U.S. Army Training and Doctrine Command Analysis Center at Fort Leavenworth due to the expansion of missions in support of full-spectrum analyses and associated scenarios, modeling, and simulation products.
- o Makes revisions to directorates and divisions in U.S. Army Training and Doctrine Command Analysis Center at White Sands Missile Range and U.S. Army Training and Doctrine Command Analysis Center at Fort Lee (chaps 5 and 6).
- o Updates U.S. Army Training and Doctrine Command Analysis Center at White Sands Missile Range structure and support requirements in particular with respect to the Future Force Integration Directorate (para 5-4).
- o Adds reference to U.S. Army Training and Doctrine Command Analysis Center at Fort Lee mission of supporting the manpower and personnel integration actions (para 6-5a).

- o Updates the U.S. Army Training and Doctrine Command Analysis Center at Monterey mission statement (para 7-1).
 - o Updates organization names, directorate and division hierarchy, diagrams, and references throughout the publication.
-

Contents

	Page
Chapter 1 Introduction	6
1-1. Purpose	6
1-2. References	6
1-3. Explanation of abbreviations and terms	6
1-4. Responsibilities.....	6
1-5. Scope	7
1-6. Designation of elements	7
1-7. Procedures for organizational changes	7
Chapter 2 U.S. Army Training and Doctrine Command Analysis Center (TRAC).....	7
2-1. Mission of TRAC	7
2-2. Organization of TRAC	8
2-3. Lead responsibilities of TRAC.....	8
2-4. Assist responsibilities of TRAC	8
Chapter 3 Headquarters, TRAC	9
3-1. Director, TRAC	9
3-2. Deputy Director, TRAC	10
3-3. Command group staff.....	10
3-4. Programs and Resources Directorate.....	10
3-5. Methods and Research Office	12
Chapter 4 TRAC-Fort Leavenworth (TRAC-FLVN)	12
4-1. Mission of TRAC-FLVN	12
4-2. Organization of TRAC-FLVN	13
4-3. Functions of TRAC-FLVN.....	13
4-4. Operations Directorate.....	14
4-5. Studies Directorate	14
4-6. Analysis Directorate	15
4-7. Scenarios and Data Directorate	16
4-8. Wargaming and Simulation Directorate.....	17
Chapter 5 TRAC-White Sands Missile Range (TRAC-WSMR).....	18
5-1. Mission of TRAC-WSMR.....	18
5-2. Organization of TRAC-WSMR.....	18
5-3. Functions of TRAC-WSMR.....	18
5-4. TRAC-WSMR Forward Directorate	19
5-5. Studies and Analysis Directorates 1 and 2	20
5-6. Models and Simulations Directorate	21
5-7. Study Support Directorate	21
5-8. Operations Directorate.....	22
Chapter 6 TRAC-Fort Lee (TRAC-LEE).....	24
6-1. Mission of TRAC-LEE.....	24
6-2. Organization of TRAC-LEE.....	24
6-3. Functions of TRAC-LEE.....	24
6-4. Office of the Director, TRAC-LEE	25
6-5. Combat Service Support Studies Division	25
6-6. Modeling Analysis Division.....	26

Chapter 7 TRAC-Monterey (TRAC-MTRY)	27
7-1. Mission of TRAC-MTRY	27
7-2. Organization of TRAC-MTRY	27
7-3. Functions of TRAC-MTRY	27
Appendix A References	28
Section I Required Publications.....	28
Section II Related Publications.....	28
Section III Prescribed.....	30
Section IV Referenced Forms.....	30
Glossary	30
Section I Abbreviations	30
Section II Terms.....	31
 Figure list	
Figure 2-1. TRAC organization	8
Figure 4-1. TRAC-Fort Leavenworth	13
Figure 5-1. TRAC-White Sands Missile Range	18
Figure 6-1. TRAC-Fort Lee	24
Figure 7-1. TRAC-MTRY	27

Chapter 1
Introduction

1-1. Purpose

This regulation prescribes and further delineates the organization, mission, functions, and attendant responsibilities for the U.S. Army Training and Doctrine Command Analysis Center (TRAC) and subordinate organizations.

1-2. References

Required and related publications and prescribed and referenced forms are listed in [appendix A](#).

1-3. Explanation of abbreviations and terms

Abbreviations and terms used in this publication are explained in the [glossary](#).

1-4. Responsibilities

a. The U.S. Army Training and Doctrine Command (TRADOC) Deputy Commanding General (DCG)/Chief of Staff (CoS) is the approval authority for changes to this regulation.

b. The Director, TRAC will:

(1) Serve as the lead for this regulation.

(2) Ensure that TRADOC Regulation (TR) 10-5-7 is consistent with TR 10-5 and is coordinated and integrated across TRADOC before developing recommendations for change.

(3) Review and coordinate proposed changes and forward recommendations for approval to the TRADOC DCG/CoS.

c. The Director, TRAC Programs and Resources Directorate (PRD) will:

(1) Advise and assist TRAC organizations on organizational and functional alignment.

(2) Assist TRAC by reviewing proposed changes for organization, standardization, format, adequacy of statement of responsibilities and functions, and effect on resources.

d. HQ TRAC staff and directors of TRAC organizations. The staff and directors will ensure that definitions of the organizational structure, functions, and responsibilities shown in this regulation are current and accurate. Given the dynamic nature of military transformation and the operational environment (OE), each TRAC organization will routinely undertake a critical analysis and review of its organization structure, functions, and responsibilities. This will help ensure TRAC remains an agile, innovative organization. An annual update of this regulation will integrate these results.

1-5. Scope

a. This regulation focuses on the organization, mission, functions, and responsibilities of TRAC and its relationships with other organizations. It describes TRAC's major organizational structure, TRAC's functions, major responsibilities for HQ TRAC, its major subordinate elements, and relationships among these organizations and their assigned responsibilities.

b. This regulation also describes how TRAC supports the mission and functions assigned to TRADOC.

1-6. Designation of elements

The organizational alignment and titles of organizational elements within TRAC, as reflected in this regulation, are consistent with TRAC table of distribution and allowances (TDA). TRAC Director, PRD maintains Department of the Army (DA) and HQ TRADOC approved TDA documents that are located on the Force Management System Web site at <https://webtaads.belvoir.army.mil/>.

1-7. Procedures for organizational changes

a. Heads of offices and directorates will initiate and submit proposed changes to the assigned mission or the approved organization and functions to TRAC PRD.

b. TRAC PRD will coordinate approved recommended changes in mission, organization, and functions with TRADOC Deputy Chief of Staff (DCS) G-3/5/7, in coordination with (ICW) TRADOC DCS G-8, and TRADOC DCS G-6 for TRADOC DCG/CoS approval of changes to this regulation.

Chapter 2

U.S. Army Training and Doctrine Command Analysis Center (TRAC)

2-1. Mission of TRAC

Director, TRAC provides relevant, credible analysis to inform decisions about the Army's most important and challenging issues. TRAC serves as the principal analytical organization of TRADOC, while unaligned with TRADOC proponents. TRAC provides centralized leadership and management of analysis for combat, training, and doctrinal developments. TRAC conducts studies and analyses for TRADOC and Headquarters, Department of Army (HQDA); conducts studies of the integrated battlefield related to doctrine, organization, training, materiel, personnel, and leadership; designs and develops models and simulations (M&S) for capabilities development; participates in technical exchange programs at the national and international levels; provides analytical support to Army Capabilities Integration Center (ARCIC), Centers of Excellence (CoEs), and schools; directs research related to methods, models, and analysis; establishes, maintains, and manages the databases, scenarios, models, and wargaming tools required to support analyses and studies; and reviews and ensures, as directed, the quality of TRADOC studies before their approval.

2-2. Organization of TRAC

TRAC is a special activity reporting to the Commanding General (CG), TRADOC, consisting of a HQ staff and four subordinate centers. HQ TRAC is collocated with TRAC-Fort Leavenworth at Fort Leavenworth, Kansas. TRAC-White Sands Missile Range is located at White Sands Missile Range, New Mexico. TRAC-Fort Lee is located at Fort Lee, Virginia. TRAC-Monterey is located at the Naval Postgraduate School (NPS) in Monterey, California.

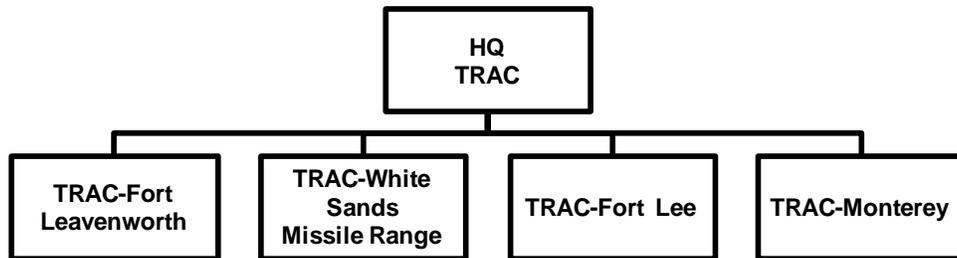


Figure 2-1. TRAC organization

2-3. Lead responsibilities of TRAC

TRAC has the following lead responsibilities:

a. TRADOC core functions: None.

b. Other major responsibilities/tasks:

(1) Conducts the studies that inform key decisions made by TRADOC, Army, and Joint leaders.

(2) Leads analysis of current operations.

(3) Develops and maintains the scenarios to underpin Army concepts & requirements.

(4) Develops, configuration manages, and applies verified and validated M&S.

(5) Researches, develops, and shares new analytic methods and modeling.

2-4. Assist responsibilities of TRAC

TRAC has the following assist responsibilities:

a. Core functions:

(1) Initial military training (IMT), functional training, and training support. Assists TRADOC DCS, G-3/5/7; Director, ARCIC; the Combined Arms Center (CAC); and DCG, IMT, by conducting analysis supporting the TRADOC Training Effectiveness Analysis (TEA)

Program. Performs analysis to underpin requirements for training aids, devices, simulators, and simulations; assesses the application of new training or training delivery systems; supports Army field exercises, trials, and experiments; and conducts analysis of alternatives of training programs.

(2) Leader development. Director, TRAC serves as the TRADOC Civilian Career Program Manager for DA engineers and scientists (nonconstruction) (CP16) and advises the operations research and systems analysis officer proponent.

(3) Doctrine. Assist CG, CAC by conducting studies of emerging and changing doctrine.

(4) Concept development. Assist Director, ARCIC by conducting analyses of Army future force concepts and capability plans (CCPs), develop scenarios that depict future force operations in accordance with (IAW) emerging concepts and CCPs; conduct analyses of major TRADOC experiments IAW the ARCIC Campaign Plan and support experimentation with database management, scenario development, simulations, and certification of analytic results.

(5) Requirements determination. Assist Director, ARCIC by conducting studies and analyses to inform key Joint, Army, and TRADOC staff decisions pertaining to requirements for capabilities integration and development. Performs analysis of alternatives, key performance parameter, and other requirements analyses in collaboration with TRADOC centers, schools, and battle labs.

b. Key enablers:

(1) Capabilities innovation. Assist Director, ARCIC by conducting studies and analyses that inform decisionmakers about capabilities development; develop, configuration manage, and apply verified and validated M&S; identify and prioritize M&S requirements; identify M&S gaps; and participate in M&S governance activities.

(2) Operational environment. Develop and maintain TRADOC standard scenarios ICW Director, ARCIC and TRADOC DCS, G-2 to ensure accurate representation of the operational environment.

c. Other major responsibilities/tasks. Maintains liaison and information exchange with national and international research and technical organizations.

Chapter 3

Headquarters, TRAC

3-1. Director, TRAC

The Director, TRAC is TRADOC's chief analyst responsible for leading TRADOC's analysis mission by providing analytical capabilities and continued improvement of those capabilities. The Director sets TRAC priorities and allocates resources to execute an analytic work program in support of the TRADOC Studies and Analysis Program (TSAP). The Director, TRAC also exercises original classification authority over TRAC products. In addition, the Director, TRAC

TRADOC Reg 10-5-7

serves as the TRADOC Civilian CP16 Manager, and advises the Army's operations research and systems analysis officer proponent.

3-2. Deputy Director, TRAC

Assists the Director on all management aspects, acts for the Director during the Director's absence, and serves as TRAC's senior military analyst. Deputy Director, TRAC leads assigned TRAC-wide major study efforts and is responsible for directing the HQ TRAC staff including: the PRD, the Methods and Research Office, and the command group staff. Specifically assists the Director in the execution of work programs, resource allocation, quality control, and coordination with other headquarters (HQ) and analytical agencies.

3-3. Command group staff

Advises and assists the Director, TRAC, in the areas of military personnel management, administration, executive correspondence and communication, and military protocol. The staff provides personnel service support to HQ TRAC and subordinate centers. Functions are to:

- a. Coordinate with HQDA, HQ TRADOC, other Army commands, and Fort Leavenworth personnel managers on personnel management issues.
- b. Manage the military portion of the TDA, submit military personnel requisitions, and provide management oversight of officer professional development.
- c. Supervise and manage the TRAC sponsorship program, military awards program, and military evaluation report systems.
- d. Coordinate personnel-related taskings and reporting in support of Fort Leavenworth.
- e. Provide administrative support to the Director and Deputy Director.

3-4. Programs and Resources Directorate

Provides planning, programming, policy, budgeting support, and manage TRAC's operations analysis program. Manages the TRAC Reimbursable Program and manage TRAC information management and security programs. PRD consists of two divisions, the Programs Division and the Resource Division.

a. Programs Division. Serves as the operations section for Director, TRAC. The Chief, Programs Division is responsible for developing TRAC policy; soliciting and providing initial coordination of new work; providing a quick-reaction capability for Director, TRAC; and managing TRAC mission activities to assist in ensuring that subordinates meet the Director's intent in policy, priorities, and resourcing. Functions are to:

- (1) Conduct TRAC long-range planning. Manage and integrate TRAC study and work programs.
- (2) Formulate and defend funding requirements. Monitor TRAC mission activities and critical resources. Recommend allocation and prioritization of resources against TRAC

missions. Coordinate and document the rationale and evidence underpinning TRAC unfunded requirements.

(3) Develop, coordinate, and recommend policy governing internal TRAC mission activities. This includes updating or revising this regulation.

(4) Manage and maintain records of the release of TRAC models, simulations, scenarios, data, and study products to ensure a valid need by the receiving agency and provide clear guidance on their proper use.

(5) Provide chief information officer and command security manager services.

(6) Develop, manage, and maintain TRAC informational materials to include pamphlets, TRAC briefings, and Web site.

(7) Provide general professional staff support to the Director, TRAC and TRAC elements to include limited quick-reaction analyses, executive orientations, conference planning, and partnership development.

(8) Provide the HQ TRAC representative for project initiation and coordination meetings, technical meetings, symposia, and similar conferences.

(9) Prepare and submit various reports to HQ TRADOC including unit status report.

b. Resource Division. Manages the TRAC budget and serves as the principal resource adviser to the Director, TRAC, the Deputy Director, HQ staff elements, and subordinate center directors. Provides a comprehensive, integrated resource program that includes administration of budget, manpower, personnel, and other program functions. Maintains contact with elements at HQDA, TRADOC DCS G-8; Director, ARCIC; Army Materiel Command; CAC; and U.S. Army Combined Arms Support Command (CASCOM) to help ensure recognition and support of TRAC resource needs. Develop resource program goals, objectives, priorities, and procedures for consideration by the Director, TRAC and ensure communication of resource decisions to TRAC centers for implementation. Functions are to:

(1) Administer financial resources allocated to TRAC from all funding sources including direct and supplemental funds received from HQ TRADOC and funds received from customers through the reimbursable program. Develop funding strategies to support critical mission and mission support requirements. Certify funds for all expense categories. Monitor budget execution and provide status of funds feedback to TRAC managers, study directors, and program action officers.

(2) Administer TRAC's manpower and civilian personnel programs. Develop and maintain the TDA accurately to reflect TRAC's organizational structure and distribution of manpower resources. Serve as the lead for all civilian personnel actions for TRAC elements at Fort Leavenworth and provide assistance to all TRAC elements on actions such as recruiting, hiring, promoting, retirement, performance ratings, job descriptions, incentive awards, and

TRADOC Reg 10-5-7

training. Track and report equal employment opportunity and affirmative action accomplishments and represent TRAC on the installation equal employment opportunity executive council.

(3) Administer other resource related programs such as the management internal control program and host or tenant support agreements established between TRAC and its host installations.

(4) Manage TRADOC Civilian CP16. Represent TRADOC-wide CP16 interests to HQ TRADOC. Represent TRADOC CP16 interests in recruitment, development, and the DA Intern Program. Work TRADOC CP16 interests at the Army level ICW DA Research Development and Engineering Command. Manage TRAC military and civilian training and development programs, and recruit and manage TRAC's career experience program for qualified college students.

3-5. Methods and Research Office

Serves as the research element for the Director, TRAC. Gathers, develops, and puts into practice innovations in analytic methods in support of studies throughout TRAC to ensure that TRAC remains in the forefront of military operations analysis. Functions are to:

- a. Lead the TRAC Research Program.
 - b. Develop or assist in the development of new processes and methods and implement them to support TRAC's mission.
 - c. Gather, organize, maintain, and share information on relevant classical and emerging analytic methods for use within TRAC.
 - d. Conduct research and analysis as directed by Director, TRAC.
 - e. Serve as HQ TRAC lead to identify TRAC's M&S gaps across TRAC and to enhance TRAC's M&S capabilities.
 - f. Advise Director, TRAC on emerging analysis policy and policy implementation methods.
 - g. Sustain a robust program to recognize and reward innovation within TRAC.
-

Chapter 4

TRAC-Fort Leavenworth (TRAC-FLVN)

4-1. Mission of TRAC-FLVN

Leads and conducts relevant, credible operations analysis to inform decisions in support of joint and Army concept development, organizational design, capabilities development, materiel acquisition, and current operations. Additionally, provides TRAC-wide leadership in four specific areas: development of relevant, credible scenarios across the spectrum of operations and

echelons; formation of a coherent, relevant modeling and simulation strategy for analysis; production of model-ready performance data for TRAC's combat simulations; and establishment of a strategic vision for the analysis of mission command and network capabilities.

4-2. Organization of TRAC-FLVN

TRAC-FLVN is a subelement of TRAC, and collocated with TRAC HQ at Fort Leavenworth, Kansas. Director, TRAC-FLVN, a senior executive service civilian directs TRAC-FLVN, supported by the deputy/senior military analyst in the grade of colonel. TRAC-FLVN consists of one staff directorate and four line directorates, each headed by a senior civilian analyst: Operations, Studies, Analysis, Scenarios and Data, and Wargaming and Simulations (see figure 4-1). Each directorate is subdivided into divisions, each headed by a lieutenant colonel or civilian.

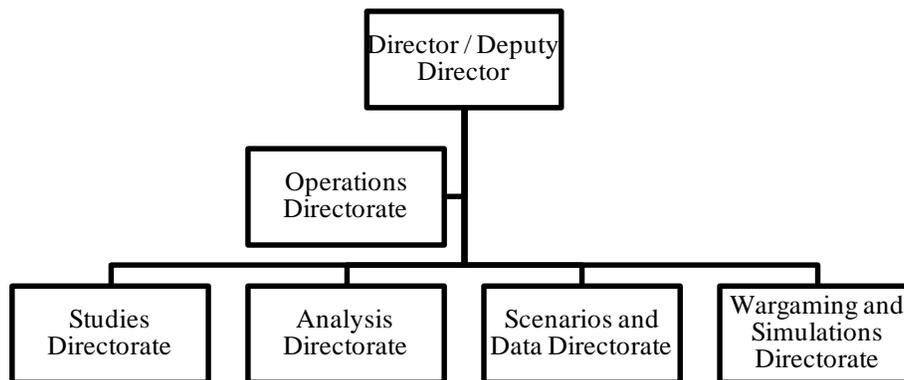


Figure 4-1. TRAC-Fort Leavenworth

4-3. Functions of TRAC-FLVN

a. Performs operations analysis and systems analyses of alternatives (AoAs) ICW Department of Defense (DOD), Army, and TRADOC agencies to assess concept development, organization design, capabilities development, materiel acquisition, and current operations. TRAC-FLVN conducts studies and analyses across the spectrum of conflict and echelons while accounting for joint capabilities and interactions.

b. Performs operations research and analysis in support of deploying and deployed operational units.

c. Develops and manages TRADOC standard scenarios of full-spectrum operations conducted by corps/division and below formations, serving as the TRADOC executive agent for scenario developments.

d. Develops and maintains databases of friendly, enemy and neutral systems, forces, units, capabilities, and their employment in support of M&S and analysis.

e. Develops and maintains databases of appropriate human, social, cultural and behavioral data relevant to designated scenarios in order to support model development and analysis. (This does not constitute human subject research.)

TRADOC Reg 10-5-7

f. Develops, maintains, verifies and validates, and manages models, simulations, and analysis tools. Continually assess modeling gaps and conduct model research and development to fill the gaps ICW DOD, Army, and TRADOC agencies. Develops future generations of force-on-force combat and operations M&S to support the advanced concepts and requirements (ACR) M&S domain of the Army. Creates a strategic vision to guide the development of M&S across TRAC.

g. Establishes and maintains a technical base of expertise and state-of-the-art awareness of analytical techniques for application to military technical and operational problems.

h. Monitors and maintains quality control of assigned studies and ensure the quality prior to approval.

4-4. Operations Directorate

Enables TRAC-FLVN's analytic mission by ensuring availability of resources and providing responsive, comprehensive services, policies, and procedures. Manages civilian and military work force and fiscal resources, security, information technology, administration and logistics, and technical research operations for TRAC-FLVN. Assists the Director, TRAC-FLVN to manage and coordinate the TRAC-FLVN work program and reimbursable program. Functions include:

a. Personnel management and administration, including military, civilian, and intern policies and actions associated with recruitment, assignment, training and professional development, evaluation, and awards.

b. Budget monitoring and execution.

c. Operations support, including contracting, facilities management, property accountability and management, management internal controls, host/tenant support agreements with Fort Leavenworth, purchasing, safety, security, and supply.

d. Information technology (IT) support, including desktops, laptops, workstations, peripherals, networks, software, assurance of services, compliance, and strategy.

e. Administration, including taskings, contingency planning, event support, knowledge management, travel, and policy development.

f. Study support, including new taskings, memoranda of agreement, work program planning, labor accounting, and technical reports production.

4-5. Studies Directorate

Leads and conducts relevant, credible operations analysis to inform high-priority joint, Army, and multinational defense decisions and initiatives. Capable of resource-informed analysis across the spectrum of conflict and organizations but aligned with the Centers of Excellence for Maneuver, Aviation, Maneuver Support, and Sustainment as well as the Special Operations Forces proponent. Functions are to:

- a. Lead and conduct analysis to inform decisions in support of joint and Army concept development, organizational design, capabilities development, materiel acquisition, and current operations.
- b. Develop, apply, and sustain analytic expertise particularly for informing decisions related to movement and maneuver, protection, and sustainment.
- c. Develop and sustain study-focused partnerships with the Maneuver, Aviation, Maneuver Support, and Sustainment COE as well as the Special Operations Forces proponent.
- d. Develop and refine methodologies and special-purpose analytic tools for use in assigned studies.
- e. Develop coherent, quality study products to convey analytic findings to decisionmakers.
- f. Provide movement and maneuver, protection, and sustainment technical-analytic support to other TRAC-FLVN directorates in the conduct of their studies or scenario development.
- g. Identify movement and maneuver, protection and sustainment-related requirements in TRAC-FLVN combat simulations and support the implementation of those requirements.

4-6. Analysis Directorate

Leads and conducts relevant, credible operations analysis to inform high-priority joint, Army, and multinational defense decisions and initiatives. Capable of resource-informed analysis across the spectrum of conflict and organizations but aligned with the COE for Mission Command, Signal, Fires, and Intelligence. Functions are to:

- a. Lead and conduct analysis to inform decisions in support of joint and Army concept development, organizational design, capabilities development, materiel acquisition, and current operations.
- b. Develop, apply, and sustain analytic expertise particularly for informing decisions related to mission command; communications; intelligence, surveillance, and reconnaissance (ISR); and fires.
- c. Develop and sustain study-focused partnerships with the Mission Command, Signal, Intelligence, and Fires COE.
- d. Develop and refine methodologies and special-purpose analytic tools for use in assigned studies.
- e. Develop coherent, quality study products to convey analytic findings to decisionmakers.
- f. Provide mission command, communications, ISR, and fires technical-analytic support to other TRAC-FLVN directorates in the conduct of their studies or scenario development.

TRADOC Reg 10-5-7

g. Identify mission command, communications, ISR, and fires-related requirements in TRAC-FLVN models and simulations and support the implementation of those requirements.

h. Establish a strategic vision for the analysis of mission command, network capabilities and ISR TRAC-wide.

4-7. Scenarios and Data Directorate

Develops joint and Army scenarios at the theater, joint force, corps, division, and brigade and below levels of operation to support joint, Army, TRADOC, or coalition analytic efforts; and ICW other TRAC elements, provides the data used to support TRAC analytic products.

Functions are to:

a. Develop and maintain joint theater, corps, division, and brigade and below level TRADOC standard operational scenarios that serve as the basis for further analysis of military concepts and capabilities, to include requirements for organizations, systems, and tactics.

b. Serve as the TRAC element responsible for implementing TRADOC executive agent tasks for standard scenarios by identifying future scenario requirements, and participating in the joint service development of multiservice force deployment scenarios to ensure that Army and TRADOC scenario requirements are considered.

c. Lead a partnership with joint services, Army, HQ TRADOC, TRADOC G2 Intelligence Support Activity, and the international community in scenario matters, ensuring approved and proposed concepts and data are incorporated in scenario development.

d. Provide coordination and subject matter expertise to TRAC line directors for scenario development, and coordinate certification reviews for TRAC study scenarios to ensure study scenarios employ proper forces, systems, organizations, doctrine, and tactics.

e. Maintain repositories of approved classified and unclassified scenarios and provide necessary data to support the TRADOC Common Scenario Framework registry (unclassified gist book, metadata, point of contact information, and repository links), and provide consultation and coordination for release of TRAC scenario products to study agencies.

f. As directed, conduct scenario-related studies, operations plan analysis, and contingency plan analysis to support Joint and Unified Command, Army, and TRADOC needs.

g. Provide Army Materiel Systems Analysis Activity-certified model-ready system performance data for combat models. Coordinate the development of the weapons, munitions, and sensors lists and firer-target pairings needed and coordinate with Army Materiel Systems Analysis Activity to schedule delivery of certified characteristic and performance data.

h. Participate in the Data Configuration Control Board to ensure that standard nomenclatures and standard file formats are used and understood throughout the data community.

i. Conduct needed processing to provide characteristic and performance data in model-ready formats, and obtain the geospatial (terrain, weather), and communications data needed for combat modeling.

j. Maintain databases of characteristic and performance data to enable rapid response to analytic needs.

k. Identify and maintain a library of operational data needed for combat modeling.

l. Develop and maintain databases of appropriate human, social, cultural and behavioral data relevant to designated scenarios in order to support model development and analysis. (This does not constitute human subject research.)

m. Serve as liaison to TRAC's Forward Data Collection Cell, coordinating data needs for study teams.

4-8. Wargaming and Simulation Directorate

Provides valid, verified (V&V) simulations and software capabilities and wargaming support to enable analysis of current and future operations. Develops a strategic vision for the development and employment of models and simulations across TRAC. Provides a repository of reusable analytic tools and methodologies. Functions are to:

a. Serve as proponent and lead developer for the Advanced Warfighting Simulation (AWARS).

b. Coordinate with DOD and Army M&S organizations to assist Director, ARCIC in the development and implementation of Army policy on M&S and develop a strategic vision for the development of TRAC M&S.

c. Design, develop, maintain, document, V&V, and operationally support state-of-the-art capability development and derivative models, simulations, wargames, and applications software.

d. Develop and maintain a repository of reusable analytic tools and methodologies, advising and supporting study teams in the employment of these tools.

e. Implement and document the dynamic gaming of approved standard scenarios and required study scenarios in combat models as required for studies, analyses, and experiments, and provide documented analysis of model and simulation results for studies, translating model output in clear, concise, and practical applications to address study issues.

f. Provide wargaming and simulation support to studies incorporating models and simulations (AWARS, One Semi-Automated Force (OneSAF) and other appropriate models).

g. Maintain liaison with the Office of the Secretary of Defense, HQDA, HQ TRADOC, TRADOC centers, schools, and battle labs, and TRAC directorates to ensure timely study

support through relevant and credible combat modeling. Assist study directors to use the models to address their study issues.

Chapter 5
TRAC-White Sands Missile Range (TRAC-WSMR)

5-1. Mission of TRAC-WSMR

Provides analysis of Army forces and capabilities typically at brigade (BDE) and brigade combat team (BCT) levels and below conducting tactical operations as part of joint and multinational forces. Additionally, develops and maintains BDE- and BCT-level force-on-force models, simulations, scenarios, and attendant databases; coordinates and executes V&V for those models for which TRAC has proponent or assigned lead responsibility. The TRADOC Chief of Cost office, co-located with TRAC-WSMR, projects the life cycle costs of weapon systems, the associated personnel and facilities' costs, and the training costs. In addition, TRAC-WSMR analyzes training effectiveness and assists TRADOC DCS G-3/5/7 on AR 5-5 TEA studies.

5-2. Organization of TRAC-WSMR

TRAC-WSMR is a subelement of TRAC. Director, TRAC-WSMR, is a senior executive service civilian supported by the deputy/senior military analyst in the grade of colonel. TRAC-WSMR consists of six line directorates, each headed by a senior civilian analyst: TRAC-WSMR Forward, Studies & Analysis "One," Studies & Analysis "Two," Models & Simulations, Study Support, and Operations (see figure 5-1). Each directorate is subdivided into divisions, each headed by a lieutenant colonel or civilian.

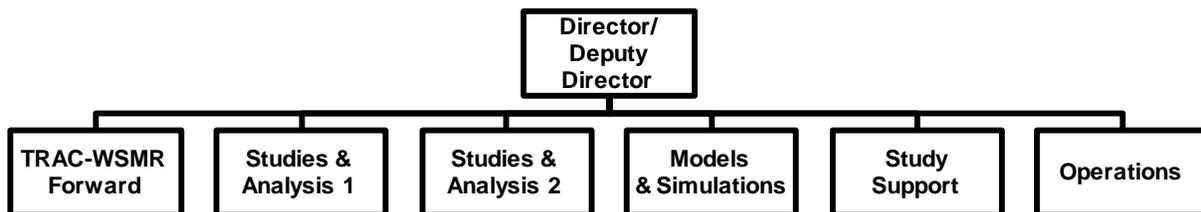


Figure 5-1. TRAC-White Sands Missile Range

5-3. Functions of TRAC-WSMR

a. Performs operations analysis and system AoAs (ICW DOD, Army, and TRADOC agencies) to assess doctrine, organizations, concepts, capabilities, materiel, training, costs, and operations. Additionally, conducts analyses of the survivability and vulnerability of Army systems and units. TRAC-WSMR typically conducts analysis at the BDE, BCT, battalion, or lower echelons, while accounting for joint capabilities and interactions.

b. Conducts gap analyses and requirements analyses in support of Army capability development.

- c. Develops, verifies and validates, and manages models and simulation capabilities. Continually assesses modeling gaps and conducts model research and development to fill the gaps in coordination with TRADOC, Army, and DOD agencies. Develops future generations of BDE and BCT M&S to support the ACR M&S domain of the Army.
- d. Establishes and maintains a technical base of expertise and state-of-the-art awareness of analytical techniques for application to military technical and operational problems.
- e. Performs independent TEA related to training systems acquisition and developing or improving training methods and strategies. Assesses the application of new training methods, approaches, or training delivery systems. Supports Army field exercises and experiments, assesses training aids, devices, simulators and simulations requirements, and conducts similar training studies supporting AoAs and the training development community. Contributes to improving TEA methods.
- f. Develops and manages TRADOC standard scenarios of full-spectrum operations conducted by BDE, BCT, and below formations.
- g. Develops and maintains databases of friendly, enemy, and neutral systems, forces, units, capabilities, and their employment in support of M&S and analysis.
- h. Performs operations research and analysis in support of deploying and deployed units.
- i. Conducts independent cost analysis in support of studies and analyses, including AoAs.
- j. Provides simulation support and conduct model-test-model analyses in collaboration with the test and evaluation community to support test planning and design, provides system evaluations, and improves M&S with field-collected data.
- k. Provides simulation and analysis support to special experiments, tests and exercises, and attendant training of participating units and Soldiers, for purposes of analysis and evaluation.
- l. Monitors and maintains quality control of assigned studies and ensure quality prior to approval.
- m. Provides analytic support to the Future Forces Integration Directorate (FFID).

5-4. TRAC-WSMR Forward Directorate

Provides direct analytic support to the FFID. Performs studies and analyses in direct support of FFID's brigade modernization efforts, including doctrine, organization, training, materiel, leadership, personnel and facilities development and capability package development and updating. Functions are to:

- a. Plan and conduct studies and analysis to address operational capabilities, training programs, materiel concepts, doctrine, and organizational force structures as requested by, and coordinated with, the FFID.

TRADOC Reg 10-5-7

b. Support data collection and analysis in field environments, employ virtual and constructive simulations, and develop innovative analytic approaches to inform Army decisions about current and future force capabilities.

5-5. Studies and Analysis Directorates 1 and 2

Performs studies and analyses to inform Army leadership decisions, particularly those dealing with current, developmental and conceptual armor, infantry, artillery, air defense, aviation, and support systems within a joint context. Provides evaluations, planning, experimentation design and coordination, data analyses, simulation production runs and support, and analytical documentation and briefing support to study leads and customers. Additionally, develops and integrates joint combat scenarios into closed-form combat models. Functions are to:

a. Lead, plan, and conduct operational effectiveness analyses, comparative analyses, studies, AoAs, quick reaction analysis, and gap analyses of combat systems and related functional areas to evaluate critical system issues.

b. Plan and conduct parametric studies and sensitivity analyses for combat systems and related functional areas in a joint context to identify and evaluate critical system issues.

c. Maintain analytical expertise with respect to state-of-the-art combat systems and related threat developments.

d. Provide consultation and assistance to other study agencies on study planning and conduct, test design and planning, and analysis procedures.

e. Integrate battalion- and BCT-level high-resolution vignettes and scenarios for use in the Combined Arms Analysis Tool for the 21st Century (COMBATXXI).

f. Develop simulation tools, models, and databases, as required, to support combat effectiveness analysis of fielded and conceptual BCT combat systems.

g. Conduct research into battlefield phenomenology and other selected operations research areas.

h. Develop and conduct experiments to identify means of exploiting the systems analysis and operations research techniques used by potential threats.

i. Conduct training related analysis in support of HQDA and TRADOC decisionmakers. Assist with TEA issues, serve as the TRADOC TEA methodology and application subject matter experts, recommend TEA policy changes, and serve as AR 5-5 TEA study agency.

j. Conduct functionally independent resource analyses for the TRADOC analytical community to support joint and HQDA requirements. Perform life-cycle cost, force cost, resource allocation, and utilization studies and analyses of Army weapon systems, combat service support (CSS) systems, and organizations.

5-6. Models and Simulations Directorate

Designs, develops, modifies, and maintains brigade and below combat models and simulations in support of joint and Army doctrinal, force structuring, and command, control, communications and computers, intelligence, surveillance and reconnaissance studies and experiments. Serves as proponent for the Army's principal tactical-level models, providing DOD with configuration control of these interactive and closed loop models and supporting software. Functions are to:

- a. Serve as proponent for COMBATXXI. Design, develop, maintain, support, test, and configuration manage the simulation for joint, Army, and interagency analytic uses including research, testing, evaluation, concept development, requirements definition, and operations effectiveness analyses.
- b. Coordinate with DOD and Army M&S organizations to assist Director, ARCIC in the development and implementation of Army policy on M&S.
- c. Provide technical assistance to proponents and users to improve the use of battle simulations in support of advanced concepts and requirements development.
- d. Develop and support distributed simulations applied to the simulation and stimulation of command, control, communication, computer, intelligence, surveillance and reconnaissance systems for analysis, testing, and training applications.
- e. Investigate advances in computers, computer networks, graphics, man-machine interface technology, programming languages, software development environments, and digital communications technology to apply toward enhancing interactive wargames.
- f. Develop requirements, plan, and implement the representation of current operations in combat simulations. Instantiate insurgency and counter insurgency operations, allowing for analysis support to the deployed Soldier.
- g. Develop study-specific scenario performance data requests, submit them to the appropriate agency, and assist study personnel in loading study-specific performance data into scenario file structures. Ensure archiving of all data requests, data files, performance data representations, and dynamic scenario documentation.

5-7. Study Support Directorate

Develops and manages TRADOC's brigade and below scenarios for use in capability development to support joint, Army, TRADOC, and interagency analytic efforts. Develops next generation scenarios depicting future operations ICW TRADOC schools, centers, and battle labs. Conduct wargames to support Army analysis. Functions are to:

- a. Develop and maintain TRADOC operational scenarios IAW [TR 71-4](#), paragraph 3-2. To the appropriate degree, create standard operational scenarios, ensuring relevance to future force development.

TRADOC Reg 10-5-7

- b. Assist study personnel in developing new study scenarios, vignettes, or dynamic scenarios by modifying existing TRADOC operational scenarios as appropriate. Ensure scenarios are incorporated into COMBATXXI, OneSAF, or other simulations within acceptable modification limits to the operational scenario.
- c. Assist model developers in understanding the OE, technologies, tactics, techniques, procedures, and associated concepts depicted in scenarios for experimentation and wargaming.
- d. Administer the operational scenario approval process and coordinate certification and approval of TRAC-WSMR operational scenario products IAW [TR 71-4](#), paragraph 3-2. Assist TRADOC organizations in the certification and approval process for scenarios not developed or implemented in a simulation by TRAC.
- e. Maintain familiarity with future Army concepts and CCPs, doctrine, forces, systems and technologies, and future threats and potential adversaries. Coordinate with HQDA G-3/5/7, TRADOC DCS G-2, ARCIC and CAC on the projected status of future systems and organizations for U.S. and threat forces.
- f. Coordinate with ARCIC and TRAC-FLVN on the annual TRADOC scenario production plan. Develop and present TRAC-WSMR Brigade/Battalion Simulation System input to the TRADOC scenario planning process.
- g. Coordinate with TRAC-FLVN on the TRAC scenario standing operating procedures and maintain the portion of that document pertaining to TRAC-WSMR's scenario responsibilities.
- h. Conduct wargames with combat simulations and other analytic models, methods, and tools as needed.
- i. Load scenarios into force-on-force combat simulations.
- j. Provide support to TRAC Irregular Warfare (IW) research to develop methods, models, and tools to support leader decisions on Irregular Warfare issues. Coordinate with TRAC centers on efforts to develop an IW counterinsurgency-based tactical level wargame.

5-8. Operations Directorate

Manages civilian and military manpower and fiscal resources, security, information technology, administration and logistics, and technical research operations for TRAC-WSMR. ICW Director, manages and coordinates the TRAC-WSMR Work Program and Reimbursable Program. Represents HQ TRADOC in the cost analysis functional area at HQDA, including the Army Cost Review Board and working groups as requested. Functions are to:

- a. Provide TRAC-WSMR workload projections for TRAC input to the TSAP ICW TRAC-WSMR operating directorates.
- b. Monitor, update, and document the TRAC-WSMR Work Program review and fiscal year closeout.

- c. Develop and maintain data processing aids used to capture and forecast study program activities.
 - d. Review requests to certify study plans or final reports on analyses performed by other TRADOC schools, centers, and battle labs, assign them to TRAC-WSMR operating directorates for review, and prepare certification statements for signature by the Director, TRAC-WSMR.
 - e. Receive and review taskings and assign them to appropriate elements of the organization based on subject and current workload.
 - f. Manage all phases of the TRAC-WSMR mission support contract and other TRAC-WSMR contracting and procurement efforts.
 - g. Establish guidelines and policy for the contract office in the procurement of Automated Information System equipment and services.
 - h. Provide all IT support to include procurement, fielding, information security, and maintenance. Represent TRAC-WSMR at the TRAC Information Technology Advisory Board.
 - i. Serve as production center for TRAC-WSMR. Consolidate, review, and prepare agency products (written and media).
 - j. Manage TRAC-WSMR manpower, civilian, and military personnel programs. Develop and maintain TRAC-WSMR TDA to accurately reflect organizational structure and distribution of manpower resources.
 - k. Administer TRAC-WSMR resource related programs such as the management internal control program and host or tenant support agreements established between TRAC-WSMR and its host installation.
 - l. Manage the TRAC-WSMR reimbursable program. ICW key leaders, develop and pursue potential new business opportunities and ensure that program requirements are met.
 - m. Manage the day-to-day operations and resource of TRAC-WSMR in support of the overall TRAC-WSMR mission.
 - n. Manage the TRAC-WSMR security program to include physical, personnel, and information security.
 - o. Manage the TRAC-WSMR supply, property accountability, and purchasing programs.
-

Chapter 6
TRAC-Fort Lee (TRAC-LEE)

6-1. Mission of TRAC-LEE

Provides analysis of Army forces and capabilities conducting sustainment operations. Additionally, develops and maintains models, simulations, scenarios, and attendant databases of CSS functions and capabilities and sustainment operations; coordinate and execute V&V for those models for which TRAC has proponent or assigned lead responsibility.

6-2. Organization of TRAC-LEE

TRAC-LEE is a subelement of TRAC. A senior civilian analyst directs TRAC-LEE, supported by the senior military analyst in the grade of lieutenant colonel, administrative support and a Chief of Functional Operations. TRAC-LEE consists of two line divisions: Combat Service Support Studies and Modeling Analysis (see figure 6-1).

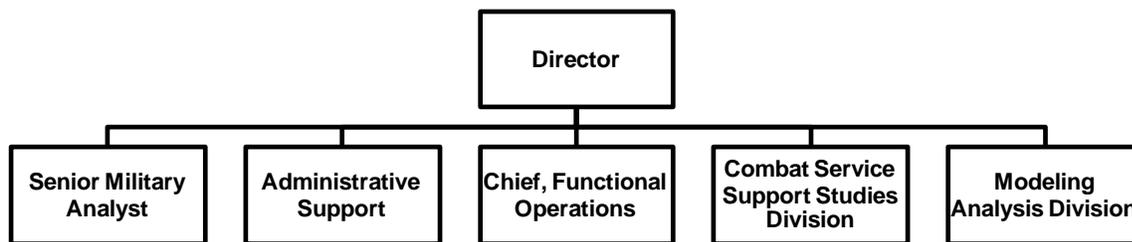


Figure 6-1. TRAC-Fort Lee

6-3. Functions of TRAC-LEE

- a. Performs operations analysis and CSS system AoAs (ICW DOD, Army and TRADOC agencies) to assess sustainment and CSS doctrine, organizations, concepts, capabilities, materiel, and operations. Additionally, conducts the CSS portion of AoAs and other major studies, including logistics impact analysis.
- b. Conducts gap analyses and requirements analyses in support of Army CSS capability development.
- c. Develops, verifies and validates, and manages CSS models and simulation capabilities, integrated with force level simulations. Continually assesses CSS modeling gaps and conduct model research and development to fill the gaps in coordination with DOD, Army, TRADOC and its agencies. Develops future generations of CSS M&S to support the ACR M&S domain of the Army.
- d. Establishes and maintains a technical base of expertise and state-of-the-art awareness of analytical techniques for application to military technical and operational problems.
- e. Integrates CSS functions and sustainment operations into TRADOC standard scenarios.

f. Develops and maintains databases of CSS capabilities and their employment in support of M&S and analysis.

g. Provides simulation and analysis support to special experiments, tests and exercises, and attendant training of participating units and Soldiers, for purposes of analysis and evaluation.

h. Monitors and maintains quality control of assigned studies and ensure their quality prior to approval.

6-4. Office of the Director, TRAC-LEE

a. Lead TRAC on analytical matters pertaining to CSS issues. Provides advice, guidance, and assistance on analytical issues to the U.S. Army Sustainment Center of Excellence (SCOE), CASCOM, and TRAC.

b. Develops, orchestrates, and implements the TRAC-LEE Work Program in conjunction with HQ TRAC in support of the TSAP and the AR 5-5 Study Program.

c. Provides technical assistance to the SCOE/CASCOM during preparation of their annual submission of high priority studies.

d. When directed or requested, provides analytic oversight for studies, study plans, and reports conducted by the SCOE and CASCOM and its associated centers and schools.

e. Serves as the Fort Lee Activity Civilian CP16 Manager.

f. Represents TRAC on matters pertaining to CSS analytic issues at Army and TRADOC study advisory groups, in-process reviews, symposia, and related meetings. Represents TRAC on pertinent analytically-oriented committees (for example, the Logistics Studies Steering Committee).

g. Chairs TRAC-LEE Product Review Board for management and quality assurance of studies.

h. Supports the logistics focus area collaboration team, particularly as it pertains to CSS research.

6-5. Combat Service Support Studies Division

Performs studies and analytical support for a range of CSS issues to include personnel, training, and Soldier-related support; provides general analytical support to the SCOE/CASCOM; and conducts quality control for assigned major and non-major studies conducted by other TRADOC activities. Functions are to:

a. Develop and maintain a staff of experienced analysts to plan, lead, conduct, and report on analysis and studies related to all facets of logistics, sustainment, and CSS. In addition, develop and maintain a staff of experienced analysts to plan, lead, and report on manpower and personnel

TRADOC Reg 10-5-7

integration (MANPRINT) studies and analyses involving the manpower and personnel related aspects of the seven MANPRINT domains.

b. Integrate logistics and sustainment considerations into major studies and analyses throughout TRADOC. Conduct logistics impact analysis studies in support of AoAs. Ensure inclusion of applicable logistics issues through coordination with study sponsors and agencies.

c. Review and recommend approval of the logistics and sustainment analysis portions of studies throughout TRADOC.

d. Assist study sponsors with development of CSS study issues as required. Monitor production and maintain quality control of select studies. Recommend approval of study plans and studies prior to their approval by the Director, TRAC or CG, SCOE/CASCOM and/or Director, ARCIC.

e. Provide analytic support to study agencies and CG, SCOE/CASCOM as directed by Director, TRAC.

6-6. Modeling Analysis Division

Describes, defines, develops, tests, analyzes, and validates CSS functional and integrated (high- and low-resolution) models and simulations. Functions are to:

a. Develop, prepare, and employ simulations, evaluating results with full consideration of scenario, model, and data interaction.

b. Provide analytical advice and assistance for sustainment issues to the SCOE/CASCOM, other TRADOC centers and schools, and TRAC elements in the development of CSS M&S capabilities in TRADOC models and assist in verification, validation, and accreditation of these capabilities. Exercise configuration control of models for which TRAC-LEE has the lead.

c. Coordinate with DOD and Army M&S organizations to assist Director, ARCIC in the development and implementation of Army policy on M&S.

d. Provide technical aid to proponents and users to improve the use of battle simulations in support of advanced concepts and requirements development.

e. Improve and maintain the quality of CSS modeling to ensure its representation and integration are realistic and consistent among TRADOC models and simulations. Ensure the quality of analytical products, which employ TRAC-LEE supported models.

f. Serve as the TRAC-LEE lead for acquisition and distribution of CSS data. Review and evaluate appropriate analytical and experimental test data for use by Army models that require CSS data. Provide support for CSS scenario data requests and lead development of data transformations necessary to support CSS-related models and analyses.

g. Develop and maintain CSS analytic databases to support functional and integrated combined arms studies. Provide data support for assigned TRAC-LEE studies.

h. Maintain TRAC-LEE IT facilities, communication networks, and install and maintain all system software not administered by the Network Enterprise Center. Provide operating support services for IT to include the maintenance contract. Monitor and optimize IT system performance.

i. Determine and procure IT resources required to support TRAC-LEE requirements.

j. Manage TRAC-LEE IT hardware and software security and information assurance programs.

k. Maintain knowledge of state-of-the-art information technologies applicable to TRAC-LEE requirements.

Chapter 7

TRAC-Monterey (TRAC-MTRY)

7-1. Mission of TRAC-MTRY

Serves as the principal research activity for TRAC. Perform exploratory and applied research to support the TRAC mission. Conducts research in three broad areas that include: advancements in M&S; advancements in analysis techniques and methodologies; and future systems applied research.

7-2. Organization of TRAC-MTRY

TRAC-MTRY is a single office consisting of a Director (in the grade of lieutenant colonel), a government civilian deputy director, military and civilian analysts, and administrative support (see figure 7-1).

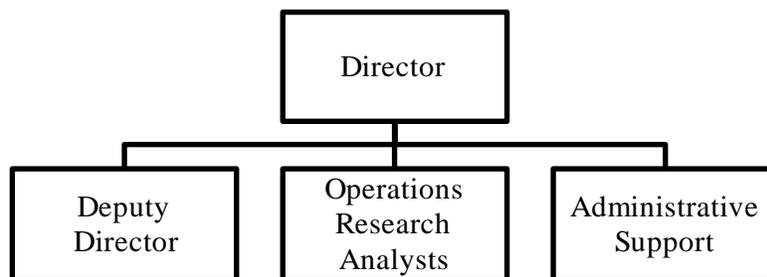


Figure 7-1. TRAC-MTRY

7-3. Functions of TRAC-MTRY

a. Performs applied and developmental research in selected areas to advance Army modeling and analysis capabilities. Additionally, conducts special analysis projects.

TRADOC Reg 10-5-7

b. Coordinates research proposals, resources, and funds (ICW TRAC Methods and Research Office) for execution by TRAC elements and other agencies in order to promote collaboration and highest possible payoff.

c. Seeks out and identifies capabilities and resources at NPS that offer opportunities to address Army analysis needs.

d. Leverages, supports, and partners with NPS faculty and officer students in research efforts that enrich NPS academic programs and support Army, TRADOC and TRAC research and analysis needs.

e. Performs liaison with NPS researchers for research projects sponsored by the various elements within HQDA, TRADOC, TRAC, and other government agencies.

Appendix A References

Section I Required Publications

AR 5-5
Army Studies and Analyses

TRADOC Reg 10-5
U.S. Army Training and Doctrine Command

TRADOC Reg 71-4
TRADOC Standard Scenarios for Combat Developments

Section II Related Publications

DODD 5000.1
The Defense Acquisition System

CJCSI 3170.01G
Joint Capabilities Integration and Development System

CJCS Manual
Manual for the Operation of the Joint Capabilities Integration and Development System

CJCSI 3180.01
Joint Requirements Oversight Council (JROC) Programmatic Processes for Joint Experimentation and Joint Resource Change Recommendations

AR 5-11
Management of Army Models and Simulations

AR 25-1
Army Knowledge Management and Information Technology

AR 25-30
The Army Publishing Program

AR 70-1
Army Acquisition Policy

AR 71-9
Warfighting Capabilities Determination

AR 71-11
Total Army Analysis (TAA)

AR 71-32
Force Development and Documentation – Consolidated Policies

AR 350-1
Army Training and Leader Development

AR 602-2
Manpower and Personnel Integration (MANPRINT) in the System Acquisition Process

DA Pam 5-11
Verification, Validation, and Accreditation of Army Models and Simulations

DA Pam 25-40
Army Publishing: Action Officers Guide

DA Pam 70-3
Army Acquisition Procedures

TRADOC Reg 1-11
Staff Procedures

TRADOC Reg 5-11
U.S. Army Training and Doctrine Command (TRADOC) Models and Simulations

TRADOC Reg 11-8
TRADOC Studies and Analyses

TRADOC Reg 10-5-7

TRADOC Reg 25-35

Preparing and Publishing U.S. Army Training and Doctrine Command (TRADOC)
Administrative Publications

TRADOC Reg 71-20

Concept Development, Experimentation, and Requirements Determination

TRADOC Reg 350-32

The TRADOC Training Effectiveness Analysis (TEA) System

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

DA Form 1045

Army Ideas for Excellence Program (AIEP) Proposal

DA Form 2028

Recommended changes to Publications and Blank Forms

Glossary

Section I

Abbreviations

ACR	advanced concepts and requirements
AoA	analysis of alternatives
AR	Army regulation
ARCIC	Army Capabilities Integration Center
AWARS	Advanced Warfighting Simulation
BCT	brigade combat team
BDE	brigade
CAC	U.S. Army Combined Arms Center
CASCOM	U.S. Army Combined Arms Support Command
CCP	concept capability plan
CG	commanding general
COE	centers of excellence
CoS	chief of staff
COMBAT XXI	Combined Arms and Analysis Tool for the 21st Century
CP16	career program engineers and scientists (nonconstruction)
CSS	combat service support
DA	Department of the Army

DCG	deputy commanding general
DCS	deputy chief of staff
DOD	Department of Defense
G2	intelligence
G3/5/7	operations, plans and training
G6	command, control, communications and computers
G8	resource management
FFID	Future Force Integration Directorate
HQ	headquarters
HQDA	Headquarters, Department of the Army
IAW	in accordance with
ICW	in coordination with
IMT	initial military training
ISR	intelligence, surveillance, and reconnaissance
IT	information technology
IW	irregular warfare
JROC	Joint Requirements Oversight Council
M&S	modeling and simulation
MANPRINT	manpower and personnel integration
NPS	Naval Postgraduate School
OE	operational environment
OneSAF	One Semi-Automated Force
PRD	Programs and Resources Directorate
SCOE	Sustainment Center of Excellence
TDA	table of distribution and allowances
TEA	training effectiveness analysis
TR	TRADOC regulation
TRAC	TRADOC Analysis Center
TRADOC	United States Army Training and Doctrine Command
TRAC-FLVN	TRAC-Fort Leavenworth
TRAC-LEE	TRAC-Fort Lee
TRAC-MTRY	TRAC-Monterey
TRAC-WSMR	TRAC-White Sands Missile Range
TSAP	TRADOC Studies and Analysis Program
V&V	verification and validation

Section II

Terms

Definitions of terms are found in Joint Publication 1-02. This glossary defines terms requiring expanded explanation.

Analysis

The examination of a complex whole, its elements, and their relationships. The purpose of analysis is to inform senior leader decisions or to gain understanding of complex problems. See also study.

Analysis of alternatives (AoA)

The evaluation of the performance, operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The AoA assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables. The AoA is one of the key inputs to defining the system capabilities in the capability development document. (CJCSM 3170.01D)

Capability

The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways across the doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) to perform a set of tasks to execute a specified course of action. It is defined by an operational user and expressed in broad operational terms in the format of an initial capabilities document or a joint DOTMLPF change recommendation. In the case of materiel proposals/documents, the definition will progressively evolve to DOTMLPF performance attributes identified in the capability development document and the capability production document. (CJCSM 3170.01D)

Capability development document (CDD)

A document that captures the information necessary to develop a proposed program(s), normally using an evolutionary acquisition strategy. The CDD outlines an affordable increment of militarily useful, logistically supportable, and technically mature capability. The CDD may define multiple increments if there is sufficient definition of the performance attributes (key performance parameters, key system attributes, and other attributes) to allow approval of multiple increments. (CJCSM 3170.01D)

Capability gaps

The inability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. The gap may be the result of no existing capability, lack of proficiency or sufficiency in existing capability, or the need to replace an existing capability. (CJCSM 3170.01D)

Concept

A notion or statement of an idea – an expression of how something might be done – that can lead to an accepted procedure (CJCSI 3010.02A). A military concept is the description of methods (ways) for employing specific military attributes and capabilities (means) in the achievement of stated objectives (ends).

Concept capability plan (CCP)

The application of elements of operational joint and Army concepts to selected mission, enemy, terrain and weather, time, troops available, and civilian conditions. It is typically more illustrative and descriptive than a concept and more focused in purpose.

Coordination

Consultation leading to an expressing of views. To cause to act or work together for a common purpose, as in timing, unifying, and integrating work.

Decisionmaker

An individual or group who make subjective assessments of such variables based on facts, assumptions, and their likely effects on the outcome. (FM 5-0, Chapter 2)

Dynamic scenario

A version of an operational or study scenario that is modeled in a simulation. Final gaming may not match the planned operations of the operational or study scenario, based on circumstances occurring during gaming and associated contingency plans.

Key enabler

A significant function that underpins the ability to execute two or more core functions. An integral component of the set of functions or tasks required to execute a core function. One or more organizations can perform this function.

Manpower and personnel integration (MANPRINT)

The comprehensive technical effort to identify and integrate all relevant information and considerations regarding the full range of manpower, personnel, training, human factors engineering, system safety, health hazards, and Soldier survivability into the system development and acquisition process to improve Soldier performance, total system performance, and reduce the cost of ownership to an affordable level throughout the system's entire life cycle. (AR 602-2, Glossary, Section II - Terms)

Modeling and simulation (M&S)

A "model" is a mathematical, logical, physical, or procedural representation of some real or ideal system, and "modeling" is the process of developing a model. A "simulation" is the implementation of a model in executable form or the execution of a model over time. Taken together, "modeling and simulation" or M&S refers to the broad discipline of creating, implementing, understanding, and using models and simulations. M&S facilitates early identification and reduction of the risks associated with complex system acquisition programs; enables a better understanding of what kinds of system requirements and architectures are feasible and affordable given various programmatic and technological constraints; and provides insight into how to better manage system-engineering efforts to improve the overall likelihood of a successful acquisition effort.

Operational architecture

Descriptions of the tasks, operational elements, and information flows required to accomplish or support a warfighting function. (Joint Publication 1-02) It defines the type of information, frequency of exchange, and which tasks the information exchanges support.

Operational environment

A composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander. (JP 3-0)

TRADOC Reg 10-5-7

Operational scenario

A graphic and narrative description of area, environment, means (political, economic, social, and military), and events of a future conflict; it describes the global conditions before and during armed conflict; friendly and threat forces, to include weapons, munitions, and sensors lists; friendly and threat strategic and theater plans, including air, naval, and special purpose forces; friendly, unaligned, or independent and threat behavioral and cultural operational aspects and considerations; and operational and tactical orders and plans for friendly and threat forces involved in the conflict. It also includes considerations of geographic setting (weather, climate, topography, and vegetation), health hazards, transportation facilities, and other regional and operational elements. When appropriate, the operational scenarios will also address those unaligned or independent forces that may oppose threat, friendly, or both forces.

Quality control

Quality control that is external to TRAC includes consultation or provision of advice by TRAC analysts to analysts or principals in external agencies that is intended to help delineate study issues, formulate an analysis plan, select analysis tools, employ correct study methodology, interpret data or findings, and/or present data or findings.

Requirement

An established need justifying the timely allocation of resources to achieve a capability to accomplish approved military objectives, missions, or tasks.

Sponsor

The agency which sponsors the development or use of M&S utilizing either in-house, other government agency, or contract resources (AR 5-11). Model sponsor is responsible for initiating the development and directing control of the reference version of a model or simulation. May also refer to analytic studies; in this case, the study sponsor is the HQDA element, agency, FOA, or MACOM responsible for a study effort overseeing the study agency's work on the study and generally is responsible for implementation of study results. (AR 5-5)

Staff management

The responsibilities of the staff to assist and coordinate lead organization efforts by analyzing, monitoring, assessing, and developing recommendations for the commander on all activities affecting policy, organization guidance, developmental processes, and implementation or execution processes in support of the organization meeting its mission. The staff will facilitate the coordination and dissemination of plans, doctrine, and training with higher HQ and external agencies as appropriate.

Study

Services that provide organized analytic assessments and evaluations in support of policy development, decisionmaking, management, or administration.

System

The combination of the components and subelements that function together as an entity to accomplish a given objective; a system includes the hardware and all other required items, such as facilities, personnel, data, test measuring and diagnostic equipment, and training equipment.

Training effectiveness analyses (TEA)

A general category of studies for assessing the effectiveness of TRADOC's training strategies, programs, and products. The TEA is a primary means by which TRADOC establishes and maintains quality control over the outputs of TRADOC's training development and training delivery systems. The TEA is tailored to the requirements of the training decision being made and no two TEA will be exactly alike. The TEA system is governed by [TRADOC Regulation 350-32](#), which delineates roles, responsibilities, and objectives.

Wargaming

Course of Action (COA) analysis is a disciplined process that staffs use to visualize the flow of a battle. (FM 5-0, Chapter 3)