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

*TRADOC Regulation 10-5-7

29 December 2005

**Organization and Functions
U.S. ARMY TRADOC ANALYSIS CENTER**

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

Applicability. This regulation applies to all elements of TRAC.

Supplementation. Supplementation of this regulation is prohibited unless specifically approved by the TRADOC Deputy Commanding General/Chief of Staff (ATCS), 7 Fenwick Road, Fort Monroe, VA 23651-1049.

Suggested improvements. The lead responsibility for this regulation is the TRAC. Send comments and suggested improvements on Department of the Army (DA) Form 2028 (Recommended changes to Publications and Blank Forms) or DA Form 1045 (Army Ideas for Excellence Program (AIEP) Proposal) through channels to Director, U.S. Army TRADOC Analysis Center (ATRC-TD), 255 Sedgewick Avenue, Fort Leavenworth, KS 66027-2345.

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*This regulation supersedes TRADOC Analysis Command Regulation 10-1, dated 30 June 1988.

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Chapter 1

Introduction

1-1. Purpose. This regulation prescribes and further delineates the organization, mission, functions, and attendant responsibilities for the TRAC and subordinate organizations.

1-2. References. [Appendix A](#) contains related publications.

1-3. Explanation of abbreviations and terms. The [glossary](#) contains abbreviations and explanations of terms used in this regulation.

1-4. Responsibilities.

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a. The TRADOC Deputy Commanding General/Chief of Staff (DCG/CofS). The TRADOC DCG/CofS is the approval authority for changes to this regulation.

b. The Director, TRAC. 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/CofS.

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

(1) Advise and assist 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. Headquarters (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, each TRAC organization will routinely undertake a critical analysis and review of its structure, functions, and responsibilities. An annual update of this regulation will integrate these results. This will help ensure TRAC remains an agile, innovative organization.

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 the TRAC fiscal year 2005 (FY05) table of distribution and allowances (TDA), as currently approved by HQ TRADOC and Headquarters, Department of the Army (HQDA), respectively.

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 Programs and Resources Directorate (PRD).
- b. The TRAC Resource Division (RD) will coordinate Director, TRAC-approved recommended changes in mission, organization, and functions with TRADOC Deputy Chief of Staff for Resource Management (DCSRM) for TRADOC DCG/CofS approval of changes to this regulation.

Chapter 2

TRADOC Analysis Center

2-1. Mission of TRAC. Provide relevant, credible analysis for informed decisions about the Army's most important and challenging issues. TRAC serves as the principal analytical organization of TRADOC, while unaligned with TRADOC proponentencies. TRAC provides centralized leadership and management of analysis for combat, training, and doctrinal developments. TRAC conducts studies and analyses for TRADOC and HQDA; conducts studies of the integrated battlefield related to doctrine, organization, training, materiel, and leadership; designs and develops models and simulations for capabilities developments; manages technical exchange programs at the national and international levels; provides analytical support to TRADOC Futures Center (FC), centers, and schools; directs research related to analysis; establishes, maintains, and manages the data bases, scenarios, models, and wargaming tools required to support analyses and studies; and reviews and certifies, as directed, the quality of TRADOC studies before their approval.

2-2. Organization of TRAC. The TRAC is a special activity reporting to the Commanding General (CG), TRADOC. The TRAC consists of a HQ staff and four subordinate centers. The TRAC-FLVN, is co-located with HQ TRAC at Fort Leavenworth, Kansas. The TRAC-WSMR is located at White Sands Missile Range, New Mexico. The TRAC-LEE is located at Fort Lee, Virginia. The TRAC-MTRY is located at the Naval Postgraduate School (NPS) in Monterey, California.

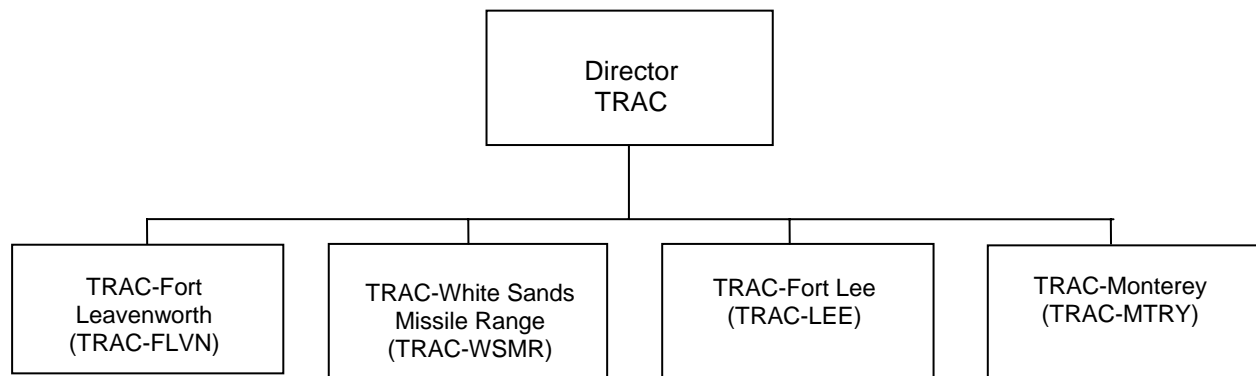


Figure 2-1. TRAC organization

2-3. Major functions of TRAC.

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a. TRAC has assist responsibilities for the following TRADOC core functions, with priority accorded those functions mandated by Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01E and Department of Defense (DOD) Directive 5000.1.

(1) Training. Assists CG, Combined Arms Center (CAC); CG, Army Accessions Command; and Director, TRADOC FC by conducting analysis supporting the TRADOC Training Effectiveness Analysis (TEA) Program. Analysis will be used to develop or improve training; underpin requirements for training aids, devices, simulators, and simulations (TADSS); assess new training and training delivery systems used for initial military training (IMT) and functional training, leader development and education; and conduct analysis of alternatives (AoAs) of training programs.

(2) Doctrine. Assists CG, CAC by conducting studies of emerging and changing doctrine.

(3) Concepts. Assists Director, TRADOC FC by conducting analyses of Army future force concepts and concept capability plans (CCPs) and develops scenarios that depict future force operations in accordance with (IAW) emerging concepts and CCPs.

(4) Experimentation. Assists Director, TRADOC FC by conducting analyses of major TRADOC experiments IAW the Army Concept Development and Experimentation Plan (ACDEP) and supports experimentation with data base management, scenario development, simulations, and certification of analytic results.

(5) Requirements determination. Assists Director, TRADOC FC by conducting studies and analyses to inform key TRADOC, Army, and Joint Staff decisions pertaining to capabilities integration and development requirements. Performs AoA, key performance parameter, and other requirements analyses in collaboration with TRADOC centers, schools, and battle laboratories.

b. TRAC has assist responsibilities for the following TRADOC key enablers:

(1) Operational architecture. Assists Director, TRADOC FC by conducting studies and analyses that inform decision makers about concepts, CCPs, and operational architectures.

(2) Models and simulations. Assists Director, TRADOC FC by developing, configuration managing, and applying verified and validated modeling and simulations (M&S).

(3) Operational environment (OE). Assists TRADOC Deputy Chief of Staff for Intelligence (DCSINT) by developing and maintaining TRADOC standard scenarios in coordination with (ICW) TRADOC FC to ensure accurate representation of the OE.

c. The following functions support TRAC's ability to perform its essential tasks and fulfill its lead and assist responsibilities:

(1) Investing in the development of TRAC intellectual capital to maintain and improve TRADOC and Army analysis capabilities.

(2) Developing Defense Planning Scenario-compliant TRADOC standard scenarios depicting corps, division, and brigade combat team (BCT) forces in a joint operational context as directed by TRADOC FC and DCSINT as leads for scenarios and OE.

(3) Developing, maintaining, and providing configuration management of TRADOC's force-on-force and functional operations models and simulations for which TRAC has the lead, to support combat developments and operations analysis.

Chapter 3

Headquarters, TRADOC Analysis Center

3-1. Director, TRAC. The Director, TRAC is TRADOC's chief analyst responsible for leading TRADOC's analysis mission and 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. Director, TRAC serves as the TRADOC Civilian Career Program Manager for Engineers and Scientists (Non-Construction) (Career Program (CP) 16) and advises the Army's operations research and systems analysis officer proponent.

3-2. Deputy Director, TRAC. Assists the Director on all management aspects and 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 TRAC HQ staff to include: the PRD, the Methods and Research Office (MRO), and the Director's staff.

3-3. Director's staff. Advises and assists the Director, TRAC, in the areas of military personnel management, administration, executive correspondence and communication, and military protocol. The office also provides personnel service support to HQ TRAC and subordinate centers. Functions are:

- a. Coordinate with Fort Leavenworth, major Army commands (MACOM), and HQDA personnel managers on personnel management issues.
- b. Manages the military portion of the TDA and submits military personnel requisitions.
- c. Supervises and manages the TRAC sponsorship program, military awards program, and military evaluation report systems.
- d. Provides service as the Information and Physical Security Officer for the HQ TRAC facilities.
- e. Coordinates personnel-related taskings and reporting in support of Fort Leavenworth.

3-4. Programs and Resources Directorate. The PRD provides planning, programming, budgeting support and manages TRAC's operations analysis program. Manages the TRAC

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Reimbursable Program (TRP) and manages TRAC information management and security programs. The PRD consists of two divisions: Programs (PD) and Resource (RD).

a. Programs Division. The PD serves as the operations section for Director, TRAC. The Chief, PD 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:

(1) Conducts TRAC long-range planning. Manages and integrates TRAC study and work programs.

(a) Develops the TRAC work program in support of the TSAP and the Army Regulation (AR) 5-5 Study Program.

(b) Receives and coordinates TRAC mission support requests and taskings. Identifies and analyzes requirements and ensures their proper coordination among staffs and agencies prior to receipt of a formal analysis directive. Identifies relevant key issues and ensures consistency among implied analysis tasks, scope of effort, and related analysis milestones.

(c) Maintains on-going project status information to support Director, TRAC program execution decision making.

(d) Assists subordinate centers in the resolution of resource conflicts with project tasking requirements as necessary.

(2) Formulates and defends funding requirements. Monitors TRAC mission activities and critical resources. Recommends allocation and prioritization of resources against TRAC missions. Coordinates and documents rationale and evidence underpinning TRAC unfinanced requirements (UFRs).

(3) Develops, coordinates, and recommends policy governing internal TRAC mission activities.

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

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

(a) Advises the Director, TRAC on matters of information technology (IT), information assurance, and information management matters including classification and safeguarding of security information. Coordinates disclosure guidance for foreign visits and information sharing for HQ TRAC and assists TRAC elements as needed.

(b) Develops recommendations for information management and technology vision, guidance, and long-range plans. Manages TRAC use of information management systems to include: websites, electronic messaging systems, and collaborative systems.

(c) Leads the TRAC Information Technology Advisory Board (ITAB) which reviews IT-related regulations, policies, and other information to assess their impact on TRAC operations and management functions. Provides corporate level coordination and planning for TRAC-wide information technology requirements and investments.

(6) Develops, manages, and maintains TRAC marketing materials to include pamphlets, TRAC briefings, and website.

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

b. Resource Division. The RD 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. The RD provides a comprehensive, integrated resource program that includes administration of budget, manpower, personnel, and other program functions. Maintains contact with elements at HQDA, TRADOC DCSRM, TRADOC FC, Army Materiel Command, CAC, and Combined Arms Support Command (CASCOM) to help ensure recognition and support of TRAC resource needs. Develops resource program goals, objectives, priorities, and procedures for consideration by the Director, TRAC and ensures communication of resource decisions to TRAC centers for implementation. Functions are:

(1) Administers 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. Develops funding strategies to support critical mission and mission support requirements. Certifies funds for all expense categories. Monitors budget execution and provides status of funds feedback to TRAC managers, study directors, and program action officers.

(2) Administers TRAC's manpower and civilian personnel programs. Develops and maintains the TDA to accurately reflect TRAC's organizational structure and distribution of manpower resources. Serves as the lead for all civilian personnel actions for TRAC elements at Fort Leavenworth and provides assistance to all TRAC elements on actions such as recruiting, hiring, promoting, retirement, performance ratings, job descriptions, incentive awards, and training. Tracks and reports equal employment opportunity (EEO) and affirmative action accomplishments and is the TRAC representative on the installation EEO executive council.

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(3) Administers 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) Manages the TRADOC Civilian Career Program for Engineers and Scientists (Non-Construction) (CP 16) on behalf of Director, TRAC, the designated CP 16 Career Program Manager for TRADOC. Represents TRADOC-wide CP 16 interests in recruitment and development, including the DA Intern Program, to HQ TRADOC while working ICW Research Development and Engineering Command, the Army's Career Program Manager for CP 16. Also manages TRAC military and civilian training and development programs and recruits and manages TRAC's career experience program for qualified college students.

3-5. Methods and Research Office. The MRO 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:

- a. Leads the TRAC Research Program.
 - b. Develops or assists in the development of new processes and methods and implements them to support TRAC's mission.
 - c. Gathers, organizes, maintains, and shares information on relevant classical and emerging analytic methods for use within TRAC.
 - d. Conducts research and analysis as directed by Director, TRAC.
 - e. Serves as HQ TRAC lead to identify TRAC's M&S gaps and enhance TRAC's M&S capabilities.
 - f. Advises Director, TRAC on emerging analysis policy and policy implementation methods.
 - g. Sustains a robust program to recognize and reward innovation within TRAC.
-

Chapter 4

TRAC-Fort Leavenworth

4-1. Mission of TRAC-FLVN. Provides analytic support pertaining to Army forces at the division and corps levels conducting operations as part of joint and multinational forces. Additionally, TRAC-FLVN develops and maintains joint task force and corps and division level force-on-force models, simulations, scenarios, and attendant data bases; and coordinates and executes verification and validation (V&V) for those models and simulations for which TRAC is proponent or assigned lead responsibility.

4-2. Organization of TRAC-FLVN. The TRAC-FLVN consists of a Director, staff, TRAC Reimbursable Program and Analysis Support Division, and five line directorates: Joint and

Combined Arms Operations (JCOD); Future Concepts (FCD); Wargaming and Support; Requirements and Experimentation; and Model Management and Development (see fig 4-1). TRAC-FLVN is also served by a Deputy Director/Senior Military Analyst.

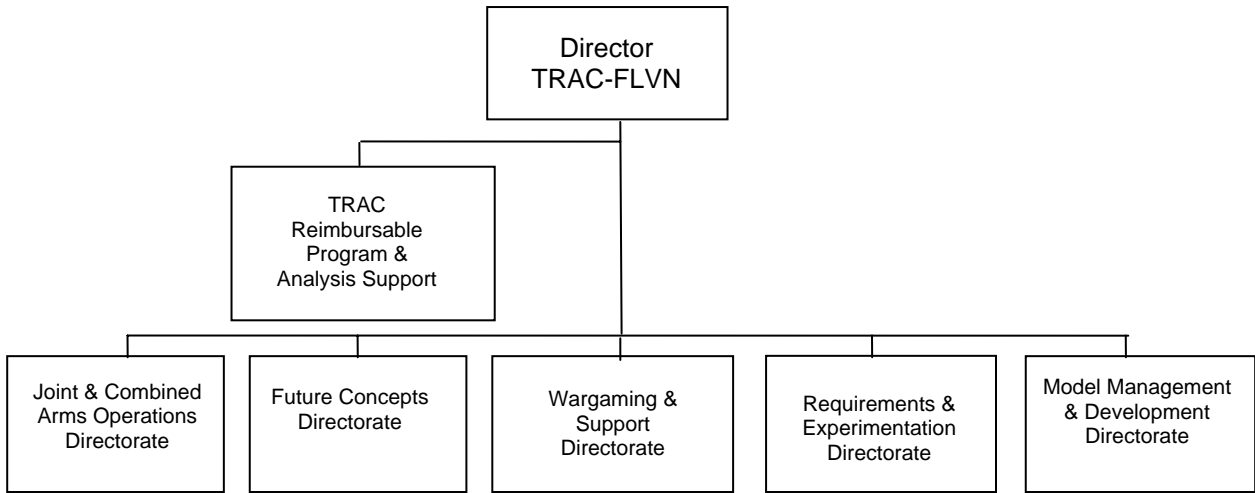


Figure 4-1. TRAC-Fort Leavenworth

4-3. Functions of TRAC-FLVN.

- a. Performs AoAs and other analyses, in cooperation with TRADOC centers, schools, and battle labs, to evaluate doctrine, organizations, materiel, and operations.
- b. Conducts analysis in support of joint and Army concept development and experimentation.
- c. Develops simulations, models, and wargames used in support of TRAC studies and experiments.
- d. Develops and manages TRADOC standard scenarios of corps and division level operations.

4-4. TRAC Reimbursable Program and Analysis Support Division. Manages the TRAC-FLVN Reimbursable Program and provides resource management, personnel, contracting, and security support to TRAC-FLVN activities. Functions are:

- a. Monitors status of funding from all sources to ensure that funding for the year is adequate to support the entire TRAC-FLVN work program, to include the civilian staff. Develops effective marketing tools for the purpose of attracting reimbursable analysis work.
- b. Develops and pursues potential new business opportunities. Ensures execution of agreement documents, receipt of the associated Military Interdepartmental Purchase Requests, and integration of the new project in the TRP status reporting process.
- c. Generates periodic reports from the TRAC-FLVN information management systems that assess work program execution for effectiveness.

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d. Manages the day-to-day resource operations of TRAC-FLVN, as they pertain to supporting the overall TRAC-FLVN mission. Ensures the proper and affordable balance of in-house civilian, military, and contractor personnel resources. Manages accession programs that include the DA Intern Program and the local Student Career Experience Program. Serves as TRAC-FLVN lead for all major personnel actions, to include recruitment and management of employee labor relations.

e. Manages all phases of the TRAC-FLVN mission contract support program from initial solicitation through source selection and contract administration to contract and task order termination.

f. Manages the overall security program for multiple open storage facilities in support of all TRAC operations at Fort Leavenworth, to include physical security, personnel security, and information security.

4-5. Future Concepts Directorate. Conducts studies and analyses to investigate Army operating and functional concepts and CCPs, and the application of advanced technologies in accordance with the ACDEP and TSAP. Functions are:

a. Conducts studies to address critical TRADOC issues, particularly those relevant to Army transformation.

b. Develops coherent study products to convey analytic findings to TRADOC FC or appropriate TRADOC proponents.

c. Develops and refines methodologies for use in assigned studies.

d. Manages the quality control of analysis products.

e. Develops special purpose analytic tools to support the investigation of future force concepts and CCPs.

f. Ensures that TRAC considers emerging future force capabilities when developing requirements for future analytic tools.

4-6. Requirements and Experimentation Directorate. Leads the analytical effort in support of battle command requirements and Army concept development and experimentation. Assists CAC lead for battle command. Functions are:

a. Plans and integrates resource and analytic support for the experimentation program and manages TRAC support to the ACDEP.

b. Advises planners and designers of experiments for which TRAC is not the analysis lead.

c. Maintains a data base of selected experiment results and provides quick-reaction analysis.

- d. Leads and supports major studies and experiments IAW the TSAP and the ACDEP.
- e. Leads analysis on joint command and control and battlespace awareness in support of CAC.
- f. Provides analytical support to command and control system development.

4-7. Joint and Combined Operations Directorate. Plans, leads, performs, and reports results from high-priority Army, joint and combined studies and analyses, requirements analysis, and AoAs. Develops division and corps level TRADOC standard operational scenarios to support analysis of Army systems within a joint and combined context. Provides rapid reaction analysis support in areas of its expertise. Functions are:

- a. Conducts major studies and analyses for HQ TRADOC, HQDA, the Joint Staff, other Services, combatant commands, and DOD.
- b. Supports the implementation of TRADOC standard scenarios in force-on-force combat simulations.
- c. Assists TRADOC FC ICW TRADOC DCSINT Threats in developing TRADOC scenarios.
 - (1) Implement tasks for standard scenarios by identifying future scenario requirements IAW TR 71-4, para 1-4.
 - (2) Leads TRAC support of TRADOC FC, Army, and the joint and international communities in scenario matters.
 - (3) Provides coordination and subject matter experts (SME) to TRAC study directors for scenario development.
 - (4) Maintains familiarity with Defense Planning Guidance scenarios and the scenario derivatives developed by other Services and defense agencies.
 - (5) Coordinates certification reviews for TRAC and TRADOC study scenarios to ensure they employ proper forces, systems, organizations, doctrine, and tactics.
- d. Performs special analyses for other DOD organizations upon request and approval of Director, TRAC-FLVN.

4-8. Model Management and Development Directorate. Develops, maintains, and applies state-of-the-art software engineering techniques to develop simulations, models, and wargames in support of TRAC studies and experiments. Conducts applied research in new software techniques and methodologies related to simulating combat in a joint operational context and develops software to support doctrinal, force structure, and command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) studies and experiments. As

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the sponsor for the Army's principal operational-level analysis models, provides DOD-wide configuration control of these models. Functions are:

- a. Designs, develops, and maintains state-of-the-art combat development and derivative experimentation models, simulations, wargames, and applications software.
- b. Provides technical support to TRADOC centers and schools to improve the use of battle simulations in support of advanced concepts and requirements studies.
- c. Serves as the Army sponsor for the Vector-in-Commander (VIC) combat simulation, the Army's current principal operational-level model that supports combat developments studies.
- d. Serves as the Army sponsor for the Advanced Warfighting Simulation (AWARS), the Army's next-generation joint combat simulation, which will become the Army's operational-level model that supports experimentation, computer-assisted map exercises, and combat developments studies.
- e. Provides technical support to design, establish, and employ simulation federations and distributed applications for Army experimentation.
- f. Provides the chair for the HQDA-sponsored C4ISR Focus Area Collaboration Team (FACT). Appoints members to the FACT executive and advisory committees to identify C4ISR gaps in Army M&S and establish an Army-wide research program to overcome these M&S gaps. Develops and maintains the C4ISR FACT web page to facilitate a yearly web-based submission of research proposals and evaluation by the Executive Committee. Publishes a yearly C4ISR FACT Research Plan to document the research program and measure the progress being made.
- g. Manages the Collaborative Simulation Environment Laboratory to provide a wargaming and computer laboratory facility with state-of-the-art graphical displays. The TRAC-FLVN lead to manage the Battle Laboratory Collaborative Simulation Environment (BLCSE) secure network for seminars, wargames, distributed federations that support experiments, and collaboration among the TRADOC battle laboratories.

4-9. Wargaming and Support Directorate. Employs division and corps level computer simulations, wargames, and other analytic tools that produce TRADOC scenarios and support the TRAC Study Program. Provides computer systems software and hardware procurement, maintenance, and technical support for TRAC elements at Fort Leavenworth, Kansas. Functions are:

- a. Analyzes directed study projects and scenarios to determine division and corps modeling requirements and analytical support needs.
- b. Loads data and conducts division and corps model runs to simulate current and future combined arms warfare.

- c. Documents the dynamic gaming for a scenario or study and the analysis of the simulation results.
 - d. Conducts division and corps level analysis, in the combined arms context, to determine the contributions and effectiveness of various weapon systems, command and control systems, and force structures using various tactics and doctrine.
 - e. Provides study-ready systems performance data for Janus, Combined Arms and Support Task Force Evaluation Model (CASTFOREM), VIC, computer assisted map exercise, AWARS, and other TRAC supported simulations.
 - f. Assists in model development by requesting needed code changes and providing V&V support of new model versions.
 - g. Acts as the contracting officer's technical representative for contractual gaming support.
 - h. Assists the Director, TRAC-FLVN in formulating strategic goals and objectives in matters dealing with information resource management and TRAC-FLVN's program of work and related milestones. Represents TRAC-FLVN at the TRAC ITAB.
 - i. Provides directors and action officers with technical consultation and advice on matters dealing with contracts, engineering analysis, and modernization of automated information systems (AIS) facilities. Conducts IT demonstrations and performs benchmark testing of new AIS products to verify and validate customer requirements.
 - j. Develops and manages requirements and plans for TRAC-FLVN data processing facilities, communications networks, and microcomputer and interactive terminal systems. Directs the development of the TRAC-FLVN AIS architecture and network.
-

Chapter 5

TRAC-White Sands Missile Range

5-1. Mission of TRAC-WSMR. Provides analysis Army forces at BCT levels and below, conducting tactical operations as part of joint and multinational forces. Additionally, TRAC-WSMR develops and maintains BCT-level force-on-force models, simulations, scenarios, and attendant data bases and coordinates and executes V&V for those models for which TRAC has proponent or assigned lead responsibility.

5-2. Organization of TRAC-WSMR. The TRAC-WSMR consists of a Director with staff and seven directorates: Studies, Soldier and Systems Analysis, Models and Simulations, Scenarios and Wargames, Training Analysis, Program Management and Operations, and TRADOC Chief of Cost (see fig 5-1). TRAC-WSMR is also served by a Deputy Director/Senior Military Analyst.

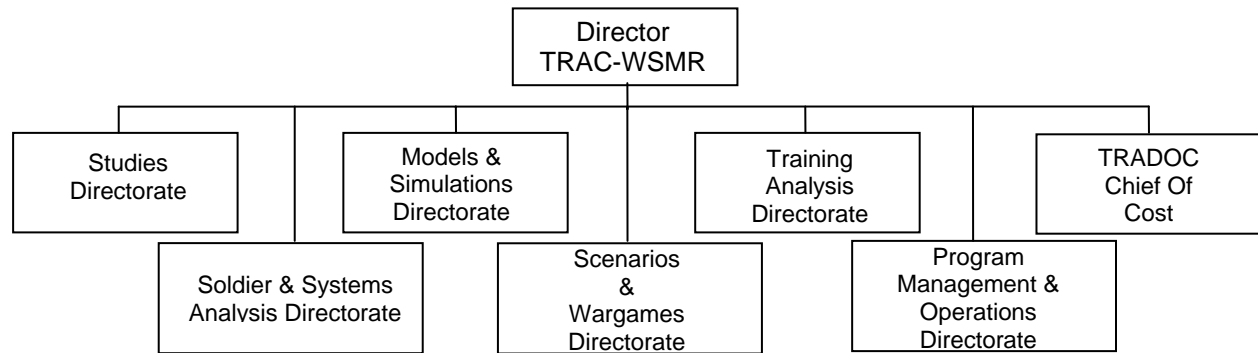


Figure 5-1. TRAC-White Sands Missile Range

5-3. Functions of TRAC-WSMR.

a. Performs AoAs and other analyses ICW TRADOC centers, schools, and battle labs to evaluate doctrine, organizations, materiel, and operations. These analyses are normally conducted at the BCT or battalion level; however, some item-level analyses may be conducted at levels as high as division and corps. The major types of analyses include AoA and requirements analyses that address system, operational, cost, training, and/or organizational issues. TRAC-WSMR also conducts analyses of the survivability and vulnerability of Army systems and units to conventional, nuclear, chemical, biological, and electronic warfare.

b. Develops, validates, and verifies models and simulation capabilities. Pursues a continuing program of model improvement and evolution in coordination with TRADOC schools, centers, and battle labs, the Army M&S Master Plan, and the DOD analytical community. The TRAC-WSMR is responsible for developing future generations of BCT combined arms combat models to support the advanced concepts requirements M&S domain of the Army.

c. Develops and manages TRADOC standard BCT and below scenarios.

d. Performs functionally independent TEA-related to systems acquisition and developing or improving training methods and strategies. Assesses the application of new training or training delivery systems. Supports Army field exercises and experiments; assesses TADSS requirements; and conducts similar training studies supporting AoAs and the training developments community.

e. 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.

f. Develops and maintains data bases of systems and organizations in support of high resolution modeling and analyses of combat operations.

g. Validates the battle calculus, doctrine, operational mode summaries, and user requirements for training simulations.

h. Ensures that the tactical impact of enemy countermeasures is fully considered and that sufficient emphasis is given to the development and employment of U.S. tactical counter-countermeasures.

i. Provides simulation support to the test design process in collaboration with Army Test and Evaluation Command and other testers and integrates test results for specific materiel systems to address system acquisition issues. Maintains currency on principal test organizations' capabilities and test activities. Performs reduction and analysis of raw field-test data.

j. Performs wargaming, analysis, and evaluation of unit tactical plans as required by FORSCOM elements.

k. Provides simulated combat environments for exercises. Supports the stimulation of C4ISR systems for analysis, test, and training applications.

l. Monitors and maintains quality control of assigned studies and certifies their quality before approval.

m. Conducts functionally independent cost analysis in support of studies and analyses, including AoAs.

n. Conducts model-test-model or model-experiment-model analyses in conjunction with the testing community to predict system combat effectiveness using M&S and to calibrate the M&S with field-test data.

5-4. Soldier and Systems Analysis Directorate. Performs operational effectiveness analyses, comparative analyses, studies, evaluations, planning, experiment design, experiment coordination, data analyses, simulation production runs, simulation support, and analytical documentation and briefing support to study leads and customers. This supports current, developmental, or conceptual armor, infantry, artillery, air defense, aviation, and support systems of the BCT within a joint context. The Soldier and Systems Analysis Directorate also develops and integrates joint combat scenarios into closed-form combat models. Functions are:

a. Plans and conducts AoAs, quick reaction analysis, and gap analyses of BCT combat systems and related functional areas to evaluate critical system issues.

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

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

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

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e. Develops battalion- and BCT-level high resolution vignettes and scenarios for use in CASTFOREM, Combined Arms and Analysis Tool for the 21st Century (COMBAT XXI), and one human-in-the-loop combat model, Janus.

f. Develops simulation tools, models, and data bases, as required, to support combat effectiveness analysis of fielded and conceptual BCT combat systems.

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

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

5-5. Studies Directorate. Leads and executes the most important and highest visibility studies and analysis assigned to TRAC-WSMR. Serves as a special cell reporting to the TRAC-WSMR command group comprised of assigned major study directors who direct matrixed study teams relying upon personnel from other TRAC-WSMR directorates, TRAC, and other Army and DOD agencies. Ensures minimal personnel management burden on Directorate Chief and Study Directors, thereby enabling them to focus their efforts on planning and execution of major studies, and make more efficient use of matrixed personnel who are typically assigned to more than one project. Functions parallel those of the Soldier and System Analysis Directorate.

5-6. Models and Simulations Directorate. Supports the design, development, modification, and maintenance of combined arms combat models to conduct AoAs and other analyses of Army and joint weapon systems and related areas. Functions are:

a. Coordinates with DOD and Army M&S organizations to assist TRADOC FC in the development and implementation of Army policy on M&S.

b. Develops requirements and plans for future analytical tools.

c. Designs, develops, maintains, supports, and configuration manages Janus, CASTFOREM, COMBAT XXI, and Emergency Preparedness Incident Command Simulation for Army, joint and interagency analytic uses including research, testing, evaluation, concept development, requirements definition, and operations effectiveness analyses.

d. Investigates 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.

e. Conducts research into accurate and efficient algorithmic representation of combat and combat-related phenomenology.

f. Develops and supports distributed simulations applied to the simulation and stimulation of C4ISR systems for analysis, testing, and training applications.

5-7. Scenarios and Wargames Directorate. Develops and configuration manages TRADOC's BCT scenarios for use in combat development. Develops next generation scenarios depicting future operations ICW TRADOC schools, centers and battle labs. Functions are:

- a. Conducts interactive wargames.
- b. Develops and maintains TRADOC operational scenarios IAW TR 71-4, para 3-1. To the appropriate degree, conforms the scenarios to existing TRADOC standard scenarios, while ensuring relevance to future force development.
- c. Assists study personnel in developing new or modifying existing TRADOC dynamic scenarios. Ensures scenarios are incorporated into Janus within acceptable modification limits to the operational scenario.
- d. Assists model developers in understanding the OE (opposing forces, technologies, tactics, techniques, and procedures, and others), and concepts depicted in scenarios for experimentation and wargaming.
- e. Develops study-specific scenario performance data requests and submits them to the appropriate agency. Ensures archival of all data requests and data files.
- f. Assists study personnel in loading study-specific performance data into scenario file structures. Archives study-specific performance data representations and dynamic scenario documentation to facilitate configuration management of scenarios.
- g. Administers the operational scenario approval process and coordinates certification and approval of TRAC-WSMR operational scenario products IAW TR 71-4, para 3-2. For scenarios not developed or implemented in a simulation by TRAC, assists TRADOC organizations in the certification and approval process.
- h. Maintains familiarity with future Army concepts and CCPs, doctrine, forces, systems, and technologies and of future threats and potential adversaries. Coordinates with HQDA G-3/5/7, CAC, TRADOC FC, and TRADOC DCSINT on the projected status of future systems and organizations for U.S. and threat forces.
- i. Coordinates with HQ TRAC on the annual TRADOC scenario production plan. Develops and presents TRAC-WSMR BCT scenario input to the TRADOC scenario planning process.
- j. Coordinates with HQ TRAC on the TRAC scenario standing operating procedures (SOP), and maintains that portion of the SOP pertaining to TRAC-WSMR's scenario responsibilities.
- k. Maintains familiarity with current and developing models and simulations.

5-8. Training Analysis Directorate. Conducts training related analysis in support of TRADOC and HQDA decision makers. Assists with TEA issues, serves as the TRADOC TEA

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methodology and application SME, recommends TEA policy changes, and conducts TEA studies. Functions are:

- a. Assists TRADOC FC and Deputy Chief of Staff for Operations and Training to identify the training strategy for new materiel systems that is the most effective from both training and cost perspectives. Assesses training impacts, comparing alternative training strategies, and evaluating effectiveness of training solutions.
- b. Evaluates and improves training development and training delivery systems by determining the effectiveness and cost of training programs and products fielded or implemented.
- c. Determines the effectiveness and cost of training innovations (examples include but are not limited to new training technologies, approaches, designs, methods, media, and TADSS) that hold promise for resolving difficult training problems or improving existing training programs.
- d. Designs, develops, implements, and improves methodologies necessary to support training studies and analyses.
- e. Develops requirements for empirically and analytically derived data used in the conduct of training tests, studies, and analyses.
- f. Reviews selected studies conducted by other TRADOC organizations for proposed, developmental, and fielded systems to ensure quality control and provide certification of studies and reports that meet Army technical standards.
- g. Provides consultation and assistance to TRADOC centers and schools and other organizations on planning and conducting studies, test design, and analytical procedures relative to training.

5-9. TRADOC Chief of Cost. Conducts functionally independent resource analyses for the TRADOC analytical community to support joint and HQDA requirements. Performs life-cycle cost, force cost, resource allocation, and utilization studies and analyses of Army weapon systems, combat service support systems, and organizations. Functions are:

- a. Develops or validates cost analysis methodologies and models to meet the needs of the TSAP combat and training developments efforts.
- b. Plans, directs, and performs cost analyses in support of combat and training developments studies and other materiel acquisition and force structure studies.
- c. Develops automated data bases and tools for resource analyses.
- d. Provides cost analysis support to TRADOC centers and schools.
- e. Certifies the quality of all cost analyses performed by other TRADOC organizations in support of materiel acquisition programs.

f. Conducts cost analysis research and assists in the advancement of state-of-the-art resource analysis techniques.

g. Represents HQ TRADOC in the cost analysis functional area at HQDA, including the Army Cost Review Board and working groups as requested.

5-10. Program Management and Operations Directorate. Manages civilian and military manpower and fiscal resources, security, administration and logistics, and technical research operations for TRAC-WSMR. Assists the Director, TRAC-WSMR to manage and coordinate the TRAC-WSMR Reimbursable Program. Functions are:

a. Provides TRAC-WSMR workload projections for TRAC input to the TSAP, ICW TRAC-WSMR operating directorates.

b. Monitors, updates, and documents the TRAC-WSMR Work Program fiscal year closeout.

c. Develops and maintains data processing aids used to capture and forecast study program activities.

d. Reviews requests to certify study plans or final reports on analyses performed by other TRADOC schools, centers, and battle labs, assigns them to TRAC-WSMR operating directorates for review, and prepares certification statements for signature by the Director, TRAC-WSMR.

e. Receives and reviews taskings and assigns them to appropriate elements of the organization based on subject and current workload.

f. Administers the technical support contract for TRAC-WSMR.

g. Establishes guidelines and policy for the contract office in the procurement of AIS equipment and services.

h. Provides all IT support to include procurement, fielding, information security, and maintenance. Represents TRAC-WSMR at the TRAC ITAB.

i. Serves as production center for TRAC-WSMR. Consolidates, reviews, and prepares agency products (written and media).

Chapter 6

TRAC-Fort Lee

6-1. Mission of TRAC-LEE. Conducts combat service support (CSS) studies, analyses, modeling, and analytical support.

6-2. Organization of TRAC-LEE. TRAC-LEE consists of a Director, Functional Operations, and two line divisions: Logistics Study and Modeling Analysis (see fig 6-1). TRAC-LEE is also served by a Deputy Director/Senior Military Analyst.

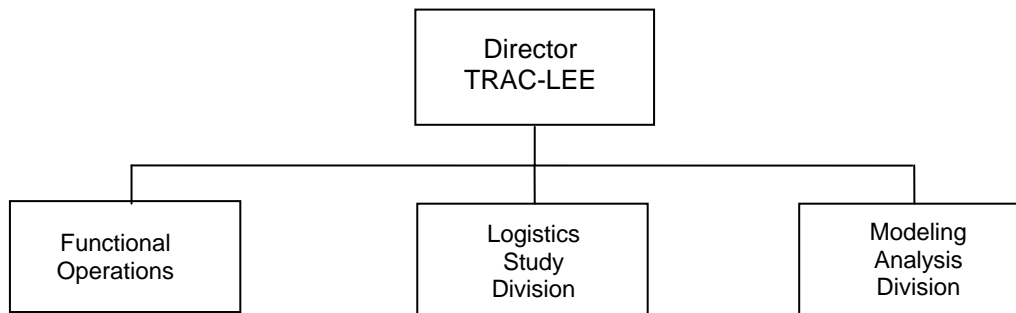


Figure 6-1 TRAC-Fort Lee

6-3. Functions of TRAC-LEE.

- a. Conducts the CSS portion of AoAs and other major studies.
- b. Develops, maintains, and employs CSS models.
- c. Integrates CSS into TRADOC materiel acquisition and non-materiel studies, scenarios, and model development.
- d. Provides direct analytical support to CASCOM and other commands and agencies as directed by Director, TRAC.
- e. Manages, reviews and certifies assigned studies.

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

- a. The TRAC lead on analytical matters pertaining to CSS issues. Provides advice, guidance, and assistance on analytical issues to CASCOM and TRAC.
- b. Develops, orchestrates, and implements the TRAC-LEE Work Program in conjunction with TRAC HQ in support of the TSAP and the AR 5-5 Study Program.
- c. Provides technical assistance to CASCOM during preparation of their annual submission of high priority studies.
- d. Certifies studies, study plans, and reports conducted by CASCOM and its associated centers and schools.
- e. Serves as the Fort Lee Activity Career Program Manager for Series 1515 Operations Research Analysis sub-element of CP16.
- 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 FACT, particularly as it pertains to CSS research.

i. Represents TRAC-LEE at the TRAC ITAB.

6-5. Combat Service Support Studies Division. Provides analytical support for a range of CSS studies to include personnel, training, and Soldier-related analytical support; provides general analytical support to CASCOM; and conducts quality control for assigned major and non-major studies conducted by other TRADOC activities. Functions are:

a. Develops and maintains a staff of experienced analysts to plan, lead, and report on analysis and studies related to all facets of logistics and CSS.

b. Integrates logistics considerations into major studies and analyses throughout TRADOC. Coordinates with study sponsors and agencies to ensure that applicable logistics issues are addressed.

c. Reviews and recommends certification of the logistics and sustainment analysis portions of studies throughout TRADOC.

d. Assists study sponsors with development of CSS study issues as required. Monitors production and maintains quality control of selected non-major studies. Recommends approval of study plans and certification of studies prior to their approval by the Director, TRAC or CG, CASCOM and/or Director, TRADOC FC.

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

6-6. Modeling Analysis Division. Provides the modeling and IT support (hardware and software) services for TRAC-LEE. This support includes maintaining, developing, and exercising models and simulations; developing and maintaining scenarios; data base management and administration; and computer operations. Functions are:

a. Modeling and simulation.

(1) Develops, prepares, and employs simulations, evaluating results with full consideration of scenario, model, and data interaction.

(2) Provides analytical advice and assistance to other TRADOC centers and schools and TRAC elements in the development of CSS M&S capabilities in TRADOC models and assists in verification, validation, and accreditation of these capabilities.

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(3) Provides M&S technical assistance and advice to CASCOM and associated centers and schools.

(4) Designs, maintains, verifies, and validates CSS functional and integrated (high and low resolution) models and simulations. Exercises configuration control for models for which TRAC-LEE has the lead.

(5) Ensures the quality of analytical products which employ TRAC-LEE supported models.

(6) Improves and maintains the quality of CSS modeling to ensure its representation and integration are realistic and consistent among TRADOC models and simulations.

b. Data management.

(1) Develops and maintains CSS analytic data bases to support functional and integrated combined arms studies. Provides data support for assigned TRAC-LEE studies.

(2) Serves as the TRAC-LEE lead for acquisition and distribution of CSS data. Reviews and evaluates appropriate analytical and experimental test data for use by Army models which require CSS data. Provides support for CSS scenario data requests.

(3) Monitors compliance with the TRADOC data policy.

(4) Leads development of data transformations necessary to support CSS-related models and analyses.

c. Computer operations.

(1) Maintains TRAC-LEE IT facilities and communication networks. Provides operating support services for IT to include the maintenance contract.

(2) Determines and procures IT resources required to support TRAC-LEE requirements.

(3) Manages TRAC-LEE IT hardware and software security.

(4) Maintains knowledge of state-of-the-art technologies applicable to TRAC-LEE requirements.

(5) Installs and maintains all system software. Monitors and optimizes IT system performance.

Chapter 7

TRAC-Monterey

7-1. Mission of TRAC-MTRY. Performs exploratory and applied research to support the TRAC mission. The primary focus of research is in the areas of: urban operations M&S, advancements in simulation and operations research methodologies, and elements of combat power.

7-2. Organization of TRAC-MTRY. TRAC-MTRY is a single office consisting of a Director, Deputy Director, military analysts, and administrative support (see fig 7-1).

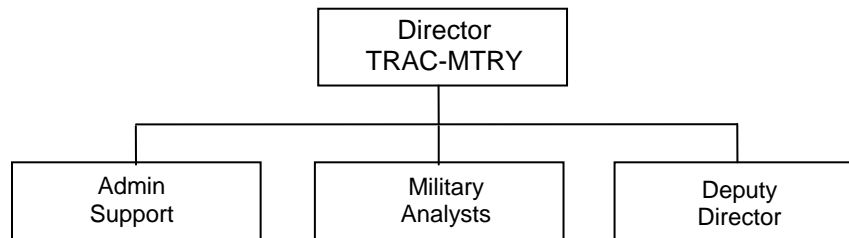


Figure 7-1. TRAC-Monterey

7-3. Functions of TRAC-MTRY.

- a. Performs applied and developmental research in selected areas to advance the Army's analytic capability.
- b. Seeks out and identifies capabilities and resources at NPS that offer high-payoff solutions to systemic Army analysis problems.
- c. Coordinates assets, resources, and the funding of research proposed for performance by TRAC and other agencies and organizations to pursue projects of mutual interest.
- d. Performs liaison with NPS researchers for all research projects sponsored by the various elements within TRAC, TRADOC, HQDA, and other government agencies.
- e. Stimulates and coordinates research efforts between all TRAC elements and NPS that enhance and enrich academic programs at NPS and support the TRAC mission.
- f. Leverages and supports faculty and student officer research programs as they pertain to TRAC, TRADOC, and HQDA assigned research and analytical efforts.

Appendix A

References

Section I

Required Publications

AR 5-5

Army Studies and Analyses

TRADOC Reg 10-5-7

TRADOC Reg 10-5

U.S. Army Training and Doctrine Command Organization and Functions

TRADOC Reg 71-4

TRADOC Standard Scenarios for Combat Developments

Section II

Related Publications

DODD 5000.1

The Defense Acquisition System

CJCSI 3170.01E

Joint Capabilities Integration and Development System

AR 5-11

Management of Army Models and Simulations

AR 25-1

Army Knowledge Management and Information Technology Management

AR 70-1

Army Acquisition Policy

AR 71-9

Materiel Requirements

AR 71-11

Total Army Analysis (TAA)

AR 71-32

Force Development and Documentation – Consolidated Policies

AR 350-1

Army Training and Education

Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3170.01E

Joint Capabilities Integration and Development System

CJCSI 3180.01

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

CJCS Manual 3170.01B

Operation of the Joint Capabilities Integration and Development System

DA Pam 5-11

Verification, Validation, and Accreditation of Army Models and Simulations

DA Pam 70-3
Army Acquisition Procedures

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

TRADOC Reg 11-8
TRADOC Studies and Analysis

TRADOC Reg 350-32
The TRADOC Training Effectiveness Analysis (TEA) System

TRADOC Pam 11-8
Study and Analysis Handbook

TRADOC Memorandum 1-11
Staff Procedures

Section III

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

ACDEP	Army Concept Development and Experimentation Plan
AIEP	Army Ideas for Excellence Program
AIS	automated information systems
AMA	analysis of materiel/non-materiel approaches
AoA	analysis of alternatives
AR	Army regulation
AWARS	Advanced Warfighting Simulation
BCT	brigade combat team

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BLCSE	Battle Laboratory Collaborative Simulation Environment
CAC	Combined Arms Center
CASCOM	Combined Arms Support Command
CASTFOREM	Combined Arms and Support Task Force Evaluation Model
CCP	concept capability plan
CDD	capability development document
CG	Commanding General
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
COMBAT XXI	Combined Arms and Analysis Tool for the 21st Century
CP	career program
CPD	capability production document
CSS	combat service support
C4ISR	command, control, communications, computers, intelligence, surveillance, and reconnaissance
DA	Department of the Army
DCG/CofS	Deputy Commanding General/Chief of Staff
DCSINT	Deputy Chief of Staff for Intelligence
DCSRM	Deputy Chief of Staff for Resource Management
DOD	Department of Defense
EEO	equal employment opportunity
FACT	focus area collaboration team
FC	Futures Center
FCD	Future Concepts Directorate
HQ	headquarters
HQDA	Headquarters, Department of the Army
IAW	in accordance with
ICD	initial capabilities document
ICW	in coordination with
IMT	initial military training
IT	information technology
ITAB	Information Technology Advisory Board
JCOD	Joint and Combined Operations Directorate
LIA	logistics impact analysis
M&S	modeling and simulations
MACOM	major Army command
MRO	Methods and Research Office
NPS	Naval Postgraduate School
OE	operational environment
PD	Programs Division
PRD	Programs and Resources Directorate
RD	Resource Division
SME	subject matter expert
SOP	standing operating procedures
TADSS	training aids, devices, simulators, and simulations
TDA	table of distribution and allowances
TEA	training effectiveness analysis

TR	TRADOC regulation
TRAC	TRADOC Analysis Center
TRADOC	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
TRP	TRAC Reimbursable Program
TSAP	TRADOC Studies and Analysis Program
UFR	unfinanced requirement
VIC	Vector-in-Commander
V&V	verification and validation

Section II

Terms

Definitions of terms are found in Joint Pub 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

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 (CDD). (CJCSI 3170.01E)

analysis of materiel/non-materiel approaches (AMA)

The AMA collates the information obtained during the functional area analysis, the functional needs analysis, the ideas for non-materiel approaches (DOTMLPF analysis), and the ideas for materiel approaches to determine the best materiel approach or combination of approaches to provide the desired capability or capabilities. (CJCSM 3170.01B)

architecture

The structure of components, their relationships, and the principles and guidelines governing their design and evolution over time. Architecture provides data sets that describe the missions and tasks that must be performed and for what purpose -- the operational view, the nodes and their characteristics that support the missions and tasks -- the system view, and how the nodes exchange information and interact to perform the desired effects associated with the tasks -- the technical view.

capability

The ability to achieve a desired effect under specified standards and conditions through combinations of means and ways to perform a set of tasks. It is defined by an operational user and expressed in broad operational terms in the format of a joint capabilities document, initial capabilities document (ICD), or a joint DOTMLPF change recommendation. In the case of materiel proposals, the definition will progressively evolve to DOTMLPF performance attributes identified in the CDD and the capability production document (CPD). (CJCSI 3170.01E)

capability development document

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. (CJCSI 3170.01E)

capability documents

A generic term to describe the ICD, the CDD, and the CPD.

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 or lack of proficiency or sufficiency in existing capability. (CJCSI 3170.01E)

capability production document

A document that addresses the production elements specific to a single increment of an acquisition program. (CJCSI 3170.01E)

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

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.

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.

logistics impact analysis (LIA)

The LIA is an examination of one or more of the 12 elements of integrated logistics support. The LIA can stand alone; be a part of a study on arming, fixing, fueling, deploying, or sustaining the force; or support an AoA or other materiel study. The LIA generally evaluates certain logistics-related items and relates the findings to an effect or impact on other items. For example, classes of supply (especially fuel, water, and ammunition consumption) affect transportation, deployment, and force structure (hence, manpower and personnel). The study is typically focused on specific issues.

manpower, personnel, and training analyses

Related but separate evaluations which determine the total Soldier requirements for a new system. They address Soldier quality and quantity requirements, developments in a system's military occupational specialty support structure, and training resources required.

modeling and simulation

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; helps to better understand 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 so as to improve the overall likelihood of a successful acquisition effort.

operational architecture

Portrays an operational warfighting concept. A description (often graphical) of the operational elements, assigned tasks, and information flows required to accomplish or support a warfighting function. It defines the type of information, the frequency of exchange, and what tasks these information exchanges support.

operational environment

The operational environment is defined as the “composite of conditions, circumstances, and influences that affect employment of military forces and bear on the decisions of the unit commander”. It is wide-ranging and geostrategic, encompassing geopolitics and globalization in economics, technology, and demographics, and incorporates both U.S. and threat military developments. (Joint Pub 1-02)

operational scenario

A graphic and narrative description of area, environment, means (political, economic, social, and military), and events of a future conflict. An operational scenario describes the global conditions

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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.

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, decision making, management, or administration.

system

The combination of the components and subelements which 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

A general category of studies for assessing the cost and/or effectiveness of TRADOC's training strategies, programs, and products. The TEA are 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 are 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.

FOR THE COMMANDER:

OFFICIAL:

ANTHONY R. JONES
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Deputy Commanding General/
Chief of Staff

//*S//
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