

7 September 2004

Training  
**SYSTEMS APPROACH TO TRAINING  
ANALYSIS**

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<b>Summary</b>	This pamphlet provides guidance on conducting the five types of training analyses: needs, mission, collective task, job, and individual task analysis. It explains the role of analysis within the overall Systems Approach to Training (SAT) process, and provides detailed procedures for conducting analyses.
<b>Applicability</b>	This pamphlet applies to U.S. Army Training and Doctrine Command (TRADOC) activities and The Army School System (TASS) Training Battalions responsible for managing or performing Training Development (TD) or TD-related functions, including evaluation/quality assurance of the training, products, and institutions that present the training. It also applies to non-TRADOC agencies/organizations having Memorandums of Understanding, Memorandums of Agreement, and contracts for developing training or training products for TRADOC and TASS agencies and organizations.
<b>Suggested Improvements</b>	The proponent for this regulation is the Deputy Chief of Staff for Operations and Training (DCSOPS&T). Send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) through channels to Commander, TRADOC (ATTG-CD), 5 Fenwick Road, Fort Monroe, VA 23651-1049. Suggested improvements may also be submitted using DA Form 1045 (Army Ideas for Excellence Program (AIEP) Proposal).
<b>Availability</b>	This publication is distributed solely through the TRADOC Homepage at <a href="http://www.tradoc.army.mil/tpubs/pamndx.htm">http://www.tradoc.army.mil/tpubs/pamndx.htm</a> . It is also available on the Training Development and Delivery Directorate (TDADD) homepage at <a href="http://www-dcst.monroe.army.mil/tdaa">http://www-dcst.monroe.army.mil/tdaa</a> .

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## Chapter 1 Introduction

### 1-1. Purpose.

a. This pamphlet provides guidance to training developers, subject matter experts (SMEs), and training development managers for conducting analysis in developing training products. It describes how to conduct the five types of analyses in the Systems Approach to Training (SAT) and manage analysis information.

b. To assist training developers with the duty of performing analysis, this pamphlet provides detailed procedures; examples, samples, and worksheets; quality control (QC) criteria; training analysis job aids; links to training analysis information; and samples of correspondence needed to perform and support the analysis process.

1-2. **References.** The references for this pamphlet appear in [appendix A](#).

1-3. **Explanations of abbreviations and terms.** Abbreviations and terms used in this pamphlet appear in the [glossary](#). A knowledge of the definition of the following terms is necessary for this chapter: needs analysis, mission analysis, collective task analysis, job analysis, individual task analysis, table of organization and equipment (TOE), and table of distribution and allowance (TDA).

### 1-4. Systems Approach to Training overview.

a. In accordance with AR 350-1, the Army's training development (TD) process is the SAT process. The SAT process is a systematic, iterative, spiral approach to making collective, individual, and self-development education/training decisions for the Army. It determines whether or not training is needed; what is trained; who needs the training; how, how well, and where the training is presented; and the training support/resources required to produce, distribute, implement, and evaluate the required education/training products.

b. Training development is a vital component of TRADOC's mission to prepare the Army for war. As such, it is the responsibility of every civilian and soldier in management and training-related roles in the TRADOC headquarters, schools, field units, and supporting contractor offices. Management, at all levels, needs to have a working knowledge of the process, and ensure its efficient implementation. Doing so will save scarce resources: personnel, time, process, and unnecessary product development dollars. The context for producing successful TD projects is found in the overview in TRADOC Pamphlet (Pam) 350-70-4,

paragraph 1-4.

c. Additional SAT information is available in the:

(1) [SAT Fact sheet](http://www-dcst.monroe.army.mil/tdaa/SAT/Job_Aids/Point_Info_Fact/FactSheet_SAT(10May04).rtf) (Online at [http://www-dcst.monroe.army.mil/tdaa/SAT/Job\\_Aids/Point\\_Info\\_Fact/FactSheet\\_SAT\(10May04\).rtf](http://www-dcst.monroe.army.mil/tdaa/SAT/Job_Aids/Point_Info_Fact/FactSheet_SAT(10May04).rtf).)

(2) [SAT White Papers](http://www-dcst.monroe.army.mil/tdaa/SAT/Job_Aids/WhitePaper_SAT/WhitePaper_SAT.html). (Online at [http://www-dcst.monroe.army.mil/tdaa/SAT/Job\\_Aids/WhitePaper\\_SAT/WhitePaper\\_SAT.html](http://www-dcst.monroe.army.mil/tdaa/SAT/Job_Aids/WhitePaper_SAT/WhitePaper_SAT.html).)

**1-5. Regulation, pamphlet, and job aid relationships.**

Supporting products

a. This pamphlet supports and provides procedural guidance for the policy established in [Army Regulation \(AR\) 350-1](#) and [TRADOC Regulation \(Reg\) 350-70](#). TRADOC Reg 350-70 directs the use of this pamphlet in the planning and conduct of analyses. Refer to the glossary of that regulation for standard Army education and training definition of terms. Job aids, product templates, product samples, information papers, and other supporting documents/products support this pamphlet. The pamphlet and job aids may be printed as individual files or as a single document.

Relationship to TRADOC Reg 350-70 Pamphlet organization

b. [Figure 1-1](#) depicts the relationship of this pamphlet and supporting documents/products with TRADOC Reg 350-70.

c. [Figure 1-2](#) shows how this pamphlet is organized. Some chapters are supported by guidance provided in other chapters. Refer to each of these to accomplish the evaluation. The procedural job aids, product templates, product samples, and information papers also contain helpful information.

**1-6. Training analysis process overview.**

Introduction

a. The analysis process provides information for the design and development of education/training that, in turn, is used to produce units that can accomplish their missions, and soldiers capable of performing their tasks and duties. Training analysis—

(1) Identifies valid training and nontraining solutions to unit and individual performance deficiencies.

(2) Determines what is trained in the form of critical, collective, and individual tasks, and supporting skills and knowledge.



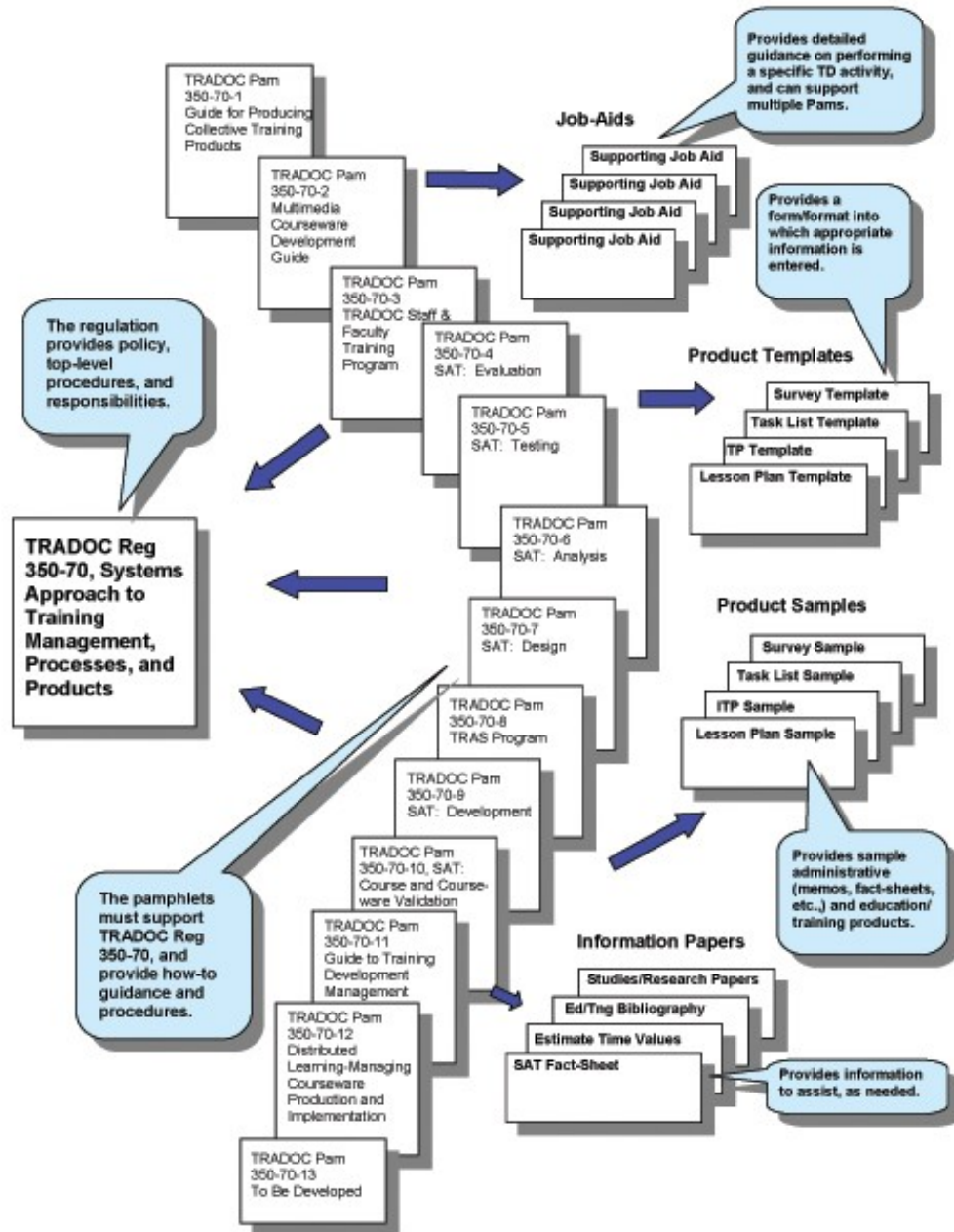


Figure 1-1. TD policy and guidance

- (3) Provides an accurate description of identified critical tasks—data that is the basis for all subsequent TD activities.
- (4) Provides a definitive performance standard that describes what constitutes successful unit and individual performance of the task.
- (5) Establishes TD requirements.



Analysis phase

b. Analysis is one of the five phases in the TD process. Analysis provides information used to determine—

- (1) If training is required.
- (2) Who (soldiers/units) needs training.
- (3) The critical tasks and supporting skills and knowledge soldiers are required to perform for survival on the battlefield.
- (4) The identification of standards, conditions, performance measures, and other specifications needed to perform each task.

Determines

c. Analysis determines the nature and content of the training requirement, identifies the target audience, and provides information to facilitate rational decisions concerning development of training programs. Analysis involves observation, research, data/materials collection, weighing variables, and making decisions.

(1) A top-down analysis ensures the identification of unit missions, based on the unit TOE or TDA, task force organization, and other considerations. Analysis should consider both stated and implied missions, and collective tasks necessary for units to accomplish their missions.

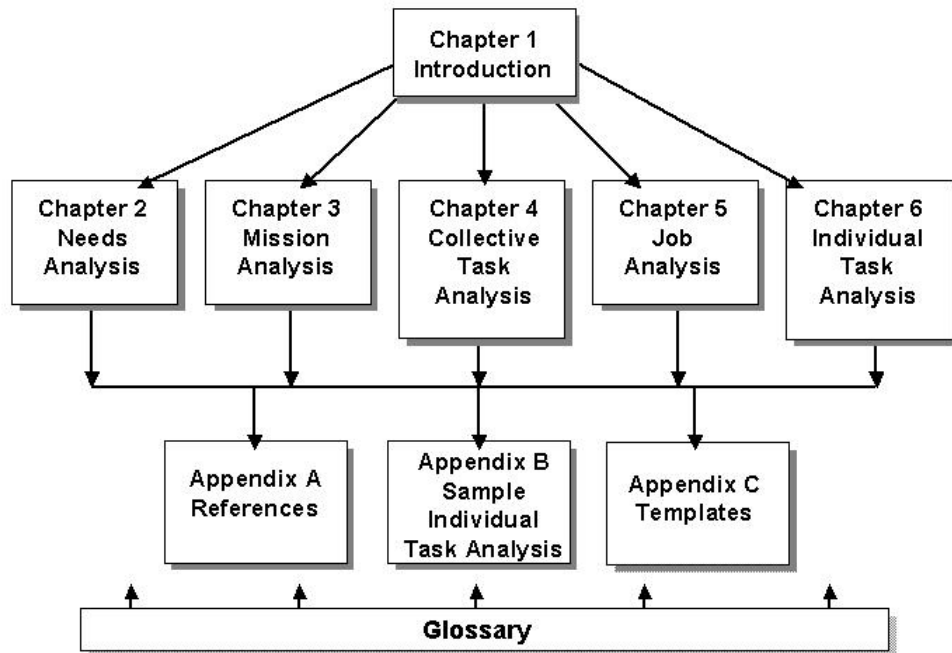
(2) Analysis is partly a linear process, but it is also an iterative, spiral process—that is:

(a) It is applied prior to other phases of the SAT process, but the analysis is updated and adjusted as the need is identified. Identify this need at any time. For example, an SME may identify a changed procedure when designing the product, and the analysis is updated.

(b) Evaluation, as well as change, both drive analysis. For example, deficiencies noted during an evaluation are indicators to review the analysis.

(3) Quality analysis ensures the Army identifies what really needs training and ensures training programs provide education and training that will produce—

- (a) Soldiers capable of performing their tasks and duties.
- (b) Units that can successfully accomplish their mission.



**Figure 1-2. Pamphlet organization**

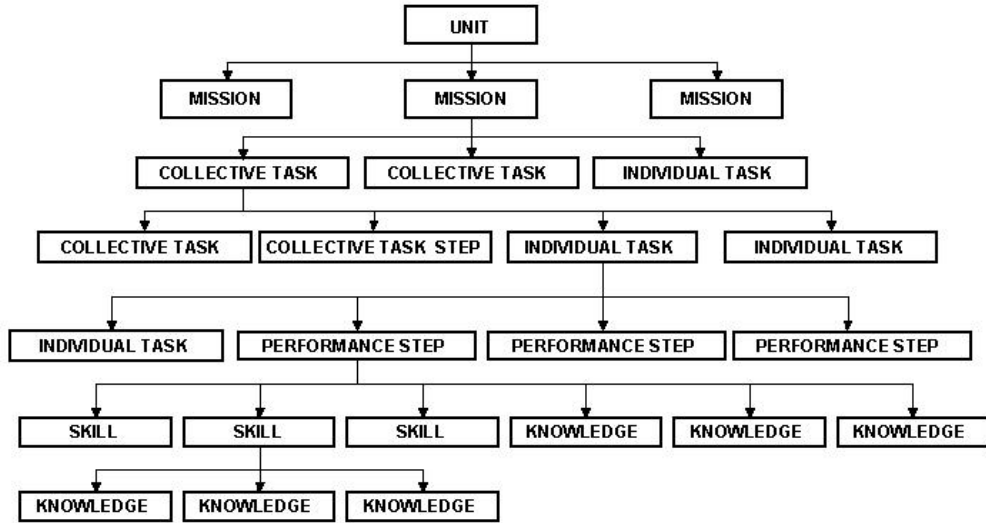
(4) Analysis is part of an iterative process; therefore, you may return to the analysis phase many times. Evaluation and change both drive analysis. For example, deficiencies noted during an evaluation are indicators to relook the analysis. Changes in the way the Army does business, through its doctrine, equipment, unit/occupational structure, or training technology, also may signal the need for analysis.

Types of analysis

d. There are five types of analyses conducted in the SAT, identified in TRADOC Reg 350-70. This pamphlet focuses on these five types of analysis: needs analysis, mission analysis, collective critical task analysis, job analysis, and individual critical task analysis.

Task hierarchy

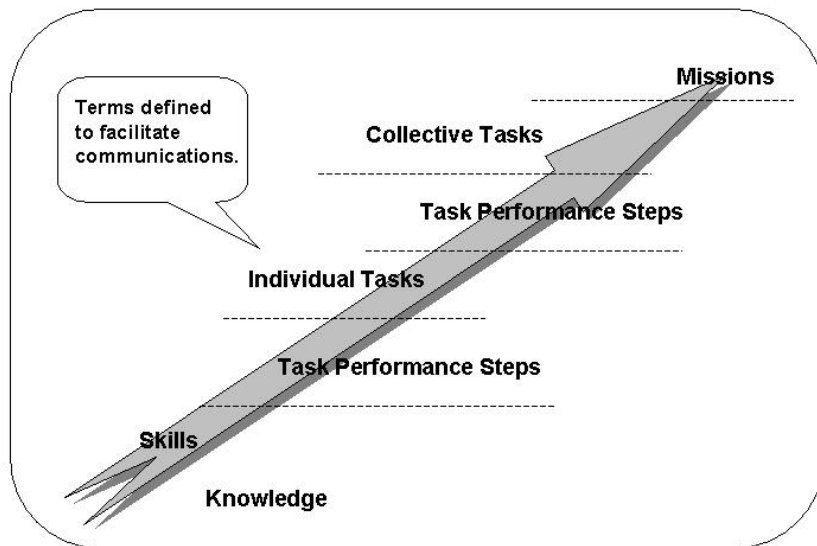
e. Figure 1-3 shows the hierarchical relationship between tasks and supporting skills and knowledge. The training analyst constructs this task hierarchy.



**Figure 1-3. Task hierarchy between tasks and supporting skills and knowledge**

Task continuum

f. There is some difficulty in the precision of identifying a specific part of this hierarchy. Even though they have some rather definitive definitions, there are some "shades of gray." For example, an individual task may be a performance step for a collective task. The main point is that this is a continuum (see [fig 1-4](#)), and all of the parts lead to the performance of the supported mission.



**Figure 1-4. Mission/task continuum**

Analysis data flow

g. Figure 1-5 shows the top-level data and information flow between the various types of training analyses. Information may flow between any of the analysis. For example, a needs analysis may trigger changes in mission, job, collective, or individual task analysis.

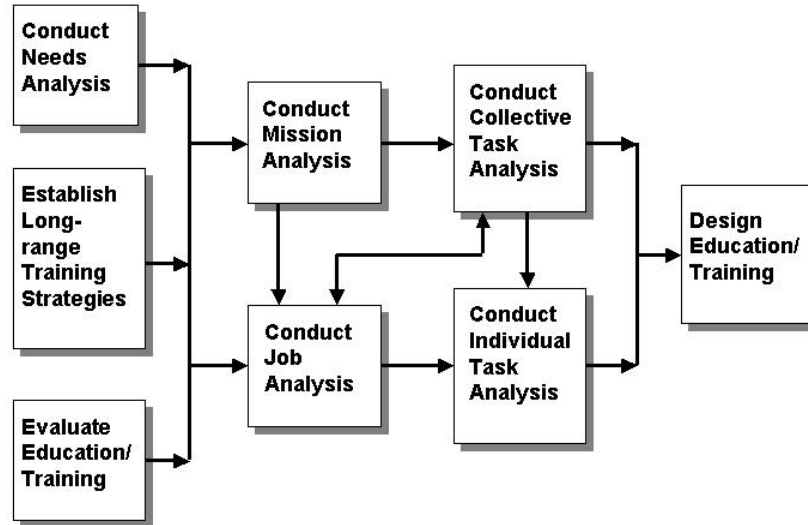


Figure 1-5. Analysis data/information flow

1-7. The analysis team.

Introduction

a. Analysis should be a team effort, which the training developer—the project leader—guides. Analysis is successful when the needed input from SMEs, soldiers in units, instructors, task performers, and their supervisors is obtained.

(1) The analysis team primarily consists of a training developer and experts in the subject under analysis. An evaluator is also involved with the team.

**Note:** See the glossary for definitions of Department of the Army ([DA](#)) [Career Program \(CP\) 32](#) education/training job series.

(a) The training developer, a General Schedule (GS) 1750 Instructional Systems Specialist (ISS), is normally in charge of the project. This is the individual trained in the conduct of training analysis, and the TD SME.

(b) Ensure the SMEs are master experts in the subject under analysis. Analysis of a tank company requires a SME that is a master in company-level armor operations.

(c) The evaluator is an independent observer that provides guidance and assistance in ensuring the quality of the process applied and products produced.

(2) A difficulty encountered when setting up this team is selecting the master SME. There are three levels of SMEs, determined by the level of knowledge and expertise: apprentice, journeyman, and master. Ensure there are master TD and content area SMEs on this team.

(3) The analysis team is responsible for ensuring the analysis—

(a) Identifies all of the critical performance needs/requirements of the Army, as they provide the foundation for its education/training.

(b) Is thorough/comprehensive.

(c) Is technically correct.

(d) Results in a quality product by applying QC measures.

(e) Complies with TRADOC TD guidance and policy.

(f) Meets milestone requirements.

Training  
developer

b. The training developer (GS-1750) is a key player on the analysis team. The training developer—

(1) Leads and manages the analysis effort, which includes:

(a) Keeping all participants in the analysis process informed of progress, problems encountered, developments, changes, and constraints.

(b) Being responsive and providing results in a timely manner.

(c) Keeping the project management plan updated, as appropriate.

(2) Provides guidance to the SMEs concerning how they are to perform their responsibilities.

(3) Provides analysis training to the assigned SMEs.

(4) Provides quality assurance of the process and products produced.

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SME c. The SME is the content, or technical, expert. A SME is categorized as an apprentice, journeyman, or master, depending on the level of knowledge and expertise possessed. This SME is the master performer of the action/activity you are analyzing (no matter what the job—as an operations research or performance analyst, a training developer, a combat/doctrine developer, or an instructor). The SME is responsible for technical content of the analysis being conducted, and is specifically responsible for the:

- (1) Comprehensiveness of the analysis.
- (2) Accuracy of the technical content.
- (3) Completeness of the technical content.

**Note:** If not using master level SMEs, take this fact into consideration when making task selection decisions.

Commander d. The proponent commander is responsible for ensuring—

- (1) The analysis is conducted in accordance with (IAW) TRADOC Reg 350-70.
- (2) Current analysis data is maintained.
- (3) Critical collective and individual tasks are approved.

Evaluator e. The evaluator is responsible for identifying efficiencies and deficiencies in the application process, and the production of the analysis products. Specifically, the evaluator—

- (1) Informs the team of actual and potential problems, and recommends solutions.
- (2) Identifies efficiencies developed, and informs the appropriate command authorities.

### 1-8. Analysis information management.

a. Managing information outputs in the analysis process is crucial. The information acquired during the analysis process provides the foundation for training design and development. The outputs of the analysis process provide raw data on which to base decisions in the TD process, especially during the design and development of education/training and quality assurance.

Automated support

b. The collection (capturing) of analysis data in an Army education/TD database is the preferred method of conducting the analysis. The proponent systems administrator controls the access to the data and information in the database. This individual provides the appropriate read and write authority to the proponent users.

c. Automated education/TD systems provide some concrete outputs for several types of analysis—most notably mission analysis—and help in the maintenance of those outputs. Throughout this pamphlet, there are cues incorporated in the guidance to assist in cross-referencing specific steps with automation implementation (for example, “Automated Systems Approach to Training (ASAT) provides the ability to perform this step. The Automated Survey Generator (AUTOGEN) helps in conducting a survey.”).

**Note:** The programming of a database is always behind the identification of requirements, thus there are analysis requirements that the database will not meet at any given time. However, the proponent must still meet those requirements. For example, ASAT does not allow for building of a Task Hierarchy Diagram or a skill/knowledge matrix TRADOC Reg 350-70 requires. The capabilities of automated programs are constantly updated. Keep current on these capabilities, and enter analysis data appropriately.

AUTOGEN

d. In job analysis, the Army Research Institute (ARI) can assist in providing concrete analysis outputs, and management of the information, through the AUTOGEN program. Gaining this assistance is addressed in [paragraph 5-6](#), below.

Analysis distribution

e. If the created analysis data is not provided to the user, it is of no value. Make the completed and approved analysis data and information available to the appropriate users and organizations, for use in designing and developing training and training products. The proponent’s final approval of the analysis product makes that product available for distribution. The following options are available for the distribution process:

(1) Database accessibility. Distribution of data via electronic means is the most efficient method for sharing proponent-approved data external to the organization, and unapproved data internal to the organization. The proponent controls access rights.



(2) Army education and training digital library. Army education and training digital library is the primary means for the distribution of approved education/training data and information across the Internet. This is a distributed library with education/training proponents controlling their own data and information. The proponent loads their education/training material, and grants access to that material.

(3) Manual distribution. Manual distribution is still an option, and will remain so for a number of years. It is the most labor-intensive distribution means; use only when absolutely necessary.

- 1-9. Quality control criteria.** Each chapter in this pamphlet includes quality assurance and QC criteria for the analysis products and processes.

## **Chapter 2 Needs Analysis**

### **2-1. Needs analysis introduction.**

a. Conduct needs analysis to identify valid TD and training requirements. Applying this process identifies valid TD requirements and nontraining solutions to performance deficiencies. The needs analysis process does NOT drive or ensure the procurement of required resources. A needs analysis addresses soldier performance deficiencies and future capabilities that require changes in the way the Army does business. This chapter provides how-to guidance on performing needs analysis, to include needs analysis description, needs analysis requirements, and identifying TD/training requirements.

b. Needs analysis is a vital process required for analyzing performance deficiencies. No TD effort should begin without a needs analysis.

- 2-2. Needs analysis administrative information.** The reference for this chapter is TRADOC Reg 350-70, [chapter IV-1](#). Additional TD-related terms are in the glossary of TRADOC Reg 350-70.

### **2-3. Needs analysis process.**

a. The needs analysis process is a systematic method for determining true TD/training requirements. It serves to control the creation of products, or elimination of education/training, that is either not required, or distracts from training the units and soldiers what is really needed. Needs analysis identifies performance shortfalls, and identifies training and nontraining solutions to the shortfalls. The needs

analysis enables identification of any gaps between desired and actual performance. That is, the delta between what exists now and what is required, or identifying capabilities required for meeting future contingencies that may result in changes in the Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF). This process includes:

- (1) Reviewing the literature.
- (2) Identifying the true performance deficiency(ies).
- (3) Identifying the major causes of performance problems.
- (4) Collecting supporting data for training deficiencies.
- (5) Identifying those responsible for correcting the problem.
- (6) Identifying and analyzing courses of action.
- (7) Recommending the best alternative.

Affects education/ TD process

b. The needs analysis process affects the entire education/TD process. The output of a needs analysis could dictate the modification or the creation of a new product, or how the material is presented. Figure 2-1 depicts this relationship to the SAT process. Only produce or revise an education/training product that a valid needs analysis, or a short-range training strategy, identifies as a TD requirement.

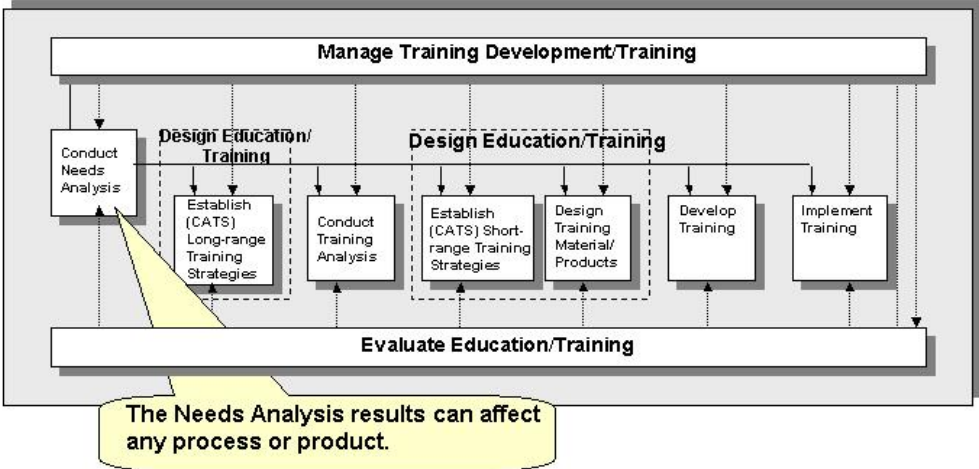


Figure 2-1. Top-level data flow

Needs analysis data flow

c. Figure 2-2 depicts the flow of information internal to the process. Deficiencies in one or any combination of DOTMLPF may cause unacceptable performance. Education/training can solve only skill and knowledge deficiencies. Problems related to environmental or motivational factors indicate a performance deficiency in one of the other causal areas. List indicators of problem causes that may be related to the performance deficiency.

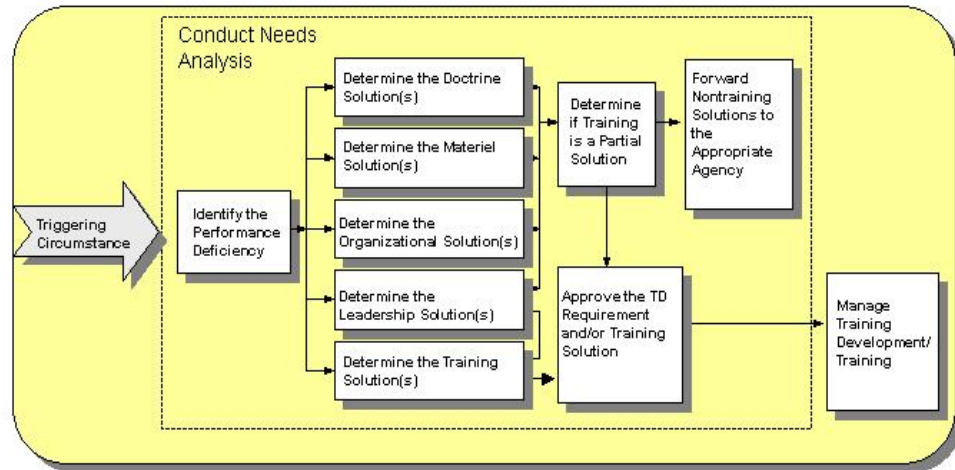


Figure 2-2. Needs analysis data flow

**2-4. Needs analysis team roles and responsibilities.**

Team responsibilities

a. The most efficient way to conduct a needs analysis is to establish a needs analysis team, consisting of individuals with the right combination of skills and knowledge. The needs analysis team, as a whole, is responsible for the identification of valid TD and training requirements. To accomplish this, each team member should:

- (1) Diligently work at the analysis.
- (2) Coordinate actions and activities, internal and external to the needs analysis team, so work is efficiently accomplished.
- (3) Communicate findings, suggestions, and recommendations with other team members.

TD manager

b. The TD manager has the overall management responsibility for ensuring the conduct of thorough, efficient, and effective needs analysis. The manager is reactive (that is, identifies deficiencies between what exists now and what is required), or proactive (identifies capabilities required to meet future contingencies that may result in changes in the DOTMLPF). The manager is responsible for ensuring the needs

analysis team:

- (1) Identifies the performance problem (gap between the desired and actual performance).
- (2) Identifies all major causes of performance problems.
- (3) Documents the identified deficiency(ies).
- (4) Identifies those responsible for correcting the identified deficiency.
- (5) Identifies possible solutions to the performance deficiency(ies).
- (6) Analyzes identified courses of action.
- (7) Identifies the triggering circumstances.
- (8) Collects supporting performance deficiency data.
- (9) Recommends the best alternative solution(s).

Training  
developer

c. As the SME for needs analysis, the training developer:

- (1) Prepares all documentation required to conduct the needs analysis.
- (2) Provides needs analysis guidance to the SMEs and managers.
- (3) Presents a briefing concerning the needs analysis project, which details what to do during the analysis process.
- (4) Maintains needs analysis documentation.

SME

d. Subject matter experts also play a role in the conduct of a needs analysis. Different individuals normally fulfill these roles, but in a few rare instances, the same individual(s) fulfills these roles. The SMEs:

- (1) Provide information relative to technical expertise.
- (2) Provide supporting data for training deficiencies.
- (3) Recommend possible alternatives, including nontraining solutions.

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- Commander e. The proponent commander is the approving authority for the needs analysis, and signs the prepared document.
- Evaluator f. The evaluator serves as an independent observer, providing quality assurance/QC of the process and work. The evaluator:
- (1) Determines if the needs analysis was properly conducted, and makes comments/recommendations, as appropriate, to the team and the commander, when further action is needed.
  - (2) Ensures the needs analysis addresses the soldier and unit performance in the Active Component (AC), Reserve Component (RC), and National Guard (NG) component, when appropriate.

### 2-5. Getting started.

- Initiation a. A needs analysis is usually initiated (or triggered) when the proponent receives notification of an actual or perceived performance deficiency. The training developer then determines what initiated the unacceptable performance, or what cue is missing that hinders performance of the required action. The triggering circumstance (see [table 2-1](#)) may originate from a wide variety of sources, such as:
- (1) Evaluation findings.
  - (2) Field/other input.
  - (3) Directed training.
  - (4) Requirements determination.
  - (5) Doctrine changes.
  - (6) Training improvements/constraints.
  - (7) Leadership deficiencies.
  - (8) Organizational changes.
  - (9) New or improved equipment/system.
  - (10) Law or regulation changes.
  - (11) Lessons learned data from the Center for Army Lessons Learned (CALL) or Combat Training Centers (CTCs).

b. To ensure the Army provides the right education/training to its soldiers, conduct a new, or update an existing, needs analysis before the development of individual education/training products.

**Table 2-1**  
**Triggering circumstances for identifying performance problems**

<p>Formal Reports</p>	<ul style="list-style-type: none"> <li>• Requirements determination process capability requirements (Army Modernization Plan).</li> <li>• New equipment fielding.</li> <li>• Battle Lab initiatives.</li> <li>• Unit materiel readiness reports.</li> <li>• Memorandums/E-mails from units/soldiers.</li> <li>• Audits, inspections, and evaluations (internal and external).</li> <li>• Safety reports.</li> <li>• Lessons learned reports (CTC/CALL reports).</li> <li>• Introduction or restructuring of military occupational specialty (MOS)/area of concentration (AOC).</li> <li>• Training effectiveness analysis (TEA) – four reports (old post fielding training effectiveness report).</li> </ul>
<p>Informal Reports</p>	<ul style="list-style-type: none"> <li>• Commander’s verbal comments.</li> <li>• Personal observation.</li> <li>• Learner comments.</li> <li>• Telephonic comments, followed up with documentation.</li> <li>• After Action Reviews (AARs).</li> </ul>
<p><b>Note:</b> Consider the reliability of the information and all factors when assessing both formal and informal performance reports.</p>	

Advance preparation

c. Before performing a needs analysis, obtain a thorough knowledge of all factors that impact on the performance problem, or that the solution to the performance deficiency could affect. Acquire and thoroughly study the existing literature and performance data, which should provide the knowledge required to enable isolating the real problem(s) from the apparent or assumed problem(s). Locate and obtain any additional copies of documentation that provides information or data useful in the definition/clarification of the performance deficiency(ies). Collate the information into a logical order or groupings before continuing the study. Review all appropriate literature, including:

- (1) Operational concepts.
- (2) Capability issues.
- (3) Threat/doctrine.
- (4) Materiel acquisition.

- (5) TOE/TDA.
- (6) Lessons learned (including CALL data).
- (7) Regulations and how-to pamphlets.
- (8) Evaluation reports.
- (9) Command directives and documents.
- (10) Education/training products and materials.

**Note:** Check the Army Publishing Directorate (APD) list of electronic DA-level publications (<http://www.apd.army.mil/>) to verify the currency of references.

**2-6. Identify the performance problem.**

Identify the problem

a. Identify and describe the precise performance problem, in as exact terms as possible, to identify the true solution to the performance deficiency. Describe the problem, without attributing a cause to the deficiency or attributing it to a solution domain (DOTMLPF). (See table 2-2 for examples.)

**Table 2-2  
Problem statement examples**

Acceptable	Unacceptable
Soldiers do not install the radio frequency antenna correctly.	Soldiers do not know how to install the radio frequency antenna correctly.  Discussion: Implied cause is a training deficiency.
Soldiers could not repair the equipment.	Soldiers lacked test equipment needed to perform the repairs.  Discussion: Identified cause of the performance deficiency.
<ul style="list-style-type: none"> <li>• Units cannot successfully engage enemy.</li> <li>• Armored vehicles in excess of 5,000 meters.</li> </ul>	<p>We need a new tank.</p> <p>Discussion: Implied cause is a solution domain.</p>

(1) To identify the performance problem, first determine the required performance. This forms the baseline for determining the reality or extent of the identified deficiency.



(a) Describe the required performance in the form of task standards, legal or regulation requirements, etc.

(b) The performance requirement should include documenting if there is a:

- Required sequence of performance (or lack of required sequence).
- Cue that triggers the required performance, and documenting the nature of that cue.

(2) State the:

(a) Problem in terms of unit, collective, and/or individual tasks.

(b) Performance deficiencies in terms of a task standard that soldiers cannot meet.

(c) Future required capabilities in terms of desired performance that soldiers, or units, must attain.

(3) Identify specifically who, or what, organization is not performing to required standard. Include:

(a) Enlisted/warrant MOS/additional skill identifier (ASI)/skill qualification identifier (SQI).

(b) Officer AOC/functional area/skill identifier (SI).

(c) Skill level/rank.

(d) Common soldier tasks, common skill level tasks, and shared tasks.

(e) Unit (TOE/TDA number, unit identification code, and name).

Establish the scope

b. Establish the scope of the performance deficiency (see table 2-3). Determine the extent and gravity of the problem, in order to establish the priority. To help establish the scope of the performance deficiency:

(1) Apply the knowledge gained when conducting the literature search.

(2) Talk to individuals directly involved in the performance.

(3) Talk to observer/controllers from training centers about their observations of performance.

c. Immediately follow up on all problems regarding safety, security, or environmental issues.

**Table 2-3**  
**Scope of performance problem**

Extent	Identify whether the problem is isolated or widespread among units throughout the Army.
Gravity	(Seriousness.) Identify the safety, environmental, or security impact of the problem.
Impact	Identify the specific impact on individual and unit performance. Check to see if there are mission consequences; if none, there may be no need to pursue the matter further.

**2-7. Clarify cause of identified performance deficiency(ies).** Identify the actual cause or combination of causes for the identified performance deficiency, and:

a. Compile the actual and required performance data.

b. Collate and show the required and actual performance data in a manner that enhances the capability to identify the real cause of the deficiency.

c. Compare that data so the true cause(s) of the performance deficiency and other influences on that performance are identifiable.

**2-8. Identify solutions to the performance deficiency(ies).**

Identify solutions

a. The solution to a performance deficiency is not always a TD/training solution (see [fig 2-2](#), above). It is essential to precisely define and clarify the identified performance deficiency(ies), in order to develop ideas for solutions to the verified deficiency(ies). Implementation of nontraining solutions may be cheaper than a training solution. Incorrectly applying a training solution to a deficiency will not correct the deficiency, but will waste time and money.

Identify nontraining solutions

b. Identify nontraining solutions, as well as TD/training solutions. Nontraining solutions are in the doctrine, organizational, training, leadership and education, materiel, facilities, or personnel areas of the DOTMLPF. Although these are not necessarily your area of expertise, a thorough study of the problem will reveal deficiencies in these areas.

(1) Provide recommendation(s) for nontraining solution(s) to the performance deficiency to the appropriate office or agency. Although others develop nontraining solutions, document and justify the determination and turn the information over to the appropriate command authority. These nontraining solutions are tentative solutions, until the appropriate command organization works the issue. **Involve doctrine and combat developers in the needs analysis process from the beginning if the deficiency appears to cross DOTMLPF.**

(2) Examples of nontraining solutions:

(a) Provide spare parts needed to conduct the repairs.

(b) Assign personnel trained to perform the required ASI to the unit.

(c) Revise doctrine.

(d) Have command leadership motivate subordinates to perform tasks to prescribed standard.

(e) Restructure organization to improve workflow.

Combina-  
tion solutions

c. Rather than identifying only one solution to a performance deficiency, fixing the problem may require a combination of actions (that is, a leadership and a material solution to the deficiency. A solution consists of one or more training solutions (for example, soldier and unit); multiple nontraining solution(s) (for example, leadership and material); or a combination of the two).

(1) A nontraining solution to a performance deficiency may or may not create a new performance deficiency itself, and result in the need for education/training. For example, the need to change doctrine to correct a deficiency will result in a need to provide education/training on the new doctrine. Where the cause of the performance deficiency is soldier motivation, training is probably not required.

(2) Identify partial training solution(s) to the deficiency(ies).

**2-9. Recommend solution(s) to the performance deficiency(ies).** Failure to implement or communicate a solution will result in a continued performance deficiency. To get the solution implemented, communicate that solution to the appropriate command authority.

a. The first step is to create documents in a manner that the viewer can easily grasp. These documents will outline training solutions where the viewer can readily see the effect of a solution that is not implemented. Depict the cost of failing to correct the performance deficiency, and articulate the strengths and weaknesses of each possible solution.

b. Obtain appropriate command authority approving the recommended training solution(s) and/or TD requirement(s).

c. Determine which office has the authority and responsibility for implementing the nontraining performance deficiency(ies) solution(s), and provide the recommendation to that office or agency. This solution is a complete solution to the deficiency, or may only provide a partial solution. **Note:** Retain a copy of needs analysis documentation for future use.

**2-10. Establish the TD/training requirement.** The TD/training requirement forms the basis for the accomplishment of the proponent's TD workload. When a training or partial training solution to a performance deficiency is identified and approved, establish the specific TD requirement(s) to achieve.

a. Identify and document the education/TD requirement. Determine the actual products and materials to create or update to implement the approved training/partial training solution to the performance deficiency. This includes identifying the name and number of the product (if it exists), specifying what to accomplish, and the processes to employ or modify. The specific requirement could involve simply modifying a lesson, or it may involve conducting a job analysis, updating individual tasks analyses, and redesigning a course.

b. Provide the approved TD requirement to the proponent agency responsible for the products and materials needing creating or updating, to implement the approved training/partial training solution to the performance deficiency.

**2-11. Improve education/training efficiency and effectiveness.** One aspect of needs analysis that is commonly overlooked is the continuing requirement to improve development and implementation of education and training. Remain constantly alert to identify means of improving the training efficiency, and cost effectiveness due to new/improved training or TD technologies, processes, procedures, or management techniques. Look for and identify improvements in:

a. Technology, that when applied to education/training, has the capability to improve education/training efficiency and effectiveness. Ensure that the technology does not become the driving force for the change, rather than the improved TD/training efficiency. In other words, do not implement technology for technology sake, but because it improves efficiency.

b. Process application, that when applied to education/training, has the capability to improve education/training efficiency and effectiveness.

c. Procedures, that when applied to education/training, have the capability to improve education/training efficiency and effectiveness.

d. Improvements in training/TD management techniques, that when applied to education/training, have the capability to improve education/training efficiency and effectiveness.

## 2-12. Needs analysis QC.

QC

a. To maintain the quality of the needs analysis products, it is essential to continuously apply QC procedures.

**Note:** All individuals involved in the conduct of the needs analysis are responsible for, and should exercise QC over, the process and products produced.

QC checklist

b. Use needs analysis [Job Aid 350-70-6.1](#), which itemizes critical points in the application of the needs analysis process and production of the mission and collective task lists.

## Chapter 3 Mission Analysis

### 3-1. Mission analysis introduction.

a. Use the mission analysis process to identify all the specified, implied, and supporting missions that a unit and its subordinate units, direct support units, and habitually attached units should perform; and the collective tasks to perform to accomplish those missions. Conduct a mission analysis on all proponent-type units. These are primarily TOE units, but may be conducted for TDA units as well, to ensure mission accomplishment.

b. This chapter provides how-to guidance on performing mission analysis, to include:

- (1) Identification of unit organizational and functional structure.
- (2) Identification of all the specified, implied, and supporting missions.
- (3) Creating a mission matrix.
- (4) Creating a mission-by-echelon list.
- (5) Identification of critical collective tasks.
- (6) Identification of individual (leader) tasks performed in direct support of the identified missions.

c. Figure 3-1 shows how this analysis relates to follow-on collective TD processes. When performing mission analysis, remember that task proponents should develop follow-on collective training for critical tasks to ensure accomplishment of wartime missions, mission essential task list (METL), and the full range of military operations.

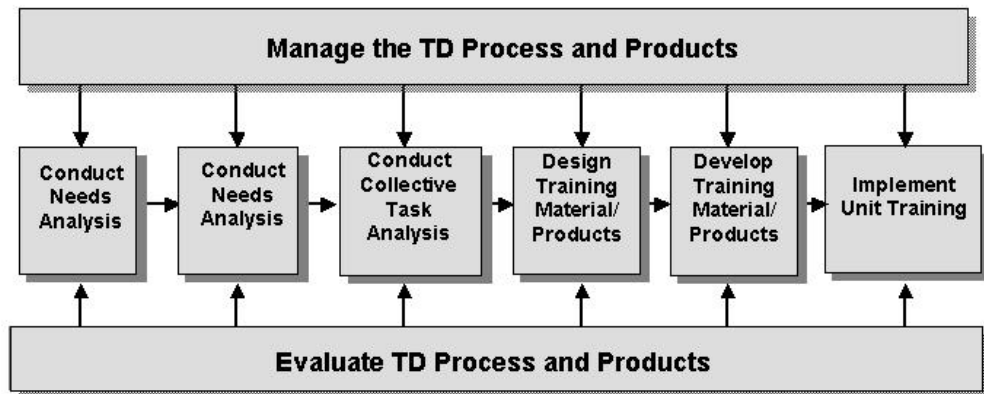


Figure 3-1. Mission analysis relationship

3-2. **Mission analysis administrative information.** The reference for this chapter is TRADOC Reg 350-70, [chapter V-1](#). Knowledge of the following terms is necessary for this chapter: TOE, mission, TDA, and collective task.

**3-3. Mission analysis process.**

a. Initiate a mission analysis as a result of a needs analysis or an update of a unit training strategy. Either of these processes may identify the requirement to revise an existing mission analysis or conduct a completely new one. Apply managerial judgment when conducting a mission analysis. Follow all the procedures listed for an initial mission analysis effort. Since most mission analysis actions are revision actions, it may not require all of these steps. Do what is required to identify valid missions and critical collective tasks.

(1) Revising a mission analysis is more likely than conducting one for a new type unit. This approach is cheaper and faster to accomplish than conducting a new mission analysis. It is the usual approach when there is a significant unit performance requirement change or occurrences in—

(a) An operational concept and employment doctrine.

(b) The mission, tasks, or capabilities of an existing unit.

(c) Threat, weapon systems, other military hardware, or personnel requirements in an existing unit that affect the performance of collective tasks.

(2) The need to conduct a new mission analysis is usually indicated when a new type of AC, NG, or RC unit is established, or a solution to a major performance deficiency that affects proponent-type units is required.

b. The mission analysis team should follow the process below when conducting their work. The level of detail will vary, depending on whether a new mission analysis is conducted or an existing mission and/or critical collective task list is updated.

(1) Identify unit for analysis.

(2) Conduct detailed unit research.

(3) Identify missions.

(4) Identify collective tasks.

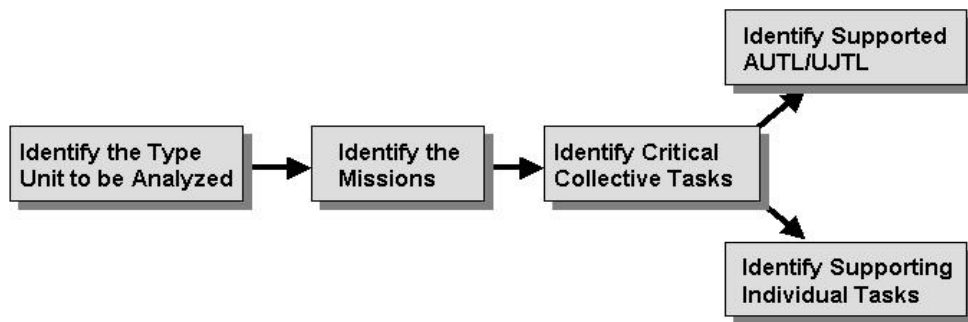


(5) Assign collective task numbers to approved critical collective tasks.

(6) Identify supporting individual tasks.

(7) Identify supported Army Universal Task List (AUTL)/Universal Joint Task List (UJTL). (Note: The AUTL/UJTL helps identify and clarify a unit's mission and collective tasks. It also provides a means to synchronize joint training.)

c. Figure 3-2 depicts the flow of information internal to the process.



**Figure 3-2. Flow of information**

**3-4. Mission analysis team roles and responsibilities.**

a. The mission analysis team, as a whole, is responsible for the identification of valid missions and collective critical tasks for a specific type unit or grouping of type (TOE) units. To accomplish this, each team member:

(1) Diligently works at the analysis.

(2) Coordinates actions and activities, internal and external to the mission analysis team, so work is efficiently accomplished.

(3) Communicates findings, suggestions, and recommendations with other team members.

b. The TD manager has the overall management responsibility for ensuring that a thorough, efficient, and effective mission analysis is conducted and valid critical tasks are identified. The TD manager:

(1) Sets up the analysis team.

- (2) Dedicates the team to the mission analysis process.
- (3) Prepares/updates the mission analysis project management plan.
- (4) Ensures the team accomplishes their work efficiently and effectively and produces quality results.
- (5) Keeps command informed on mission analysis status.
- (6) Provides assurance to the command that the mission analysis outputs are valid.

c. The training developer provides the following mission analysis guidance to the SMEs:

- (1) Prepares all documentation required to conduct the mission analysis.
- (2) Communicates with and interviews personnel in command positions of the type unit being analyzed, and of the senior command, to determine the real experts (master performers).
- (3) Trains the SMEs in writing missions and collective tasks.
- (4) Establishes the critical collective task selection criteria.
- (5) Presents briefing concerning the mission analysis project.
- (6) Constructs, administers, and analyzes mission analysis surveys.
- (7) Sets up the critical task selection board.
- (8) Obtains command approval of the critical tasks.
- (9) Ensures the quality of the application of the mission analysis process, and the products produced.

d. Subject matter experts are crucial to the compilation of the mission and collective task lists. Ensure the SMEs selected as part of the mission analysis team are knowledgeable (master performers) of how the type unit being analyzed performs its missions and conducts operations. These SMEs should work as a part of the mission analysis team and:

(1) Identify all missions (specified and implied) that the specific type unit being analyzed must accomplish.

(2) Identify all collective tasks to perform to accomplish the identified type unit missions.

(3) Ensure the quality of the technical (subject matter) content of the mission analysis products.

e. The proponent commander/commandant is the approving authority and signs the document identifying the missions and critical collective tasks for the type unit being analyzed. **Do not change the missions and critical collective tasks without an updated approval document.**

f. The evaluator serves as an independent observer, providing quality assurance/QC of the mission analysis. This includes, but is not limited to:

(1) Determining if the mission analysis was properly conducted and providing comments/recommendation, as appropriate, to the team and to the commander.

(2) Ensuring that the training developer and SMEs were master performers.

(3) Ensuring the SME target audience included appropriate representation from the AC, RC, and NG components.

### **3-5. Identify type unit to analyze.**

a. Specifically identify the type unit to analyze. Document the name, TOEs, TDAs, identification number, the current address and location, and a point of contact (POC) in the unit.

(1) Select the type unit to analyze.

(2) Conduct detailed unit research.

(3) Develop organization charts to show type unit structure and relationship to other units. See figure 3-3 for a sample type unit organization chart.

(4) Identify all type unit echelons/elements.

(5) Review the mission list from the next higher echelon, which will help identify supporting units and elements. It will also help later when identifying missions for supporting units and element.

(6) Compile a mission list for the unit’s highest echelon and then each succeeding subordinate echelon.

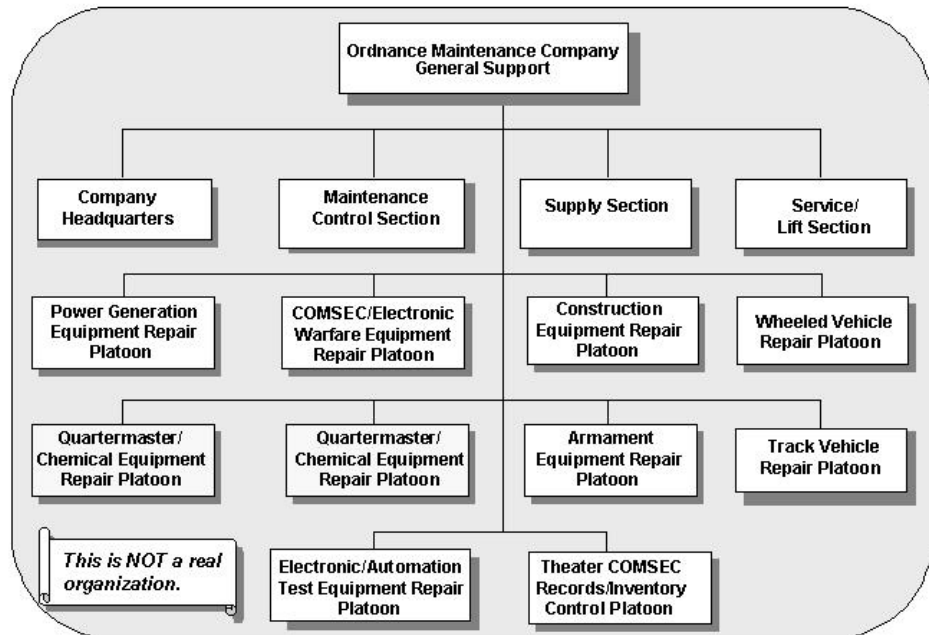


Figure 3-3. Sample type unit organization chart

**3-6. Conduct detailed unit research.**

a. The mission analysis team researches the literature/documentation/resources to identify the specified and implied missions and collective tasks to perform to accomplish those missions. To conduct this research, identify, locate, acquire, and study all documentation related to the specific unit being analyzed. Identify and interview master SMEs and document what is discovered. The team:

(1) Compiles all available literature, documentation, and resources that guide, direct, or explain the activities of the unit(s). Check the APD list of electronic DA-level publications at [www.apd.army.mil](http://www.apd.army.mil) to verify the currency of references.

(a) Task data and missions are found on the local ASAT database.

(b) References are located on the Reimer Digital Library.

(2) Acquires a copy of all of the documentation related to or describing how the specified unit operates, and/or assigns missions or tasks to the unit.

(3) Acquires the appropriate TOEs, TDAs, and TOE narratives for the unit being analyzed, the next higher-level unit, and other units the unit being analyzed supports. Army TOEs are available on U.S. Army Force Management Support Agency's Requirements Documentation web site (<https://www.usafmsardd.army.mil/home.cfm>).

(4) Acquires regulatory documents (paper or electronic) providing policy, guidance, rules, and/or laws directly affecting unit operations. Requisition hard copy documents through appropriate channels. Documents include, but are not limited to, ARs, DA pamphlets and circulars, Joint publications, United States Code, and Federal regulations. These documents are accessible electronically on the following web sites:

(a) The military education and research library network (MERLN) (<http://merln.ndu.edu/>).

(b) The Joint Electronic Library web site (<http://www.dtic.mil/doctrine/doctrine.htm>) provides access to Joint Doctrine.

(c) The Department of Defense (DOD) Washington Headquarters Services web site (<http://www.dtic.mil/whs/directives>) makes issuances available. Issuances include DOD instructions, directives, and publications.

(d) The National Archives and Records Administration provides access to the Federal Register ([http://www.archives.gov/federal\\_register/publications/government\\_manual.html](http://www.archives.gov/federal_register/publications/government_manual.html)), allowing inspection of the record of government actions and access to essential evidence that documents government actions.

(e) The Pentagon Library (<http://www.hqda.army.mil/library/>) provides access to many military references.

(f) The Library of Congress web site (<http://lcweb.loc.gov/>) provides access to civilian publications.

(g) The Army Publishing Directorate web site (<http://www.apd.army.mil/>) provides access to Army publications, such as Army regulations and DA pamphlets.

(h) The TRADOC web site provides access to TRADOC administrative publications (<http://www.tradoc.army.mil/adminpubs.htm>).

(5) Acquires feedback from operational units and soldiers in the field and training centers pertaining to the unit to analyze. This information includes, but is not limited to, Basic Leader Training Reports, DA Forms 2028, command directives/taskers, and lessons learned reports. The CALL web site can assist in this effort (<http://call.leavenworth.army.mil>).

(6) Acquires the CALL data, Joint Center for Lessons Learned, CTC lessons learned (found at <http://call.leavenworth.army.mil>), and exercise AARs pertaining to the type of unit being analyzed.

(7) Acquires and studies new, approved doctrine.

(8) Acquires information on new/improved systems/equipment that will be assigned to the unit you are analyzing.

(9) Acquires and accounts for evaluation feedback.

(10) Acquires the evaluation reports that apply directly to the unit being analyzed.

(11) Acquires a copy of, or access to, the current Standard Operating Procedures (SOP) for the type unit being analyzed.

(12) Acquires a copy of After Action Reports that directly pertain to the unit being analyzed, or other similar reports. These reports are sanitized before receipt (all evidence of the specific unit mentioned is removed).

b. The team looks beyond what the existing unit is required to accomplish, and looks at documents reflecting current and planned changes to the doctrine, equipment, or manning of the type unit being analyzed. Acquire a copy of, or electronic access to, documentation that describes or implies that the missions of the unit being analyzed will or may change. This documentation includes, but is not limited to:

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- (1) Operational Concepts, for example, Operational and Organizational Plan, and Concept and Evaluation Plan.
- (2) Base Development Plan/Mission Area Analysis/Mission Area Development Plan and capabilities issues.
- (3) Military occupational restructures, that is, AR 611-series and job analysis data.
- (4) Department of the Army Pam 611-21.
- (5) Armywide studies and reports, that is, AR 5-5 studies and ARI/Human Resources Research Organization.
- (6) Equipment documentation/publications such as:
  - (a) Army Modernization Plan.
  - (b) Mission needs statement.
  - (c) Basis Of Issue Plan (BOIP).
  - (d) System Training Plan.
  - (e) New Equipment Training Plan/Displaced Equipment Training Plan.
  - (f) Technical manuals (TMs).
  - (g) Integrated logistics support (ILS).
  - (h) Training effectiveness analysis.
  - (i) Appropriate field manuals (FMs)/doctrinal publications.
  - (j) Appropriate threat studies and analysis.
  - (k) Combat developer's database. **Note:** Coordinate with combat developers for database results.
  - (l) Nuclear, biological, and chemical (NBC) reports, chemical/nuclear environment reports, and videos.

c. While conducting the mission analysis, identify and include safety hazards that are encountered or will likely be encountered when performing the missions and collective tasks identified. The team documents all safety hazards or issues to take into consideration when performing the collective tasks. This includes acquiring pertinent safety reports, regulations, etc., and coordinating with the branch safety office. Useful information is available on the Army Safety Program web site (<http://safety.army.mil/home.html>).

d. When conducting the mission analysis, identify and document all environmental factors that are likely to be encountered or can be affected while performing the missions and collective tasks. The team must acquire pertinent environmental documentation (reports, regulations, etc.) and coordinate with the environmental protection office. This information is especially important when creating the follow-on training.

e. The need to record information and data of potential use when conducting the analysis was mentioned several times. This documentation may be a detailed list, or simply a reference to a specific document. The important point is that the data is retrievable. That is, the data is located so it is available when needed. Therefore, keep recordkeeping simple, but accurate. Also make sure all analysis team members use the same documentation procedure.

### **3-7. Identify type unit missions.**

a. Identify all missions (specified and implied) that the specific type unit selected to work on must be capable of performing. Work directly with the master SME to identify these missions. This includes:

(1) Identifying all of the echelons and elements of the unit being analyzed.

(2) Compiling a mission list for the unit's highest echelon, and each succeeding subordinate echelon, in the type unit being analyzed. Identify all unit missions the next lower echelons perform to support each mission of the next higher echelon (from highest to lowest echelon unit).

(3) Studying the mission lists of the next highest unit to aid the team in the identification of the missions the unit being analyzed performs to support that higher echelon's accomplishment of its missions.



b. Staff the draft mission lists the appropriate organizations and individuals will review. Prepare the appropriate documentation and provide to such organizations as the threat manager, combat development, and appropriate unit command elements for their critical review and comment. Limit staffing to the smallest community possible, while still ensuring valid, useful information is acquired.

**3-8. Identify critical collective tasks.**

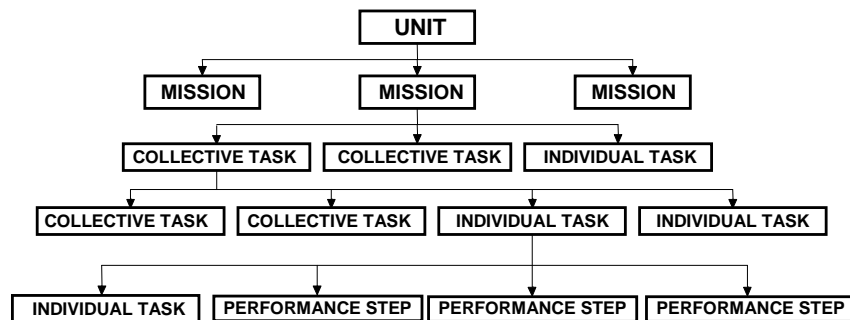
a. Identify all collective tasks that the unit's echelons or elements perform to support missions.

b. Collective task types are:

(1) TOE/TDA specific. A clearly defined, discrete, and measurable activity, action, or event (that is, task), which requires organized team or unit performance, and leads to accomplishment of a mission or function. A collective task is derived from unit missions or higher-level collective tasks (see fig 3-4). A collective task describes the exact performance for a group under actual operational conditions.

(2) Shared. A shared collective task more than one type unit uses; for example, two or more units with different proponents, or different echelon/TOE units, within a single proponent's authority. Since the task, conditions, standards, task steps, and performance measures of shared collective tasks do not change, the units that "share" the task train and perform the collective task in the same way.

**Note:** Shared collective tasks that other proponents own and this unit performs (with some flavoring) are given a "derivative" task number.



**Figure 3-4. Task hierarchy**

c. After conducting research, the team identifies the critical collective tasks for the type unit being analyzed. Two primary means to accomplish this are:

- (1) Extract tasks from the reference material.
- (2) Identify tasks while interviewing the selected SMEs.

d. Before conducting interviews:

(1) To prepare to ask the right questions, conduct a detailed review of all available information. Perform the interviews via electronic media (video teleconference (VTC) or Internet), telephonically, or in person, if resources allow. Obtain data from the following individuals that currently or recently served in the type unit being analyzed:

- (a) AC and RC soldiers.
- (b) Civilian job incumbents.
- (c) Job incumbent supervisors.

(2) Prepare to conduct an interview. Establish the content of an interview before conducting the mission analysis. Review [TRADOC Pam 350-70-4, chapter 4](#). The process for preparing to conduct interviews is detailed in paragraph 4-2. Job Aids [350-704.4a](#) and [4c](#) may also help. Document information the SME provides when conducting an interview and observations made during a unit’s performance of the mission.

e. Write the task titles to the task standard per TRADOC Reg 350-70, [chapter V-1](#). A well-written collective task title is in a standard format, using title case (except for articles, prepositions, and conjunctions). A collective task title has one action verb, an object, and a qualifier that identifies unit type and level (see table 3-1 for examples). The collective task title—

- (1) Should be completely understandable when read.
- (2) Begins with an observable, measurable, and reliable verb.

(3) Tells the soldiers/trainers precisely what the type unit must do to accomplish the mission.

**Table 3-1**  
**Collective task titles**

Example	Action verb	Object	Qualifier (By a/an)
1	Breach	Obstacle	Mechanized Infantry Company
2	Prepare	Chemical Attack	Armor Platoon
3	Conduct	Dismounted Attack	Mechanized Infantry Battalion

(4) Use standard verbs when writing task titles. See [TRADOC Reg 350-70, appendix D](#) for a list of standard verbs. For verbs needed not appearing on the list, write a definition for the verb, and coordinate with the verb list proponent for approval/disapproval. Standard verbs:

(a) Provide/promote clarity.

(b) Allow analysts, trainers, and soldiers to understand the scope of the collective task title.

(c) Promote application of sound training principles.

f. When conducting the mission analysis, document and provide any individual tasks that directly support mission accomplishment to appropriate proponent/office for further analysis.

**3-9. Assign a unique collective task number.**

a. It is essential to assign a unique critical collective task number to each command-approved critical collective task.

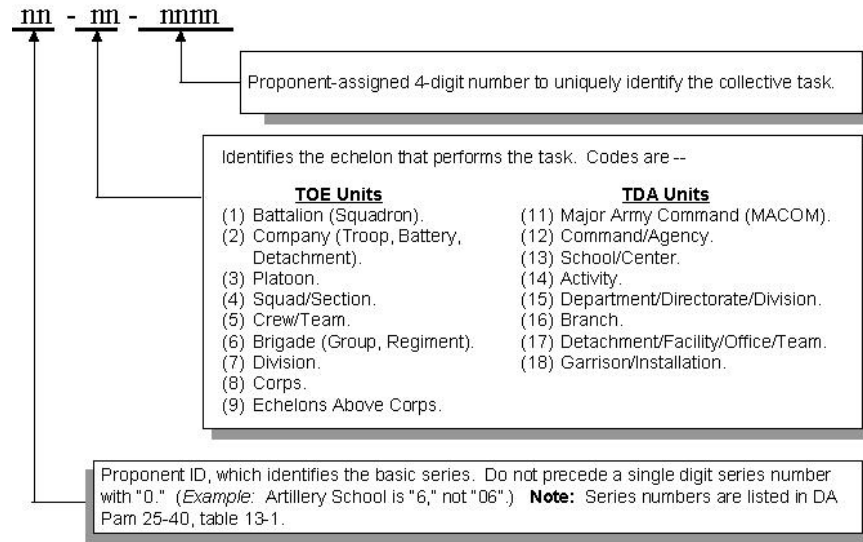
b. The format is standardized—it is a combination of the proponent code, the echelon code, and a proponent-assigned number. In combination, they uniquely identify the collective task.

(1) Identify and assign the appropriate training/TD (task) proponent's identification. **Note:** This identification is based on the series numbers listed in [DA Pam 25-40](#), table 13-1.

(2) Assign a number designating the echelon that performs the collective task. **Note:** For a shared collective task multiple echelons within a proponenty perform, assign the number representing the highest echelon.

(3) Assign a unique number, of up to 5 digits, for each critical collective task.

c. See figure 3-5 for the format for collective task numbers and figure 3-6 for samples.



**Figure 3-5. Collective task number format**

6-3-0012	Artillery platoon collective task 12
5-2-0012	Engineer company collective task 12
5-2-0021	Engineer company collective task 21

**Figure 3-6. Sample collective task numbers**

**3-10. Obtain approval for the collective critical tasks.**

a. The task proponent commander/commandant approves the critical collective tasks because of their importance to Army readiness and mission accomplishment. Prepare the memorandum and attachments for signature, and distribute the approved list, as appropriate.

b. Prior to seeking approval, prepare the critical collective task list, so the approver can easily discern what they are approving. Also prepare other documents for record.

(1) List all of the tasks recommended for approval. Consider grouping the tasks by categories, so it is more easily understood. This list is forwarded to the commander/commandant for approval.

(2) Identify tasks that were considered but not recommended as critical to mission accomplishment.

(3) Document any controversial issues/decisions or issues that could surface as a potential problem in the future.

c. Prepare a memorandum, as shown in figure 3-7, for the commander's/commandant's signature, and attach the collective task list that is recommended for approval as critical tasks. Add appropriate guidance for conducting the follow-on collective task analysis. The commander's/commandant's signature signifies approval of the attached critical tasks.

d. Once the commander/commandant approves the critical tasks, the list is distributed to all individuals and organizations responsible for the conduct of the collective task analysis.

<b>Letterhead</b>	
(OFFICE SYMBOL)	
MEMORANDUM FOR SEE DISTRIBUTION	
SUBJECT: Critical Collective Tasks for TOE _____	
1. Each task on the attached collective task list is hereby approved as critical for a unit based on TOE _____.	
2. Task proponent for each collective task is directed to conduct a collective task analysis on that task. Forward any required collective task list revisions identified during task analysis to me for approval.	
3. My Point of contact is Mr. _____ (____)-____-____, DSN ____-____, _____.army.mil.	
Encl	_____ Major General, GS _____
DISTRIBUTION:	

**Figure 3-7. Critical collective tasks approval memorandum**

(1) Provide a copy to the organization responsible for the conduct of the collective tasks analysis of the approved critical tasks.

(2) Provide a copy to the individual training analysis office or equivalent.

(3) Notify offices responsible for producing training materials and products, based on this collective task list, of its approval. It is the responsibility of the task proponent to keep this approved collective task list current. Minor changes to the critical task list (deleting or adding a critical collective task) require a commander/commandant-signed memorandum detailing the change.

e. Coordinate shared collective tasks with the proponent of those tasks.

(1) [TRADOC Reg 350-70, appendix C](#), contains a list of TD/training task proponents.

(2) Provide information concerning identified shared collective tasks to the appropriate training/TD (task) proponent for follow-on individual analysis.

**3-11. Mission analysis automation support.** Make the completed and approved mission and collective tasks available to the appropriate users and organizations for use in conducting the collective task analysis. See paragraph 1-8 for additional information on available automation support.

**3-12. Mission analysis QC.**

a. To maintain the quality of the mission analysis products, apply QC procedures continuously. All individuals involved in the conduct of the mission analysis are responsible for, and exercise QC over, the process and products produced.

b. Use the mission analysis Job Aid [350-70-6-2](#) that itemizes critical points in the application of the mission analysis process and production of the mission and collective task lists.

## **Chapter 4 Collective Task Analysis**

**4-1. Collective task analysis introduction.**

Collective task analysis process

a. Critical collective task analysis is the process used to provide the task performance detail needed to develop efficient and effective unit training. A task analysis is conducted for each critical collective task to

identify all task performance specifications for that specific task. These specifications are concerned with how the task is actually performed, under what conditions it is performed, or how well the unit must perform it. Task analysis data for critical tasks serve as the foundation for development of all subsequent collective training products. It provides the detail to design and develop efficient and effective training. **Task proponents should conduct a collective task analysis for critical collective tasks only.**

b. This chapter provides how-to guidance on performing collective task analysis, to include, but not limited to:

- (1) Identification of collective task performance specifications.
- (2) Writing collective task standards and conditions.
- (3) Preparing the collective task analysis report.
- (4) Preparing the individual-to-collective task matrix.
- (5) Preparing the collective-task to reference matrix.
- (6) Compiling the Mission Training Plan (MTP) Training and Evaluation Outlines (T&EOs).

**4-2. Collective task analysis administrative information.** Knowledge of the following terms is necessary for this chapter: task standard, task condition, performance measure, task performance step, task performance specifications, UJTL, AUTL, and collective task analysis report.

**4-3. Collective task analysis team roles and responsibilities.**

Task analysis team

a. The collective task analysis team, as a whole, is responsible for the identification of all task performance specifications for all critical tasks for a specific unit. Each team member:

- (1) Works diligently at the analysis.
- (2) Coordinates actions and activities, internal and external to the task analysis team, so work is efficiently accomplished.
- (3) Communicates findings, suggestions, and recommendations with other team members.

TD manager      b. The TD manager, the first line supervisor, has the overall management responsibility for ensuring that a thorough, efficient, and effective collective task analysis is conducted and all task performance specifications are identified. The first line supervisor:

- (1) Sets up the collective task analysis team.
- (2) Dedicates the team to the collective task analysis process.
- (3) Prepares/updates the collective task analysis project management plan.
- (4) Ensures the team accomplishes their work efficiently and effectively.
- (5) Keeps command informed on collective task analysis status.
- (6) Assigns/selects an SME to analyze each task, and an SME to independently review each collective task analysis.
- (7) Coordinates with National Guard Bureau (NGB), Training Division, and Headquarters (HQ), U.S. Army Reserve Command (USARC), Individual Training, through the Deputy Assistant Commandant (Army National Guard (ARNG) or U.S. Army Reserve (USAR)), or Total Force Integration Officer, requirements for RC SME support for task analysis. Includes The Army School System (TASS) training battalion coordination for SME support. If onsite SMEs are not available, attempt "distance TD" when automation capabilities permit.

Training developer      c. As the collective task analysis SME, the training developer provides the collective task analysis guidance to the SMEs.

- (1) Prepares all documentation required to conduct the collective task analysis.
- (2) Trains the SMEs in conducting a collective task analysis.
- (3) Coordinates with SMEs conducting the collective task analysis.
- (4) Presents briefing concerning the collective task analysis project.
- (5) Verifies completeness and comprehensiveness of each collective task analysis.



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(6) Obtains appropriate command approval of the task analysis for each collective critical task.

(7) Ensures the quality of the application of the collective task analysis process and the products produced.

SME

d. Subject matter experts are crucial to the conduct of the collective task analysis. A SME is an individual that has a thorough knowledge of a job—both the duties of the job and the tasks that comprise them—and the collective tasks the unit performs. This knowledge makes the SME a vital participant in the analysis process as it relates to consultation, review, and providing an extensive description of how a critical task is performed. (**NOTE:** Select SMEs with the highest level of expertise. If not using master-level SMEs, take this fact into consideration when making task analysis decisions. (See [para 1-7a\(2\)](#), above, for the levels of SMEs.) Subject matter experts play three major roles in the conduct of a collective task analysis. Different individuals normally fill these roles, but in a few rare instances, the same individuals may perform all three:

(1) Identify all collective task performance specifications for assigned critical tasks.

(2) Independently conduct a critical review of all assigned critical task analysis.

(3) Ensure the quality and completeness of the technical (subject matter) content of the collective task analysis products.

Commander

e. The proponent commander/commandant is responsible for:

(1) Ensuring a task analysis is conducted on all proponent collective critical tasks.

(2) Maintaining a current collective critical task analysis of all proponent critical tasks, including shared and branch-specific tasks.

(3) Retaining collective task analysis data (using the Army Records Information Management System).

(4) Providing using organizations with the task analysis for proponent shared collective tasks.

Evaluator

f. The evaluator serves as an independent observer, providing quality assurance/QC of the process and work.

(1) Determines if the collective task analysis was properly conducted, and makes comments/recommendation, as appropriate, to the team and the commander.

(2) Ensures that a qualified SME conducts an independent, critical review of each collective task analysis.

**4-4. The collective task analysis process overview.**

Need for the collective task analysis

a. The Army must provide the right training to a unit if they are to win and survive on the battlefield. The first step in accomplishing this is the identification of the critical collective tasks when conducting mission analysis. The second, and just as vital, step is to decompose (analyze) each identified collective critical task and identify the details and other factors that affect how that task is performed. Conduct a new, or update an existing, collective task analysis before the production of collective training products:

(1) Perform a new collective task analysis if there are new critical tasks identified or there is a change in how a collective task is performed. This requirement is indicated by such factors as:

(a) Publication of a new/updated collective critical task.

(b) New/updated unit TOE/TDA.

(c) New revised task reference material, for example, FMs, safety/environmental notices.

(d) Evaluation feedback.

(e) Any other sources of data.

(2) Review and update mission analysis when needs analysis identifies a change in the tasks a unit performs, resulting from such items as:

(a) Unit feedback.

(b) New/revised doctrine (for example, tactics, techniques, and procedures (TTP)).

(c) New/improved systems/equipment operation procedures.

(d) Lessons learned data from the CALL.

(e) Evaluation feedback.

Collective task analysis process

b. Following a set procedure when conducting any analysis helps ensure that all important information and data is identified and documented. The amount of work involved will vary, depending upon whether a new analysis is conducted or an existing collective task analysis is updated. The task analysis team should use the following process when conducting their work:

- (1) Identify collective task performance specifications.
- (2) Prepare the mission-to-collective task matrix.
- (3) Prepare the mission to UJTL matrix.
- (4) Obtain collective task analysis approval.
- (5) Distribute approved collective task analysis.
- (6) Maintain current collective task analysis.

Process graphic

c. Figure 4-1 depicts the relationship between collective task analysis and the design and development phases.

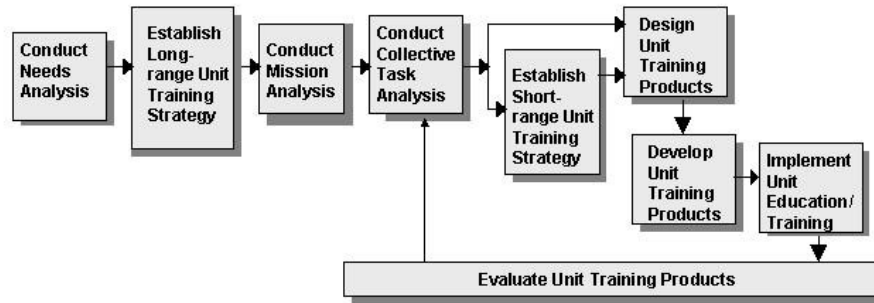


Figure 4-1. Collective task analysis data flow

4-5. Identify the collective task performance specifications.

Description

a. The task performance specifications describe precisely how a specific collective critical task is actually performed, under what conditions the task is performed, and how well a unit must perform the task. These specifications are the task performance details needed to

establish the collective training strategy and design and develop follow-on unit training. Identify all of these specifications in order that the follow-on training is effective, efficient, and economical. The specifications are:

- (1) Task title.
- (2) Task number.
- (3) Task performance standard.
- (4) Task performance condition.
- (5) Task performance steps. Each identified step includes:
  - (a) References required for the performance step.
  - (b) Safety factors, hazards, and considerations associated with the performance step.
  - (c) Environmental factors and considerations associated with the performance step.
  - (d) Equipment and materials required to perform the performance step.
  - (e) Supporting individual task(s) performed as part of, or in support of, the collective task being analyzed.
- (6) Task performance measures.
- (7) Supported collective task(s).
- (8) Supporting collective task(s).
- (9) Universal Joint Task List supported task.

Write the task title

b. Chapter 3 contains details concerning how to write a task title (see [para 3-8e](#), above) and task number (see [para 3-9](#), above). How to write each of the other specifications is presented in the following paragraphs.

**4-6. Develop the task condition statement.**

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Description	a. The collective task condition statement describes the field (on-the-job) conditions under which the task is performed. It expands on information in the task title. Ensure it is well written and fully understandable to the individuals who perform the task (that is, written in the language of the performer).
Condition statement function	b. The condition statement:  (1) Sets the stage for task performance.  (2) Identifies the boundaries for task performance.  (3) Identifies all pertinent influences on task performance.
Parts of a condition statement	c. A condition statement has two parts—  (1) Cue—A word, situation, or other signal for action. An initiating cue is a signal to begin performing a task or task performance step. An internal cue is a signal to go from one element of a task to another. A terminating cue indicates task completion.  (2) Descriptive data—Information identifying:  (a) When, why, and where the task is performed.  (b) The resources (materials, personnel, and equipment) required for performing the task.  <b>Note:</b> Some of these data items are “understood” and may not require specific identification in the condition statement. Make this decision depending on the task being analyzed.
Task condition format	d. The collective task condition statement is written in standard paragraph format, containing one or more sentences.
Writing guidelines	e. Following are some guidelines and tips for writing a task condition statement:  (1) Identifying the cue.  (a) The cue may be very evident or "understood" when writing a conditions statement and may not require detail.  (b) If the cue is not evident, specifically identify it. To identify the cue, study such items as—

- Organizational diagrams.
- Mission analysis.
- Threat information.
- Actions outside units, soldiers, leaders, or events perform.
- Procedural manuals.

**(Example:** A unit leader receives a unit movement order. Once the soldier receives a movement order, the soldier performs the task.)

(2) Identifying/describing the physical setting or the site of task performance. The amount of detail provided varies, based on the effect that the setting has on task performance. **Note:** Remember, not all critical tasks are performed on the battlefield or during wartime.

(a) **Do not:**

- Make the setting too generic.
- Make the setting too specific.
- Refer to a training environment. (A task condition is written to field performance, NOT training performance. There is a difference.)
- Simply use a phrase like "in a combat environment."

(b) When the task is performed at multiple performance sites, describe all sites, as practicable.

Example  
condition  
statements

f. Figure 4-2 presents examples of condition statements. Write your condition statements in a similar manner. Discussion points are provided for each example.

(1) A unit must cross a river to continue its mission, and this body of water is too deep to ford. The unit receives the mission to construct a Bailey Bridge, capable of carrying military load classification (MLC) 70 wheeled and tracked vehicles in a normal crossing. A site reconnaissance has been completed, and the bridge location has been selected. The gap to be crossed has prepared abutments, and is 23.8 meters to 26.8 meters wide. Enemy direct fire has been suppressed from the bridge site, and internal communications have been established. Site security is provided. The unit has one Bailey Bridge and one erection site.

Discussion: In this example—

(a) When is—On order.

(b) Where is—The erection site.

**Figure 4-2. Sample condition statements**

<p>(c) <u>Why is</u>—Unit must cross the river to continue its mission, and the bridge must support MLC 70 wheeled and track vehicles.</p> <p>(d) <u>Resources required</u> are—Bailey Bridge (all associated equipment required for erecting the structure was not identified).</p>
<p>(2) The follow-on forces are preparing to move forward over a designated main supply route (MSR). The maneuver commander directs a route minesweeping operation. The element is directed to perform the sweep along a route containing enemy mines. The area is secure, but enemy contact with squad-size or smaller elements is possible. The security team is provided. Digital units have performed functionality checks, and systems are operational.</p> <p>Discussion: In this example—</p> <p>(a) <u>When is</u>—On order (not specified, but understood).</p> <p>(b) <u>Where is</u>—Element is to travel over a designated MSR.</p> <p>(c) <u>Why is</u>—To secure an area that could contain enemy mines.</p> <p>(d) <u>Resources required</u> are—Resource requirements are not identified (minesweeping equipment used should be identified).</p>
<p>(3) A unit has been contaminated and must conduct a hasty decontamination. To support the hasty decontamination, the contaminated unit has organic equipment, battalion power-driven decontaminating equipment, crews, supplies, and decontaminates.</p> <p>Discussion: In this example—</p> <p>(a) <u>When is</u>—Now.</p> <p>(b) <u>Where is</u>—Wherever the contaminated unit is.</p> <p>(c) <u>Why is</u>—It is a life-threatening situation.</p> <p>(d) <u>Resources required</u> are—Identified. (Battalion power-driven decontaminating equipment, crew, supplies, and decontaminates).</p>
<p>(4) The unit receives the mission to mark a friendly obstacle being emplaced, or already in place. Unit members determine the location of the obstacle from the emplacing party personnel, DA Form 1355, DA Form 1355-1-R, or a mine record and report. Digital units have performed functionality checks, and systems are operational. The logistical planning for obstacle marking is done. The unit has the necessary material to mark the minefield.</p> <p>Discussion: In this example—</p> <p>(a) <u>When is</u>—On order.</p>

**Figure 4-2. Sample condition statements (cont)**

(b) Where is—The location of the obstacle.

(c) Why is—To prevent harm or damage to friendly forces coming into the area (understood).

(d) Resources required are—DA Form 1355, DA Form 1355-1R, or a mine record and report, as well as the necessary material to mark the minefield. (The necessary materials have not been positively identified.)

**Figure 4-2. Sample condition statements (cont)**

Special condition

g. A **special condition** is a performance condition that occasionally occurs and affects a soldiers' ability to perform the critical task to the established standard. These special conditions include, but are not limited to, wearing of mission-oriented protective posture (MOPP) 4, night vision devices (NVD), oxygen breathing apparatus (OBA), or self-contained underwater breathing apparatus (SCUBA) when performing the task. They are identified as a separate data item when conducting the collective task analysis. Once a special condition is identified, document the change to the task performance standard that results when performing the task under a special condition.

(1) There may be more than one special condition simultaneously affecting task performance.

(2) A special condition may affect such standards as speed, accuracy, etc.

**4-7. Identify collective task performance steps.**

Description

a. A **collective task performance step** is a single, discrete operation, movement, or action that comprises part of a task. Identify and list all collective task performance steps in performance sequence order. A performance step is a major action a unit must accomplish in order to perform a collective critical task to standard (that is, the first step is usually the triggering circumstance initiating task performance. It may be the cue (for example, "receive an order to. . ."). The performance step—

(1) Describes the action the task performer must take to perform the task in operational conditions.

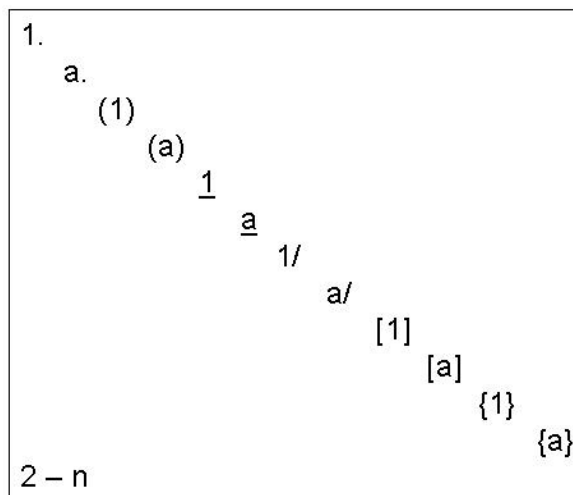


(2) Provides sufficient information for a task performer to perform the action. The accuracy and completeness of the decomposition (analysis) of the task and performance steps establish the content quality of the follow-on education/training.

**Note:** One of the first performance steps may be to conduct a risk assessment.

Performance step function      b. The performance steps and supporting steps, as a whole entity, identify all the actions that a unit or leader takes to perform the task. This decomposition provides the detail needed to design and develop the follow-on education/training.

Performance step format      c. The task performance steps are written in the outline format shown in figure 4-3. The level of decomposition depends upon the complexity of the performance step. Task steps are decomposed to show the supporting steps as needed to ensure all required detail is identified.



**Figure 4-3. Task performance steps format**

Writing guidelines      d. Some guidelines and tips for writing task performance steps follow. Remember the soldiers in the unit, the task performers, need to understand precisely what they are to do. When writing performance steps—

(1) Start with a verb. Use present tense. Write as if the soldiers are being personally told what they are to do.

(2) Write each step in language appropriate for the task performer.

(3) Sequence steps in a logical, sensible order. There is **not** always a mandatory performance sequence.

(a) If there is a mandatory sequence, list the steps in the order in which they are performed.

(b) If there is no mandatory sequence, list the steps in a logical order for efficiently accomplishing the task.

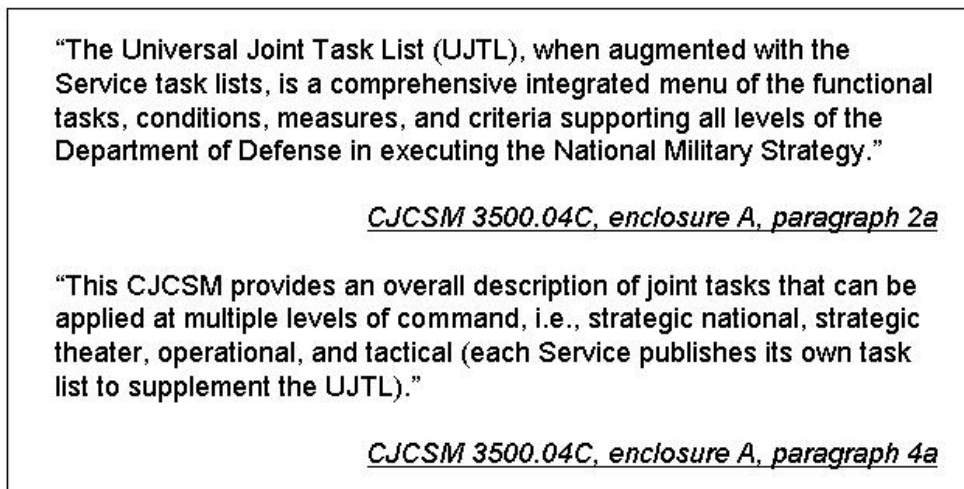
(4) Identify all safety factors, hazards, and considerations associated with the performance step (includes hazardous communication considerations).

(5) Identify all environmental factors and considerations associated with the performance step.

**4-8. Identify supported joint universal tasks.**

Importance

a. The importance of, and emphasis on, joint operations and supporting training has increased during the last decade. One result of this is the development and publication of Chairman of the Joint Chiefs of Staff Manual (CJCSM) [3500.04C](#). Figure 4-4 provides extracts from this publication that show the importance of the UJTL to this work.



**Figure 4-4. Excerpts from CJCSM 3500.04C**

b. The Army’s tactical level supplement to the UJTL is called the Army Universal Task List. The UJTL provides:

(1) A means to focus joint training on what units need to perform, to accomplish joint missions and conduct joint operations.

(2) Common definition of terms to improve communication between members of the different services.

c. Identify and link the critical collective tasks for which you are proponent to the UJTL tasks that it supports. The majority of the tasks will provide direct support to the AUTL; however, some of the tasks will link at the higher levels. See figure 4-5.

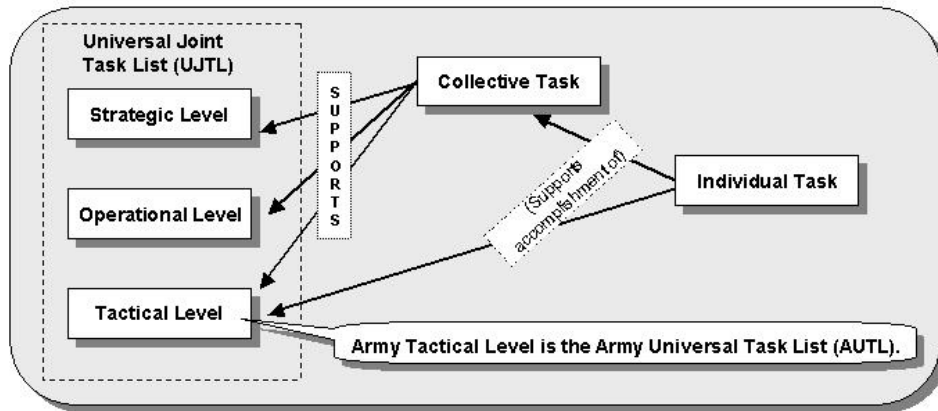


Figure 4-5. UJTL/AUTL linkage

**4-9. Identify the references required by title, publication number, date, and paragraph number.**

**Description**

a. This is the precise identification of the references that are either required to perform the task or provide details concerning how the collective task is performed. These references may be military or civilian documents (paper or electronic), although civilian publications that are required to perform collective tasks are relatively rare.

**Procedure**

b. Identify the reference in detail to ensure the task performer can positively identify and obtain a copy of the reference. Identify the reference to the lowest structural part possible (for example, chapter, paragraph, or subparagraph) to help make it easier for the user to find the information, and make it easier when the reference changes. The automated TD system is supposed to notify users when a reference used in a collective task analysis is changed, to include the specific paragraph that changed.

(1) For military references, list the publication:

(a) Title.

(b) Date.

(c) Number.

(d) Service/organization proponent (for example, United States Air Force (USAF), Federal Aviation Administration (FAA)).

(e) Paragraph number.

(f) Web site (if applicable).

(g) TOE/TDA number.

(h) TOE/TDA title.

(2) For civilian publications, the data required is more complex. List all of the publication data that is required to positively identify the publication. These include, but are not limited to:

(a) Title (if an article, also include the publication title).

(b) Author.

(c) Publication date.

(d) Publisher.

(e) International Standard Book Number.

(f) Copyright.

(g) Publication number (if applicable).

(h) Chapter and paragraph number (identify the reference to the lowest level possible).

**4-10. Identify the equipment/end items/materials required.**

Description

a. This is the precise identification of the equipment required to perform the task. The equipment is identified at the performance step level to ensure all items of equipment required to perform the task are identified. Equipment items may be military or civilian. Only list

equipment items used to perform all performance steps one time, but indicate in the collective task analysis report that this is the case. This information is immensely important for the design of follow-on education/training.

(1) For military equipment list the:

- (a) Line Item Number (LIN).
- (b) Federal Stock Number.
- (c) Nomenclature, using standard military notation.
- (d) Quantity required.

(2) For civilian equipment, capturing the information is more complex. List all of the equipment data that is required to positively identify the equipment.

- (a) Nomenclature, using standard military notation.
- (b) Model number.
- (c) LIN (if the supply office assigns one).
- (d) Quantity required.

Automation equipment support

b. The Army TD automation support includes the capability to select equipment items from a “pick list.” The Training/TD (task) proponent maintains this list of equipment items in a database table. If an item of equipment is not listed in this pick list, provide the details to the database administrator and arrange for its inclusion. Ensure that complete and accurate information is provided.

**4-11. Develop a collective task standard that measures task performance.**

Description

a. The task standard defines the ultimate outcome criteria for the task. It is the measuring stick against which a unit's task performance is measured. It describes the criteria to which the task is performed **in the field** to successfully accomplish the supported mission. The task standard—

(1) Describes the minimum acceptable level of performance to ensure successful completion of the task.

(2) Is used to measure task performance.

(3) Is—

- (a) Objective.
- (b) Valid.
- (c) Reliable.
- (d) Usable.
- (e) Comprehensive.
- (f) Discriminating.

(4) May include, but is not limited to—

- (a) Accuracy.
- (b) Quantity.
- (c) Speed.
- (d) Quality.

Task  
standard  
function

b. The function of a standards statement is to identify the criteria, for the minimum acceptable level of performance required, for successful task accomplishment in the field. It describes how well, completely, and/or accurately the task is performed under the prescribed conditions. The soldier, trainer, evaluator, and commander uses this information to:

- (1) Train subordinates in the unit.
- (2) Evaluate subordinate unit task performance.
- (3) Sustain METL task performance.

Parts of a  
standard  
statement

c. A standard statement has two parts—

- (1) A verb phrase identifies what the standard evaluates (that is, the process the soldier performs, the product produced, or both).
- (2) The performance criteria, which establish how well a task is performed in the field.

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Task standard format            d. Write the collective task standard statement in standard paragraph format. The paragraph may contain one or more sentences and may include subparagraphs and/or bullets.

Types                            e. Three types of collective task standards are:

(1) A product standard. Describe the end result of task performance. Training developers should use product standards when the process it takes to perform the task is not important, as long as the product (end result) is correct.

(2) A process standard. Describe the critical task elements necessary for adequate task performance.

(3) A combination of a process and product standard.

Writing guidelines            f. Use the following guidelines and tips to help write task standards. First, review the condition statement to determine the parameters for the standard. The standard cannot address anything outside the parameters set by the condition statement. The condition statement may need revising after the standard is written.

(1) The first major decision is to decide which type(s) of standard(s) is (are) appropriate for each task.

(a) When task performance produces a product, describe the standard(s) in terms of that product.

(b) When task performance produces a process, describe the standard(s) in terms of the process.

(c) When task performance produces both product and process, describe the standard(s) in terms of both the product and the process.

(2) Identify all applicable standards. One task may, in fact, probably will, require more than one criterion to measure the performance of the entire task.

(3) Detail all of the criteria by which the task performance is evaluated. If you decided to—

(a) Use a product standard, then use accuracy, tolerances, completeness, format, clarity, number of errors, and quantity as criteria.

(b) Use a process standard, then use sequence, completeness, accuracy, and speed of performance as criteria.

(c) Use a combination standard, then use accuracy, tolerances, completeness, format, clarity, number of errors, quantity, sequence, and speed of performance as criteria.

(4) Write the standard in the task performer's language.

Example g. Figure 4-6 provides an example of a task standard. Use this example to write standards in a similar manner.

Camouflage a defensive position so that it could not be visually detected from 35 meters forward.

**Figure 4-6. An example of a task standard**

**4-12. Establish collective task performance measures.**

Description a. Performance measures for collective tasks are used to determine if a unit performed the critical collective task to the established standard. Additionally, performance measures are key components of unit After Action Reports. Performance measures—

(1) Are actions (behaviors, products, and characteristics) that are objectively observed and measured to determine if a task performer performed the task to the prescribed standard.

(2) Are derived from the collective task performance steps during task analysis, and may cover one step, more than one step, or part of a step.

(3) Are written in past tense.

(4) Are measured as “GO” or “NO GO.” This is an absolute measure. The task performer (the unit) either—

(a) Performed or did not perform the action described in the performance measure.

(b) Met or did not meet the performance measure criteria.

(5) For a specific collective task, serve as a checklist to determine if the unit actually performed the task to the established standard.

(6) Include criteria for measuring the steps covered.



- (a) Specifies how well each included step is performed.
  - (b) Is understandable without the reference.
  - (c) Deals with the actions of the task performer only.
- (7) Support the task standard.

Performance measure function

b. Performance measures provide a useful and efficient tool for soldiers, unit trainers, evaluators, and commanders to use to—

- (1) Determine who can and cannot perform a task.
- (2) Form the basis for evaluating task performance.

Difference between performance steps and measures

c. Performance steps and performance measures are often confused. Table 4-1 demonstrates how the step identifies an action, and the measure provides criteria for evaluating performance of that action.

**Table 4-1**  
**Performance steps and performance measures differences**

Performance	Definition	Example
Step	A single discrete operation, movement, or action that comprises part of a task (action).	The radiotelephone operator establishes communications.
Measure	Action that can be objectively observed and measured to determine if a task performer has performed the task to the prescribed standard (action and criteria).	The radiotelephone operator ensured that the platoon, or company's command post had communications with operations, higher and subordinate leaders, adjacent units, and fire support.

Parts of a performance measure

d. A performance measure has two parts:

- (1) An action identifies what the unit does.
- (2) The performance criteria establish how well the step covered is performed.

e. Task performance measures are written as shown in figure 4-7.

Writing guidelines

f. As with writing any education/training material, there is a degree of art and science to writing quality task performance measures. The following are some guidelines and tips:

(1) Start each measure with a past tense verb—the action is performed before it is observed.

Performance measure format

<b>PERFORMANCE MEASURES</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1. All Soldiers in the unit donned their MOPP4 gear in the prescribed time.	—	—
2. Platoon leaders checked all subordinate Soldiers to ensure their life vests were worn correctly and properly adjusted.	—	—
3. The Company Commander approved the company's METL.	—	—

Figure 4-7. Performance measure format

(2) Write each measure:

(a) In language appropriate for the performers and clear enough that both performers and evaluators agree on the requirements.

(b) So they are understandable without the reference. (They may cite a reference, when it is needed to perform the action.)

(c) To only include information critical to the performance of the action.

(3) Provide measurement criteria that all successful task performers must meet each time they perform the task to standard. Use table 4-2 to help establish the criteria.

Usability of performance measure

g. Ensure usability of the performance measures and that performance measures are:

(1) Relevant—Contain information important for task completion. **Note:** Do not include information that is not critical to the performance of the action.

(2) Clear—Are easy to read, written in the language of the performer, and allow all readers to have the same understanding of the requirement. **Note:** Words like "correctly" or "properly" are not sufficient to satisfy the clarity requirement.

**Table 4-2**  
**Criteria writing aid**

If criteria is in the form of ...	Then:
Completeness	Establish either how thoroughly the action is performed or what the product produced must contain.
Accuracy	Identify the ratio between the correct, incorrect, and total response that must be met. 100% accuracy is appropriate only in life-threatening situations.
Speed	Identify how fast the action of the performance measure must be performed.
Duration	Establish the length of time the performer has to complete the action.
Sequence	<p>Identify the performance sequence if there is a required sequence.</p> <p>(a) Sequence may apply to multiple performance steps or be internal to one performance measure.</p> <p>(b) If the order of performance does not affect the soldier's ability to meet the task standard, insert a note indicating that the performance steps can be performed in any order.</p> <p>(c) When the order of performance is critical, then performance of the steps in the correct sequence is one of the performance measures.</p>
Format	Identify the required form for the type of product being produced. Provide the format specifications.
Number of errors	Establish the upper limit of errors that the task performer can have when performing the action.
Quantity	Identify the number of products that must be produced per specified time unit.
Tolerance	Identify the acceptable amount of deviation or margin of error from a standard.
<b>Note:</b> This criteria list is not inclusive.	

(3) Adequate—Provide sufficient information for the—

- (a) Performer to perform the action.
- (b) Trainer to train the action.
- (c) Evaluator to assess the action.

(4) Consistent.

(a) Present criteria that all successful task performers meet each time they perform the task.

(b) Ensure it is clear enough that both performers and evaluators agree on the requirements.

(c) Include a note indicating that the user makes a choice if there is a performance measure where the performer must choose the correct alternative for the situation.

Examples

h. Use the examples in figure 4-8 as guides in writing your performance measures. Discussion points are provided for each example to stimulate your thinking.

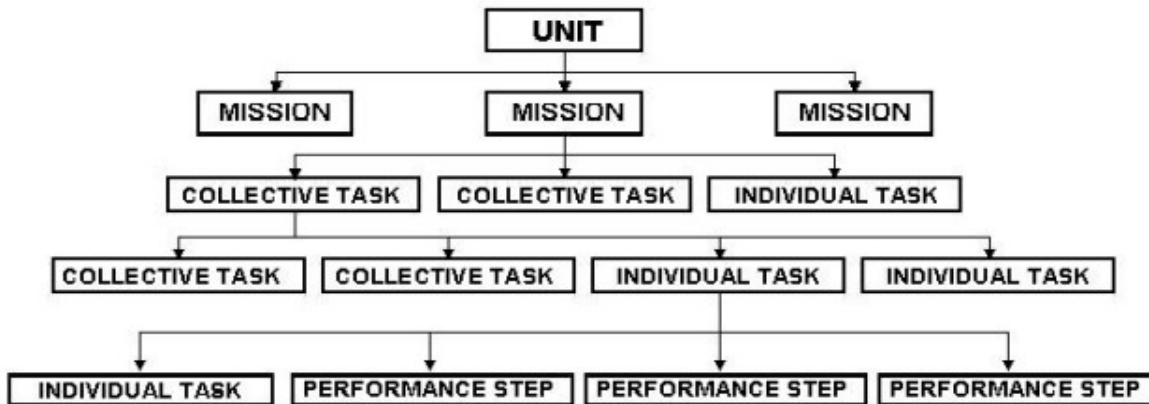
<p><b>Example 1.</b> The element leader plans and prepares the bridge construction.</p> <p><b>Discussion:</b> The element leader:</p> <ul style="list-style-type: none"><li>(a) Ensured that all required equipment was available.</li><li>(b) Assigned platoon tasks.</li><li>(c) Assigned the bridge centerline to one platoon and the truss assembly to another platoon on each side of the bridge.</li></ul>
<p><b>Example 2.</b> The squad leader plans the minesweeping operation.</p> <p><b>Discussion:</b> Gathered intelligence from the platoon leader and the intelligence officer (U.S. Army S2) concerning the route (any history of mining, booby traps, or disruption of communications).</p>
<p><b>Example 3.</b> The unit marks the obstacle boundaries.</p> <p><b>Discussion:</b> Conventional minefields: The unit leader ensured that the perimeter fence was at least 15 meters outside the nearest mine/cluster.</p>

Figure 4-8. Examples to assist in writing performance measures

**4-13. Cue, condition, and standard for each collective task performance step.** The analyst may be required to update the collective task analysis for any task or task performance steps trained using an Interactive Multimedia Instruction (IMI)/computer-based instruction (CBI) program or a simulation. Provide a performance step condition, with cue, and a standard for each performance step included, to obtain the details required for accomplishing this design. Follow the guidance provided for writing a condition statement and standard for a task.

**4-14. Identify supporting and supported tasks.**

Description a. There is a hierarchical relationship between missions and tasks. The training analysis establishes this relationship by identifying the supporting/supported relationships. This task hierarchy is critical for determining the structure and sequencing of the education/training that supports the identified critical tasks (see fig 4-9). This figure shows the supported/supporting relationship between missions, collective, and individual tasks.



**Figure 4-9. Hierarchy between missions and tasks**

Supporting individual task(s)

b. By definition, a supporting individual task is a critical task performed in order that the supported collective task can be performed. These are the tasks completed prior to, or as part of, the performance of the task being analyzed (see table 4-3 for examples). An individual from a unit other than the unit that performs the collective task being analyzed may perform the supporting individual task. These supporting individual tasks include tasks leaders perform. There may be more than one supporting task.

**Table 4-3  
Supporting individual tasks**

Supported Collective Task		Supporting Individual Task
1.	Construct/repair a bridge abutment.	Direct the assembly of a Bailey Bridge.
2.	Conduct engineer intelligence collection.	Direct the reduction of complex obstacles.

Supported collective task(s)

c. By definition, a supported collective task is a critical task that cannot be performed to standard unless the collective critical task being analyzed is performed first, or as part of the collective task performance. The collective task being analyzed is completed prior to, or as part of, the performance of the collective task for designation of that collective task as a supported task.

(1) There may be more than one supported collective task.

(2) Identify all the collective tasks that the collective critical task you are analyzing supports.

**4-15. Prepare/update the individual-to-collective task matrix.**

Description

a. The individual-to-collective task matrix is a table that shows all of the individual tasks that support a specific collective task. Individuals in the unit must perform these individual tasks in order to perform the identified supported collective task to the prescribed standard. This matrix is initially constructed when conducting the collective task analysis.

Matrix function

b. The members of the unit must perform the individual tasks that support the performance of that collective task, in order to perform the collective task to standard. It is therefore necessary to identify the collective task(s) the individual task being analyzed supports, and prepare or update the individual-to-collective task matrix.

**Note:** If the TD database is used to capture individual task performance specifications, and the collective tasks are already entered into the TD database, then identify and select the collective tasks it supports.

**4-16. Obtain collective task analysis approval.**

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- Description      a. Obtain approval from appropriate command authority for new and revised task analysis. The collective task analysis does not require the approval of the commander/commandant, but does require the approval of the individual or organization leader the commander/commandant delegated with this approval authority.
- Command approval      b. The command approval signifies that the task analysis data and information is correct, comprehensive, and available for distribution to all users. Do not release task analysis data that the appropriate command authority did not approve.
- Final review      c. Once the collective task analysis is completed by the first SME, have another SME review it to ensure content accuracy and completeness. Additionally—
- (1) The SME is responsible for ensuring that the content of the analysis is consistent with current doctrine.
- (2) The training developer is responsible for ensuring the task analysis is complete and in compliance with TRADOC policy and guidance. The training developer should review the task analysis prior to obtaining final approval.
- Change approvals      d. When conducting a collective critical task analysis, the analyst occasionally determines that either the identified task is not a task or it is really two critical tasks. When this occurs, the analyst:
- (1) Submits to the approving authority any changes to the mission or critical task list identified while conducting a task analysis.
- (2) Implements changes after receiving approval (see [chap 3](#)).
- 4-17. Distribute approved collective task analysis.** Make the completed and approved collective task analysis data and information available to the appropriate users and organizations, for use in designing and developing training and training products. See [paragraph 1-8](#), above, for additional information on available automation support.
- 4-18. Update collective task analysis.**
- a. Current, complete, and comprehensive collective task analysis is critical for designing education and training. It is the responsibility of the education/training TD (task) proponent to keep their collective task analysis data current. Changes in materiel, organization, and doctrine may initiate revisions of the analysis.

Review period                    b. No mandatory period of time is designated for the review and update of a collective task analysis, as this procedure proved inefficient, and a waste of time. Update task analysis when there is a change in how that task is performed. Reviewing and artificially updating a task analysis because of a dictated time fails to provide the proponent with the flexibility needed to plan and organize the TD workload.

Revision steps                    c. The critical task analysis revision/update workload depends totally upon the degree of change in how the task is performed. A major change would include a complete revision of the task performance specifications. A minor change may only affect one step and one performance measure, or just add a safety note or caution to the task performance specification.

**4-19. Collective task analysis report.**

Description                    a. The task analysis report is a means for displaying the collective task performance specifications.

Collective task analysis report template                    b. Figure 4-10 provides the report format. The Army education/ TD database produces this report where all of the required data is input.

**4-20. Collective task analysis QC.**

a. To maintain the quality of the collective task analysis products, it is essential to continuously apply QC procedures. All individuals involved in the conduct of the collective task analysis are responsible for and must exercise QC over the process and products produced.

Collective task analysis QC checklist                    b. Use collective task analysis Job Aid [350-70-6-3](#), which itemizes critical points in the application of the collective task analysis process.



**COLLECTIVE TASK ANALYSIS REPORT**  
(Effective date)

**TASK NUMBER:**  
**TASK TITLE:**  
**CONDITION:**  
**SPECIAL CONDITIONS:**  
**STANDARD:**  
**REFERENCES:**  
**PERFORMANCE STEPS:**

1.

a.  
b – n.

**References:**  
 Title:  
 Date:  
 Paragraph/pages:  
**Supporting Individual Tasks:**  
 (Number, Title)  
**Safety Factors/Hazards:**  
**Environmental Considerations:**

2-n. (Same format as above)

PEFRORMANCE MEASURES	GO	NO GO
1.	—	—
2.	—	—
a.	—	—
b.	—	—
3-n.	—	—

**TASKS SUPPORTED –**  
 Collective tasks: (list number(s), title(s))  
 Joint tasks: (list number(s), title(s))

**COLLECTIVE TASK DERIVED FROM:** (list document source number(s), title(s))

**TASK(S) SUPERSEDED:** (list number(s), title(s))

**ADMINISTRATIVE INFORMATION:**

POCs:	Name	Address	Phone No.	E-mail
Analyst:				
SME reviewer(s):				
TD reviewer:				
Approved by:				
Date:				

**Figure 4-10. The collective task analysis report**

## Chapter 5 Job Analysis

### 5-1. Job analysis introduction.

a. Job analysis is the process used to identify all the individual critical tasks (including leader tasks) jobholders perform to accomplish their missions and duties and survive. A job analysis is conducted on all new and existing jobs in Army TOE and TDA positions. This chapter provides how-to guidance on performing job analysis, to include:

- (1) Identifying a job or a duty position.
- (2) Developing the target audience description.
- (3) Conducting job familiarization.
- (4) Preparing a total task inventory.
- (5) Collecting task performance data.
- (6) Selecting critical individual tasks.

b. When performing job analysis, remember that task proponents should develop follow-on education/training for critical tasks only, not for noncritical tasks, to ensure accomplishment of wartime missions, METL, and the full range of military operations.

**5-2. Job analysis administrative information.** Additional information on job analysis is available in TRADOC Reg 350-70, [chapter VI-1](#). An understanding of the following terms is necessary for this chapter: job or duty position, individual task, shared task, common skill level task, common soldier task, critical individual task, SME, critical task list, and collective-to-individual task matrix.

### 5-3. Job analysis team roles and responsibilities.

Job analysis  
team

a. The job analysis team, as a whole, is responsible for the identification of valid individual critical tasks for a specific job or to identify a group of critical tasks, such as for an entire MOS/AOC. To accomplish this, each team member:

- (1) Diligently works at the analysis.

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(2) Coordinates actions and activities, internal and external to the job analysis team, so work is efficiently accomplished.

(3) Communicates findings, suggestions, and recommendations with other team members.

TD manager      b. The TD manager has the overall management responsibility for ensuring that a thorough, efficient, and effective job analysis is conducted and that valid critical tasks are identified.

(1) Set up the analysis team.

(2) Dedicate the team to the job analysis process.

(3) Prepare/update the job analysis project management plan.

(4) Ensure the team accomplishes their work efficiently and effectively, and produces quality results.

(5) Keep command informed on job analysis status.

(6) Support the conduct of the Critical Task and Site Selection Board (CTSSB).

(7) Provide assurance to the command that the analysis outputs are valid.

Training developer      c. The training developer, the job analysis SME, provides the job analysis guidance to the SMEs. The training developer:

(1) Prepares all documentation required to conduct the job analysis.

(2) Trains the SMEs in writing tasks.

(3) Establishes the critical task selection criteria.

(4) Presents a briefing concerning the job analysis project.

(5) Constructs, administers, and analyzes job analysis surveys.

(6) Sets up the CTSSB.

(7) Obtains command approval of the critical tasks.

(8) Ensures the quality of the application of the job analysis process and the products produced.

SME

d. The SME plays three major roles in the conduct of a job analysis. Different individuals normally fulfill these roles, but in a few rare instances, the same individuals may do all three. The SMEs:

(1) Identify all tasks that are performed to accomplish the job/duty position.

(2) Provide input to the job analysis survey.

(3) Serve as a voting member or chairman of the CTSSB, provided the SME comes from a unit performing the tasks being reviewed.

(4) Ensure the quality of the technical (subject matter) content of the job analysis products.

Commander

e. The proponent commander is the approving authority for, and signs, the document identifying the critical tasks for the job/jobs being analyzed. The critical tasks cannot be changed without an updated approval document.

Evaluator

f. The evaluator serves as an independent observer, providing quality assurance/QC of the process and work. The evaluator:

(1) Determines if the job analysis was properly conducted and makes comments/recommendations, as appropriate, to the team and the commander.

(2) Ensures the surveyed target audience included appropriate representation from the AC, RC, and NG components.

(3) Ensures the CTSSB included appropriate representation from the AC, RC and NG components.

(4) Serves as a nonvoting member of the CTSSB.

#### **5-4. The job analysis process.**

Introduction

a. To ensure that the Army is providing the right education/training to the soldiers, conduct a new or update an existing job analysis before the development of individual education/training products.

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(1) Perform a new job analysis if there are major changes in the job structure or content of the tasks performed as part of the job, indicated by:

- (a) New/updated mission and collective task analysis data.
- (b) New/updated contractor-produced analysis data/information.
- (c) A new job initiated by reorganization or consolidation.
- (d) Evaluation feedback.
- (e) Any other sources of data.

(2) Review and update job analysis when needs analysis identifies a change in the tasks performed in a job resulting from:

- (a) Unit feedback.
- (b) New doctrine.
- (c) New/improved systems/equipment.
- (d) Lessons learned data from the CALL.
- (e) Evaluation feedback.

### Process

b. The job analysis team should follow the process listed below when conducting their work. The level of detail will vary, depending whether a new job analysis is conducted or an existing critical task list is updated.

- (1) Identify/select the job to analyze.
- (2) Develop/update the target audience description.
- (3) Compile the total task inventory.
- (4) Collect task performance data.
- (5) Nominate critical individual tasks.
- (6) Identify critical individual shared tasks.

- (7) Obtain critical individual task approval.
- (8) Distribute the approved critical task list.
- (9) Update task list based on individual task findings.

Process flow

c. Figure 5-1 presents a pictorial view of the job analysis process.

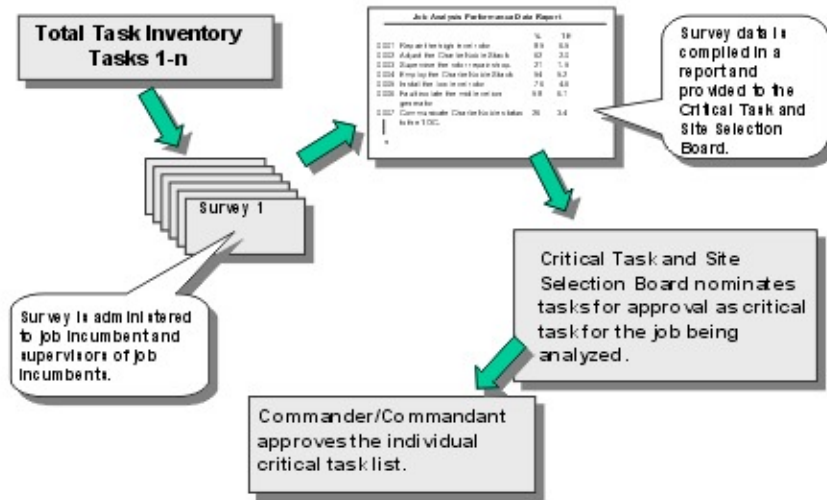


Figure 5-1. Job analysis process

Job definition

d. Before selecting a job to analyze, know what a job is. The glossary of TRADOC Reg 350-70 defines a job as: “Job (or duty position): A collection of unique, specific, related set of activities (tasks) performed by a unique, defined set of personnel. For TD and training purposes, it is an MOS by skill level; branch code and AOC by rank; warrant officer Military Occupational Specialty (MOS) by skill level; Additional Skill Identifier (ASI); Skill Qualification Identifier (SQI); Skill Identifier (SI); Language Identifier Code; or other special category. Special categories include, but are not limited to, common tasks (for a specific skill level), additional duty assignments, and civilian jobs the Army is required to train.”

(1) Note the words “duty position.” There are jobs in the Army that do not necessarily have a specific identification code. Examples of these jobs are the training noncommissioned officer (NCO), unit movement officer, or unit movement coordinator. Job analysis forms the foundation for this training as well. The terms "job" and "duty position" are used interchangeably.

(2) Defining a job this way provides a relatively standardized workload for conducting a job analysis.

Target audience description

e. Once an approved requirement to conduct a job analysis is received, develop/update the target audience description. The target audience is the group of people made up of the job incumbents.

(1) The target audience description describes the jobholders—the individuals that perform all the tasks associated with the specific job you are analyzing. It identifies the number, and qualifications, of the personnel that operate, maintain, and support a system or equipment. It describes the range of individual qualification, and all relevant physical, mental, physiological, biographical, and motivational dimensions.

(2) In the target audience description, be as comprehensive as possible. Ensure that information is included that describes jobholders from across the ability spectrum. This information will later assist in the collection of data when compiling the total task inventory, as well as assist in the education/training design process.

(3) Among the information included in the description, the analyst identifies:

(a) Skill and knowledge level. As skill is the ability to perform a job related activity—which contributes to the effective performance of a task performance step—knowledge is information or facts required to perform skills, or supported tasks. The level of skills and knowledge directly impact whether a jobholder can successfully perform the specified work.

(b) Reading grade level. This is the establishment of the average reading grade level for the job incumbents. **Note:** The average daily newspaper is written on the ninth grade reading level. In an analysis of the target audience, although the predominant number of jobholders will be a high school graduate, at a minimum, the ideal reading level remains at ninth grade for soldiers.

(c) Previous training received. This is the determination of what previous education/training the average job incumbent received. An understanding of previous and/or prerequisite training received provides further insight into a jobholder's level of understanding, and expertise needed to perform the mission.

(d) Math skill level. This is the establishment of the minimal math skill a job incumbent must possess in order to successfully perform the job. Some occupations require more quantitative (numeric-based) knowledge and skill than others, hence the need for an indication of a math skill level description. Having knowledge of what the average job incumbent possesses at the next lowest skill level is valuable for designing follow-on education/training.

(e) Armed Services Vocational Aptitude Battery scores required for the job.

(f) Civilian education level.

(g) Time in grade/service.

(h) Time in duty position.

**Note:** See the [AR 611 Series](#) for additional target audience information.

Job research

f. Learn as much as possible about the job/duty position in order to determine the tasks required for job performance. This first step researches all available resources to determine the tasks of a job. It includes locating and studying literature, viewing equipment, and interviewing knowledgeable people. After this preliminary information gathering, the analyst should be ready to commence compiling the total task inventory.

(1) When studying required literature, identify, collect, and study all available information to successfully analyze a job/duty position. A sample listing of research sources follows:

(a) [AR 611-1](#) and [DA Pam 611-21](#) (enlisted).

(b) TOE, TDA, and MTOE information.

(c) [DA Pam 351-4](#).

(d) Proponent school information.

(e) Adjutant General's Office material.

(f) Post Education Center sources.

(g) CALL.



**Note:** Verify the currency of references by checking them against the list of electronic DA-level publications at [www.apd.army.mil](http://www.apd.army.mil).

(2) Locate task data in the local ASAT database, and references in the Reimer Digital Library found on the Army's new online training system and library at <http://www.train.army.mil>. Access requires an Army Knowledge Online (AKO) password.

(3) When reviewing equipment, analyze equipment the job incumbent used, maintained, or repaired. The analyst (TD/SME):

(a) Identifies the equipment used, operated, maintained, or repaired.

(b) Reviews System Manpower and Personnel Integration (MANPRINT) Management Plan (SMMP).

(c) Locate the equipment.

(d) View the equipment.

(e) Study the use, operation, maintenance, or repair of the equipment.

(f) Provide task analysis expertise to emerging systems, in support of instructor and key personnel training for new equipment training.

#### **5-5. Create the total task inventory.**

Compile the total task inventory

a. After conducting the job familiarization and identifying tasks from SME interviews, the analyst is ready to compile the actual inventory. The total task inventory is a comprehensive listing of all individual tasks a job incumbent may have to perform. No decision is made concerning whether or not the task is critical; just list all tasks that the incumbent may perform on the job or while serving in the duty position that the job analysis covers.

(1) Only list the task titles written to the task standard per TRADOC Reg 350-70, paragraph [VI-1-4](#). See table 5-1 for examples of task titles.

(2) Extract the tasks from the references, for example, mission analysis data, collective task analysis data, FMs, and TMs. Include the tasks the SMEs identified.

**Table 5-1**  
**Examples of task titles**

Example	Action verb	Object	Qualifier
1	Plan	Collection of Combat Intelligence	To Support Company Level Tactical Operations
2	Triage	Casualties	
3	Perform	Preventive Maintenance Checks and Services	On Force XXI Battle Command Brigade and Below, Version 3.4

(3) Source of references:

(a) Army Publishing Directorate, to verify currency of electronic DA-level publications (<http://www.apd.army.mil>).

(b) The Reimer Digital Library (<http://www.train.army.mil>). (Access requires AKO password.)

(c) Electronic TMs:

- U.S. Army Materiel Command Logistics Support Activity (<http://www.logsa.army.mil>).
- U.S. Army Corps of Engineers (<http://www.usace.army.mil/usace.docs>).
- The Surgeon General/Medical Command (<http://www.armymedicine.army.mil>).

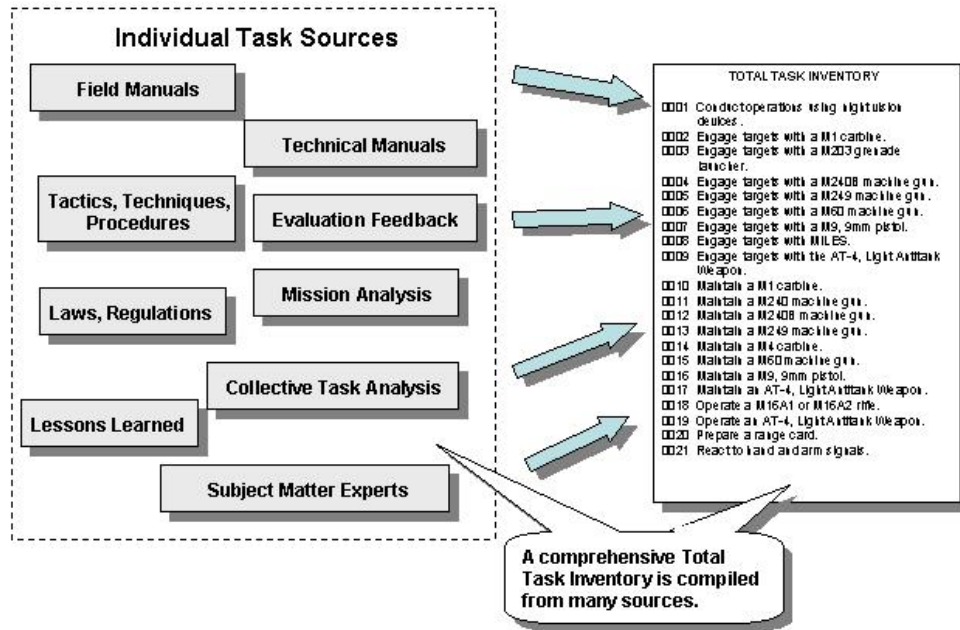
(4) Figure 5-2 depicts the process of compiling a total task inventory.

Task item number

b. As the tasks are compiled, the analyst should assign a unique, temporary task identification number (not a critical task number) to each item listed. These numbers identify each task item on the survey and provide the capability to track and associate collected task performance data.

(1) These numbers are a 4-digit number. They are assigned to a specific task that remains with that task until the total task inventory is completely revised. This revision should be a relatively rare occurrence, as this list should be kept current by adding tasks as they are identified. This number provides a means of tracking tasks.

(2) A reason that may not be apparent for use of item numbers is the subliminal effect of using a critical task number on the survey and on the individuals building the total task inventory.



**Figure 5-2. Building a total task inventory**

(a) If an individual sees a task item with a critical task number listed, the viewer assumes it is critical and marks the survey accordingly, thus giving undetectable, invalid input.

(b) With nondescript numbers assigned, the survey taker does not readily make the assumption and the survey data collected has increased validity.

**Interviewing SMEs**

c. When interviewing knowledgeable people, the analyst conducts a detailed review of all available information prior to performing the interview, in an effort to frame questions. The interviews may be performed via electronic media (VTC or internet), telephonically, or in person, if resources allow. The analyst should include these possible sources of information and obtain job performance data from the following individuals that are currently, or have recently, served in the job or duty being analyzed:

- (1) Active and RC soldiers.
- (2) Civilians job incumbents.
- (3) Job incumbent supervisors.

**SME input**

d. Subject matter experts are crucial to the compilation of the total task inventory. A SME is an individual that has a thorough knowledge of a job—both the duties of the job and the tasks that make them up. This

knowledge makes the SME a vital participant in the analysis process as it relates to consultation, review, and providing an extensive understanding of all primary and associated functions of that job.

(1) A SME can be further categorized as an apprentice, journeyman, or master, depending on the level of knowledge and expertise possessed.

(2) Select SMEs with the highest level of expertise. If master-level SMEs are not used, take this fact into consideration when making task selection decisions.

**5-6. Conduct a job analysis survey.**

Build the survey

a. Selecting critical tasks is a judgmental process which requires using criteria as a guide. Individual tasks are considered critical when the individual must perform them to accomplish their mission and duties and survive in the full range of Army operations. Critical tasks are trained.

b. Conducting a survey and collecting task performance data from actual task performers provides an objective means for determining the critical tasks individuals perform in jobs and duty positions across the Army. The first step in conducting this survey is to establish the criteria used to help make this vital decision. The criteria used essentially dictates what data is collected and which task selection models are used.

Select the model

c. Models are used to apply statistically valid task selection data to identify critical individual tasks. Although there are a variety of models available for use (including the Eight- and Four-Factor Models, and the Probability of Task Criticality Model), this pamphlet will primarily present the Training Emphasis (TE) Model.

(1) The TE Model is the most efficient and effective means for collecting valid statistical data to help in identifying critical individual tasks. It is an individual critical task selection model that uses the training emphasis factor to determine whether or not a task is critical. The TE factor is collected from supervisors and/or jobholders. It reflects the job incumbent's and their supervisor's judgment concerning how much emphasis to give the task in training. The TE is the most useful single training factor for critical task selection.

(2) The percent-performing factor is also valuable. Use it to determine the:

(a) Percent actually performing a task for a specific job.

(b) Skill/organization level to assign to a specific task when conducting a multiple skill level job analysis, such as when simultaneously conducting a job analysis for an entire MOS/AOC. *Normally a task is assigned to the lowest skill level performing the task, but be careful when making this decision. There is a natural inclination for tasks to creep down to lower skill levels. There may well be a small percentage of soldiers in a lower skill level performing a task when it should be assigned to the next higher skill level.*

d. Prepare/update the project management plan (see TRADOC Reg 350-70, [chap II-2](#)). In addition to the normal plan requirements, include a data collection plan to collect task performance data. The plan identifies:

(1) Those responsible for:

(a) Constructing the survey.

(b) Conducting the survey (that is, ARI, proponent, or contractor).

(c) Taking the survey.

(d) Analyzing the survey results.

(2) Method of conducting the survey, to include—

(a) How the surveys are distributed.

(b) How the surveys are returned.

(c) How the returned data is consolidated.

(3) Optimum survey site(s).

(a) An optimum site is one where the most representative data of what the jobholder's job/duty position entails is gathered.

(b) Sites selected should represent a cross-section of the specified jobholders in AC, RC, and NG units, to help ensure accurate representation and analysis.

(c) Multiple sites provide a better cross-section of information, leading to increased data validity.

**Note:** Training Development and Delivery Directorate (TDADD) and ARI, in coordination, built a personal computer-based computer-assisted survey tool to help compile and conduct automated job analysis surveys, using 3.5-inch disks, E-mail, Internet, or local area network (LAN). This survey tool is available through the local Director of Training Development. This AUTOGEN software is designed to give each TRADOC school their own capability to develop surveys and collect and analyze data. It currently consists of job analysis and external survey modules. The AUTOGEN can capture job analysis data (training emphasis and percent performing data) from active and RC soldiers and their supervisors and makes it easier to collect data directly from field units.

Select the type of survey to conduct

e. Use the following descriptions of the different surveys to help in determining which type to conduct:

(1) Army Research Institute AUTOGEN Program. A job analysis survey built using the ARI AUTOGEN survey. See [Job Aid 350-70-6.4a](#).

(2) Field survey. This is a school- or agency-prepared survey (not an occupational survey under AR 611-3) conducted to collect task performance data to identify critical tasks. Field surveys assist in validating task lists and/or obtaining additional data for job and task analysis. (When the survey is intercommand, ARI approves it and assigns a Survey Control Number. The “360 degree” survey is an example of this type survey).

(3) Local survey. This is a school- or agency-prepared and conducted job analysis survey that is not an intercommand survey. Recommend use of the AUTOGEN analysis module to build and conduct this survey.

Construct the survey

f. Constructing a survey is a critical part of the process. The purpose of a job analysis survey is to collect statistically valid data on tasks a job performer performs. This information helps determine whether a task is critical to the job. The job analysis survey is a relatively simple survey. It requires the respondent to only answer questions directly related to performance of the tasks listed in the total task inventory for the job being surveyed. Any other questions distract from the purpose of the job analysis survey. [TRADOC Pam 350-70-4, chapter 4](#), provides details of constructing surveys in general. The following guidance specifically applies to conducting a job analysis survey.

(1) Prepare survey administration instructions. These instructions are crucial to the respondents knowing what they are to do.

(a) Ensure that the directions are to the point, clear, and easy to understand, since a person is not there to clarify any information.

(b) Include POC information in case there are questions.

(c) Include confidentiality/anonymous information.

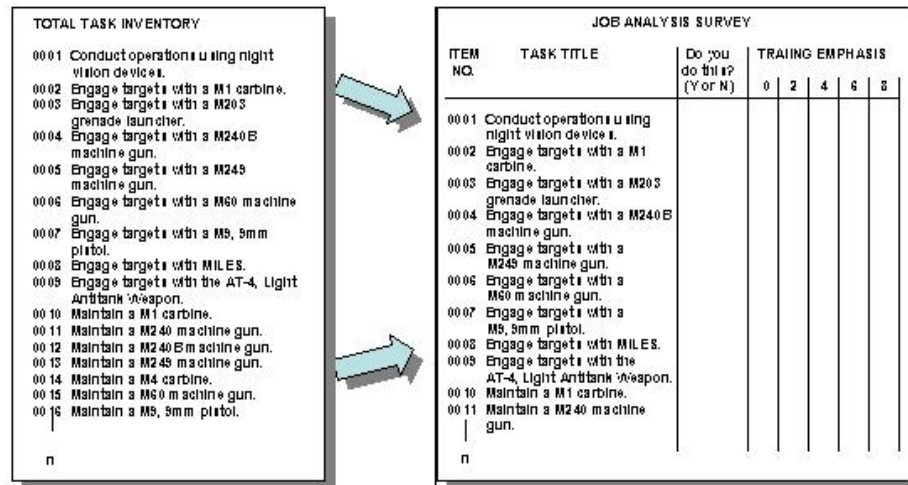
(2) Figure 5-3 shows how to incorporate the total task inventory into a prepared job analysis survey template (included in AUTOGEN analysis module). A well-constructed total task inventory should only require a simple copy and paste activity. Ensure the template includes the required task performance factors. If not, modify the template and save it for future use.

(3) Forms design.

(a) If conducting SME interviews, review TRADOC Pam 350-70-4, chapter 4.

(b) If conducting observation of job performance survey, design the observation forms.

**Build the Job Analysis Survey**



Ensure the template includes the required task performance factors. If not, modify the template and save it for future use.

**Figure 5-3. Filling the job analysis survey template**

Determine how to administer the survey

g. Decide how the job analysis survey is administered if a field or local survey is conducted. Table 5-2 lists the different techniques for administering a survey. In many cases, a budget will dictate how the survey is conducted. The analyst obtains valid statistical data.

**Table 5-2**  
**Survey advantages/disadvantages**

<b>This survey... Has these</b>	<b>advantages:</b>	<b>and these disadvantages:</b>
Electronic web-based surveys (preferred method): <ul style="list-style-type: none"> <li>• Target audience size can be large.</li> <li>• More cost effective than other types.</li> </ul>	<ul style="list-style-type: none"> <li>• Returns can be nearly instantaneous.</li> <li>• Can link automatically to data collection and analysis software.</li> <li>• Data can be continuously collected for current data.</li> <li>• Soldiers can complete surveys at digital facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• Some soldiers do not have access to digital facilities.</li> <li>• Respondent must have access to a networked computer.</li> <li>• Respondent's knowledge of computer use.</li> </ul>
Mail survey: <ul style="list-style-type: none"> <li>• Target audience size can be large.</li> <li>• More cost effective than other types, except the web-based survey.</li> </ul>	<ul style="list-style-type: none"> <li>• All surveys are not returned.</li> <li>• Returned surveys are incomplete, or filled out improperly.</li> </ul>	<ul style="list-style-type: none"> <li>• Mail time of surveys.</li> <li>• Lack of individual contact.</li> </ul>
On-site (temporary duty (TDY)): <ul style="list-style-type: none"> <li>• Direct contact with individuals taking survey.</li> <li>• Answer questions about the survey.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure survey is filled out completely and accurately.</li> <li>• TDY cost.</li> </ul>	<ul style="list-style-type: none"> <li>• Travel time of individual conducting the survey.</li> <li>• Time consuming to monitor the survey.</li> </ul>
Observation of job performance: <ul style="list-style-type: none"> <li>• Direct observation of job performance.</li> <li>• More reliable than other types of surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyst is able to probe performer about decisionmaking process immediately.</li> <li>• May be difficult to schedule.</li> </ul>	<ul style="list-style-type: none"> <li>• Time consuming to observe performance.</li> <li>• Data collection becomes more important than observance of the job performance.</li> </ul>
SME interview: <ul style="list-style-type: none"> <li>• Direct observation of job performance.</li> <li>• More reliable than other types of surveys.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyst is able to probe performer about decisionmaking process immediately.</li> <li>• Not as reliable as observation of job performance.</li> </ul>	<ul style="list-style-type: none"> <li>• May receive biased information.</li> <li>• Time consuming.</li> </ul>



**Note:** Surveys and interviews can be administered to jobholders and job SMEs in attendance at the proponent school, if TDY is not possible. There are major problems in acquiring valid data associated with this approach that must be recognized and accounted for to the maximum degree possible.

Administer the survey

h. Administering a survey involves distributing the survey (mailing, E-mail, or web site), conducting interviews, collecting the completed surveys, and managing the process. It is critical that surveys are consistently administered to all takers.

**Note:** Collect data from job incumbents performing or that have recently performed the tasks, and their supervisors.

(1) Pack the correspondence, administrative instructions, and surveys.

(a) Make packaging user friendly, as well as protective, so that surveys are not subject to damage.

(b) Include return mail and prestamped envelopes if the respondent is to mail the completed form back.

(c) Include directions to web site if the survey is online, along with access directions.

(2) Mail the surveys. Depending on the mailing distance, allow up to 2 weeks for receipt of surveys, prior to any inquiries to the Postal Service. Surveys are perceived as "Official Government Business," so no out-of-pocket expense is involved.

(a) Obtain list of unit addresses for the target audience. Check local and online directories for current information.

(b) Obtain home addresses for individuals receiving their surveys at home.

**Note:** The number of returned surveys increases when an individual's unit is directly involved in the conduct of the survey.

(3) Coordinate all TDY trips with the unit through the appropriate major Army command (MACOM). Coordination of travel, lodging, classroom space, and calendars (for onsite commanders and training departments) is important in the development of an agenda prior to leaving for the survey site. Depending on time and resources, plan for 2-4 days onsite.

(a) Provide an in-brief to the onsite commanders. This sets the stage for how well you are received at the survey site. Provide an overview of the purpose, how the survey will be conducted, and what the outcome of the data collection involves. Their full support and coordination is required.

(b) Provide the onsite commanders an out-brief. Thank them for participating and ensure them of forthcoming follow-up materials. Remember, you want to return; and you want them to know that they have contributed to Army education/training.

(4) Administer the job analysis survey. Allocate time for presenting directions, giving explanations, and answering questions.

(a) Incorporate as much information in the guidance document as possible, but keep it short and to the point.

(b) It is feasible to brief a group of identified respondents, then let the individuals complete their own survey forms.

(c) Consider asking the group for suggested tasks. This is an opportunity to obtain first-hand data from individuals performing the tasks, as well as "getting their fingerprints" on the outcomes.

(d) Answer frequently asked questions during the briefing or in the guidance paper.

(5) Record/capture data collected.

(a) Retain the original or an electronic copy of every survey completed.

(b) Determine the number of returns and nonreturns.

(c) Respond to any and all questions the respondents ask.

(d) List all tasks that the respondents suggested should be added.

Compile the task survey data

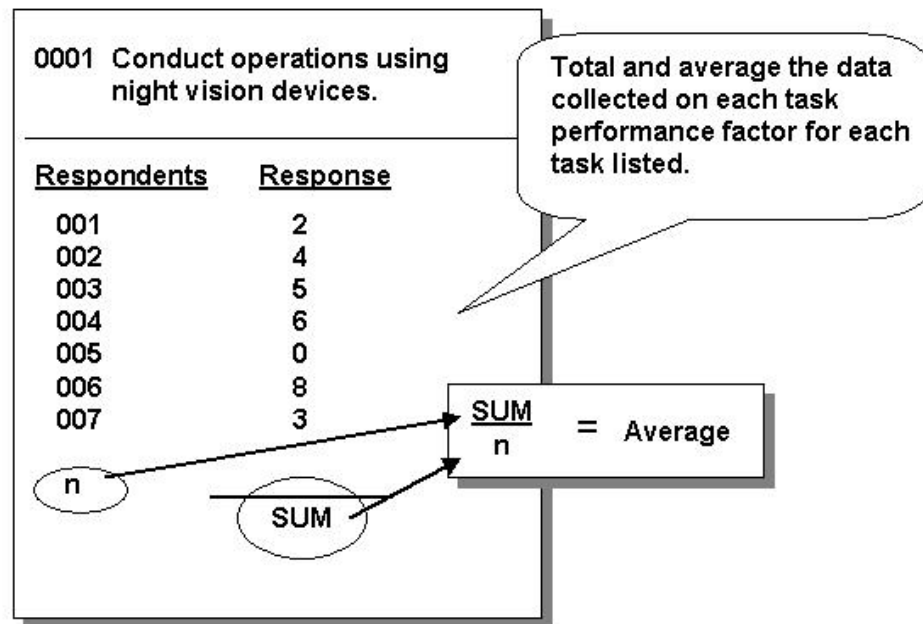
i. A critical step in the job analysis process is analyzing the job analysis survey data and preparing reports that management and especially members of the CTSSB can readily decipher. The analyst:

(1) Reviews all of the task survey data received.

- (a) Reviews external survey results.
- (b) Reviews local survey results.

(2) Compiles and consolidates task survey data obtained from the surveys. The AUTOGEN analysis module accomplishes some calculations and analysis. More extensive analysis requires moving the job analysis data into a Statistical Performance Support System and using it to perform statistical analysis.

- (a) Total and average the data collected on each task performance factor for each task listed (see fig 5-4).



**Figure 5-4. Compile task performance data**

- (b) Calculate the percent performing for each task (see fig 5-5 for an example).

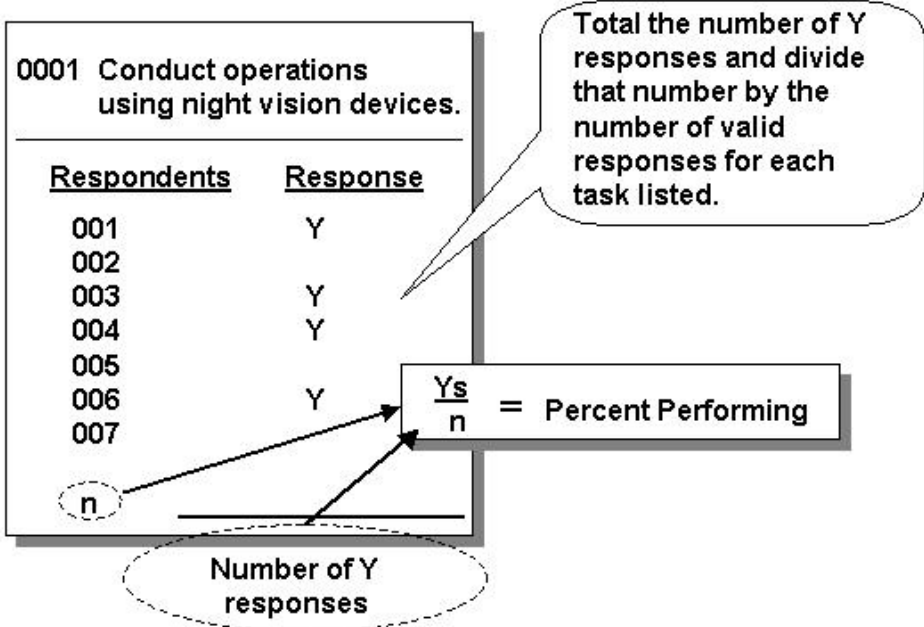


Figure 5-5. Calculate the percent performing

(c) Compile the percent performing for each skill level if conducting a multi-skill-level job analysis (see fig 5-6).

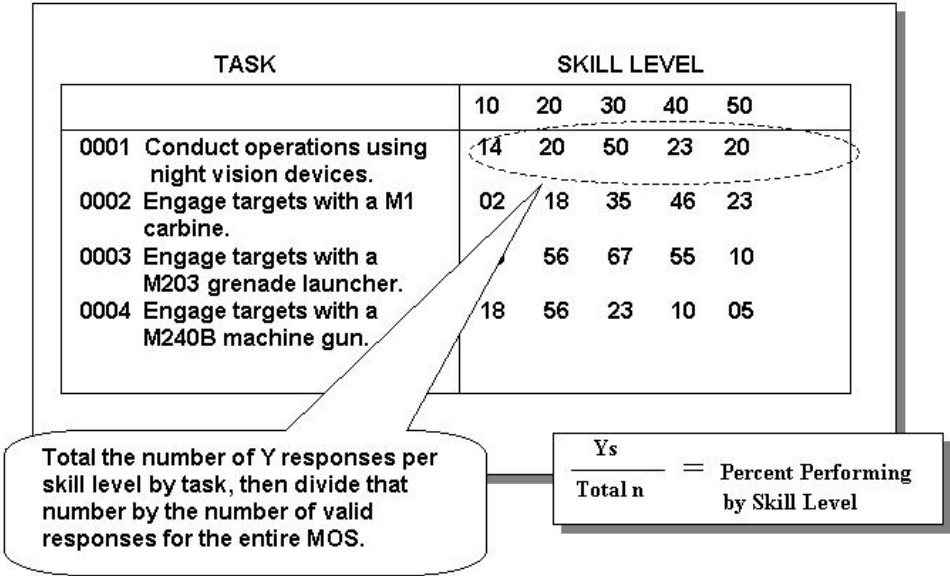


Figure 5-6. Compile the percent performing

**5-7. Selecting critical individual tasks.**

Prepare for the task selection board

a. The efficiency achieved in the conduct of the CTSSB directly relates to the effort and quality of the preparation. Advanced preparation and how the board proceedings are organized mean the difference between the board being short and efficient or time-consuming and work intensive. (The CTSSB is responsible for recommending individual tasks for approval as critical tasks.) The following steps provide an efficient way to conduct a CTSSB:

- (1) Prepare the survey results.
- (2) Select board members (see subparagraph b, below).
- (3) Prepare the board assignment letters.
- (4) Provide board SOP guidance.
- (5) Coordinate/acquire site.

Select board members

b. Critical Task and Site Selection Board membership:

- (1) Chairman (tiebreaker; that is, casts tie-breaking vote only).
  - (a) Convenes the individual CTSSB.
    - Ensures adequate AC and RC representation.
    - Selects board members (approximately 5-7 SMEs).
  - (b) Leads the discussions on critical task selection.
  - (c) Advises board on procedural matters.
  - (d) Is a SME.

(2) Training developers (nonvoting members). Advise board on educational, analysis, and procedural matters, to include explaining the—

- (a) Training development process, especially the job analysis.
- (b) Task and critical task definitions.
- (c) Task performance data.
- (d) Task selection model.

(3) Subject matter experts (voting members):

- (a) Recommend changes, that is, rewording, combining, additions, or deletions of tasks to the total task inventory.
- (b) Provide technical information and advice to the board.
- (c) Determine criticality of each task based on the task selection model.
- (d) Recommend (rate) each task as critical or noncritical.

**Note:** To serve on this board, SMEs should be one skill level higher than the job for which the tasks are being recommended.

(4) Evaluator (nonvoting member):

- (a) Ensures recommendation of tasks as critical/noncritical based on an appropriate task selection model.
- (b) Ensures task title meets the requirements in this chapter.

(5) Reserve Component representative(s) (voting member(s)):

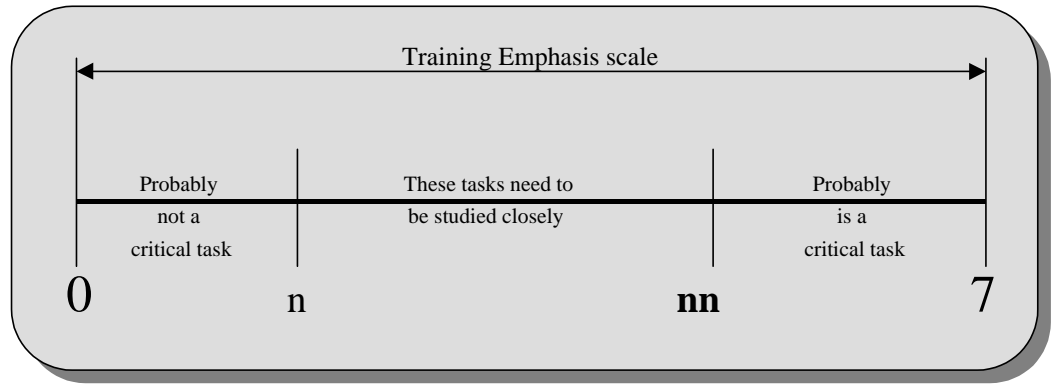
- (a) Ensures RC requirements are included in the decision.
- (b) Functions as a SME.

Prepare the survey results

c. Use the AUTOGEN analysis module to present the task survey data to the board members so they can quickly understand the data. This minimizes the amount of studying the members have to accomplish while the board is in actual attendance, saving hours of time.

(1) Prepare a total task inventory:

- (a) Annotate the inventory with the average task performance data for each task listed, and sort in ascending order, based on the training emphasis data. **Organize the survey results to provide clear, concise guidance and information, well in advance of the critical task selection board meeting. This will significantly reduce the time the board must actually meet.**
- (b) Divide the results into three major groupings to speed up the work of the critical task selection board (see fig 5-7).



**Figure 5-7. Training emphasis scale application**

(c) Table 5-3 shows a partial listing of the results of the 1999 U.S. Army Sergeants Major Academy (USASMA) common tasks survey. It is a straightforward way of presenting the information.

**Table 5-3  
Sample survey results**

Task Item:	Task Title	TE Total
50	Supervise Camouflaging of Fighting Positions	4.09
35	Review Unit Standing Operating Procedure (SOP)	4.09
167	Administer First Aid for Heat Injuries	4.09
570	Report Enemy Information	4.07
96	Report Unit Status	4.07
37	Supervise Unit Key Control Procedures	4.07
	<b>(items omitted)</b>	
859	Maintain a M4 Carbine	3.14
320	Install M18A1 Antipersonnel Mines	3.12
120	React to an Approaching Noncommissioned Officer (NCO)	3.12
	<b>(items omitted)</b>	
53	Bury Remains (After Receiving Authorization)	2.39
9	Distribute Mail in the Field	2.29
14	Formulate Input for a Unit Historical Report	1.89
	<b>(items omitted)</b>	
278	Conduct Equipment Replacement Operations	0.00
279	Conduct Personnel Replacement Operations	0.00
280	Conduct Service Station Resupply	0.00
281	Conduct Supply Operations	0.00

(d) Annotate with the source of the task.

(e) Annotate with the percent performing.

(2) Prepare a list of tasks the survey respondents suggested. The board must consider these tasks.

(3) Prepare documentation that explains how the data was collected and how validity was achieved. For example: "The 1999 USASMA common task survey collected data from over 19,000 AC, RC, and USNG soldiers."

(4) Prepare a crosswalk between supported collective and individual tasks. This may or may not be needed, depending on whether the board requires clarification.

Select board members

d. It is very important to make up the board with master performers of the tasks being considered, as their recommendations determine whether or not the tasks are critical.

(1) Select board members from across the AC, RC, and NG components in which job incumbents serve.

(2) Select board members that are one rank/pay grade higher than the job incumbents.

(3) Include MACOM representation on the CTSSB.

(4) Use instructors as a last resort. Use soldiers from operational units as the primary board member choice. *Experience shows that personnel from the field, who were once thought of as SME, are quickly immersed in instruction and want to teach the Task. This skews the task board results.*

Prepare the board assignment letters

e. Provide each board member a memorandum the proponent commandant or other appropriate officials signed. This memorandum emphasizes the importance of the board, and:

(1) Assigns individuals to the board and explains their duties.

(2) Provides guidance and identifies responsibilities for board members.

(3) Identifies all board members and their duties to other board members.

(4) Identifies time and location for the board meeting. **Note:** The board can be held via electronic means, such as a broadcast VTC or desktop VTC.



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(5) Provides the annotated total task inventory documents.

(6) Includes general instructions, such as:

(a) Uniform for the board, for example, Battle Dress Uniform or Class B.

(b) Times and dates the board will convene and adjourn. (The board will convene at \_\_\_ (time) on \_\_\_ (date). The board will adjourn NLT \_\_\_ (time) on \_\_\_ (date).)

(c) Location of meeting. (Meeting room is room (number)\_\_\_ in building \_\_\_(number, name), at \_\_\_(post, state).)

(d) Daily agenda (provided on the first day of the meeting).

Sample  
CTSSB  
memo

f. Figure 5-8 shows a sample CTSSB memorandum, with attachment to use as a template. (This is a modified version of the memorandum that was used to set up the CTSSB for the common soldier and common skill level 1 through skill level 4 conducted in 1999.)

Provide  
board SOP  
guidance

g. Any board functions more efficiently if a set of rules and procedures are established at the onset, and those rules and procedures are followed. Prepare a SOP document to include:

- (1) Board composition.
- (2) Preparation procedures.
- (3) Job analysis team actions.
- (4) Onsite board procedures.
- (5) Post board actions.

<b>Letterhead</b>	
<p>Subject: Individual Critical Task and Site Selection Board (CTSSB) for common Soldier and common skill level 1 through skill level 4.</p>	
<p>1. Congratulations on your selection as a voting member of the Individual CTSSB for common Soldier and common skill levels 1 through 4. This board must study provided task survey information and recommend to the Deputy Chief of Staff for Operations and Training those tasks that are critical to Soldier performance and successful performance of unit missions. This is a very important action, and what you and your fellow board members decide will affect the Army for many years. A listing of your fellow board members, and other personnel involved in this action, are identified in attachment 1.</p>	
<p>2. First, you need to study the definitions of terms and purpose of the board provided in attachment 2. Then, you need to comply with the procedure delineated therein.</p>	
<p>3. If you have any questions concerning this action, contact Mr. Stephen Smith, DSN xxx-xxxx; (xxx) xxx-xxxx, (individual's E-mail address).</p>	
<p>Encls</p> <ol style="list-style-type: none"> <li>1. Personnel involved</li> <li>2. Board organization and procedures</li> </ol>	<p>Signature block</p>

**Figure 5-8. Sample CTSSB memorandum with attachments**

Attachment 1

**PERSONNEL INVOLVED**

**DEVELOPMENT TEAM:**  
Proponent:  
ARI:  
HQ TRADOC:

**BOARD MEMBERS:**

	<u>NAME</u>	<u>PHONE</u>	<u>DSN NO.</u>	<u>E-MAIL ADDRESS</u>
Chairman:				
Training Development Advisor:				
Voting members:				
Quality Assurance/Quality Control member:				
Board Support Personnel:				
Minute recorder:				
Coordinator:				

**Figure 5-8. Sample CTSSB memorandum with attachments (cont)**

## Attachment 2

## BOARD ORGANIZATION AND PROCEDURES

1. **Background:** The Army's peacetime mission is to prepare for war, and a large part of the preparation is training. Our Soldiers are our greatest assets. They must be the best-trained Soldiers in the world -- trained to fight and win on the Battlefield of Tomorrow. The Army uses a tried and proven systematic process to insure the quality of individual training. This process is called the Systems Approach to Training (SAT). Due to your unique qualifications, you are now part of this process, and will be involved in applying the critical task selection step required in SAT. You are involved in the conduct of an analysis, to identify the individual common critical tasks (skill levels 1-4) that Soldiers must be able to perform to successfully do their jobs.

2. **Definitions:** You must know the following definitions to fully accomplish your job as a board member.

**Individual task** - The lowest behavioral level in a job or duty that is performed for its own sake. Individual tasks include common skill level and soldier tasks.

**Common skill level task** is an individual task performed by every Soldier in a specific skill level, regardless of MOS or branch, for example, a task performed by all captains.

**Common soldier task** is an individual task performed by **all** Soldiers, regardless of rank.

**Note:** There are common soldier tasks that apply to all Army civilian employees as well, for example, Maintain Security of Classified Information and Material.

**Critical individual task** is a task an individual **must** perform to accomplish his/her mission and duties and to survive in the full range of Army operations. Critical tasks must be trained. Types of tasks that can be identified as critical include common skill level and common soldier tasks.

**Note:** A critical task is usually assigned (listed) at the lowest skill level performing the task.

**Shared task** - An individual task performed by soldiers from different jobs and/or different skill or organizational levels. Shared tasks are usually identified when conducting an analysis of a specific job.

**Figure 5-8. Sample CTSSB memorandum with attachments (cont)**

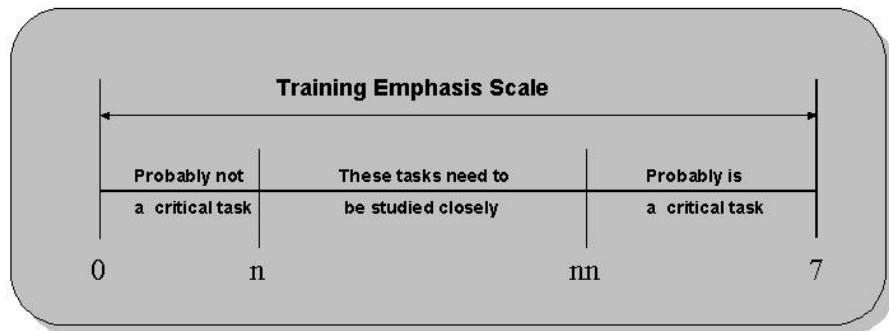
**BOARD ORGANIZATION AND PROCEDURES (cont)**

**3. How we got to where we are:**

a. The USASMA-led development team compiled total task inventories showing all the individual tasks that all soldiers at skill levels 1 through 4 perform. The inventories were derived from various sources, including existing task lists, references, and soldiers.

b. Next, Army Research Institute (ARI) team members conducted a survey. This survey was created using the total task inventory, and task performance survey data was collected from soldiers on each task. Of the 25,000 survey forms mailed, over 19,000 were completed. The survey collected TE and Frequency of Performance data that was analyzed and provided to the development team. The TE scale used was 1 – 5, with 5 being the highest.

c. The team established task selection criteria and applied those criteria to the analyzed survey data. If a task received a TE rating greater than 5, it was listed as 'probably' a critical task; if less than 2, it was listed as 'probably not' a critical task. Board members looked at those tasks rated between 2 and 5 closely.



d. We must now convene a critical task selection board.

**4. Board makeup:**

a. The purpose of the board is to identify and nominate individual tasks as critical, and submit those decisions to the approving authority.

b. Board organization:

**Figure 5-8. Sample CTSSB memorandum with attachments (cont)**

**BOARD ORGANIZATION AND PROCEDURES (cont)**

- (1) Chairman.
  - (a) Nonvoting member, except in cases of tie vote.
  - (b) Convenes and controls the CTSSB.
  - (c) Ensures adequate Active Component (AC) and Reserve Component (RC) representation.
  - (d) Selects board members with the development team.
  - (e) Leads the discussions on critical task selection.
  - (f) Advises board on procedural matters.
- (2) Subject Matter Experts (must include AC and RC members).
  - (a) Voting members.
  - (b) Recommend changes (that is, rewording, combining, additions, or deletions of tasks to the total task inventory).
  - (c) Provide technical information and advice to the board.
  - (d) Determine criticality of each task based on the task selection criteria.
- (3) Training Developer.
  - (a) Nonvoting member.
  - (b) Advise board on educational, analysis, and procedural matters, to include explaining the TD process, especially task selection process, task and critical task definitions, task performance data, and task selection criteria.
- (4) Evaluator.
  - (a) Nonvoting member.
  - (b) Ensures recommendation of tasks as critical or noncritical, based on appropriate task selection criteria.
  - (c) Ensures task title meets the established standards.
  - (d) Ensures the critical task selection board complies with policy.

**Figure 5-8. Sample CTSSB memorandum with attachments (cont)**

**BOARD ORGANIZATION AND PROCEDURES (cont)**

**5. Your preparation procedures.** As a board member, you must now study the task list and survey data, apply critical task selection criteria to the tasks on the total task inventory, and determine which tasks on that list are critical. Before you come to the meeting:

a. Study the provided annotated task list.

b. If, in your opinion, the tasks that have a  $TE < n$  are not critical tasks, submit your NO (N) vote. These are the tasks that are categorized as 'probably not' critical tasks because of their LOW TE rating. You should submit a YES (Y) vote for those you think are critical, even though they received a low TE. Prepare your rationale for discussion at the board.

c. Submit your Y/N vote on all tasks with a  $TE > n$  or  $< nn$ .

d. If, in your opinion, the tasks that have a  $TE > nn$  are critical tasks, submit your Y vote. These are the tasks that are categorized as 'probably' tasks because of their HIGH TE rating. Submit an N vote for those you think are not critical, even though they received a high TE. Prepare your rationale for discussion at the board.

e. Submit any recommendations for title changes or additions, to Mr. Stephen Smith, DSN xxx-xxxx; (xxx) xxx-xxxx, [smiths@post.army.mil](mailto:smiths@post.army.mil), at least two weeks prior to the board meeting date. Your recommendation must be IAW task writing guidance defined in TRADOC Regulation 350-70, chapter VI-1, Job Analysis. This regulation is available on the TRADOC homepage at <http://www.tradoc.army.mil/Publications.htm>.

f. Be fully prepared to discuss any points or issues you want to raise at the board. We are striving to complete the onsite board actions in 4 hours. In the past, these boards have taken 4-5 days because of raising previously resolved issues, trying to change task titles to unacceptable titles, and not having the task list categorized.

**6. Team actions prior to board meeting:**

a. Tabulate board member votes.

b. Prepare documents.

**7. Onsite board procedures:**

a. Chair will:

(1) Call for acceptance of all tasks with a TE greater than  $n$  to be accepted as critical tasks. Discussion on any N votes received will be conducted.

**Figure 5-8. Sample CTSSB memorandum with attachments (cont)**

**BOARD ORGANIZATION AND PROCEDURES (cont)**

(2) Chair will call for rejection of all tasks that has a TE less than nn. Discussion on any N votes received will be conducted.

(3) Lead discussion on tasks with TE less than n, but greater than nn.

b. Board members must:

(1) Remain focused and concentrate on issues.

(2) Provide appropriate, definitive comments.

**8. Team actions after board adjourns:**

a. Prepare documentation. Prepare approving memorandum with complete recommended task list to the Training/TD (Task) Proponent commander/commandant for approval.

b. Obtain approval of the task list from the DCSOPS&T.

c. Inform board members of final results.

5

**Figure 5-8. Sample CTSSB memorandum with attachments (cont)**

Sample SOP

h. Figure 5-9 shows a sample CTSSB SOP document. Modify this template as required for specific needs, but do not stray from the basic guidance.



**STANDARD OPERATING PROCEDURES**  
(Sample)

**1. Board Composition:**

a. Chairman.

- (1) Nonvoting member, except in cases of tie vote.
- (2) Convenes and controls the CTSSB.
- (3) Ensures adequate Active Component (AC) and Reserve Component (RC) representation.
- (4) Selects board members with development team.
- (5) Leads the discussion on critical task selection.
- (6) Advises the board on procedural matters.

b. Subject Matter Experts (must include both AC and RC members).

- (1) Voting members.
- (2) Recommend changes (that is, rewording, combining, additions, or deletions of tasks to the total task inventory).
- (3) Provide technical information and advice to the board.
- (4) Determine criticality of each task based on task selection criteria.

c. Training Developer.

- (1) Non-voting member.
- (2) Advise board on educational, analysis, and procedural matters, to include explaining the TD process, especially task selection process, task and critical task definitions, task performance data, and task selection criteria.

d. Evaluator.

- (1) Nonvoting member.

**Figure 5-9. Sample CTSSB SOP**

## STANDARD OPERATING PROCEDURES

(Sample) (cont)

(2) Ensures recommendation of tasks as critical or noncritical, based on appropriate task selection criteria.

(3) Ensures task title meets the established standards.

(4) Ensures the critical task selection board complies with policy.

**2. Preparation procedures.** As a board member, you must now study the task list and survey data contained in enclosure 4, apply critical task selection criteria to the tasks on the total task inventory, and determine which tasks on that list are critical. Before coming to the meeting:

a. Study the provided annotated task list at enclosure 4.

b. Record your votes as instructed in paragraph 6, below. Prepare your rationale for discussion at the board.

c. Prepare any recommendations for title changes or additions. Your recommendation must be IAW task writing guidance defined in TRADOC Regulation 350-70, chapter VI-1, Job Analysis. This regulation is available on the TRADOC homepage at <http://www.tradoc.army.mil/tpubs/regs/r350-70/index.html>. A brief summary of this guidance is in enclosure 2.

**3. Team actions prior to board meeting:**

a. Prepare documents and distribute to board members.

b. Prepare meeting site.

c. Handle board member inquiries before and during the board meeting.

**4. Onsite board procedures:**

a. Chair will:

(1) Convene and adjourn the meeting.

(2) Poll the voting members on each task.

(3) Lead discussion and debate when necessary.

(4) Limit discussion to time available.

**Figure 5-9. Sample CTSSB SOP (cont)**

**STANDARD OPERATING PROCEDURES**

(Sample) (cont)

b. Training developer will:

(1) Explain the total task inventory. Specifically, explain the –

(a) **Item No.** This is an administrative number used for survey and analysis tracking purposes. The number is used to quickly locate additional task data if we need it during the board meeting and for follow-on work. A proper task number is assigned before the tasks are published.

(b) **Task Title.** This is exactly how the task was presented to the surveyed soldiers in the field. Some are excellent examples of properly written tasks, and some are not. In any case, the board members must make judgments based on the data, and recommend rewording at the board meeting.

(c) **Task Performance Factor.**

- Performance Training Emphasis (TE). The tasks are listed in order of highest Act TE rating, to lowest, for each skill level. This will give you an idea of the order of importance of each task to the supervisors in the field. Those at the top are 'probably' critical – those at the bottom are 'probably not.' However, look at all tasks with a low TE as still being a critical task.
- Percent performing. The data in this column tells how many of the soldiers in the field are actually performing the task.

(d) **Critical task.** Make the decision as to whether or not a specific task is critical. Remember, a critical individual task is "An individual task an individual **must** perform to accomplish their mission and duties and to survive in the full range of Army operations."

*Note:* You are NOT deciding where a task will be trained. A critical task must be trained somewhere, somehow. The training may take place in the unit, in the institution, or through self-development. A vote of "YES" does not automatically mean that the task will be taught in the school. Only tasks that are too difficult, or too important to train in the unit, are taught in our schools.

(e) Level decision. (Include if this analysis covers more than one skill level.) Determine the appropriate skill level where the task should be performed.

**Figure 5-9. Sample CTSSB SOP (cont)**

**STANDARD OPERATING PROCEDURES**

(Sample) (cont)

(2) Provide guidance as appropriate throughout the board proceedings.

c. Board members must:

(1) Remain focused and concentrate on issues.

(2) Provide appropriate, definitive comments.

(3) Vote on each task listed.

(4) Nominate new tasks. If there are any tasks missing from the data, nominate them before, or at, the board meeting.

d. Voting procedures:

(1) Each board member should bring their previously assigned votes for all tasks listed in the total task inventory.

(2) A majority vote is required to nominate a task as critical.

(3) If board members' votes result in a tie, the chairman casts the tie-breaking vote.

5. Job Analysis Team actions after board adjourns:

a. Prepare approving memorandum with complete recommended task list for the Training/TD (Task) Proponent commander/commandant approval.

b. Obtain approval of the task list from the commander/commandant.

c. Inform board members of final results.

d. Publish the approved critical task list.

**Figure 5-9. Sample CTSSB SOP (cont)**

## TRADOC Pam 350-70-6

Coordinate/ acquire site      g. Acquire the use of a location or facility to hold the critical task selection board meetings. Consider the following factors when selecting the site:

- (1) A location convenient to conducting the board.
- (2) A room large enough to hold all the required attendees at the same time.
- (3) Availability of facilities, bachelor officer/enlisted quarters, dining facilities, restrooms, etc.
- (4) Technological support, computers, video projector, etc.
- (5) Administrative support.
- (6) The use of a video projector, so all participants can see changes made during the meetings. (This method works well.)
- (7) Consider conducting the board via a desktop VTC. (There are potential technical problems to address, but also a potential to reduce TDY costs.)

Conduct the task selection board      h. The conduct of a CTSSB involves more than just conducting a meeting. There are steps to take to speed up the process, as well as help obtain valid results. Many of these steps are accomplished before the board meets, but there are things all members can do during the meeting to improve efficiency.

- (1) The chairman:
  - (a) Convenes and adjourns the meeting on time.
  - (b) Calls for a vote by voting members on each task.
    - Calls for a vote on blocks of tasks to save time, such as those the survey data indicated are 'probably' or are 'probably not' critical tasks. The chair should allow for discussion of tasks in those groups for which there is disagreement.
    - A majority vote is required to nominate a task as critical.
    - If the board members' vote results in a tie, the chairman casts the tie-breaking vote.

**Note:** If for some reason the chairman is NOT a SME, the chairman cannot vote, and arrangements are made for an SME to break ties.

(c) Leads discussion and debate, when necessary.

(d) Limits discussion to time available.

(2) The training developer, at the start of the first meeting:

(a) Explains the total task inventory. Specifically, the:

- **Item Number.** This is an administrative number, used for survey and analysis tracking purposes. The number is used to quickly locate additional task data, if needed during the board meeting, and for follow-on work. A proper task number is assigned before the tasks are published.
- **Task Title.** This is exactly how the task was presented to the surveyed soldiers in the field. Some are excellent examples of properly written tasks, and some are not. But, in any case, the board members make judgments based on the data, and recommend rewording at the board meeting.
- **Task Performance Factors, especially:**
  - **Performance TE.** Explain that the tasks are listed in order of highest TE rating, to lowest. This fact gives a good idea of the order of importance of each task, to the supervisors in the field. The tasks at the top are 'probably' critical—those at the bottom are 'probably not.' But, board members must look at all tasks, even the ones with a low TE, as they may still be a critical task.
  - **Percent Performing.** Explain that the percent performing tells the members how large a portion of soldiers in the field is actually performing the task.
- **Critical Task.** Explain that the board members are making the decision as to whether a specific task is a critical task or not. Remember, a critical task is what soldiers/individuals must do on the job.

(b) Explains that the board members are NOT deciding where a task will be trained. A critical task is trained somewhere, somehow. The training may take place in the unit, in the institution, or through self-development. A vote of "YES" does not automatically mean that the task will be taught in the school. Only tasks that are too difficult or too important to train in the unit are taught in the schools.

(3) Board members:

(a) Remain focused and concentrate on issues.

(b) Provide appropriate, definitive comments.

(c) Vote on each task listed. Bring votes, prepared in advance of the meeting, to speed up the process.

(d) Nominate new tasks. Tasks missing from the total task inventory are nominated before or at the board meeting.

(4) The administrative assistant, or other designated individual, keeps notes concerning board decisions, discussion notes concerning areas of potential contention, and documentation of required follow-up actions.

(5) The evaluator attends all meetings to ensure a procedure is followed to ensure that valid individual critical tasks nomination will result from the board's actions.

#### **5-8. Obtain approval for the individual critical tasks.**

Importance      a. Critical individual tasks are extremely important to the Army's overall readiness and mission accomplishment. Therefore, the task proponent commander or commandant approves all critical individual tasks. The training developer prepares the memorandum and attachments for signature, and distributes the approved list, as appropriate.

Preparing the task list      b. Prior to seeking approval, prepare the critical individual task list so the approval authority easily discerns what they are approving. Also, prepare other documents for your records, to include:

(1) List the tasks the CTSSB recommended for approval. Consider grouping the tasks by categories to increase the understandability of the list. This list is forwarded to the commander/commandant for approval.

(2) List the tasks that the CTSSB did not recommend as critical

tasks.

(3) Prepare the minutes taken during the CTSSB meeting. Ensure you capture the reason(s) for any controversial issues, or decisions. Additionally, record those issues that, in your opinion, may surface as a potential problem in the future.

Obtain approval for the critical tasks

c. Prepare a memorandum (see fig 5-10) for the commander's/ commandant's signature, and include the task list the critical task selection board recommended for approval as critical tasks. Add appropriate guidance for conducting the follow-on individual task analysis. The commander's/commandant's signature signifies approval of the attached critical tasks.

Publish the individual task list

d. Once the commander/commandant approves the critical tasks, the list is distributed to all individuals and organizations responsible for the conduct of the individual task analysis.

ATTG-CD

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Enlisted Common Soldier Tasks, Skill Levels 1 through 4, Critical Task Lists

1. The attached Enlisted Common Soldier critical task lists for skill levels 1 through 4 are hereby approved.

2. Task proponents are directed to conduct the task analysis and coordinate with the U.S. Army Sergeants Major Academy (USASMA) for the design of the follow-on common task training. See TRADOC Regulation 350-70 for policy and guidance. Forward any required task list revisions identified during task analysis to me for approval through the USASMA and Training Development and Analysis Activity (TDAA).

3. The TDAA Point of contact is Mr. Smith, DSN 680-1234, 757-728-1234, smithd@monroe.army.mil. USASMA point of contact is Mr. Jones at DSN 979-1234, 915-569-1234, joness@usasma.bliss.army.mil.

Encl

LEROY R. GOFF III  
Major General, GS  
Deputy Chief of Staff  
For Training

DISTRIBUTION:

Figure 5-10. Sample critical task approval memorandum

(1) Provide a copy to the organization responsible for the conduct of the individual tasks analysis of the approved critical tasks.



(2) Provide a copy to the collective training analysis office or equivalent.

(3) Notify offices responsible for producing training materials and products, based on this task list, of its approval.

**Note:** It is the responsibility of the task proponent to keep this approved individual task list current. For minor changes to the critical task list—deleting or adding a critical task—it is not necessary to reconvene a CTSSB.

**5-9. Automation support for job analysis.** Make the approved individual critical tasks available, to the appropriate users and organizations, for use in conducting the individual task analysis and building the short-range individual training strategy. See [paragraph 1-8](#) for additional information on available automation support.

**5-10. Job analysis QC.**

a. To maintain the quality of the job analysis products, it is essential to continuously apply QC procedures when applying the process.

QC  
checklist for  
job analysis

b. Use the job analysis [Job Aid 350-70-6-4](#) that itemizes critical points in the application of the job analysis process and production of the individual critical task lists.

## Chapter 6 Individual Task Analysis

**6-1. Individual task analysis introduction.**

a. Use the critical individual task analysis process to provide the task performance detail needed to develop efficient and effective individual training. An individual task analysis is conducted for each critical individual task to identify all task performance specifications for that specific task. These specifications are concerned with how the task is actually performed, under what conditions it is performed, or how well the soldier should perform it. Task analysis data for critical tasks serve as the foundation for development of all subsequent individual education/training products. It provides the detail to design and develop efficient and effective education/training.

b. This chapter provides how-to guidance on performing individual task analysis, to include, but not limited to:

- (1) Identification of individual task performance specifications.
- (2) Writing individual task standards.
- (3) Writing individual task conditions.
- (4) Preparing the task analysis report.
- (5) Preparing the individual-to-collective task matrix.
- (6) Preparing the individual-to-skill/knowledge matrix.
- (7) Compiling the Soldier Training Publication (STP) task summary.

c. When performing individual task analysis, remember that task proponents shall conduct a task analysis for critical individual tasks only, not noncritical tasks, to ensure accomplishment of wartime missions, METL, and the full range of military operations.

**6-2. Individual task analysis administrative information.** An understanding of the following terms is necessary for this chapter: task standard, task condition, performance measure, task performance steps, knowledge, competency, task performance specifications, UJTL, AUTL, and individual task analysis report.

**6-3. Individual task analysis team roles and responsibilities.**

a. The individual task analysis team, as a whole, is responsible for the identification of all task performance specifications for all critical tasks for a specific job or duty position. Each team member:

- (1) Works diligently at the analysis.
- (2) Coordinates actions and activities, internal and external to the task analysis team, so work is efficiently accomplished.
- (3) Communicates findings, suggestions, and recommendations with other team members.

b. The TD manager, the first line supervisor, has the overall management responsibility for ensuring that a thorough, efficient, and effective individual task analysis is conducted and that all task performance specifications are identified. This first line supervisor:

- (1) Sets up the individual task analysis team.

(2) Dedicates the team to the individual task analysis process.

(3) Prepares/updates the individual task analysis project management plan.

(4) Ensures the team accomplishes their work efficiently and effectively.

(5) Keeps command informed on individual task analysis status.

(6) Assigns/selects an SME to analyze each task and an SME to independently review each individual task analysis.

(7) Coordinates with NGB, Training Division, and HQ, USARC, Individual Training, through the Deputy Assistant Commandant (ARNG or USAR) or Total Force Integration Officer, requirements for RC SME support for task analysis. Include TASS Training Battalion coordination for SME support. If onsite SMEs are not available, attempt "distance TD," when automation capabilities permit.

c. As the individual task analysis SME, the training developer provides the individual task analysis guidance to the SMEs.

(1) Prepares all documentation required to conduct the individual task analysis.

(2) Trains the SMEs in conducting an individual task analysis.

(3) Coordinates with SMEs conducting the individual task analysis.

(4) Presents the briefing concerning the individual task analysis project.

(5) Verifies completeness and comprehensiveness of each individual task analysis.

(6) Obtains appropriate command approval of the task analysis for each individual critical task.

(7) Ensures the quality of the application of the individual task analysis process, and the products produced.

d. Subject matter experts are crucial to the conduct of the individual task analysis. Their knowledge makes them a vital participant in the analysis process, as it relates to consultation, review, and providing an extensive description of how a critical task is performed. Select SMEs with the highest level of expertise. If master-level SMEs are not used, take this fact into consideration when making task analysis decisions.

e. Subject matter experts play three major roles in the conduct of an individual task analysis. Normally, different individuals fill these roles, but in a few rare instances, the same individual may perform all three. The SMEs:

(1) Identify all individual task performance specifications for assigned critical tasks.

(2) Independently conduct a critical review of all assigned critical task analysis.

(3) Ensure the quality and completeness of the technical (subject matter) content of the individual task analysis products.

f. The proponent commander is responsible for ensuring:

(1) A task analysis is conducted on all proponent individual critical tasks.

(2) The proponent maintains current individual critical task analysis of each proponent critical task, including common soldier tasks, common skill level tasks, and shared and branch-specific tasks.

(3) Individual task analysis data is retained.

(4) The task analyses for proponent common and shared tasks are provided to using organizations.

g. The evaluator serves as an independent observer providing quality assurance/QC of the process and work. The evaluator:

(1) Determines if the individual task analysis was properly conducted and makes comments/recommendations, as appropriate, to the team and the commander.

(2) Ensures that an independent, critical review of each individual task analysis was conducted by a qualified SME.

(3) Verifies that the completed individual task analysis output meets established standards.

**6-4. The individual task analysis process overview.**

a. The Army must provide the right education/training to soldiers if they are to win and survive on the battlefield. The first step in accomplishing this was the identification of the critical individual tasks when conducting the job analysis. The second and just as vital step is to decompose (analyze) each identified individual critical task and identify the details and other factors that affect how that task is performed. Conduct a new, or update an existing, individual task analysis before the production of individual education/training products.

(1) Perform a new individual task analysis if there is a new critical task identified or there is a change in how an individual task is performed. This requirement is indicated by such factors as:

(a) Publication of a new/updated individual critical task.

(b) New/updated Logistics Support Analysis Report.

(c) New/revised task reference material, for example, FMs, TMs, technical bulletins, and safety and environmental notices.

(d) Evaluation feedback.

(e) Any other sources of data.

(2) Review and update job analysis when needs analysis identifies a change in the tasks performed in a job resulting from such items as:

(a) Unit feedback.

(b) New/revised doctrine, for example, TTP.

(c) New/improved systems/equipment operation procedures.

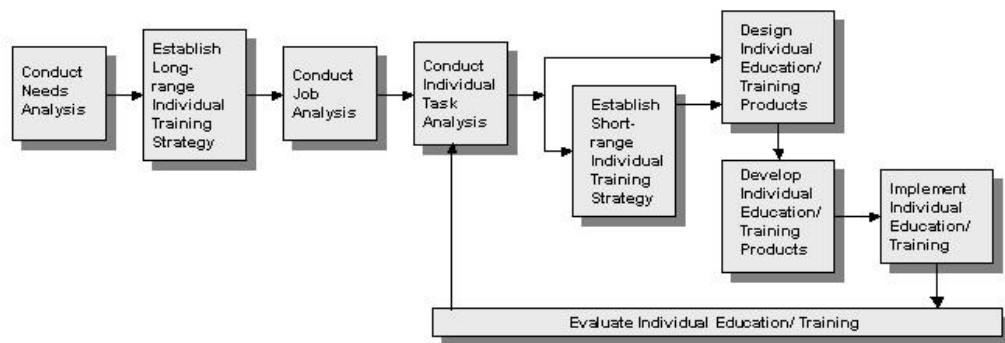
(d) Lessons learned data from the CALL.

(e) Evaluation feedback.

b. The task analysis team should use the following process when conducting its work. Utilizing a set procedure when conducting any analysis helps ensure that all important information and data are identified and documented. The amount of work involved will vary, depending upon whether a new analysis is conducted, or an existing individual task analysis is updated.

- (1) Identify individual task performance specifications.
- (2) Assign a permanent individual task number.
- (3) Prepare the individual to-collective task matrix.
- (4) Prepare the individual to-collective skill/knowledge matrix.
- (5) Obtain individual task analysis approval.
- (6) Distribute approved individual task analysis.
- (7) Maintain current individual task analysis.

c. Figure 6-1 depicts the relationship between individual task analysis and the design and development of education/training for soldiers.



**Figure 6-1. SAT flow diagram**

**6-5. Identify the individual task performance specifications.**

a. The task performance specifications describe precisely how a specific individual critical task is actually performed, under what

conditions the task is performed, and how well an individual performs the task. These specifications are the task performance details needed to establish the individual training strategy and design and develop follow-on education/training. Identify all of these specifications, in order that the follow-on education is effective, efficient, and economical. The specifications are:

- (1) Task title.
- (2) Task number.
- (3) Task performance standard (prescriptive).
- (4) Task performance condition.
- (5) Task performance steps. Each identified step includes:
  - (a) Supporting skills and knowledge.
  - (b) References required for performance step.
  - (c) Safety factors, hazards, and considerations associated with the performance step.
  - (d) Environmental factors and considerations associated with the performance step.
  - (e) Equipment and materials required to perform the performance step.
  - (f) Supporting individual task(s) performed as part of or in support of the individual task being analyzed.
- (6) Task performance measures.
- (7) Supported individual task(s).
- (8) Supported collective task(s).
- (9) Universal Joint Task List supported tasks. These include the:
  - (a) Army Universal Task List supported tasks.

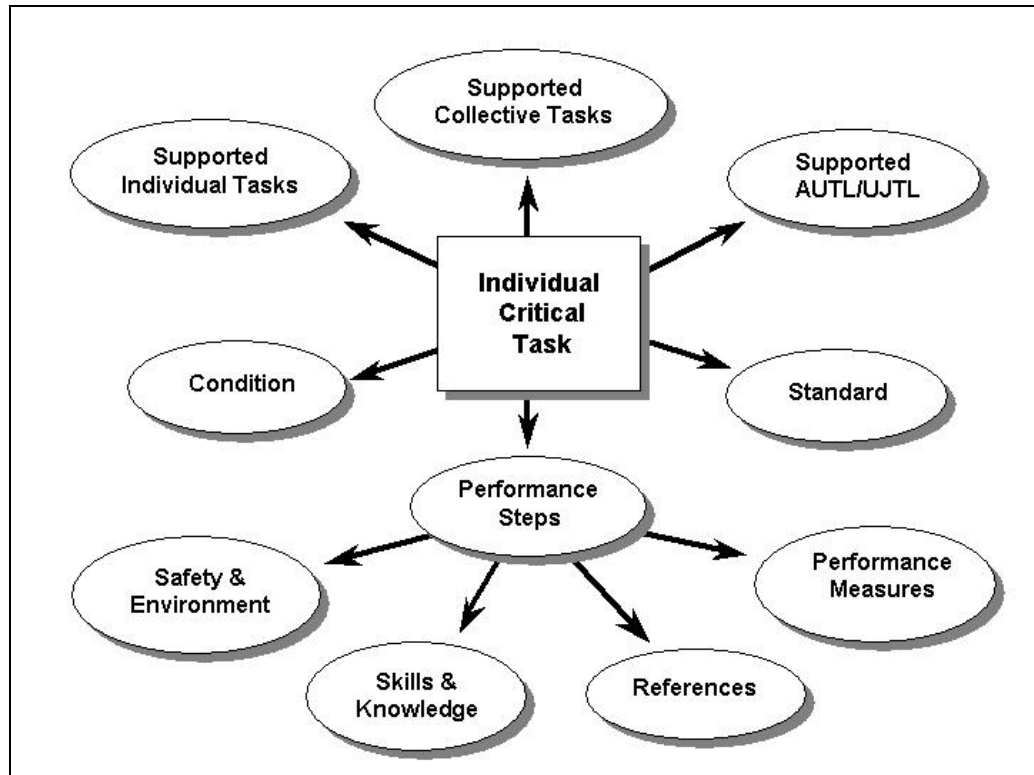
- (b) Universal Joint Task List operational level supported tasks.
- (c) Universal Joint Task List strategic level supported tasks.

(10) Task certification requirements (if applicable).

(a) In a few rare instances, you may find a critical individual task that requires prior certification of the individual before performing the task independently.

(b) The task analyst determines if specific certification is required for task performance for each individual critical task that is analyzed.

b. Figure 6-2 provides a pictorial display of the relationship of the various task performance specifications to each other.



**Figure 6-2. Task performance specifications relationships**



c. The details concerning how to write a task title and task number were addressed in [chapter 5](#), above. How to write each of the other individual task performance specifications are presented in the following paragraphs.

**6-6. Individual task condition statements.**

a. The individual task condition statement describes the field (on-the-job) conditions under which the individual critical task is performed. It expands on information in the task title. Ensure it is well written and fully understandable to the individuals performing the task. This is accomplished by writing in the language of the performer.

b. The individual task condition statement:

(1) Sets the stage for task performance.

(2) Identifies the boundaries for task performance.

(3) Identifies all pertinent influences on task performance.

c. A condition statement has two parts--

(1) Cue - A word, situation, or other signal for action. An initiating cue is a signal for an individual to begin performing an individual task or task performance step. An internal cue is a signal to go from one element of a task to another. A terminating cue indicates individual task completion.

(2) Descriptive data - Information that identifies—

(a) When the individual task is performed.

(b) Why the individual task is performed.

(c) Where the individual task is performed.

(d) What resources (materials, personnel, and equipment) are required to perform the individual task.

**Note:** Some of these data items are “understood,” and may not require specific identification in the condition statement. Make this decision depending on the individual task being analyzed.

d. Write the individual task condition statement in standard paragraph format, containing one or more sentences.

e. Use the following guidelines and tips for writing an individual task condition statement.

(1) Identify the cue.

(a) The cue may be very evident or "understood" when writing a conditions statement, and may not require detail.

(b) Specifically identify the cue if it is not evident. Identifying the cue may require studying such items as—

- Organizational diagrams.
- Mission analysis.
- Threat information.
- Actions performed by outside units, soldiers, leaders, or events.
- Procedural manuals.

(c) Example: A unit leader *receives a unit movement order*. Once the soldier receives a movement order, the soldier performs the individual task.

(2) Identify/describe the physical setting, or the site of individual task performance. The amount of detail provided varies, based on the effect that the setting has on task performance.

**Note:** Remember, not all individual critical tasks are performed on the battlefield, or during wartime.

(a) Do not—

- Make the setting too generic.
- Make the setting too specific.
- Refer to a training environment. (A task condition is written to field performance, NOT training performance. There is a difference.)
- Simply use a phrase like "in a combat environment."

(b) When the task is performed at multiple performance sites, describe all sites, as practicable.

f. Figure 6-3 shows examples of individual task condition statements. Write your individual task condition statements in a similar manner. Each example provides discussion points.

<p>(1) Given a constructed defensive position, entrenching tool, and camouflage nets.</p> <p>Discussion: In this example—</p> <p>(a) <u>When</u> is— anytime a Soldier or the Soldier's unit is in danger of attack.</p> <p>(b) <u>Where</u> is—anywhere a Soldier or the Soldier's unit is in danger of attack.</p> <p>(c) <u>Why</u> is—because there is a threat to the Soldier and/or the Soldier's unit.</p> <p>(d) <u>Resources required</u> are—an entrenching tool and camouflage nets.</p>
<p>(2) The Soldier is in an area where chemical agents have been used. The Soldier is wearing protective overgarments and mask, or they are immediately available. The Soldier encounters a casualty who is breathing and lying on the ground. The casualty is partially dressed in protective clothing and is wearing the protective mask carrier with mask.</p> <p>Discussion: In this example—</p> <p>(a) <u>When</u> is—anytime a Soldier finds a casualty under these conditions.</p> <p>(b) <u>Where</u> is—any area contaminated by chemical agents.</p> <p>(c) <u>Why</u> is—because this is a life threatening situation to the casualty and to the Soldier.</p> <p>(d) <u>Resources required</u> are—protective overgarments and mask.</p>
<p>(3) A postal clerk has a customer desiring to purchase a domestic postal money order at a postal finance window and access to DOD 4525.6-M, Department of Defense Postal Manual; the United States Postal Service (USPS) Domestic Mail Manual; blank postal money order sets; money order imprinter; and standard USPS supplies and equipment.</p>

**Figure 6-3. Examples of individual task condition statements**

Discussion: In this example—

(a) When is—anytime a post office customer wants to purchase a domestic postal money order.

(b) Where is—a postal finance window (geographical location of this window does not matter).

(c) Why is—to meet the customer’s need.

(d) Resources required are—DOD 4525.6-M, the USPS Domestic Mail Manual, blank postal money order sets, money order imprinter, and standard USPS supplies and equipment.

(4) You have a casualty who is suffering from a burn. The casualty has no other serious wounds or condition that were not treated. A canteen and first aid packet are available.

Discussion: In this example—

(a) When is—upon finding a burned casualty.

(b) Where is—wherever there is a burned casualty.

(c) Why is—the burn is the most serious injury and controls the boundary of the task.

(d) Resources required are—limited to the resources on hand, which includes a canteen and first aid packet.

**Figure 6-3. Examples of individual task condition statements (cont)**

**6-7. Identify individual task performance steps.**

a. An individual task performance step is a single, discrete operation, movement, or action that comprises part of a task. It is your responsibility to identify and list all individual task performance steps in performance sequence order. An individual performance step is a major action an individual must accomplish, in order to perform an individual critical task to standard. They—

(1) Describe the action the task performer must take to perform the task in operational conditions.

(2) Provide sufficient information for a task performer to perform the action. The accuracy and completeness of your decomposition (analysis) of the task and performance steps establish the content quality of the follow-on education/training.

**Note 1:** The first step is usually the triggering circumstance initiating task performance. It may be the cue, for example, “receive an order to . . .”

**Note 2:** One of the first performance steps may be to conduct a risk assessment.

b. The performance steps and supporting steps, as a whole entity, identify all the actions that an individual must take to perform the task. This decomposition provides the detail needed to design and develop the follow-on education/training.

c. The task performance steps are written in an outline format. The level of decomposition depends upon the complexity of the performance step. See [figure 4-3](#) for a graphic display of the standard outline numbering format.

d. The following guidelines and tips are for writing task performance steps. Remember the soldier, the task performer, must understand precisely what to do. When writing performance steps—

(1) Start them with a verb. Use present tense, and write as if you are personally telling the soldier what to do.

(2) Write each step in language appropriate for the task performer.

(3) Sequence steps in a logical, sensible order. There is not always a mandatory performance sequence, therefore, if there is—

(a) A mandatory sequence, list the steps in the order in which they are performed.

(b) NO mandatory sequence, list the steps in a logical order for efficiently accomplishing the task.

(4) Identify all safety factors, hazards, and considerations associated with the performance step (includes hazardous communication considerations).

(5) Identify all environmental factors and considerations associated with the performance step.

(6) Ensure no performance gaps exist between performance steps.

**6-8. Identify the skills and knowledge required to perform each step.**

a. It is critical, detailed work to identify all of the skills and knowledge required to perform the individual task step you are analyzing, since the task performer must possess these skills and knowledge.

b. To accomplish this work, you must have a thorough knowledge of exactly what the terms “skill” and “knowledge” represent. This is especially important since the term “skill” is used in a number of different ways, with different meanings.

(1) **Skill:** The ability to perform a job related activity, which contributes to the effective performance of a task performance step. These are physical (psychomotor), mental (cognitive), and affective domain skills. Examples:

- (a) Solder two pieces of copper wire together.
- (b) Clean the barrel of a rifle.
- (c) Select a defensive position.
- (d) Select a course of action.
- (e) Treat people equally.

(2) **Knowledge:** Information, or fact, required to perform a skill or performance step. Examples:

- (a) Know the composition of solder.
- (b) Know what a clean rifle barrel looks like.
- (c) Know the factors that provide for a good defensive position.

c. The identified skills and knowledge provide:

(1) The foundation for the education/training design (for example, generic or competency-based education/training). There is much discussion concerning competency-based training. The Army's education/training task-based system is a competency-based system. (See the glossary for a definition of "[competency](#).")

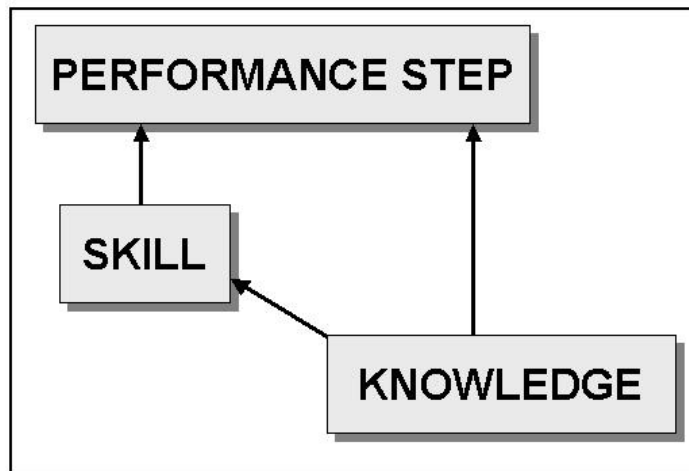
(2) The link to the various learning theories, taxonomies/learning hierarchies, such as Bloom's Taxonomy of Educational Objectives, and Gagne's Nine Events of Instruction.

(3) The means to restructure jobs (for example, consolidate MOS, initiate a new ASI).

d. There is an important relationship between performance steps, skills, and knowledge (see fig 6-4). This relationship is the foundation for the task performance. See [figure 1-3](#) for the relationship to individual tasks.

(1) To perform a skill, the performer must possess the knowledge required to perform that skill.

(2) To perform a performance step, the performer must have the ability to perform the skills and possess the requisite knowledge.



**Figure 6-4. Skill/knowledge relationship**

e. Following are some guidelines and tips for writing a skill or knowledge. Remember the soldier, the task performer, must understand precisely what to do or know.

(1) Write the skill in the same format as an individual task. Start the skill with an action verb, and provide an object and a qualifier that describes the physical or mental action. Identify the skills needed to perform the individual task, step by step, keeping in mind everything the performer is required to do to perform the step you are analyzing. Multiple skills may be required to perform each task step. Examples:

- (a) Solder aluminum wire together.
- (b) Discriminate between red and pink colors.
- (c) Differentiate between an individual task and a skill.
- (d) Determine a course of action.
- (e) Identify references on a specific subject.
- (f) Locate a specific subject in a reference document.
- (g) Build a Microsoft Word table.
- (h) Build a matrix in a word processing computer program.

(2) Write the knowledge as a fact or piece of information that an individual must know in order to perform a skill. Examples:

- (a) Know what the color red is.
- (b) Know what aluminum is.
- (c) Know the physical properties of aluminum.
- (d) Know how to acquire references on a specific subject.
- (e) Know what a word processing table is.
- (f) Know the purpose for a matrix.

f. Assign a unique skill or knowledge number to the skills and knowledge identified. The exact same skill or knowledge may be used in different performance steps. This unique number provides the capability to identify each identified skill or knowledge, independent of the task you are analyzing, and will reduce the workload when compiling comprehensive proponent skill and knowledge lists.



Universal skills/  
knowledge

g. By identifying the skills and knowledge required to perform these tasks steps, you are part of an ongoing effort to compile universal skill and knowledge listings, identified by categories. These lists will be accessible through the Internet and available for conducting task analysis.

**6-9. Identify the references required.**

a. The precise identification of the references (those required to perform the task or that provide details concerning how the individual task is performed) includes title, publication number, date, and paragraph number. These references may be military or civilian documents; paper or electronic in form.

b. Identify the reference in detail to ensure the task performer can positively identify and obtain a copy of the reference. Identify the reference to the lowest structural part possible (for example, chapter, paragraph, and subparagraph) to help make it easier for the user to find the information, and to make your job easier when the reference changes. The automated training development system notifies users when a reference that is used in an individual task analysis is changed, to include the specific paragraph that changed.

(1) For military references, list the publication:

- (a) Title.
- (b) Date.
- (c) Number.
- (d) Service/organization proponent (for example, USAF, FAA).
- (e) Paragraph number.
- (f) Web site where accessible (if applicable).

(2) For civilian publications, the data required is more complex. List all of the publication data required to positively identify the publication. This includes, but is not limited to:

- (a) Title (if an article, also include the publication title).
- (b) Author.

- (c) Publication date.
- (d) Publisher.
- (e) International Standard Book Number.
- (f) Copyright release (link to copyright information/guidance).
- (g) Publication number (if applicable).
- (h) Chapter and paragraph number (identify the reference to the lowest level possible).

**6-10. Identify equipment required.**

a. This is the precise identification of the equipment a soldier requires to perform the individual task being identified. The equipment is identified at the performance step level to ensure all items of equipment required to perform the task are identified. Equipment items may be military or civilian. Only list equipment items used to perform all performance steps one time, but indicate in the individual task analysis report that this is the case. This information is immensely important for the design of follow-on education/training.

(1) For military equipment, list the:

- (a) LIN.
- (b) Federal Stock Number.
- (c) Nomenclature, using standard military notation.
- (d) Quantity required.

(2) For civilian equipment, listing the information is more complex. List all of the equipment data that is required to positively identify it.

- (a) Nomenclature, using standard military notation.
- (b) Model number.
- (c) LIN (if the supply office assigns one).
- (d) Quantity required.

b. The Army training development automation support includes the capability to select equipment items from a “pick list.” The training/TD (task) proponent should maintain this list of equipment items, used in the performance of proponent individual tasks, in a database table.

**Note:** If an item of equipment is not listed in this database pick-list, provide the details to the database administrator, and arrange for its inclusion. Ensure that you provide complete and accurate information.

**6-11. Develop an individual task standard that measures task performance.**

a. The individual task standard defines the ultimate outcome criteria for performing the individual task. It is the prescriptive measuring stick against which an individual's task performance is measured. It describes the criteria to which the task must be performed, **in the field**, to successfully accomplish the supported mission. The function of an individual task standard statement is to describe how well, completely, and/or accurately the task must be performed under the prescribed conditions. The individual task standard—

(1) Describes the minimum acceptable level of performance required of a soldier to ensure successful completion of the individual task.

(2) Is used to measure individual task performance.

(3) Must be—

- (a) Objective.
- (b) Valid.
- (c) Reliable.
- (d) Usable.
- (e) Comprehensive.
- (f) Discriminating.

(4) May include, but is not limited to—

- (a) Accuracy.
- (b) Quantity.

(c) Speed.

(d) Quality.

b. The soldier, trainer, evaluator, and commander uses this information to:

- (1) Train subordinates in the unit.
- (2) Evaluate subordinate task performance.
- (3) Sustain task performance.

c. A standard statement has two parts—

(1) A verb phrase that identifies what the standard will evaluate (that is, the process the soldier performs, the product produced, or both).

(2) The performance criteria that establish how well a task must be performed in the field.

d. Write the individual task standard statement in standard paragraph format. The paragraph may contain one or more sentences, and may include subparagraphs and/or bullets.

e. There are three types of individual task standards:

(1) A product standard describes the end result of individual task performance. Training developers should use product standards when the process it takes to perform the task is not important, as long as the product (end result) is correct.

(2) A process standard describes the critical task elements necessary for adequate task performance.

(3) A combination of a process and product standard.

f. The following guidelines and tips will help you write individual task standards. First, review the condition statement to determine the parameters for the standard. The standard cannot address anything outside the parameters set by the condition statement. You may find that after writing the standard, the condition statement requires revision.

(1) The first decision is to decide which type(s) of standard(s) is (are) appropriate for each task.

(a) When task performance produces a product, describe the standard in terms of that product.

(b) When task performance produces a process, describe the standard in terms of that process.

(c) When task performance produces both product and process, describe the standard in terms of both the product and the process.

(2) Identify all applicable standards. One individual task may—in fact probably will—require more than one criteria to measure the performance of the entire task.

(3) Detail all of the criteria by which individual task performance is evaluated. See table 6-1 for recommended criteria, based upon the performance standard.

(4) Write the standard in the task performer's language.

**Table 6-1**  
**Task performance criteria**

Individual Task Standard	Criteria to Use
Product Standard	Accuracy, tolerances, completeness, format, clarity, number of errors, and quantity.
Process Standard	Sequence, completeness, accuracy, and speed of performance.
Combination Standard	Accuracy, tolerances, completeness, format, clarity, number of errors, quantity, sequence, and speed of performance.

b. Write task standards in a manner similar to the following examples:

(1) Camouflage a defensive position so that it is not visually detected from 35 meters forward.

(2) Calibrate the altimeter in accordance with TM nn-nnnn-nnn-nn, paragraph n-nn. **Note:** It is preferred not to use a standard that refers to another document, but in the case of aircraft maintenance, it is mandatory to use the TM. Duplicating the TM causes extra work and serves no value, since the TM is used when the task is performed.

(3) Install the Claymore, facing the center of mass of a kill zone. Perform circuit test and install firing wire and blasting cap.

(4) Determine the 6-digit grid coordinates of an identified target within 250 meters of the actual target location.

**6-12. Establish individual task performance measures.**

a. Performance steps and performance measures *ARE NOT* the same thing. Performance measures are used to determine if a soldier performed the individual critical task to the established standard. Performance measures—

(1) Are actions (behaviors, products, and characteristics) objectively observed and measured to determine if a task performer performed the task to the prescribed standard.

(2) Are derived from the task performance steps during task analysis and may cover one step, more than one step, or part of a step.

(3) Start with a past tense verb.

(4) Are measured as “GO” or “NO GO.” This is an absolute measure. The task performer either—

(a) Performed or did not perform the action described in the performance measure.

(b) Met or did not meet the performance measure criteria.

(5) Serve as a checklist to determine if the soldier actually performed the task to the established standard.

(6) Include criteria for measuring the steps covered.

(a) Specify how well each included step is performed.

(b) Ensure it is understandable without the reference.

(c) Deal with the actions of the task performer only.

(7) Support the individual task standard.

b. Performance measures provide a useful and efficient tool for soldiers, unit trainers, evaluators, and commanders to determine who can/cannot perform a task and form the basis for evaluating task performance.

c. Performance steps are often confused with performance measures. Table 6-2 demonstrates how the step identifies an action, and the measure provides criteria for evaluating performance of that action.

**Table 6-2  
Performance steps/measures**

Performance	Definition	Example
Step	A single discrete operation, movement, or action that comprises part of a task (action).	Conduct team training meeting.
Measure	Action that is objectively observed and measured to determine if a task performer performed the task to the prescribed standard (action and criteria).	Conducted a training meeting that: <ul style="list-style-type: none"> <li>a. Identified the training to be conducted.</li> <li>b. Assigned responsibilities to assistant trainers, combat lifesavers, and observer/controllers.</li> </ul>

d. A performance measure has two parts—

- (1) An action that identifies what the individual was to do.
- (2) The performance criteria that establish how well the step covered must be performed.

e. The format for writing task performance measures is shown in figure 6-5.

PERFORMANCE MEASURES	<u>GO</u>	<u>NO GO</u>
1. Inspected the antenna and ensured –	—	—
a. Ground wires were at a 60-degree angle.		
b. Ground guy stakes were a maximum of 25 feet from the mast.		
c. Each of the guy ropes had equal tension.		
2. Disassembled the M45B submachine gun within 2 minutes.	—	—

**Figure 6-5. Performance measure format**

f. As with writing any education/training material, there is a degree of art and science to writing quality task performance measures. Some guidelines and tips are provided below.

(1) Start each measure with a past tense verb. The soldier must perform the action before it can be observed.

(2) Write each measure—

(a) In language appropriate for the performers and clear enough that both performers and evaluators agree on the requirements.

(b) So they are understandable without the reference. (They may cite a reference when it is needed to perform the action.)

(c) To only include information critical to the performance of the action.

(3) Provide measurement criteria (described below). Establish criteria that all successful task performers will meet each time they perform the task.

(a) Completeness - Establish either how thoroughly the action is performed or what the product produced should contain.

(b) Accuracy - Identify the ratio between the correct, incorrect, and total response to meet. One hundred percent accuracy is appropriate only in life-threatening situations.

(c) Speed - Identify how fast to perform the action of the performance measure.

(d) Duration - Establish the length of time the performer has to complete the action.

(e) Sequence - Identify the performance sequence, if there is a required sequence.

- Sequence may apply to multiple performance steps or internal to one performance measure.
- If the order of performance does not affect the soldier's ability to meet the task standard, insert a note indicating that the soldier can perform the steps in any order.
- When the order of performance is critical, then performance of the steps in the correct sequence is one of the performance measures.



(f) Format - Identify the required form for the type of product to produce. Provide the format specifications.

(g) Number of errors - Establish the upper limit of errors that the task performer can have when performing the action.

(h) Quantity - Identify the number of products the soldier must produce per specified time unit.

(i) Tolerance - Identify the acceptable amount of deviation, or margin of error, from a standard.

**Note:** The criteria list above is not inclusive.

(4) Ensure usability. Ensure each performance measure is—

(a) Relevant - Contains information important for task completion. **Note:** It must not include information that is not critical to the performance of the action.

(b) Clear - Is easy to read, written in the language of the performer, and allows all readers to have the same understanding of the requirement. **Note:** Words like "correctly" or "properly" are not sufficient to satisfy the clarity requirement.

(c) Adequate - Provides sufficient information for the performer to perform the action, the trainer to train the action, and the evaluator to assess the action.

(d) Consistent - Presents criteria that all successful task performers will meet, each time they perform the task. Ensure it is clear enough that both performers and evaluators agree on the requirements. Include a note indicating that a choice is necessary, if there is a performance measure where the performer must choose the correct alternative for the situation.

g. Use the examples in figure 6-6 to write performance measures. Discussion points are provided for each example.

- 6-13. Cue, condition, and standard for each individual task performance step.** The analyst may have to update the individual task analysis for any task or task performance steps trained using IMI/CBI program or a simulation. Provide a performance step condition, with cue, and a standard for each performance step included, to obtain the detail required for accomplishing this design. Follow the guidance provided for writing a condition statement and standard for a task.

**Example 1:** Use at least four ties (two above and two below the fracture) to secure the splints.

**Discussion:** The evaluator can observe the soldier tying the ties, the ties themselves, and their placement, to confirm that the right numbers of ties are in place and secure the splints. Would it be correct to put three above and one below the fracture?

**Example 2:** Adjust the R35 control to set the time-off circuit for a 5-second sweep with a  $\pm 0.5$ -second tolerance.

**Discussion:** This performance measure is relevant to calibrating a programmable suction pump. The performance measure is clear and it provides adequate information for an evaluator to determine if the soldier is performing the action correctly. The soldier must adjust this control each time the task is performed; therefore, the example provides for consistency. The action is critical for performance of the task. The performance measure uses the language of the soldier performing the task.

**Example 3:** Performance steps 3 through 8 are performed in the listed order.

**Discussion:** This performance measure points out the mandatory requirement to perform specified performance steps in a prescribed sequence.

**Figure 6-6. Examples of performance measures**

- 6-14. Relationship of supporting and supported tasks.**

a. There is a hierarchical relationship between tasks and supporting skills and knowledge. The analyst (TD/SME) establishes this relationship by identifying the supporting/supported relationships. This task hierarchy is critical for determining the structure and sequencing of the education/training that supports the identified critical tasks. See [figure 1-3](#) for this hierarchical relationship.

b. By definition, a supporting individual task is a critical task that is performed in order to perform the supported task. These tasks are completed prior to, or as part of, the performance of the task you are analyzing. An individual other than the performer of the task you are analyzing may perform the supporting individual task, including tasks performed by leaders. There may be more than one supporting task. An example of a supporting individual task is shown in table 6-3.

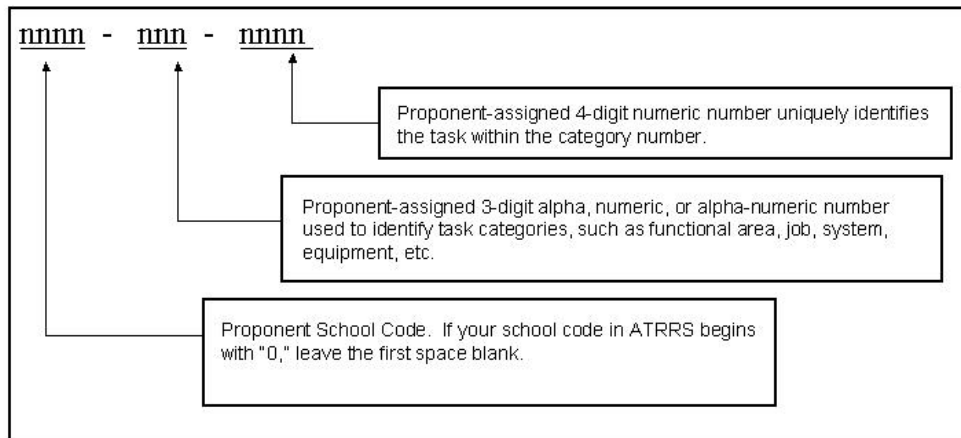
**Table 6-3**  
**Individual task sample**

Supported	Supporting
Plan convoy operations.	Conduct a route reconnaissance.

**6-15. Assign a permanent individual task number.**

a. The critical individual task number positively identifies an individual task. Assign every individual task a unique number following the individual task numbering guidance.

b. The standardized number format for all Army individual critical tasks includes enlisted, warrant officer, commissioned officer, and DA civilian tasks. This format is shown in figure 6-7.



**Figure 6-7. Individual task number**

c. The DA Deputy Chief of Staff, G-1, assigns the proponent school codes that are used for the identification of the proponent education/training sites. The code assigned to the education/training proponent site is used to identify that proponent and is included as part of the individual task number.

(1) See [TRADOC Reg 350-70, appendix C](#), for a list of the task proponent school codes.

(2) A complete list of the school codes is found in the Army Training Requirements and Resources System.

**6-16. The individual-to-collective task matrix.** This matrix shows all of the individual tasks that support a specific collective task. These are the individual tasks the individuals in the unit must be able to perform in order to perform the identified supported collective task to the prescribed standard. The unit trainers/leaders use this information for planning their unit training. This matrix is initially constructed when conducting the collective task analysis. See [paragraph 4-15](#), above, for information on preparing and updating the individual-to-collective task matrix.

**6-17. Develop a task-to-skill/knowledge matrix.**

a. A skill/knowledge matrix shows the skills and knowledge performed as part of different tasks or task performance steps. The data used is derived directly from the task analysis.

b. The graphic depiction of the duplicate requirements for skills and knowledge enhances the capability to structure sequential and progressive training, compare tasks from different jobs, identify similarities between task performances, consolidate jobs, and determine the feasibility of joint training.

c. The matrix lists the tasks or the performance step along the side or top of the matrix, and the skills and/or knowledge required to perform those tasks or steps along the other. Table 6-4 shows examples of skill and knowledge matrixes, listing the steps and tasks on the left side of the matrix.

**6-18. Individual task analysis approval.** The approval for individual tasks analysis is the same as collective task analysis.

a. Obtain approval from appropriate command authority for new and revised individual task analysis. The individual task analysis does not require the approval of the commander/commandant, but does require the approval of the individual or organization leader the commander/commandant gives this approval authority.

b. The command approval signifies that the individual task analysis data and information is correct, comprehensive, and available for distribution to all users. Do not release task analysis data that is not approved by the appropriate command authority.

c. Once the task analysis is completed for each individual task, another SME and the training developer should review it prior to obtaining final approval.

(1) The SME is responsible for ensuring that the content of the analysis is consistent with current doctrine.

(2) The training developer is responsible for ensuring the task analysis is complete and in compliance with TRADOC policy and guidance.

**Table 6-4**  
**Skill/knowledge matrix**

<b>Example 1: Performance step to skill/knowledge matrix for a single task.</b>									
<b>Performance Step</b>	<b>Skills</b>				<b>Knowledge</b>				
	<b>SK 1</b>	<b>SK 2</b>	<b>SK 3</b>	<b>SK 4</b>	<b>K 1</b>	<b>K 2</b>	<b>K 3</b>	<b>K 4</b>	<b>K 5</b>
1	X	X			X		X		X
2			X			X	X		
3		X					X		
4	X				X				X
5	X	X	X	X					

<b>Example 2: Tasks to skill/knowledge matrix.</b>									
<b>Task</b>	<b>Skills</b>				<b>Knowledge</b>				
	<b>SK 23</b>	<b>SK 32</b>	<b>SK 33</b>	<b>SK 55</b>	<b>K 18</b>	<b>K 22</b>	<b>K 23</b>	<b>K 44</b>	<b>K 45</b>
nnn- nnn- 0001		X			X				X
nnn- nnn- 0002	X	X		X		X	X		
nnn- nnn- 0003			X			X			X
nnn- nnn- 0004	X	X		X	X		X	X	
nnn- nnn- 0005		X		X			X		

**Example 3:** Tasks and performance steps to skill/knowledge matrix.

Tasks	Skills				Knowledge				
	SK 23	SK 32	SK 33	SK 55	K 18	K 22	K 23	K 44	K 45
nnn- nnn- 0001									
Step 1					X				
Step 2		X							X
nnn- nnn- 0002									
Step 1						X			X
Step 2	X	X		X			X	X	
Step 3		X		X			X		

d. When conducting an individual critical task analysis, the analyst occasionally determines that either the identified task is not a task or is really two critical tasks. When this occurs, the analyst must:

(1) Submit the changes to the approving authority.

(2) Implement changes to the critical task list after receiving approval.

**6-19. Distribute approved individual task analysis.** Make the completed and approved individual task analysis available to the appropriate users and organizations for use in compiling the STP, designing education/training, and for use in conducting unit training. See [paragraph 1-8](#), above, for additional information on distribution.

**6-20. Update individual task analysis.** Current, complete, and comprehensive individual task analysis is critical for designing education and training. It is the responsibility of the education/training TD (task) proponent to keep their individual task analysis data current. Changes in materiel, organization, and doctrine may initiate revisions of the individual task analysis.

**6-21. Compile the STP task summary data.**

a. A STP task summary is a direct copy of the data created when conducting the individual task analysis. Good, up-to-date task analysis is required to produce a good task summary.

b. A STP task summary contains the condition statement, standard, performance steps, and performance measures. It does not contain sufficient information to design efficient and effective education/training.

**6-22. Individual task analysis report.**

Description           a. The task analysis report is a means for displaying the individual task performance specifications.

Individual task analysis report template           b. The report format is shown in figure 6-8. The Army education/TD database, where all of the required data is input, produces this report. Examples of individual task analysis reports are found in [appendix B](#).

**6-23. Automation support for individual task analysis.** The TD database provides the means to capture most of the individual task analysis data. You should enter the data the system will capture into this database. See [paragraph 1-8](#), above, for additional information on available automation support.

**INDIVIDUAL TASK ANALYSIS REPORT**  
(effective date)

**TASK NUMBER:**

**TASK TITLE:**

**CONDITION:**

**SPECIAL CONDITIONS:**

**STANDARD:**

**REFERENCES:**

**PERFORMANCE STEPS:**

1.

    a.

    b -n.

Skills the soldier must have:

        S-1

        S-2

Knowledge the soldier must have:

        K-1

        K-2

    Resource Requirements:

References:

        Title:

        Date:

        Paragraph/pages

Supporting Individual Tasks:

        (Number, Title)

Safety Factors/Hazards:

Environmental Considerations:

2-n. (Same as above.)

<b>PERFORMANCE MEASURES</b>	<b><u>GO</u></b>	<b><u>NO GO</u></b>
1.	_____	_____
2.	_____	_____
a.	_____	_____
b.	_____	_____
3. - n	_____	_____

**TASKS SUPPORTED –**

Collective tasks: (list number(s), title(s))

Individual tasks: (list number(s), title(s))

AUTL (tactical level) tasks: (list number(s), title(s))

TASK(S) SUPERSEDED: \_\_\_\_\_ (list number(s), title(s))

**TASK CERTIFICATION REQUIREMENTS (if any):**

**ADMINISTRATIVE INFORMATION:**

<u>POCs:</u>	<u>Name</u>	<u>Address</u>	<u>Phone No.</u>	<u>E-mail</u>
Analyst:				
SME reviewer(s):				
TD reviewer:				
Approved by:				
Date:				

**Figure 6-8. The individual task analysis report**



**6-24. Individual task analysis data use.**

Design

a. The primary purpose for the identification of the task performance specifications, when conducting individual task analysis, is to identify the details needed to design efficient and effective learning products.

(1) Of primary design value are:

(a) Skills and knowledge identified.

(b) Hierarchy of the steps, skills, and knowledge.

(c) The verb used in writing the skills and knowledge.

(2) Application of a learning hierarchy, such as Bloom's Taxonomy, provides a valuable tool for structuring and sequencing the learning that you will design, to ensure soldiers can perform the critical tasks to the prescribed performance standard. Ensure the training analyst is thoroughly familiar with the hierarchy used, so that the analysis is complete, comprehensive, and accomplished to a viable detail level.

TKCAM

b. Task Knowledge Commonality Analysis Method (TKCAM) is an ARI program. The TKCAM is a tool designed for action officers (military/civilian) to use as a systematic approach to examine MOS merger possibilities (see fig 6-9). It provides a means of comparing job performance requirements to determine whether or not to combine them into one job. If the job of collecting the task analysis data was performed thoroughly, this comparison is relatively easy and accomplished via a computer. Contact ARI for additional information.

MOS Skill Level	Extract from Task Analysis Database		
	Critical Tasks	Supporting	
		Skills	Knowledge
99T10	123-003-3570 123-466-4876 123-466-5009 to - n	S-11468 S-35486 S-56287 to - n	K-13647 K-57354 K-86734 to - n
17Z10	756-004-5887 756-765-4876 756-834-4309 to - n	S-11468 S-45378 S-56287 to - n	K-04735 K-29467 K-86734 to - n

Compare the tasks, skills, and knowledge required.

**Figure 6-9. The TKCAM concept**

**6-25. Individual task analysis QC.**

Description	a. To maintain the quality of the individual task analysis products, it is essential to continuously apply QC procedures. All individuals involved in the conduct of the individual task analysis are responsible for, and must exercise, QC over the process and products produced.
QC checklist for individual task analysis	b. An individual task analysis checklist, <a href="#">Job Aid 350-70-6-5</a> , itemizes critical points in the application of the process and production of the products.

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**Appendix A  
References**

**Section I  
Required Publications**

AR 611-1  
Military Occupational Classification Structure Development and Implementation

AR 611-3  
Army Occupational Survey Program (AOSP)

AR 614-200  
Enlisted Assignments and Utilization Management

Chairman of the Joint Chiefs of Staff Manual (CJCSM) [3500.04C](#)  
Universal Joint Task List (UJTL)

DA Pam 351-4  
U.S. Army Formal Schools Catalog

DA Pam 600-3  
Commissioned Officer Development and Career Management

DA Pam 611-21  
Military Occupational Classification and Structure

Joint Pub 1-02  
DOD Dictionary of Military and Associated Terms

TRADOC Pam 350-70-4  
Systems Approach to Training: Evaluation

## **TRADOC Pam 350-70-6**

TRADOC Reg 350-18  
The Army School System (TASS)

TRADOC Reg 350-70  
Systems Approach To Training Management, Processes, and Products

### **Section II Related Publications**

AR 5-5  
Army Studies and Analyses

AR 5-9  
Area Support Responsibilities

AR 5-13  
Training Ammunition Management System

AR 10-87  
Major Army Commands in the Continental United States

AR 25-30  
The Army Publishing Program

AR 25-55  
The Department of the Army Freedom of Information Act Program

AR 25-400-2  
The Army Records Information Management System (ARIMS)

AR 27-60  
Intellectual Property

AR 34-1  
Multinational Force Compatibility

AR 40-10  
Health Hazard Assessment Program in Support of the Army Materiel Acquisition  
Decision Process

AR 71-9  
Materiel Requirements

AR 200-1  
Environmental Protection and Enhancement

AR 200-2  
Environmental Effects of Army Actions

AR 200-3  
Natural Resources - Land, Forest, and Wildlife Management

AR 310-25  
Dictionary of United States Army Terms (Short Title: AD)

AR 310-50  
Authorized Abbreviations, Brevity Codes, and Acronyms

AR 340-21  
The Army Privacy Program

AR 350-1  
Army Training and Education

AR 350-2  
Opposing Force (OPFOR) Program

AR 350-10  
Management of Army Individual Training Requirements and Resources

AR 350-50  
Combat Training Center Program

AR 351-9  
Interservice Training

AR 380-5  
Department of the Army Information Security Program

AR 380-10  
Foreign Disclosure and Contacts with Foreign Representatives

AR 385-10  
Army Safety Program

AR 385-16  
System Safety Engineering and Management

AR 385-55  
Prevention of Motor Vehicle Accidents

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AR 415-28  
Real Property Category Codes

AR 600-3  
The Army Personnel Proponent System

AR 600-46  
Attitude and Opinion Survey Program

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

AR 611-5  
Army Personnel Selection and Classification Testing

Chairman of the Joint Chiefs of Staff Instructions (CJCSI) [3500.01B](#)  
Joint Training Policy for the Armed Forces of the United States

[CJCSI 3500.02C](#)  
Joint Training Master Plan 2002 for the Armed Forces of the United States

DA Pam 25-40  
Army Publishing: Action Officers Guide

DA Pam 600-11  
Warrant Officer Professional Development

FM 3-0  
Operations

FM 3-07  
Stability Operations and Support Operations

FM 7-0  
Training the Force

FM 7-1  
Battle Focused Training

FM 100-14  
Risk Management

FM 101-5-1  
Operational Terms and Graphics

TRADOC Reg 11-8  
TRADOC Studies and Analyses

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

TRADOC Reg 385-2  
TRADOC Safety Program

Training Circular (TC) 25-20  
A Leader's Guide to After Action Reviews

[TM 38-250](#)

Preparing Hazardous Material for Military Air Shipments

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## **Appendix B**

### **Sample Individual Task Analysis**

**TASK NUMBER:** 152-020-0007

**TASK TITLE:** Train a team

**CONDITION:** You are scheduled to deploy to an operational area. You have full access to reference materials, training aids, training areas, ranges, and all required equipment. You have access to leader guidance and direction.

**STANDARD:** Train the team to perform all tasks selected for training to standard during the specified time period. Select tasks for training that support the platoon training plan and the commander's intent. Plan training to include—

- Identification of personnel to be trained.
- Selection of appropriate training activities.
- Identification of resources required for conducting the training.
- Conduct of a training meeting in which the plan was clearly described.
- Inclusion of team input.
- Assignments for Observer/Controllers (OCs) and assistant trainers.
- Conduct training of selected tasks to include --
- Identification and management of all risks and safety hazards.
- Conduct of appropriate Preventive Maintenance Checks and Services (PMCS) on all equipment and training aids, devices, simulators, and simulations (TADSS).
- Conduct of pre- and post-operation checks.
- Use of appropriate motivation and team building techniques.
- Conduct of After Action Reviews (AARs).
- Conduct appropriate retraining activities until all tasks are performed to standard and the environment is protected.

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- Update all assessment reports to reflect the team's post-training status on completion of training.

### **REFERENCES:**

\*FM 7-0, Training the Force, October 2002.

\*FM 7-1, Battle Focused Training, September 2003.

TC 25-10, A Leader's Guide to Lane Training, August 1996.

\*TC 25-20, A Leader's Guide to After Action Reviews, September 1993.

\*TC 25-30, A Leader's Guide to Company Training Meetings, April 1994.

\*References did not use paragraph numbers.

### **PERFORMANCE STEPS:**

1. Assess team performance to determine level of proficiency using feedback from—
  - a. AARs.
  - b. Previous assessments in the Leader's Book.
  - c. Personal observations.
  - d. Formal and Informal evaluations.
  - e. Other records that provide insight on the squad's ability to perform the tasks being assessed.

### **Skills the soldier must have:**

S-1: Selecting evaluation measures.

S-2: Using an AAR.

S-3: Making assessments.

S-4: Using other records.

### **Knowledge the soldier must have:**

K-1: How to assess team performance.

K-2: Why an assessment is needed.

K-3: What is an AAR.

K-4: What are the references that list tasks:

-Mission Training Plan (MTP).

-Standard Army Training System (SATS).

-Soldier Training Publications (STP).

K-5: What is a leader's book.

K-6: What other records may be used to assess performance.

### **Reference:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Pages:** 6-1 through 6-30.

**Supporting Individual Task:** None.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

2. Select tasks to be trained.
  - a. Identify the impact of the commander's intent on the team.
  - b. Determine which portions of the platoon's training plan apply to the team.
  - c. Determine which tasks to train:
    - (1) Identify collective tasks.
    - (2) Identify individual tasks.

**Skills the soldier must have:**

- S-5: Relating previous assessments to current mission.
- S-6: Understanding the commander's intent.
- S-7: Selecting tasks based on the commander's intent and unit training plan.

**Knowledge the soldier must have:**

- K-7: What is a training plan.
- K-8: What is the unit's training plan.
- K-9: How to use assessments.
- K-10: How to select tasks for training.
- K-11: What is the commander's intent.
- K-12: What is an individual task.
- K-13: What is a collective task.

**Reference:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Page:** Page 5-1 through 5-68

**Supporting Individual Task:** None

**Safety Factors/Hazards:** None

**Environmental Considerations:** None

3. Plan near-term training.
  - a. Plan training execution:
    - (1) Who will be involved in training?
    - (2) What method of instruction to use?
    - (3) Where will the training take place; for example—
      - (a) Range.
      - (b) TADSS.
      - (c) Training area requirements.
    - (4) When will the training occur?
    - (5) How long will the training take?



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- b. List required resources and support; for example—
  - (1) TADSS.
  - (2) Weapons and ammunition.
  - (3) Training areas.
  - (4) OCs.
  - (5) Assistant trainers.
  - (6) Opposing force (OPFOR).
  - (7) Communication equipment.
  - (8) Logistic support; for example—
    - (a) Meals.
    - (b) Medics.
    - (c) Maintenance support.
    - (d) Transportation.
    - (e) Fuel.
- c. Coordinate for required resources and support.
- d. Establish rules of engagement (ROE).
- e. Brief platoon leader on the training plan.
- f. Adjust plan based on platoon leader's guidance.

### **Skills the soldier must have:**

- S-8: Selecting appropriate training area for specific tasks.
- S-9: Determining the appropriate training period.
- S-10: Selecting the proper resources and support.
- S-11: Coordinating for resources and support.
- S-12: Selecting assistant trainers.
- S-13: Developing a team training plan.
- S-14: Conducting map and area reconnaissance for desired training area.
- S-15: Determining how much fuel is needed.
- S-16: Identifying TADSS.

### **Knowledge the soldier must have:**

- K-14: Who will be involved in training.
- K-15: What are the methods of instruction.
- K-16: When can training occur.
- K-17: Where can training be conducted.
- K-18: What are range/training area requirements.
- K-19: How much time is available for training.
- K-20: How to estimate required training time.
- K-21: How to identify resources and support requirements.
- K-22: What are planning techniques.
- K-23: How to coordinate for resources and support.
- K-24: How to use OCs and assistant trainers.
- K-25: How to use TADSS and equipment.
- K-26: What are ROE.
- K-27: How to determine what range/training areas are available and their capabilities and limitations.

**References:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Pages:** 4-71 through 4-47

**Supporting Individual Task:** 101-92Y-0001, Supervise Supply Activities.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

4. Conduct team training meeting.
  - a. Review the level of soldier proficiency; for example—
    - (1) Assessment of training conducted.
    - (2) Reasons planned training was not conducted.
    - (3) Current training proficiency.
    - (4) Impact of key soldier changes.
  - b. Discuss near-term training (out to 6 weeks).
    - (1) New command guidance.
    - (2) Pre-execution checks for training scheduled.
    - (3) Additional training requirements (planned and opportunity) based on:
      - (a) Company training.
      - (b) Platoon training.
      - (c) Team training:
        - Leader training.
        - Individual training.
        - Collective training.
    - (4) Additional team recommendations.
      - (a) Resource requirements (equipment/materials/supplies/logistic support).
      - (b) Length of time required for training activities.
      - (c) Personnel assignments:
        - OCs.
        - Assistant trainers.
        - Certified Combat Lifesaver.
        - Unit medics.
      - (d) Equipment/uniform requirements for training activities.
      - (e) Rules of engagement.
  - c. Have assistant trainer back brief.

**References:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Pages:** 4-75 through 4-78.

**Title:** TC 25-30, A Leader's Guide to Company Training Meetings.

**Date:** April 1994.

**Pages:** Entire manual.

**Skills the soldier must have:**

- S-17: Identifying the current level of proficiency.
- S-18: Planning for future training.
- S-19: Enforcing training schedules.
- S-20: Communicating effectively.
- S-21: Clarifying roles of team members.

**Knowledge the soldier must have:**

- K-28: What is the team's proficiency level.
- K-29: What is the commander's intent.
- K-30: What are pre-execution checks.
- K-31: What is the plan for training.
- K-32: Why are backbriefs conducted.
- K-33: What tasks are to be trained.
- K-34: Why it is important to disseminate resource requirements to the team.
- K-35: Why it is important to brief training plan to all team members.
- K-36: How to conduct coordination.

**Supporting Individual Tasks:**

101-92Y-0001, Supervise Supply Activities.

158-200-1000, Coordinate Activities with Staffs.

158-100-1140, Communicate Effectively in a Given Situation.

158-100-1150, Apply the Essential Elements of Army Leadership Doctrine to a Given Situation.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

5. Arrange for training resources.
  - a. Update requirements for resources and support.
  - b. Obtain publications; for example, MTPs, STPs, FMs, TCs, TMs, TSPs.
  - c. Coordinate for required resources and support.
  - d. Collect resources.
  - e. Transport resources to training site.

**Reference:** None.

**Skills the soldier must have:**

- S-22: Acquiring training materials, equipment, and support.
- S-23: Inspecting training materials and equipment for serviceability.
- S-24: Processing hand receipts.

**Knowledge the soldier must have:**

- K-37: What training materials to gather.
- K-38: Which references will be needed.
- K-39: How to acquire training material.
- K-40: How to fill out a hand receipt.
- K-41: How to issue equipment to soldiers.
- K-42: How to inspect training material and equipment for serviceability.
- K-43: How to fill out a DA Form 2404.
- K-44: How to perform Before Operations Checks.
- K-45: What are your personal responsibilities for property accountability.
- K-46: How to conduct coordination.

**Supporting Individual Tasks:**

- 101-92Y-0001, Supervise Supply Activities.
- 091-257-0002, Conduct Preventive Maintenance Checks and Services.
- 158-200-1000, Coordinate Activities with Staffs.
- 158-100-1140, Communicate Effectively in a Given Situation.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

- 6. Train assistant trainers.
  - a. Verify that assistant trainer is proficient in the task.
  - b. Train assistant trainer if not already proficient in the task.

**References:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Pages:** 5-13 through 5-14.

**Skills the soldier must have:**

- S-25: Motivating subordinates.
- S-26: Developing small units.

**Knowledge the soldier must have:**

- K-47: How to motivate subordinates.
- K-48: How to train the assistant trainers on required tasks.
- K-49: How to conduct training.
- K-50: How to verify task performance proficiency.

**Supporting Individual Tasks:**

- 158-100-1170, Apply Team Development Techniques to Enhance Unit Performance.
- 158-100-1250, Motivate Subordinates to Improve Performance.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

7. Conduct Pre-Combat Checks.
  - a. Ensure soldiers know mission and mission requirement.
  - b. Ensure that vehicles are fully fueled.
  - c. Check for operational readiness of vehicles and equipment.
  - d. Ensure that all mission essential equipment is present as required; for example—
    - (1) Binoculars.
    - (2) Night Observation Devices.
    - (3) Crew-served weapons.
    - (4) Personal weapons.
    - (5) Maps.
    - (6) Compasses.
    - (7) Mission Oriented Protective Posture (MOPP) clothing and equipment.
    - (8) Vehicle dispatches.
    - (9) Vehicles.
    - (10) Military drivers licenses.
    - (11) TA 50.
    - (12) Ear plugs.
    - (13) Eye protection.
    - (14) Gloves.

**References:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Page:** 5-15 and 5-63 through 5-64.

**Title:** TC 25-10, A Leader's Guide to Lane Training.

**Date:** August 1996.

**Page:** 84.

**Skills the soldier must have:**

S-27: Using checklists to confirm operational readiness.

S-28: Ensuring that vehicles are fully mission capable.

S-29: Using a compass for land navigation.

S-30: Conducting PMCS on equipment.

**Knowledge the soldier must have:**

K-51: How to determine what equipment is needed.

K-52: How to check optical equipment.

K-53: How to check personal and crew-served weapons.

K-54: How to use back briefs to ensure soldiers know mission and mission requirements.

K-55: How to wear and use MOPP clothing and equipment.

K-56: How to dispatch vehicles.

**Supporting Individual Tasks:**

101-92Y-0001, Supervise Supply Activities.

091-257-0002, Conduct Preventive Maintenance Checks and Services.

031-503-1035, Protect Yourself from Chemical/Biological Contamination Using Your Assigned Protective Mask.

031-503-1015, Protect Yourself from NBC Injury/Contamination with the Appropriate Mission Orient Protective Posture (MOPP) Gear.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

8. Conduct risk management.
  - a. Planning phase activities.
    - (1) Decide which type of risk assessment will be performed; for example, hasty or deliberate.
    - (2) Conduct an operations assessment.
  - b. Execution phase activities.
    - (1) Supervise implementation of controls throughout the operation or training execution.
    - (2) Implement or follow controls.
    - (3) Monitor controls.
    - (4) Assess the effectiveness of controls.
  - c. Assessment phase activities.
    - (1) Assess the effectiveness of risk management during both planning and execution; for example--
      - (a) Were there any damages or injuries during execution?
      - (b) Were controls implemented as planned?
      - (c) Were participants informed of the hazards and controls?
      - (d) Were improper procedures or practices observed?
    - (2) Take corrective action if needed; for example—
      - (a) Provide feedback to managers and participants; for example, AAR, lessons learned.
      - (b) Revise SOPs.
    - (3) Repeat risk management planning process.

**References:**

**Title:** FM 7-1, Battle Focused Training.

**Date:** September 2003.

**Page:** Appendix H, page H-1 through H-3.

**Title:** TC 25-10, A Leader's Guide to Lane Training.

**Date:** August 1996.

**Page:** 129 - 137.

**Skills the soldier must have:**

- S-31: Practicing safety at all times.
- S-32: Recognizing risks and hazards.

**Knowledge the soldier must have:**

- K-57: How to conduct risk management.
- K-58: How to identify risks and hazards.
- K-59: How to reduce unnecessary risks.
- K-60: What are the guidelines and requirements for risk management.
- K-61: What is the leader's role in risk management.

**Supporting Individual Task:**

154-111-2225, Employ Accident Prevention Measures and Risk Management Process.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

**Supporting Individual Tasks:**

- 158-200-1000, Coordinate Activities with Staffs.
- 121-010-8001, Report Casualties.
- 081-831-0101, Request Medical Evacuation.
- 081-831-1000, Evaluate a Casualty.
- 113-305-1001, Communicate by Tactical Radio.
- 158-100-1140, Communicate Effectively in a Given Situation.
- 158-100-1110, Apply the Essential Elements of Army Leadership Doctrine to a Given Situation.
- 158-100-1170, Apply Team Development Techniques to Enhance Unit Performance.
- 154-111-2225, Employ Accident Prevention Measures and Risk Management Process.
- 158-100-1250, Motivate Subordinates to Improve Performance.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

9. Conduct training.
  - a. Conduct initial training.
    - (1) Explain why the training is being conducted.
    - (2) State the training objective (task, conditions, and standards).
    - (3) Demonstrate and talk soldiers through each step of the task ("crawl").
    - (4) Coach soldiers as they perform the task ("walk").
    - (5) Practice until soldiers perform task to standard ("run").
    - (6) Assess performance.

- (7) Retrain task if necessary.
- (8) Allow them to continue performing task.
- b. Conduct refresher training.
  - (1) Explain why the training is being conducted.
  - (2) State the training objective (task, conditions, and standards).
  - (3) Practice tasks while adding more realistic conditions.
  - (4) Practice to training objective standards.
  - (5) Link task with other tasks.
  - (6) Participate as leader of crew of small units.
  - (7) Coach subordinates.
- c. Conduct sustainment training.
  - (1) Explain why the training is being conducted.
  - (2) State the training objective (task, conditions, and standards).
  - (3) Soldiers and leaders perform collective tasks under simulated combat conditions.
  - (4) Add realism and complexity.
  - (5) Optimize time and resources.
  - (6) Coach subordinates.

**Skills the soldier must have:**

- S-33: Conducting a lecture.
- S-34: Conducting a conference.
- S-35: Conducting a demonstration.
- S-36: Using "crawl," "walk," "run."
- S-37: Conducting practice.
- S-38: Evaluating performance.
- S-39: Coaching performance.

**Knowledge the soldier must have:**

- K-62: When a lecture is used.
- K-63: When a conference is used.
- K-64: When a demonstration is used.

**Reference:**

**Title:** FM 7-1, Battle Focused Training.  
**Date:** September 2003.  
**Pages:** 5-62 through 5-68.

**Supporting Individual Task:** None.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

- 10. Conduct AAR.
  - a. Plan an AAR to consider the following:



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- (1) When and where will the AAR be conducted?
  - (2) Who will attend the AAR?
  - (3) Who will observe the training?
  - (4) Who will conduct the AAR?
  - (5) What training aids will be used during the AAR; for example—
    - (a) Maps and overlays?
    - (b) Terrain models?
    - (c) Equipment and personnel models?
    - (d) Charts?
    - (e) Slides?
    - (f) Viewgraphs?
    - (g) Video or voice recordings?
    - (h) Include formats for charts, slides, and viewgraphs?
  - (6) How long will the AAR take?
  - (7) What is the format of the AAR?
- b. Prepare AAR.
- (1) Review the training objectives, training and evaluation outlines (T&EOs), scenario, mission, orders, and doctrine.
  - (2) Review the unit's plans and standard operating procedures (SOPs).
  - (3) Prepare the selected sites.
  - (4) Observe the training and take notes.
  - (5) Evaluate task proficiency.
    - (a) Identify the T&EO for the task.
    - (b) Use the T&EO standard to evaluate the unit's performance of the task.
    - (c) Record on the T&EO a "GO" for each task step performed to standard (performance measure) and a "NO GO" for each task step not performed to standard. Annotate reasons for "NO GO" evaluations.
  - (6) Develop a discussion outline to guide the AAR.
- c. Conduct AAR.
- (1) Assemble and organize AAR participants.
  - (2) Provide introduction, AAR guidelines, and basic AAR rules.
  - (3) Review training objectives.
  - (4) Review what was supposed to happen.
  - (5) Establish what happened.
    - (a) Solicit discussion of recent events; for example—what, when, and where. Address the time frame before, during, and after each event.
    - (b) Focus on task steps.
  - (6) Determine what was right or wrong with what happened. Guide discussion to—
    - (a) Solicit views and reasons.
    - (b) Relate events to subsequent results.
  - (7) Identify how it happened.
    - (a) Prompt soldiers to reveal key facts that led up to the event.
    - (b) Encourage participants to relate prior events to subsequent results or consequences.
  - (8) Identify why it happened.

- (a) Encourage soldiers to suggest probable causes for the event.
- (b) Surface key performance issues, actions, or factors.
- (9) Determine how the task should be done differently the next time. Guide the discussion to—
  - (a) Solicit ideas on how tasks could have been performed better.
  - (b) Reveal alternative courses of action.
  - (c) Identify advantages and disadvantages for each course of action.
  - (d) Achieve consensus on the best course of action.
  - (e) Discover important lessons from the training event.
- (10) Create an opportunity for general discussion of other important issues.

**References:**

**Title:** TC 25-20, A Leader's Guide to After Action Reviews.

**Date:** 30 September 1993.

**Pages:** Entire manual.

**Title:** TC 25-10, A Leader's Guide to Lane Training.

**Date:** August 1996.

**Pages:** 62-63 and 91-94.

**Skills the soldier must have:**

- S-40: Establishing a unit climate that promotes learning.
- S-41: Determining when task standards are achieved.
- S-42: Identifying strengths and deficiencies.
- S-43: Motivating subordinates.
- S-44: Eliciting feedback.
- S-45: Providing positive feedback.
- S-46: Identifying ways to improve task performance.
- S-47: Motivating subordinates.

**Knowledge the soldier must have:**

- K-65: How to plan an AAR.
- K-66: How to prepare an AAR.
- K-67: How to conduct an AAR.
- K-68: How to follow-up.
- K-69: What is the value of an AAR.
- K-70: How to improve task performance.
- K-71: How to provide feedback to soldiers.
- K-72: Why feedback is important.
- K-73: What is the Army's training doctrine.
- K-74: How to motivate.

**Supporting Individual Tasks:**

- 152-010-0010, Maintain Personal Task Performance.

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158-100-1110, Apply the Essential Elements of Army Leadership Doctrine to a Given Situation.

158-100-1170, Apply Team Development Techniques to Enhance Unit Performance.

158-100-1250, Motivate Subordinates to Improve Performance.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

11. Conduct retraining.
  - a. Address individual and collective deficiencies discussed during AAR.
  - b. Reaffirm the standard.
  - c. Perform task.
  - d. Assess performance.
  - e. Conduct AAR.

### **Reference:**

**Title:** TC 25-20, A Leader's Guide to After Action Reviews.

**Date:** September 1993.

**Pages:** 4-6 and 5-2.

### **Skills the soldier must have:**

S-48: Making training interesting so soldiers will be motivated to conduct training again.

S-49: Identifying task performance.

S-50: Motivating subordinates.

S-51: Providing positive feedback.

S-52: Evaluating training using current doctrine.

### **Knowledge the soldier must have:**

K-75: How to get soldiers to discuss in their own words what went wrong.

K-76: What went wrong with training so that corrections can be made.

K-77: How to choose the right references to make training successful.

K-78: What is the task standard.

K-79: How to properly conduct retraining.

K-80: What tasks need to be retrained.

K-81: How to motivate.

K-82: What is the value of positive feedback.

K-83: What factors foster learning.

### **Supporting Individual Tasks:**

158-100-1170, Apply Team Development Techniques to Enhance Unit Performance.

158-100-1250, Motivate Subordinates to Improve Performance.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

12. Conduct post operations checks.
  - a. Conduct soldier accountability.
  - b. Conduct sensitive item accountability.
  - c. Turn in unused ammunition.
  - d. Conduct maintenance checks of vehicles, weapons, and equipment.
  - e. Police training area.
  - f. Complete closing report.

**Skills the soldier must have:**

S-51: Inspecting soldiers and equipment.

S-52: Motivating subordinates.

**Knowledge the soldier must have:**

K-84: What are the requirements for post operation checks.

K-85: How to inspect soldiers.

K-86: How to verify accountability of sensitive items and equipment.

K-87: How to perform after operational maintenance.

K-88: How to conduct police call.

K-89: How to conduct closing report.

K-90: How to turn in ammunition.

**Supporting Individual Task:** None.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

13. Assess squad training proficiency at the completion of training.
  - a. Assess task performance as "GO" or "NO-GO."
  - b. Record assessment in leader book.
  - c. Include any other information that provides insight on the squad's ability to perform the task being assessed.
  - d. Develop a strategy to improve soldier and team task performance.
  - e. Provide feedback to squad leader; for example—assessments, lessons learned.
  - f. Identify ways to improve conduct of future training.
  - g. Identify corrective action; for example--update SOPs and references.

**Reference:**

**Title:** TC 25-10, A Leader's Guide to Lane Training.

**Date:** August 1996.

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**Pages:** 96 - 97.

### **Skills the soldier must have:**

- S-53: Providing insight on team's ability to perform task including other information.
- S-54: Providing positive feedback.
- S-55: Identifying corrective action.

### **Knowledge the soldier must have:**

- K-91: How to perform assessment.
- K-92: How to use the problem solving process.

**Supporting Individual Task:** None.

**Safety Factors/Hazards:** None.

**Environmental Considerations:** None.

### **PERFORMANCE MEASURES**

	<b><u>GO</u></b>	<b><u>NO-GO</u></b>
1. Categorized the tasks as:	GO	NO-GO
a. GO.		
b. NO-GO.		
2. Selected tasks for training based on:		
a. Commander's intent.	GO	NO-GO
b. The squad's training plan.	GO	NO-GO
c. The team's inability to perform the tasks.	GO	NO-GO
3. Identified the following for each task selected for training:		
a. Personnel to be trained.	GO	NO-GO
b. Type of training to be conducted.	GO	NO-GO
c. Training sites.	GO	NO-GO
d. Training schedule.	GO	NO-GO
4. Identified the resources needed to conduct training to include the following requirements:		
a. Training area/range.	GO	NO-GO
b. OPFOR (if required).	GO	NO-GO
c. Equipment, supplies, and materials.	GO	NO-GO
d. TADSS.	GO	NO-GO
e. Weapons and ammunition (if required).	GO	NO-GO
f. Logistical support.	GO	NO-GO
g. Logistical coordination.	GO	NO-GO
h. Observer/Controllers.	GO	NO-GO
i. Assistant trainers (if required).	GO	NO-GO
j. Maintenance support.	GO	NO-GO

- |  |    |       |
|--|----|-------|
| 5. Identified the resources required to support the soldiers:  |    |       |
| a. Meals.  | GO | NO-GO |
| b. Medical support.  | GO | NO-GO |
| c. Transportation.   | GO | NO-GO |
| 6. Conducted a training meeting that:  |    |       |
| a. Reviewed the level of soldier proficiency during the previous quarter.                                | GO | NO-GO |
| b. Identified any new guidance that impacts planned training.  | GO | NO-GO |
| c. Identified any additional training required.  | GO | NO-GO |
| d. Identified the training to be conducted.  | GO | NO-GO |
| e. Identified all resources required to conduct the training.  | GO | NO-GO |
| f. Identified the coordination required.   | GO | NO-GO |
| g. Identified uniform requirements.  | GO | NO-GO |
| h. Assigned responsibilities to assistant trainers, combat lifesavers, and Observer/Controllers.         | GO | NO-GO |
| i. Established ROE.  | GO | NO-GO |
| j. Confirmed that all guidance was understood by having an assistant trainer back brief the team leader. | GO | NO-GO |
| 7. Ensured all required training materials are collected.  | GO | NO-GO |
| 8. Ensured that assistant trainers are trained.  | GO | NO-GO |
| 9. Conducted Pre-Combat Checks that ensured readiness of:  |    |       |
| a. Equipment.  | GO | NO-GO |
| b. Vehicles.   | GO | NO-GO |
| 10. Identified all risks associated with the training.   | GO | NO-GO |
| 11. Conducted training during which:   |    |       |
| a. All soldiers performed the tasks to standard.   | GO | NO-GO |
| b. All safety requirements were observed.  | GO | NO-GO |
| c. The environment was protected.  | GO | NO-GO |
| 12. Conducted AAR's that:  |    |       |
| a. Provided immediate feedback to the soldiers.  | GO | NO-GO |
| b. Covered the entire training activity.   | GO | NO-GO |
| c. Discussed both what went right and what went wrong.   | GO | NO-GO |
| d. Recommended ways to improve training.   | GO | NO-GO |
| 13. Conducted retraining that met a need identified during either training or the AAR.                   | GO | NO-GO |

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- 14. Conducted post operations checks that:
  - a. Ensured all sensitive items and personnel were accounted for. GO NO-GO
  - b. Identified maintenance requirements. GO NO-GO
  - c. Ensured that the training area was policed. GO NO-GO
  
- 15. Assessed team proficiency upon completion of training.
  - a. Updated all records to reflect the new training status of the team. GO NO-GO
  - b. Identified additional training requirements (if appropriate). GO NO-GO
  - c. Identified sustainment training requirements. GO NO-GO

**TASKS SUPPORTED:**

**Collective Tasks:** None.

**Individual Tasks:** 152-020-0030, Train a Platoon.

**BOS:** Combat Service Support, Man the Force, 7.4.

**TASK CERTIFICATION REQUIREMENTS:** None.

**ADMINISTRATIVE INFORMATION:**

**POC:**

**DSN:**

**E-mail:**

**Appendix C  
Templates**

**C-1. Format for TOE/TDA Mission List.**

**TOE/TDA Mission List**

TOE/TDA No.	TOE/TDA Title	Missions

**C-2. Format for Critical Collective Task List for TOE/TDA.**

**Critical Collective Task List for TOE/TDA** \_\_\_\_\_

Collective Task	
Number	Title

**C-3. Format for Mission-to-Collective Task Matrix.**

**Mission-to-Collective Task Matrix**

Mission	Collective Task	
	Number	Title

**C-4. Format for Collective-to-Individual Task Matrix.**

**Collective-to-Individual Task Matrix (Lists supporting individual tasks)**

Collective Task		Individual Task	
Number	Title	Number	Title





ASI	additional skill identifier
AUTL	Army Universal Task List
AUTOGEN	Automated Survey Generator
BOIP	Basis of Issue Plan
CALL	Center for Army Lessons Learned
CBI	computer-based instruction
CJCSM	Chairman, Joint Chiefs of Staff Manual
CP	Career Program
CTC	Combat Training Center
CTSSB	Critical Task and Site Selection Board
DA	Department of the Army
DOD	Department of Defense
DOTMLPF	Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, and Facilities
FAA	Federal Aviation Administration
FM	field manual
GS	General Schedule
HQ	headquarters
IAW	in accordance with
ILS	Integrated Logistics Support
IMI	Interactive Multimedia Instruction
ISS	Instructional Systems Specialist (GS-1750)
LAN	Local Area Network

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LIN	Line Item Number
MACOM	major Army command
MANPRINT	Manpower and Personnel Integration
MERLN	military education and research library network
METL	Mission Essential Task List
MLC	military load classification
MOPP	mission-oriented protective posture
MOS	Military Occupational Specialty
MSR	main supply route
MTP	Mission Training Plan
N	no
NBC	nuclear, biological, and chemical
NCO	noncommissioned officer
NG	National Guard
NGB	National Guard Bureau
NVD	Night Vision Device
OBA	oxygen breathing apparatus
OC	Observer/Controller
OPFOR	opposing force
pam	pamphlet
PMCS	Preventive Maintenance Checks and Services
POC	point of contact
POI	program of instruction

QC	quality control
RC	Reserve Component
reg	regulation
ROE	rules of engagement
SAT	Systems Approach to Training
SCUBA	self-contained underwater breathing apparatus
SI	skill identifier
SME	subject matter expert
SMMP	System MANPRINT Management Plan
SOP	Standard Operating Procedure
SQI	skill qualification identifier
STP	Soldier Training Publication
TADSS	Training Aids, Devices, Simulations and Simulators
T&EO	Training and Evaluation Outline
TASS	The Army School System (formerly Total Army School System)
TC	training circular
TD	training development
TDA	Table of Distribution and Allowance
TDADD	Training Development and Delivery Directorate
TDY	temporary duty
TE	Training Emphasis
TEA	training effectiveness analysis
TKCAM	Task Knowledge Commonality Analysis Method

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TM	technical manual
TTP	tactics, techniques, and procedures
TOE	Table of Organization and Equipment
TRADOC	United States Army Training and Doctrine Command
TSP	Training Support Package
UJTL	Universal Joint Task List
USAF	United States Air Force
USAR	United States Army Reserve
USARC	United States Army Reserve Command
USASMA	United States Army Sergeants Major Academy
USPS	United States Postal Service
VTC	video teleconference
Y	yes

### Section II Terms

#### **Additional skill identifier (ASI) or officer skill identifier (SI)**

Identification of specialized skills that are closely related to, and are in addition to, those required by MOS or AOC (officers). Specialized skills administrative systems and subsystems, computer programming, procedures, and installation management, identified by the ASI or officer SI, include operation and maintenance of specific weapons systems and equipment, analytic methods, animal handling techniques, and other required skills that are too restricted in scope to comprise MOS or AOC. (See [AR 614-200](#) and [DA Pam 611-21](#).)

#### **After Action Review (AAR)**

A professional discussion of an event, focused on performance standards, that enables soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. It is a tool leaders, trainers, and units can use to get maximum benefit from every mission or task.

**Armed Services Vocational Aptitude Battery**

A series of tests, designed under DOD sponsorship, that measure potential for training in general occupational areas.

**Army Universal Task List (AUTL)**

A common reference system that is a comprehensive, but not all-inclusive, hierarchical listing of Army tasks on or in support of the battlefield. The AUTL is architecturally linked to the UJTL. The AUTL collectively includes tasks at each level of war, that is, strategic, operational, and tactical. It may serve as a tool for METL development for field commanders, combat developers, analysts, trainers, and planners for analyzing and integrating operations.

**Automated Systems Approach to Training (ASAT)**

The HQ TRADOC training development automation system under development as a tool for training developers to develop doctrine and training products.

**Basis of Issue Plan (BOIP)**

A planning document that lists specific elements (TOE-level 1, TDA, common table of allowances, joint table of allowances, and Allied Ordnance Publication) in which a new item of material may be placed, the quantity of item proposed for each organization element, and other equipment and personnel required as a result of the introduction of the new item. The BOIP is not an authorization document.

**branch codes**

Numerical codes assigned to represent the branches of the Army in which all officers are commissioned or transferred, trained, developed, and promoted. (See [DA Pam 600-3](#).)

**Career Program 32 (training) jobs**

CP-32 covers DA positions in the following occupational series:

- 301 - Training Support Manager. (Less than 50 percent of duties in training, new equipment training, instructional systems, or other support functions.)
- 1701 - General Education and Training. (Advise, administer, supervise, or perform research in education and training.)
- 1702 - Education and Training Support. (Nonprofessional technical, specialized, or support work. Some semiprofessional training management.)
- 1710 - Educational Specialist. (Renumbered 1750, and education requirements added.)
- 1712 - Training Instructor/Administrator/Specialist. (MOS/branch skills—develop POIs. **Note:** A POI is a direct output of course design. 1712s have no analysis/design skills.)

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- 1750 - Instructional Systems Specialist. (Performs professional work in education and vocational training. Instructs, supervises, and administers. Applies SAT/Instructional Systems Development to education/training programs/products.)

### **Combined Arms Training Strategy**

The Combined Arms Training Strategy is the Army's overarching strategy for the current and future training of the force. These training strategies—

- Describe how the Army will train the total force to standard.
- Consist of unit, individual, and self-development training strategies.
- Identify, quantify, and justify the training resources required to execute the training.

### **competency**

A cluster of related knowledge and skills that affect a major part of one's job (a role or responsibility), that correlates with performance on the job, measured against well accepted standards, and improved via training and development.

### **computer-based instruction (CBI)**

A type of IMI. Computer-based instruction usually refers to computer-presented or controlled course materials that use multiple requirements for student responses as a primary means of facilitating learning.

### **Critical Task and Site Selection Board (CTSSB)**

A management device which serves a QC function in critical task selection. The board, composed mainly of SMEs, reviews the total task inventory and job performance data, and recommends tasks for approval to the appropriate authority as critical tasks.

### **field manual (FM)**

A DA publication that contains doctrine that prescribes how the Army and its organizations function on the battlefield in terms of missions, organizations, personnel, and equipment. The level of detail should facilitate an understanding of "what" and "how" commanders and staffs execute their missions and tasks. Field manuals may also contain informational or reference material relative to conducting military operations and training.

### **immediacy of performance**

A statistical rating (task performance data) collected when conducting a job analysis survey which indicates the time between job entry and job performance. The critical task selection board may use this factor.

**integrated logistics support (ILS)**

A composite of all the support considerations necessary to ensure the effective and economical support of a system or item of equipment for its life cycle. The elements of ILS are design influence, maintenance, manpower and personnel, supply support, support equipment (including test, measurement, and diagnostic equipment), training and training devices, technical data, computer resources support, packaging handling and storage, transportation and transportability, facilities, and standardization and interoperability. (See [Joint Pub 1-02.](#))

**knowledge**

Information or fact required to perform a skill or supported task.

**local area network (LAN)**

A LAN is the fundamental building block for the computer network. It is used to interconnect hosts within a small geographic area and provide high bandwidths with low delays. It is the user connection to the computer, and the means by which data is loaded to or downloaded from the network. The user is connected to the computer network via the personal computer, which is connected to the LAN, the on-off ramp for data.

**Manpower and Personnel Integration (MANPRINT)**

The entire process of integrating manpower, personnel, training, human factors engineering, health hazard assessment, and system safety into a system, through the materiel development and acquisition process. It uses analytical models to help soldier-machine systems reach maximum performance. The models help predict manpower, personnel, and training needs, by considering human factors, engineering, manpower, personnel, training, safety, and health hazards.

**minimum essential requirement**

Actions, processes, or products that are essential to the SAT process to ensure mission-focused, task-based, efficient, and effective training.

**Mission Training Plan (MTP)**

Provides comprehensive training and evaluation outline and exercise concepts and related training management aids to assist field commanders in the planning and execution of effective unit training. It provides units a clear description of "what" and "how" to train, to achieve wartime mission proficiency.

**New Equipment Training Plan**

A document that outlines milestones and other key data elements for training to support new equipment training.

**Occupational Data, Analysis, Requirements, and Structure Program**

A comprehensive system for collecting, processing, storing, and analyzing training and occupational information provided by job incumbents, and their supervisors, through the administration of survey questionnaires. The Occupational Data, Analysis,



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Requirements, and Structure Program provides imperial data for identifying individual critical tasks to training proponents.

### **probability of deficient performance**

Tasks selection criterion that ensures training is given in those essential job skills in which job incumbents frequently perform poorly. This training identifies those tasks that are easier to perform incorrectly or more difficult to accomplish.

### **skill**

The ability to perform a job-related activity that contributes to the effective performance of a task performance step.

### **Soldier Training Publication (STP)**

Publications that contain critical tasks and other training information used to train soldiers. They serve to standardize individual training for the whole Army; provide information and guidance in conducting individual training in the unit; and aid the soldier, officer, NCO, and commander in training critical tasks. They consist of Soldier's Manuals and Soldier's Manuals/Trainers Guides.

### **subject matter expert (SME)**

An individual with a thorough knowledge of a job (duties and tasks). This knowledge qualifies the individual to assist in the training development process (that is, consultation, review, analysis, etc.). Normally, SMEs instruct in their area of expertise.

### **System MANPRINT Management Plan (SMMP)**

A management plan to ensure the combat developer/materiel developer takes the six MANPRINT domains into account during the development of all materiel items.

### **System Training Plan**

The master training plan for a new system, which outlines the development of the total training strategy for integrating the item into the training base and gaining units. It also plans for all necessary training support, training products, and courses; and sets milestones to ensure the accomplishment of the training strategy.

### **Systems Approach to Training (SAT)**

The Army's training development process. It is a systematic, spiral approach to making collective, individual, and self-development training decisions for the total Army. It determines whether or not training is needed; what is trained; who gets the training; how, how well, and where the training is presented; and the training support/resources required to produce, distribute, implement, and evaluate those products. The process involves five training related phases: analysis, design, development, implementation, and evaluation. See "[training development \(TD\)](#)."

**task delay tolerance**

An individual critical task selection factor. A measure of how much delay is tolerated, between the time the need for task performance becomes evident and the time actual performance begins.

**task learning difficulty**

An individual critical task selection factor. A statistical rating collected when conducting job analysis that indicates the time, effort, and assistance required by a student to achieve performance proficiency.

**task selection model**

A model used to apply statistically valid task selection data to identify critical individual tasks. There are a variety of models available for use. Those commonly used are:

- Difficulty-Importance-Frequency Model - An individual critical task selection model that uses difficulty, importance, and frequency factors.
- Eight-Factor Model - An individual critical task selection model that uses percent performing, percent time spent performing, consequence of inadequate performance, task delay tolerance, frequency of performance, task learning difficulty, probability of deficient performance, and immediacy of performance.
- Four-Factor Model - An individual critical task selection model that uses percent performance and task learning difficulty.
- Probability of Task Criticality Model - An individual critical task selection model used by the Occupational Data, Analysis, Requirements, and Structure Program.
- Training Emphasis (TE) Model - An individual critical task selection model that uses the training emphasis factor to determine if a task is critical or not. The TE factor is collected from supervisors of jobholders. It reflects how much emphasis the task is given in training for a specific task. The TE is the most useful single training factor for critical task selection.

**technical manual (TM)**

A publication that describes equipment, weapons, or weapons systems, with instructions for effective use. It may include sections for instructions covering initial preparation for use and operational maintenance and overhaul.

**The Army School System (formerly Total Army School System) (TASS)**

A composite school system comprised of the AC, ARNG, and USAR institutional training systems. The TASS, through the Army's training proponents, provides standard training courses to America's Army, focusing on three main points of effort—standards, efficiencies, and resources. The TASS is composed of accredited and integrated AC/ARNG/USAR schools that provide standard institutional training and education for

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the Total Army. The TASS training battalions are arranged in regions and functionally aligned with the training/TD (task) proponents. (See [TRADOC Reg 350-18.](#))

### training developer

- The individual whose function is to analyze, design, develop, and evaluate training and training products, to include development of training strategies, plans, and products, to support resident, nonresident, and unit training. Any individual functioning in this capacity is a training developer, regardless of job or position title.
- In developing systems, the command or agency responsible for the development and conduct of training which provides the tasks necessary to operate and logistically support the new materiel system.

### training development (TD)

The Army's training development process is the SAT (see "[Systems Approach to Training \(SAT\)](#)"). **Note:** Do not confuse the overall TD process with the particular SAT phase called "development" which is related specifically to the development of training and training products, following analysis and design.

### training effectiveness analysis (TEA)

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

### Training Emphasis (TE) Model

See "[task selection model.](#)"

### Universal Joint Task List (UJTL)

A menu of capabilities (mission-derived tasks, with associated conditions and standards, that is, the tools) a joint force commander selects to accomplish the assigned mission. Once identified as essential to mission accomplishment, the tasks are reflected within the command joint METL.

FOR THE COMMANDER:

OFFICIAL:

ANTHONY R. JONES  
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Deputy Commanding General/  
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/signed/  
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