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Safety

THE TRADOC MODEL SAFETY PROGRAM AND SELF-ASSESSMENT GUIDE

Summary. This pamphlet serves as the basis for doctrine development and organizing, implementing, resourcing, and assessing safety and occupational programs within the U.S. Army Training and Doctrine Command (TRADOC).

Applicability. This pamphlet applies to all TRADOC organizations, activities, and schools.

Suggested Improvements. The proponent of this pamphlet is the Command Safety Office. Send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publication and Blank Forms) through channels to Commander, TRADOC (ATCS-S), 1 Bernard Road, Fort Monroe, VA 23651-1057. Suggested improvements may also be submitted using DA Form 1045 (Army Ideas for Excellence Program (AIEP) Proposal).

Availability. This publication is available only on the TRADOC Homepage at http://www.tradoc. army.mil/tpubs/pamndx.htm.

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Chapter 1
Introduction

1-1. Purpose. The Model Safety Program and Self-Assessment Guide is a living, changing program document intended for tailoring to meet needs of individual commanders and local conditions.

a. The Model Safety Program provides commander's and safety managers a model for a safety and occupational health program, defines standards, and addresses those basic safety program elements necessary for implementation of effective safety and accident prevention programs.

b. The Self-Assessment Guide provides commanders and safety managers a standardized method to assess the scope and effectiveness of a comprehensive safety and occupational health program. The Self-Assessment Guide consists of several checklists that provide a systematic method to assess safety program implementation.

1-2. References. See appendix A for required and related publications.

1-3. Explanation of abbreviations and terms. The glossary contains abbreviations and special terms used in this pamphlet.

Chapter 2
Overview

2-1. Standard. The TRADOC Model Safety Program is based on the legal and regulatory requirements of the Occupational Safety and Health Act of 1970, Department of Defense Instruction (DODI) 6055.1, and Army Regulation (AR) 385-10, as implemented by TRADOC Regulation 385-2. Public law, Executive Order, DODI, and Army regulation direct specific action to furnish employees with places and conditions of employment that are free from recognized hazards causing, or likely to cause, death or serious physical harm; and apply risk management strategies to eliminate accidents, death, and occupational illnesses. Commanders at all levels should provide employees places and conditions of employment that are free from recognized hazards likely to cause death or serious physical harm, and establish procedures to ensure employees are not subject to restraint, interference, coercion, discrimination, or reprisal for filing a report of an unsafe, unhealthful working condition.

2-2. Background. The Model Safety Program is a living, changing program, which should be tailored to meet the needs of individual commanders and local conditions to accomplish the TRADOOC mission. An effective program is:

a. Comprehensive in application–built around and addresses all core functions and enduring missions of TRADOC and the Army.

b. Adequately resourced–staffed and funded to support the TRADOC mission. Ensure leaders, managers, supervisors, and individuals are empowered with the requisite training, authority, information, and resources to execute their duties safely. *Focus safety on areas of greatest risk* – risk management.

c. Universal in scope–provide effective support to current operations, yet remain flexible to support future operations. Not a static program, the safety program is tailored to the existing operational environment and updated as required by accident experience and lessons learned.

2-3. Safety program success. The basic criteria to implement, manage, and measure an effective safety program, and the ultimate success of the model program depends on three enduring threads of continuity:

a. *Ownership*. Personal involvement of commanders, leaders, and supervisors at each level of command/organization sets the focus and direction of safety program and accident prevention efforts. It empowers soldiers and workers with the authority to implement the safety mission.

b. *Oversight*. A qualified (as defined in AR 385-10 and the Office of Personnel Management standards) safety manager, with direct and unimpeded access to the commander, is essential. This ensures commanders maintain a situational awareness of the effectiveness of risk management implementation and safety program effectiveness, and reinforces the credibility of the safety manager in dealing with other staff elements.

c. *Standards*: The safety program document sets the standard for each individual safety program and subelement of that program. A written safety program document clearly defines the commander's intent, fixes responsibility/accountability, and sets the measure for acceptable performance.

Chapter 3
Safety Program Elements

3-1. Risk management.

a. Risk management is the accepted Army standard accident reduction/accident avoidance process. A risk management-based safety program puts into place a systematic, disciplined process and management system that focuses on priorities so that the mission is accomplished without unnecessary risk. Risk management:

(1) Fosters initiative and further freedom of action by defining risk parameters within which an operation must remain, rather than imposing unnecessary restrictions or limitations on leaders.

(2) Creates an operational climate that promotes mission accomplishment without risk.

(3) Is dependent upon two critical elements for effectiveness:

(a) First, leaders must understand the process.

(b) Second, there must be a system in place to effectively deal with changes in mission or activity risk levels due to changes in circumstances or conditions.

b. Ensure risk management is institutionalized in all schools' products, training courses, and combat training center programs. Service school graduates must be trained and proficient in assessing and managing risk in the training and operational environment. A risk management structure and control system must also be in place to ensure on-the-ground leadership presence at the appropriate level for all high and moderate risk training; clearly define risk decision authority to include the role/responsibility of the first general officer in the chain of command in the approval process for executing high and moderate risk training; ensure the conduct of initial and periodic on-the-ground review ("lane proofing") of all recurring training activities; provide clear guidance on where risk decision authority lies; and when there is time to do so, get risk decisions ahead of time where risk is known and understood. Risk decision authority must be clearly understood and enacted. The primary tenets of effective risk management are that commanders accept no risk unless the potential benefit outweighs the potential loss and risk decisions are made at the appropriate level. Appropriate risk decision authority is in accordance with (IAW) TRADOC Reg 385-2 as follows:

(1) Extremely high risk--Senior Mission Commander of general officer rank.

(2) High risk--Colonel or equivalent, as designated by the Senior Mission Commander.

(3) Moderate risk--Lieutenant Colonel or equivalent, and Command Sergeants Major (CSM) serving as Noncommissioned Officer Academy/CSM Academy Commandants, as designated by the Senior Mission Commander.

(4) Low risk--As designated by the Senior Mission Commander.

c. Commanders should establish and publish a risk management policy that incorporates this guidance and designates risk decision authority consistent with TRADOC criteria. Risk decisions are based on the residual risk of an activity, after application of appropriate control measures, and are briefed one level up the chain of command from the decisionmaker.

3-2. Inspections, assessments, and evaluations. Safety assessments and evaluations are important tools in effectively identifying hazards and controlling risk. Safety assessments may be the result of an unusual occurrence or an out-of-the-ordinary planned activity. In all cases, inspections, assessments, and evaluations are oriented on identification of hazards or measuring the effectiveness of accident prevention efforts, not the effectiveness of the command or leadership. An aggressive Safety and Occupational Health Inspection Program ensures that all workplaces are inspected on an annual basis. See paragraph 4-1b, below, for implementation and use of inspections.

3-3. Hazard abatement. Law and regulation direct that hazards are eliminated on a worst-first basis. To ensure hazards are corrected on a worst-first basis, coordinate all safety and occupational related hazards with the garrison safety office for integration into a single garrison hazards abatement log maintained by the garrison safety manager. Hazards may be identified by a variety of means--inspections, accidents, routine maintenance and repair operation, or requests (work orders/job orders, customer reports, etc.) for repair or replacement of material or facilities. To ensure all hazards are correctly assessed and included in the garrison hazard abatement log, ensure the garrison safety manager reviews and validates all work orders, job orders, or requisitions that have a safety or occupational health connection. Once a violation or hazard is identified, the safety manager or a qualified safety professional ensures it is risk assessed in terms of hazards severity and accident probability. This assessment is expressed in terms of a risk assessment code (RAC) which identifies the relative seriousness of the hazard. Prepare a garrison abatement plan for each RAC 1 or 2 hazard when the correction exceeds 30 days.

3-4. Accident reporting, investigation, and analysis. Accident investigations and careful analysis of accident information provides the safety manager with the means by which to identify potential sources of future accidents and to develop and implement countermeasures to reduce exposure of soldiers, civilian workers, and their families. Ensure the Command Accident Prevention Program also supports the garrison Civilian Personnel Office's effort to reduce injuries/illnesses. In addition to the accident reports AR 385-40 requires, near-miss information is important in identifying hazards before they can result in serious damage or injury. The trained Additional Duty Safety Officer (ADSO) and first line supervisor are the best sources for this information. Other important sources of information on accidents are military police blotter reports, hospital admission and discharge sheets, sick call slips, and estimated cost of damage

reports from General Services Administration and unit motor pools. When collected, organized, and analyzed, this information may yield valuable data on potential problems or hazards, education/training shortfalls, motivation or leadership issues, procedural or policy inadequacy, or other potential problem areas. Often time, these potential problems, hazards, or shortfalls may go unnoticed or undetected because individual units and organizations view them as isolated instances. The successful accident prevention program will be one in which accident data and statistics are used strictly for accident prevention purposes, and are not used as a measure of command or leadership effectiveness.

3-5. Education, training, and safety awareness. The prevention of accidents and the associated mission impact and loss of resources is the responsibility of every member of the Army team. Law and regulation require training for all Army personnel, soldier and civilian, commensurate with their duties and responsibilities. The most effective accident prevention program recognizes this and sustains an extensive, ongoing program of safety training to educate, motivate, and raise safety awareness. Commanders, leaders, and supervisors at all levels, as well as individual soldiers and civilian employees, are important in the accident prevention process. The effectiveness of their contributions, however, depends on their knowledge and understanding of safety and risk management and their responsibility in the Army Safety Program.

3-6. Branch safety/risk management integration. Integration of safety and risk management into Army Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPF) is inherent in the worldwide branch safety mission. Unlike safety managers within other Army commands, TRADOC safety managers have worldwide branch safety mission responsibility. In addition to the safety and risk management integration mission, branch safety managers monitor the operations, training, equipment, and tactics, techniques, and procedures within their specific branch. For this reason, TRADOC policy dictates that the qualified command safety and occupational health manager is rated by, and reports directly to, senior mission commander, school commandant, or the respective chief of staff.

3-7. Additional duty safety program. The trained ADSO is essential to the safety manager's ability to reach all levels of command, gather accident prevention information, identify hazards, and meet legal and regulatory requirements. Additional duty safety personnel may conduct inspections of low risk workplaces, but only when they are trained to identify hazards and recommend appropriate abatement action. A good safety program provides this training so that trained safety professionals are free to devote their time and energy dealing with the more serious safety issues that require their technical expertise. Additional duty safety officers also collect accident reports for their activity or unit. They are the local commander's/supervisor's safety representative and an important source of information, at the grass root level, concerning the effectiveness of the commander's safety program.

3-8. Safety and Occupational Health Advisory Council. An active Safety and Occupational Health Advisory Council, chaired by the commander/commandant or their chief of staff, meeting regularly, and composed of military and civilian management and operating personnel, is necessary for the effective interchange of safety and occupational health information. Participation of the commander/commandant or their chief of staff demonstrates command

support and sets the tone for the safety/accident prevention program. Command visibility and active participation in the Safety Council sends a powerful message to subordinate commanders and staff on the importance of safety.

3-9. Emergency action plans. Preplanned, coordinated, and regularly tested emergency action, disaster preparedness, and pre-accident plans are proven methods to minimize loss of life and property damage due to natural or man-made disasters. Commanders/commandants should coordinate and integrate their needs into garrison emergency action, disaster preparedness, and pre-accident plans as appropriate to their mission. Mission/branch safety managers should develop, coordinate, publish, and test pre-accident plans for both ground and aviation accidents and assist the Garrison Disaster Preparedness Officer in development, coordination, and maintenance of emergency action and disaster preparedness plans.

3-10. Mobilization planning. In addition to the routine training mission, many commanders have contingency mobilization missions that have the potential to dramatically change mission, resource allocation, and operations tempo during times of crisis or national emergency. Implementation of the mobilization mission depends on thorough planning and coordinated efforts. The active participation of safety in the planning and periodic testing of all mobilization or contingency mission is critical to success. Safety managers should review all mobilization plans on a regular basis for potential hazards created by increased mission loads or resource allocation. Integration of risk management in the early stages of the planning process can avert costly mistakes and enhance mission execution.

3-11. Initial entry training (IET). The safety and well-being of soldiers during their IET is critical to the success of the TRADOC training mission. Soldiers arriving at Army Reception Battalions come from many differing backgrounds and in differing levels of physical condition. They may be at a greater risk of injury/illness. Safety managers with an IET mission should develop and implement an aggressive accident prevention strategy to provide these soldiers a training environment that fosters their transition from civilian to military life with minimum disruption.

3-12. Privately-owned vehicle (POV) accident prevention. An enduring threat and a serious problem to TRADOC and the Army is the tragic loss of soldiers and civilian workers in vehicle accidents. Privately-owned vehicle accidents continue as the single leading cause of accidental death for our soldiers, workers, and their family members. This needless loss of life demands actions. Commands with aggressive POV accident prevention strategies and programs enjoy greater success at reducing the incidence of POV accidents than those commands that do not. All successful POV accident prevention programs start with active command involvement. Other program elements common to effective POV prevention programs include driver training initiatives, a functioning POV Task Force, and the involvement of the first line leaders. The POV Toolbox from the Army Safety Center and the TRADOC Highway Safety Program (http://www.tradoc.army.mil/BeSafe/TRADOC_SafetyProgramMemo.pdf) are also available and may be used in the accident prevention process.

Chapter 4
Self-assessment Guide

4-1. Implementation and use.

a. Safety assessments and evaluations are important tools in effectively identifying hazards and controlling risk. Orient inspections, assessments, and evaluations on identification of hazards or assessment of the effectiveness of accident prevention efforts, not the effectiveness of the command or leadership.

b. An aggressive Safety and Occupational Health Inspection Program ensures that all workplaces are inspected on an annual basis. Facilities or operations involving special hazards may be inspected more frequently. Qualified safety and occupational health professionals should conduct inspections and provide written reports of violations to the head of the activity or the commander of the unit/activity inspected. The self-assessment guide and associated checklists in appendix B provide commanders and safety managers an effective tool to measure the scope and effectiveness of their safety and accident prevention effort.

4-2. Standards/measures. Documentation of program elements serves as an indication of program effectiveness. Documentation such as local policies, regulations, or standing operating procedures (SOPs), however, do not in themselves ensure program implementation. Ensure documentation is relevant, current, and IAW the appropriate standards; users are familiar with their existence and content; and they are applied to the relevant events or operations.

4-3. Application. The self-assessment guide (see app B) and conditioning/obstacle course criteria (see app C) consist of a series of checklists that provide a systematic, standardized means to evaluate/assess the compliance of program elements with directives, legal standards, and regulations. Each provides the user the appropriate reference for the requirement, as well as a recommended measure to assess implementation.

Appendix A
References

Section I
Required Publications

DOD Directive (DODD) 5000.1
The Defense Acquisition Team

DODD 6055.9
DOD Explosives Safety Board (DDESB) and DOD Component Explosives Safety Responsibilities

DODI 6055.1
DOD Safety and Occupational Health (SOH) Program

DODI 6055.4
DOD Traffic Safety Program

AR 11-9
The Army Radiation Safety Program

AR 40-5
Preventive Medicine

AR 350-1
Army Training and Education

AR 385-10
The Army Safety Program

AR 385-16
System Safety Engineering and Management

AR 385-40
Accident Reporting and Records

AR 385-55
Prevention of Motor Vehicle Accidents

AR 385-63
Range Safety

AR 385-64
U.S. Army Explosives Safety Program

AR 385-95
Army Aviation Accident Prevention

AR 420-90
Fire and Emergency Services

AR 600-55
The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)

AR 672-74
Army Accident Prevention Awards Program

DA Pamphlet 40-18
Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation

DA Pamphlet 385-16
System Safety Management Guide

DA Pamphlet 385-63
Range Safety

DA Pam 385-64
DOD Ammunition and Explosives Safety Standards

Field Manual (FM) 3-25.150
Combatives

FM 6-0
Mission Command: Command and Control of Army Forces

FM 21-20
Physical Fitness Training

FM 100-14
Risk Management

FM 101-5
Staff Organization and Operations

Technical Bulletin (TB) MED 530
Occupational and Environmental Health Food Sanitation

Title 23 Code of Federal Regulations (CFR) 1230
Uniform Procedures for State Highway Safety Programs

Title 29 CFR 1910
Occupational Safety and Health Standards

TRADOC Reg 350-6
Enlisted Initial Entry Training (IET) Policies and Administration

TRADOC Reg 350-16
Drill Sergeant Program (DSP)

TRADOC Reg 385-2
TRADOC Safety Program

Training Circular (TC) 21-24
Rappelling

"Operational and Training Facilities" Corps of Engineers Drawing Number DEF 028-13-95 (Available online at http://www.hnd.usace.army.mil/stddgn/028_13_95/Index.asp.)

Section II
Related Publications

Department of Defense (DOD) 4500.9-R, part II
Defense Transportation Regulation (Cargo Movement)

DOD 6050.5-H
DOD Hazardous Chemical Warning Labeling System

DODI 6050.5
DOD Hazard Communication Program

DODI 6055.6
DOD Fire and Emergency Services Program

DOD 6055.9-STD
DOD Ammunition and Explosives Safety Standards

AR 15-6
Procedures for Investigating Officers and Boards of Officers

AR 25-400-2
Army Records Information Management System

AR 50-6
Chemical Surety

AR 75-1
Malfunctions Involving Ammunition and Explosives

AR 95-1
Flight Regulations

AR 190-40
Serious Incident Report

AR 200-1
Environmental Protection and Enhancement

AR 210-21
Army Ranges and Training Land Program

AR 215-1
Morale, Welfare, and Recreation Activities and Nonappropriated Fund Instrumentalities

AR 335-15
Management Information Control System

AR 385-61
The Army Chemical Agent Safety Program

AR 420-49
Utility Services

AR 600-8-22
Military Awards

AR 672-20
Incentive Awards

AR 690-950
Career Management

AR 700-141
Hazardous Materials Information System (HMIS)

DA Pam 385-40
Army Accident Investigation and Reporting

FM 3-0
Operations

FM 9-43-2
Recovery and Battlefield Damage Assessment and Repair

FM 10-67-1
Concepts and Equipment of Petroleum Operations

FM 21-16
Unexploded Ordnance (UXO) Procedures

FM 21-305
Manual for the Wheeled Vehicle Driver

FM 90-13
River-Crossing Operations

TB MED 575
Swimming Pools and Bathing Facilities

TC 1-210
Aircrew Training Program Commander's Guide to Individual and Crew Standardization

TC 5-210
Military Float Bridging Equipment

Technical Manual (TM) 5-662
Swimming Pool Operation and Maintenance

TM 5-811-1
Electric Power Supply and Distribution

Title 10 CFR 19
Notices, Instructions, and Reports to Workers: Inspection and Investigations

Title 10 CFR 20
Standards for Protection against Radiation

Title 29 CFR 1926.59
Hazard Communication

Title 33 CFR 183
Boats and Associated Equipment

TRADOC Reg 350-70
Systems Approach to Training Management, Processes, and Products

U.S. Army Technical Center for Explosives Safety (USATCES) Pam 385-02
Site and General Construction Plan Developer's Guide (This publication is available on the Defense Ammunition Center website (http://www.dac.army.mil/default1.html). Use the link ".mil and .gov registered users click here," then click on "Directorate for USATCES" and use the search feature.)

Section III
Referenced Forms

DA Form 348
Equipment Operator's Qualification Record (Except Aircraft)

DA Form 2415
Ammunition Condition Report

Appendix B
Self-assessment Guide

B-1. Program management. The degree of success achieved in safety program management depends largely upon the effective organization, command visibility, and accessibility of qualified safety and occupational health officials to the commander. A checklist to use for program management is found at table B-1. The following organizations, functions, documents, and procedures are necessary to implement effective safety program management.

a. Safety and occupational health manager. TRADOC policy dictates that the qualified command safety and occupational health manager work for, be rated by, and report directly to the commander, school commandant, or their respective chief of staff.

b. Staffing/organization. Ensure TRADOC mission and branch safety assets are combined into a mission/branch safety office and resourced and staffed IAW the appropriate manpower standards.

c. Single-source safety document. Each branch safety office should develop, publish, and implement a single-source safety document that clearly defines program parameters, assigns responsibilities, and sets the standard.

Table B-1
Program management checklist

	Program Management	YES	NO	Remarks
1.	Is there a designated qualified safety and occupational health official assigned? Standard: AR 385-10, paragraph 2-1a. Measure: Copy of table of distribution and allowance (TDA), Standard Form 50, and safety manager's job description.			
2.	Is there a current single source safety regulation that addresses all required functions? Standard: AR 385-10, paragraph 5-2u. Measure: Copy of safety single source document.			
3.	Is the safety office adequately staffed and resourced to support safety and mission requirements? Standard: AR 385-10, paragraph 2-1d, e. Measure: Copy of safety office's budget and TDA.			

	Program Management (cont)	YES	NO	Remarks
4.	Is there a formal host-tenant agreement with garrison and TRADOC organizations? Standard: AR 385-10, paragraph 2-1i. Measure: Copy of host-tenant agreement.			
5.	Is the safety manager a member of the commander's special staff reporting directly to the commander or chief of staff? Reference: AR 385-10, paragraph 2-1b. Measure: Organizational chart and TDA.			
6.	Are additional duty safety personnel appointed on orders? Reference: AR 385-10, paragraph 2-1f. Measure: Copies of current additional duty orders.			
7.	Is the commander's safety and occupational health policy published? Standard: AR 385-10, paragraph 2-2b. Measure: Copy of current policy.			
8.	Have safety standards been incorporated into civilian and military personnel performance standards? Standard: DODI 6055.1, paragraph E8.1.1. and AR 385-10, paragraph 1-5f. Measure: Interview employees and service members.			
9.	Is there a functioning Safety and Occupational Health Advisory Council? Standard: AR 385-10, paragraph 2-1k and TRADOC Reg 385-2, paragraph 1-7. Measure: Copy of minutes from past meetings.			

	Program Management (cont)	YES	NO	Remarks
10.	Is the Safety and Occupational Health Advisory Council chaired by the commander or chief of staff? Standard: AR 385-10, paragraph 2-1k and TRADOC Reg 385-2, paragraph 1-7. Measure: Copy of minutes from past council meetings.			
11.	Does the council meet at least semiannually? Standard: AR 385-10, paragraph 2-1k and TRADOC Reg 385-2, paragraph 1-7. Measure: Copy of minutes from past council meetings.			
12.	Has the commander established and published a risk management approval authority policy? Reference: Risk Management Integration and TRADOC Risk Decision Authority, 12 Jun 03. Measure: Current copy of policy.			
13.	Are applicable Occupational Safety and Health Act (OSHA) programs addressed in SOPs (e.g., Lockout/Tagout, confined space, protective clothing and equipment (PC&E), respiratory protection, blood-borne pathogen, hazardous communication (HAZCOM), etc.)? Reference: AR 385-10 and 29 CFR 1910. Measure: Current copy of SOPs.			

B-2. Education, training, and promotions. Commanders and/or supervisors shall ensure that required safety education and training is scheduled, conducted, and documented. The self-assessment checklist for these areas is found at table B-2.

a. Education and training.

(1) Enhance individual awareness through the use of education, training, and promotion programs and initiatives.

(2) Comply with all mandatory safety and occupational health (SOH) training requirements.

(3) Integrate SOH and risk management into all operations and training.

b. Safety promotion.

(1) Publish holiday, seasonal, and special hazard safety alerts, messages, and bulletins to raise safety awareness during periods of increased risk, address countermeasures for identified accident trends, or alert the commander of special seasonal hazards.

(2) Special emphasis memorandums, safety flyers, and/or articles may be used to address special hazards associated with specific events, accident trends, or to highlight successes or raise awareness of SOH requirements.

(3) Safety offices should assist units and organizations in obtaining safety and health-related training literature, posters, and promotional materials.

c. Awards:

(1) Commanders are required to establish a safety awards program to recognize individuals and units for safe performance or contributions to accident prevention.

(2) Safety awards programs should include provisions for purchase and distribution of safety promotional items, as well as provisions for impact awards.

Table B-2
Education, training, and promotions checklist

	Education, Training, and Promotions	YES	NO	Remarks
1.	Do additional duty safety officers (ADSO) receive appropriate training? Standard: AR 385-10, paragraph 2-1f(4). Measure: Copy of lesson plan and attendance roster of ADSO class.			
2.	Does the organization have a written awards program that is functioning? Standard: AR 672-74, paragraph 1-4d, and TRADOC Reg 385-2. Measure: Copy of published awards program.			
3.	Does the safety office have promotional items? Standard: TRADOC Reg 385-2. Measure: Promotional items on hand and properly marked.			

	Education, Training and Promotion (cont)	YES	NO	Remarks
4.	Are rights and responsibilities for safety incorporated into leadership, supervisor, and new employee training courses and orientation briefings? Standard: AR 385-10, paragraph 2-2e. Measure: Lesson plans, briefings, attendance rosters, and other appropriate documentation.			
5.	Have company grade officers selected for command/battalion and brigade command designees completed the Commander's Safety Course? Standard: Army Chief of Staff Directive, 14 Aug 02. Measure: Copy of completion certificate.			
6.	Do personnel receive risk management training? Standard: AR 385-10, paragraph 1-4n(1)(a). Measure: Lesson plans/programs of instruction (POIs) and attendance rosters.			
7.	Was applicable OSHA training conducted (e.g., Lockout/Tagout, confined space, PC&E, respiratory protection, blood-borne pathogen, HAZCOM, etc.)? Standard: AR 385-10 and 29 CFR 1910. Measure: Lesson plans and attendance roster on hand.			

B-3. Inspections, surveys, and assessments.

a. Hazard identification is the first step in the Risk Management Process. Inspections, surveys, and assessments are some of the tools or safety processes used to identify hazards or deficiencies as they relate to programs, facilities, equipment, and operations. These same tools may serve as the final step in the Risk Management Process (supervise and evaluate). Inspections, surveys, and assessments measure adequacy and/or determine effectiveness of controls in achieving desired results. The checklist for inspections, surveys, and assessments is found at table B-3.

b. All commanders are responsible for establishing and implementing methods to identify hazards to personnel, equipment, and operations. Safety managers are the commander's executive agent for this process. Safety managers should coordinate, schedule, and manage

safety inspection programs for their respective command/organization. As a minimum, conduct command safety inspections as follows:

(1) The responsible safety office should conduct program evaluations of all subordinate unit/organization safety programs on an annual basis.

(2) Qualified safety specialists should conduct workplace inspections IAW the provisions of Army regulation and public law. As a minimum, inspect all workplaces on an annual basis. Qualified ADSOs can assist in inspecting low risk facilities, but qualified safety specialists should inspect special hazard facilities.

(3) Department of Labor and other external agency inspections may be conducted. The safety manager of the inspected facility should assist outside agencies and accompany their inspectors at all times. Safety managers should also ensure the headquarters is notified of any such inspection.

(4) The responsible safety manager should participate in planning phases and in progress reviews for construction projects and contracts for facilities or equipment used by their respective commands.

(5) The responsible safety manager should review and make recommendations on Operation Plans, Operation Orders, and Letters of Instruction to ensure effective safety and risk management integration.

Table B-3
Inspections, surveys, and assessments checklist

	Inspections, Surveys, and Assessments	YES	NO	Remarks
1.	Are all workplaces/operations inspected annually and are high or special hazard workplaces and operations inspected more frequently? Standard: AR 385-10, paragraph 4-1a(1). Measure: Documentation of inspections conducted.			
2.	Are corrective actions tracked and follow-up inspections conducted for all risk assessment code (RAC) 1 & 2 deficiencies? Standard: AR 385-10, paragraph 4-1f. Measure: Hazard abatement log on hand.			

	Inspections, Surveys, and Assessments (cont)	YES	NO	Remarks
3.	Is a hazard abatement plan prepared and posted for all uncorrected RAC 1 & 2 violations not corrected within 30 days? Standard: AR 385-10, paragraph 4-1i. Measure: Posted hazard abatement plan.			
4.	Does the unit ADSO conduct inspections? Standard: AR 385-10, paragraph 4-1b(3). Measure: Copy of inspections.			

B-4. Accident investigations, reporting, and recordkeeping.

a. Accidents are an unacceptable impediment to Army missions, readiness, morale, and resources. Aggressively pursue prevention of accidents. Collection and analysis of accident/incident information is critical to the accident prevention process and takes place at several levels of command. The safety office is the command/activity focal point for review of accident investigations, collection and analysis of accident/incident information, and the development of timely and effective countermeasures.

(1) All accidents are reportable through the chain of command to the appropriate level.

(2) Oversight of the accident investigation and reporting process is the responsibility of the safety manager.

(3) Safety managers should establish and coordinate a local system for receiving accident feeder information to ensure all accidents are reported and that accident investigations are completed when required. The self-assessment checklist at table B-4 is provided to assist in this effort.

Table B-4
Accident investigation, reporting, and records checklist

	Accident Investigation, Reporting, and Records	YES	NO	Remarks (IMA)
1.	Does the safety office receive feeder reports from military police, hospital, and post motor pool to identify unreported accidents? Standard: TRADOC Reg 385-2, paragraph 2-3. Measure: Copy of feeder reports.			
2.	Are all accidents reported or investigated IAW the requirements? Standard: AR 385-40, paragraph 1-4d. Measure: Check accident feeder reports accident against files.			
3.	Does the safety office collect, analyze, and disseminate data concerning the accident experience of the command? Standard: AR 385-10, paragraph 5-2j. Measure: Reports on accident analysis, trends, and data.			

B-5. Hazard analysis and countermeasure development.

a. Risk management provides a systemic methodology for analysis of individual hazards in terms of probability, severity, and exposure. However, hazard analysis, as a major safety program process, provides the means by which program effectiveness is assessed and measured to identify the underlying conditions that allow undesired acts to occur or conditions to exist. Once identified, countermeasures are the risk controls (actions or programs) designed to mitigate risk or eliminate the hazard.

b. Safety managers should collect, review, and analyze data from various sources to identify trends, systemic deficiencies, or profiles for use in establishing program initiatives and priorities. Safety managers should develop countermeasures to correct deficiencies and/or eliminate or reduce hazards. Address hazards on a worst first basis. Use the checklist at table B-5 as a self-assessment tool.

Table B-5
Hazard analysis and countermeasure development checklist

	Hazard Analysis and Countermeasure Development	YES	NO	Remarks
1.	Has the safety director identified and assessed level of risk for all workplaces and operations? Standard: AR 385-10, paragraph 4-1b(1)(a). Measure: Written or electronic list indicating buildings, facilities, and operations with level of risks assigned.			
2.	Does the safety office validate all RAC 1 or RAC 2 work orders/projects? Standard: AR 385-10, paragraph 4-1. Measure: Review hazard abatement plan and safety inspection reports.			
3.	Does the safety office have a system established and implemented to ensure corrective action is completed? Standard: AR 385-10, paragraph 4-1b(2)(d). Measure: Copies of response indicating corrective action and verification.			
4.	Are identified (safety or health related) deficiencies corrected in a timely manner? Standard: AR 385-10, paragraph 4-1. Measure: Date of identification versus date of correction.			
5.	Is PC&E provided, used, and maintained in a sanitary and reliable condition? Standard: AR 385-10, paragraph 3-1 and 29 CFR 1910.132-138; 1910.147. Measure: Maintenance documentation available on PC&E.			

B-6. Branch safety. Integration of safety and risk management into DOTMLPF is inherent in the worldwide branch mission.

a. Per TRADOC policy, designate the qualified Command Safety and Occupational Health Manager as the Branch Safety Manager. The Branch Safety Manager should work for, be rated by, and report directly to the commander, school commandant, or the respective chief of staff.

b. Combine TRADOC mission and branch safety assets into a mission/branch safety office and fund and staff IAW the appropriate manpower standards.

c. The safety office covers the full spectrum of occupational safety and health, systems safety, schoolhouse support, risk management integration, and worldwide branch safety proponency. The self-assessment checklist for branch safety is provided at table B-6.

Table B-6
Branch and proponency checklist

	Branch and Proponency	YES	NO	Remarks
	Program Management			
1.	Is safety and risk management integrated into school products and operations? Standard: TRADOC Reg 385-2, paragraph 1-4f(8). Measure: Documentation indicating review/coordination of branch/school with the safety officer (e.g., POIs, Training Support Packages (TSPs), lesson plans/policy documents).			
2.	Does the school have a list of high and extremely high-risk training that it conducts? Standard: TRADOC Reg 385-2, paragraph 4-2e(4). Measure: List of all recurring training conducted showing the date of last assessment and level of risk assessed under normal conditions.			

	Branch and Proponency (cont)	YES	NO	Remarks
	Education, Training, and Promotion			
3.	Are instructors, training developers, and evaluators trained to apply/integrate risk management? Standard: TRADOC Reg 385-2, paragraph 4-2e(8). Measure: Copies of lesson plans for risk management and attendance rosters.			
	Inspections, Surveys, and Assessments			
	Accident Investigation, Report and Recordkeeping			
	Hazard Analysis/Countermeasure Development			
4.	Are standard safety warnings included in branch publications? Standard: TRADOC Reg 350-6, paragraph 3-31. Measure: Copy of policy or directive requiring coordination with branch safety office of branch related publications. Have a list of branch proponent publications and their review/revision dates.			

B-7. Initial entry training/military training and operations safety.

a. The safety of the IET soldier is critical to the success of the TRADOC mission to provide the Army with military occupational specialty qualified soldiers. Initial entry soldiers are subject to stress and risk in the IET environment because the living conditions, physical demands, and training tasks are unfamiliar and the soldier is untried.

b. Close, consistent oversight and supervision by qualified drill sergeants (DSs), instructors, and cadre; responsive medical support; and living and training facilities free from known hazards are inherent requirements of the safety structure in place to protect the IET soldier. An effective mission-oriented safety program, together with regular, standardized evaluations of the IET environment, effective training programs, and enforcement of training standards ensures a successful soldierization program that sets high standards, provides positive role models, and reinforces essential soldier skills.

(1) Drill sergeant support requirements.

(a) TRADOC schools with an IET mission should be staffed with qualified DSs based on the standards contained in TRADOC Reg 350-16.

(b) Motivated, qualified DSs, proficient in the tasks trained, are the key to successful soldierization of the IET trainee and represent an important safety control measure, when staffing

levels for DSs are consistent with the requirements of TRADOC Reg 350-16. The use of DSs for non-DS duty or in an administrative role may compromise the soldierization process and may raise the level of risk associated with some IET training.

(2) Instructor to student ratios. The risk level associated with all IET training was assessed based upon a predetermined number of qualified instructors. When the ratio of students to instructors changes, it is necessary to relook the risk assessment to ensure that the level of risk for the training remains within acceptable limits.

(3) Medical support to training. The level of risk associated with training is affected by the availability of qualified medical support. The coordination and interaction between the Troop Medical Clinic, medical activity, and the unit can significantly impact the level of risk to trainees and the early identification of injuries or illnesses resulting from accidents. Use of Combat Lifesavers versus qualified medics, availability of emergency medical evacuation capability, and readily accessible trauma care all impact the level of risk to which trainees are exposed.

(4) Facilities, training areas, and equipment. Infrastructure deterioration is a TRADOC-wide problem and the impact on the safety of trainees can be significant if appropriate control measures are not in place to monitor the condition of barracks, classrooms, and training areas. Issue and use of PC&E and availability of state-of-the-art equipment for training impact the level of risk associated with IET training.

(5) Adjutant general reception battalions. An Army enlistee is a soldier from the moment they take the oath of service and should be treated as such. Establish procedures to ensure these soldiers are briefed, screened, fed, and rested; no matter what time they arrive at the reception station. All soldiers arriving at the reception station are assured of 7 hours of uninterrupted sleep each night. In addition to the administrative processing, uniform issue, and medical screening conducted at the reception station, soldiers are given a diagnostic physical training (PT) test. Because the level of physical conditioning and medical history is relatively unknown, the PT test can be a high-risk event for these soldiers. Medical screening, tight control/supervision, and onsite medical support can reduce the risk involved.

(6) Obstacle/confidence courses. Ensure all obstacle/confidence courses are constructed, maintained, and operated IAW the requirements of DA Engineer Drawing DEF 028-13-95, Confidence Course Layout Plan; FM 21-20, chapter 8; and TRADOC Reg 350-6. Use of nonstandard obstacles (obstacles not specified in the above references) is authorized, but only when commanders comply with the requirements of appendix K, TRADOC Reg 350-6. Installations or schools operating confidence and/or obstacle courses should establish positive control to ensure only authorized and qualified personnel are permitted to sign for and/or use the course.

(7) Rappelling. Ensure all static rappel towers are constructed, maintained, and operated IAW the requirements of DA TC 21-24. Strict adherence to the design specifications is required for safety considerations. Installation/garrison safety specialists, assisted by post engineers, should inspect rappel towers annually or more often. Static towers may vary in size and height from 34 to 90 feet. Organizations or schools operating rappel towers should establish positive

controls to ensure only authorized and qualified personnel are permitted to sign for and/or use the tower.

(8) Combative training. The level of risk associated with combative training is directly related to the physical construction and maintenance of the facilities and the strict adherence to established standards of operation. Ensure bayonet assault courses and combative training pits are constructed, maintained, and operated IAW the requirements of FM 3-25.150 and TRADOC Reg 350-6. Installations and/or schools operating bayonet assault courses and combative training pits should establish positive controls to ensure only authorized and qualified personnel are permitted to sign for and/or use the course, and that training is conducted IAW published standards.

(9) Physical training areas and running routes. Physical training areas and running routes should be selected to provide soldiers a positive training environment, while minimizing their exposure to risk. Since the normal time for Army PT is in the predawn hours, lighting and reflective clothing are important considerations in management of risk and injury prevention. Physical training areas should be relatively flat, unobstructed, well drained, and lighted. Establish running routes to keep running soldiers segregated from heavy traffic routes. Sufficient lighting enables soldiers to see potholes and tripping hazards and reflective clothing helps ensure that soldiers remain visible to traffic. Use table B-7 as a guideline for self-assessment in these areas.

Table B-7
Military training and operations safety checklist

	Military Training and Operations Safety	YES	NO	Remarks
	Program Management			
1.	Does the mission safety office have any means/system to track high-risk training? Standard: TRADOC Reg 385-2, paragraph 4-2e(6). Measure: List of all training events/risk assessment for all training conducted on post.			
2.	Are there sufficient instructors/assistant instructors present to conduct training IAW the requirements of the subject TSP? Standard: AR 385-10, paragraph 1-4o, and TRADOC Reg 350-6, paragraph 3-24. Measure: Copy of TSP/lesson plans.			

	Military Training and Operations Safety (cont)	YES	NO	Remarks
3.	When the number of instructors and/or assistant instructors drops below the number specified in the TSP, is the risk assessment updated and approved at the appropriate level? Standard: AR 385-10, paragraph 2-3d(3); TRADOC Reg 350-6, paragraph 3-24; and TRADOC Reg 385-2, paragraphs 1-5c and 4-2e(5). Measure: Review current TSP for compliance.			
4.	Are DS ratios maintained IAW TRADOC standards? (BCT: 12 DS/company (3/platoon) for a 1:17 to 1:20 ratio) (AIT: 1:50) Standard: TRADOC Reg 350-16, paragraph 2-9. Measure: Copies of company status report.			
5.	Are DS assigned additional duties that divert them from their primary mission of training soldiers? Standard: TRADOC Reg 350-16, paragraph 2-7a. Measure: Copies of additional duty appointment orders and or duty rosters for DS.			
6.	Is a minimum of one certified combat lifesaver DS assigned to each platoon? Standard: AR 350-1, paragraph 4-12a(6). Measure: DS training records.			
7.	Are Advanced Trauma Life Support (ATLS) services available to all training activities? Standard: TRADOC Reg 350-6, paragraph 3-35a; TRADOC policy memorandum, subject: Medical Support to Training, 13 Dec 99. Measure: Verification of ATLS availability.			

	Military Training and Operations Safety (cont)	**YES**	**NO**	**Remarks**
8.	Does replacement battalion/reception station have a system or process to identify the type of running shoe a soldier requires to ensure they buy the appropriate shoe? Standard: Technical Cooperation Program BCT POI 21-114 (RB4), Safety Requirements. Measure: Review list of soldiers excluded from training.			
9.	Is there a detailed SOP for operation of all training events, physical conditioning/obstacle courses? Standard: AR 385-10, paragraph 1-4n(1)(c); FM 101-5, appendix H; and FM 6-0. Measure: Copies of SOPs.			
10.	Has the commander established positive control over use and/or operation of training areas, physical conditioning courses, and obstacle courses? Standard: TRADOC Reg 350-6, appendix K. Measure: Copy of SOP.			
	Education, Training, and Promotion			
11.	Are instructors and DSs trained in and familiar with the application of the risk management process? Standard: AR 385-10, paragraph 2-2; TRADOC Reg 385-2, paragraph 4-2e(8); and TRADOC Reg 350-6, paragraph 3-24. Measure: Copy of Instructor Training Course lesson plan. Interview DSs.			
12.	Are combat lifesavers trained and equipped to standard? Standard: TRADOC Reg 350-6, paragraph 3-35a; TRADOC Policy memorandum, subject: Medical Support to Training, 13 Dec 99. Measure: Review of training records and class schedules.			

	Military Training and Operations Safety (cont)	**YES**	**NO**	**Remarks**
	Inspections, Surveys, and Assessments			
13.	Has the commander established a certification program to ensure instructors and cadre are qualified in the proper operation and training on the rappel tower, obstacle, confidence, bayonet, and pugil courses? Standard: TRADOC Reg 350-6, paragraph 3-24, k-a(3); TC 21-24, paragraph 1-1; and TRADOC Reg 350-16, paragraph 2-8. Measure: Copy of certification program.			
14.	Are barracks inspected at least annually by a qualified safety and health professional? Standard: AR 385-10, paragraph 4-1a. Measure: Copy of current inspection results.			
15.	Are dining facilities inspected at least semiannually by safety, fire department, and preventive medicine? Standard: TB Med 530; AR 420-90, paragraph 6-5(a); and AR 385-10, paragraph 4-1a. Measure: Copy of inspection report**.**			
16.	Are physical training structures inspected for structural integrity and maintained to standard? Standard: TC 21-24, paragraph 1-9. Measure: Copy of structural inspection and visual spot check.			
	Accident Investigation, Reporting, and Recordkeeping			
17.	Are all training accidents documented and reports forwarded to safety office? Standard: AR 385-40. Measure: Copies of accident reports.			

	Military Training and Operations Safety (cont)	**YES**	**NO**	**Remarks**
	Hazard Analysis/Countermeasure Development			
18.	Is risk management conducted for all training and approved at the appropriate level, and is a current copy of the risk assessment maintained at the training site? Standard: AR 350-1, paragraph 1-13d. Measure: Copy of current risk assessment.			
19.	Is there a lesson plan/training support package at ranges and training areas? Standard: TRADOC Reg 350-6, paragraph 3-24. Measure: Copy of the lesson plan/training support package.			
20.	Has the commander conducted a rehearsal of their medical support plan focused on responding to a training catastrophe within the past 12 months? Standard: TRADOC Reg 350-6, paragraph 3-35a; TRADOC policy memorandum, subject: Medical Support to Training, 13 Dec 99. Measure: Copy of exercise after action report.			
21.	Is additional medical support available for activities classified as high-risk? Standard: TRADOC Reg 350-6, paragraph 3-35a; TRADOC Policy memorandum, subject: Medical Support to Training, 13 Dec 99. Measure: Verification of availability and location of additional medical support.			
22.	Is there adequate floor space per trainee (72 square feet per soldier)? Standard: AR 40-5, paragraph 12-7b. Measure: Number of square feet of barracks space divided by the number of soldiers living in the barracks.			

	Military Training and Operations Safety (cont)	YES	NO	Remarks
23.	Is the required protective equipment available, serviceable, and in the appropriate sizes to fit training soldier? Standard: TSP BCT POI 21-114 (RB4), Safety Requirements. Measure: Visually inspect protective equipment to ensure it is available in sizes appropriate to the needs of the training.			
24.	Are facility fire alarms and smoke detectors installed, serviceable, and tested periodically? Standard: National Fire Protection Association 72 - National Fire Alarm Code, and 29 CFR 1910.164 (b)(2), (c)(2). Measure: Inspect and test equipment.			
25.	Are medical records of soldiers screened prior to training to identify individuals with pre-existing medical conditions that may limit or exclude their participation in training? Standard: TSP BCT POI 21-114 (RB4), Safety Requirements. Measure: Review list of soldiers excluded from training.			
26.	Are appropriate control measures in place to reduce the risk associated with the diagnostic PT test? Standard: FM 100-14. Measure: Review of risk management worksheet for the event.			
27.	Are PT areas adequate and free of hazards? Is area lighted and vehicle access to running routes controlled during PT hours? Standard: TRADOC Reg 350-6, paragraph 4-2b. Measure: Observe physical training.			
28.	Are traffic and column guards provided with serviceable reflective vests or belts? Standard: TRADOC Reg 385-2, paragraph 8-8a. Measure: Observe physical training.			

	Military Training and Operations Safety (cont)	YES	NO	Remarks
29.	Is there a straggler control plan for PT and road marches? Standard: TRADOC Reg 385-2, paragraph 8-7. Measure: Review straggler control plan.			
30.	Are DSs and unit leadership clearly identifiable during PT and road marches? Standard: TRADOC Reg 350-6, paragraph 4-1e. Measure: Observe physical training.			
31.	Are obstacle/confidence courses and physical training structures constructed and maintained to standard? Standard: TRADOC Reg 350-6, appendix K. Measure: Inspection report on obstacle and confidence courses; visual spot check.			

B-8. Systems safety. System safety applies engineering and management principles, criteria, and techniques to achieve acceptable mishap risk, within the constraints of operational effectiveness, time, and cost, throughout all phases of the life cycle of systems or facilities. Commanders should implement system safety engineering and management policies consistent with their missions. Apply and tailor system safety to all Army systems and facilities and integrate system safety into other manpower and personnel integration (MANPRINT) concerns. A systems safety checklist is provided at table B-8.

Table B-8
Systems safety checklist

	Systems Safety	YES	NO	Remarks
	Program Management			
1.	Is a safety engineer assigned to support combat developers? Reference: AR 385-10, paragraph 2-1d, e. Measure: Assigned safety engineer on TDA.			
2.	Is safety represented in all phases of combat developments? Reference: AR 385-16, paragraph 4s(1). Measure: Material requirement documents.			

	Systems Safety (cont)	**YES**	**NO**	**Remarks**
3.	Are Safety of Use, Ground Precautionary Messages, Safety of Flight, and Aviation Safety Action messages disseminated? Standard: DA Pam 385-16, paragraphs 5-14c and 5-15a. Measure: Copies of message are at unit level.			
4.	Has the commander implemented a system safety engineering and management policy consistent with their mission? Standard: AR 385-16, paragraph 5a. Measure: Copy of policy and knowledge of policy at directorate and unit level.			
5.	Are procedures established and implemented to ensure systems safety review commercial off-the-shelf acquisitions? Reference: DODD 5000.1, Enclosure 1, paragraph E1.1.23. Measure: Written copy of procedures in place.			
	Education, Training, and Promotion			
6.	Are all hazards controlled by procedures or training addressed in the training manual for those systems? Standard: AR 385-16, paragraph 4-u(1)(2). Measure: Review training manual for procedures and training.			
7.	Are combat developers trained to include systems safety and risk management requirements in operational requirements documents? Reference: DA Pam 385-16, paragraph 1-4a. Measure: Copy of operational requirements document.			
	Inspections, Surveys, and Assessments			
8.	Are modifications of tactics, training, and doctrine related to the employment of Army material for safety impact reviewed and a summary provided to user, material developer, and program manager? Reference: AR 385-16, paragraph 4-s(6). Measure: Summary documentation available.			

	Systems Safety (cont)	YES	NO	Remarks
	Accident Investigations, Reporting and Recordkeeping			
9.	Does the school/branch discovering an unsafe condition with Army equipment notify the proponent command of the system? Standard: DA Pam 385-16, paragraph 5-14a. Measure: Copy of notification to proponent.			
	Hazard Analysis/Countermeasure Development			
10.	Are residual hazards in assigned systems' programs of instruction, training courses, and associated field manuals addressed? Reference: AR 385-16, paragraph 4-o. Measure: Residual hazards addressed in POIs, lesson plans, and field manuals.			
11.	Were the controls accepted through the System Safety Risk Assessment (SSRA) process at the appropriate level? Is the process documented? Standard: AR 385-16, paragraph 4-d(2). Measure: Copy of SSRA. SSRAs distributed with equipment are on file.			
12.	Are preliminary hazard lists (PHL) developed to identify specific hazards during concept phase of combat development? Standard: DA Pam 385-16, paragraph 5-5. Measure: Copy of PHL for systems.			

B-9. Explosive/ammunition safety. The degree of success of the ammunition surveillance and explosives safety and programs depends upon management visibility, organizational structure, and Quality Assurance Specialist Ammunition Surveillance (QASAS) personnel staffing to mitigate a hazardous situation. The ultimate goal is to ensure ammunition and explosives are safe and serviceable for storage, transportation, and use by soldiers. Use the self-assessment checklist at table B-9 to assist in this effort.

a. Commanders should ensure that the Ammunition Surveillance/Explosives safety functions are staffed with sufficient qualified personnel to support the mission and to provide for daily ammunition surveillance and explosives safety operations as required by Headquarters, DA standards.

b. Commanders should ensure that QASAS personnel and safety specialists are provided refresher training to keep up-to-date with the latest weapon and ammunition technology.

Table B-9
Explosive/ammunition safety checklist

	Explosive/Ammunition Safety	YES	NO	Remarks
	Program Management			
1.	Are SOPs developed, current, and used for ammunition/ explosives operations? Standard: DA Pam 385-64, paragraph 2-3. Measure: Review SOPs to ensure workers have necessary information to perform their task safely and that required procedures are identified.			
2.	Are Department of Defense Explosive Safety Board (DDESB)-approved ammunition, explosives, and toxic chemical safety site plans available and up-to-date for storage facilities? Standard: DA Pam 385-64, chapter 8. Measure: Validate installation explosives/toxic chemical safety site plans for accuracy.			
	Education, Training, and Promotion			
3.	Was hazardous materials/waste training conducted and documented? Standard: DOD Policy to implement the Environmental Protection Agency's Military Munitions Rule, paragraph II. Measure: Review individual training jackets or posting of required training.			
	Inspections, Surveys, and Assessments			
4.	Were magazines and other buildings storing ammunition and explosives given a formal inspection annually? Standard: DA Pam 385-64, chapter 13. Measure: Review magazine reports for corrective actions.			

	Explosive/Ammunition Safety (cont)	**YES**	**NO**	**Remarks**
5.	Is a copy of last (DDESB) survey report on hand and corrective actions taken or planned forwarded to TRADOC? Standard: AR 385-64, paragraph 3-5c and DODD 6055.9, paragraph 5.4.3. Measure: Review latest DDESB inspection report for compliance with above references.			
	Accident Investigation, Reporting and Recordkeeping			
6.	Are explosives accidents reported and investigated IAW AR 385-40, Accident Reporting and Records? Standard: AR 385-64, paragraph 3-6 and AR 385-40, chapter 9. Measure: Review reports to determine if actions taken are adequate.			
	Hazard Analysis/Countermeasure Development			
7.	Were lightning protection system and bonding for magazines visually inspected and electrically tested IAW DA Pam 385-64, appendix D? Standard: DA Pam 385-64, paragraphs d-2 and d-3. Measure: Review lightning protection system inspection records and electrical test results.			
8.	Are ammunition and explosives stored in licensed locations and quantity/distance limits maintained? Standard: AR 385-64, paragraph 6-4b. Measure: Review installation Standard Army Ammunition System-Modification explosives safety report for compliance.			
10.	Are the correct storage fire/chemical symbols displayed? Standard: DA Pam 385-64, paragraphs 3-15 and 3-17. Measure: Visually check storage sites/facilities to verify correct signage.			

	Explosive/Ammunition Safety (cont)	YES	NO	Remarks
11.	Are procedures in place to ensure no smoking in unauthorized areas? Standard: DA Pam 385-64, paragraph 3-2. Measure: Visually check ammunition storage areas for indications of smoking.			
12.	Was unserviceable ammunition reported to HQ TRADOC using DA Form 2415, Ammunition Condition Report? Did National Inventory Control Point provide disposition instructions? Standard: TRADOC Reg 700-2, paragraph 6-1c. Measure: Perform sample inspection of unserviceable ammunition from Standard Army Ammunition System-Modification lot file.			

B-10. Range safety.

a. An effective Range Safety program:

(1) Enhances safe, realistic, live-fire training.

(2) Prevents fratricide in live-fire training.

(3) Protects civilian and military populations who live and work in the vicinity of live-fire training ranges.

(4) Protects the environment from the effects of live-fire training.

b. Commanders should develop range safety regulations and/or SOPs, integrating the risk management process and the requirements of the military munitions rule.

c. Qualified safety specialists should inspect all training complexes on a semiannual basis. High-risk training operations should be inspected more often as the risk dictates.

d. Report and investigate all incidents or accidents involving weapons or ammunition with firing units.

e. Commanders should ensure implementation of the TRADOC Medical Support to Training Policy, 13 Dec 99.

f. Table B-10 is the self-assessment checklist to use for ensuring range safety.

Table B-10
Range safety

	Range Safety	YES	NO	Remarks
	Program Management			
1.	Has the commander/commandant designated the Range Officer in writing or on TDA? Standard: AR 385-63, paragraph 1-4r(3)(c). Measure: Copy of appointment orders signed by the appropriate commander or TDA.			
2.	Are range SOPs and regulations published and current? Standard: AR 385-63, paragraph 1-4r(3)(d). Measure: Current copies of local range regulations and/or SOPs (with appropriate changes posted).			
3.	Is there a system/mechanism in place to ensure that all training is risk assessed prior to occupying range complex? Standard: AR 385-63, paragraph 2-7. Measure: Current copies of risk assessments for training conducted, and risk management decisions made at the proper level of decisionmaking.			
4.	Are deviations current, complete, and signed by Commanding General? Standard: AR 385-63, paragraph 3-2; DA Pam 385-63, paragraph 1-5. Measure: Copy of deviations, including safety manager review/concurrence.			
5.	Are range design plans (including support structures/ facilities) reviewed to ensure safety requirements are addressed prior to new construction/modification/ renovation of existing firing ranges and/or weapons training facilities? Standard: DA Pam 385-63, paragraph 1-6b(8); AR 210-21, chapter 4. Measure: Copy of Installation Range Project Review Board (RPRB) minutes. Design reviews, including safety manager review/concurrence.			

	Range Safety (cont)	**YES**	**NO**	**Remarks**
6.	Is airspace coordination and scheduling accomplished and documented as required? Standard: DA Pam 385-63, paragraph 1-6c (5); AR 210-21, paragraphs 5-2b and 5-3b. Measure: Copy of Land Use Requirements Study, if applicable. Copy of letters of agreement with local Air Traffic Control.			
	Education, Training, and Promotion			
7.	Are procedures established and implemented to train and certify range personnel and users? Reference: DA Pam 385-63, paragraph 1-6c(9). Measure: Lesson plans and attendance rosters.			
	Inspections, Surveys, and Assessments			
8.	Are qualified safety personnel inspecting range facilities and training areas at least annually? Standard: DA Pam 385-63, paragraph 1-6b(3). Measure: Copy of inspection.			
	Accident Investigation, Reporting and Recordkeeping			
9.	Are all accidents documented and reports forwarded to safety office? Standard: AR 385-40, AR 385-63, paragraph 1-4r(3)(g). Measure: Copies of accident reports.			
	Hazard Analysis/Countermeasure Development			
10.	Are safety SOPs for range clearance operations using the risk management process and the requirements of military munitions rule on hand? Standard: AR 385-63, paragraph 1-4r(3)(e). Measure: Copy of local range clearance SOPs.			

	Range Safety (cont)	YES	NO	Remarks
11.	Is positive 2-way communications with range control available/required? Standard: DA Pam 385-63, paragraph 1-6c(9); TRADOC Reg 350-6, paragraph 3-22. Measure: Review of Range SOP.			
12	Are firing activities coordinated? Standard: DA Pam 385-63, paragraph 1-6c; AR 210-21, paragraph 5-7. Measure: Copy of local range regulations and/or SOPs. Range scheduling documents.			

B-11. Radiation safety.

a. The TRADOC Radiation Protection Program safeguards personnel from unnecessary exposure to ionizing and nonionizing radiation through:

(1) Control of radiation sources.

(2) Personnel training.

(3) Surveys and monitoring.

(4) Measurement of radiation emissions.

(5) Medical examinations and bioassay's.

b. Commanders should ensure there is positive control of potential health hazards resulting from the procurement, possession, storage, transportation, use, and disposal of radioactive materials or equipment capable of producing potentially hazardous ionizing or nonionizing radiation. The checklist at table B-11 is provided to assist in this effort.

Table B-11
Radiation safety

	Radiation Safety	YES	NO	Remarks
	Program Management			
1.	Was an Installation Radiation Safety Committee established? Standard: AR 11-9, paragraph 1-6. Measure: Document/charter establishing council.			

	Radiation Safety (cont)	YES	NO	Remarks
2.	Are written unit level SOPs implemented to describe the unit radiological mission, individual duties, safety precautions, radiological storage procedures, reporting procedures, and emergency response procedures? Standard: AR 40-5, paragraph 9-3b(1). Measure: Provide supporting documentation (copies of SOPS).			
3.	Are Local Radiation Safety Officers (LRSOs) and alternate LRSOs appointed (in writing) by their commander? Standard: AR 11-9, paragraph 1-4j & k. Measure: Letters of appointment.			
4.	Is a current inventory of ionizing and nonionizing equipment available? Standard: AR 11-9, paragraph 1-4j(3)(4); AR 40-5, paragraph 9-9. Measure: Current inventories.			
5.	Are Nuclear Regulatory Commission licenses, Army Radiation Authorization and Army Radiation Permit related radiological instruments/items used on the installation available? Standard: AR 11-9, paragraphs 2-3 and 2-4. Measure: Licenses/authorization documents.			
6.	Was a Radiation Safety Officer (RSO) and alternate RSO appointed (in writing) by the commander to manage the Installation Radiation Protection Program? Standard: AR 40-5, paragraph 9-4b(1). Measure: Letters of appointment.			
7.	Was training and equipment provided the RSO and alternate, commensurate with the extent of their assigned responsibilities? Standard: AR 40-5, paragraph 9-4b(1). Measure: Certificates of training and equipment on hand/available.			

	Radiation Safety (cont)	YES	NO	Remarks
	Education, Training, and Promotion			
8.	Are radiation handlers/users instructed in safe working conditions and operating procedures IAW applicable regulations and directives? Standard: AR 11-9, paragraph 1-4k(3); AR 40-5, paragraph 9-9. Measure: Training documentation.			
	Inspections, Surveys, and Assessments			
9.	Are required radiological wipe tests performed by the LRSOs and forwarded to the Installation RSO? Standard: AR 11-9, paragraph 2-1; AR 40-5, paragraph 9-9b(3). Measure: Wipe test records.			
10.	Are all accidents/incidents documented and reports forwarded to Installation RSO? Standard: AR 11-9, chapter 6. Measure: Accident/incident records.			
11.	Are affected personnel enrolled in the dosimetry program? Reference: DA Pam 40-18, chapter 3. Measure: Roster and documentation showing personnel enrolled in dosimetry program.			
12.	Are the appropriate radiation caution signs posted? Reference: AR 11-9, paragraph 5-2f. Measure: Signs posted appropriately.			

B-12. Aviation safety.

a. Aviation operations are an integral part of many installation activities across the Army. Aviation safety is a major subprogram of the Army SOH Program that applies to all Army operations and personnel participating in aviation activities that operate and/or maintain Army aircraft. Installations conducting/supporting aviation operations should have an aviation safety program. (See table B-12 for a checklist for aviation safety.)

b. Commanders, supervisors, and program managers should comply with all policies regarding Army aviation accident prevention and should integrate accident prevention awareness into all functional areas involving the use, operation, and maintenance of aircraft.

(1) Aviation Safety Officer advises the Commander, Airfield Commander, and safety office on all aviation safety matters.

(2) Commanders ensure an Aviation Accident Prevention Surveys is conducted semiannually for each aviation unit or flight facility.

Table B-12
Aviation safety checklist

	Aviation Safety	YES	NO	Remarks
	Program Management			
1.	Does the commander have a formal, written safety philosophy? Standard: AR 385-95, paragraph 1-6a(2), FM 1-300, paragraph 6-1a. Measure: Updated as mission and leadership change.			
2.	Is the Aviation Safety Officer (ASO) assigned to a TDA-authorized slot? Standard: AR 385-95, paragraph 3-2; FM 1-300, paragraph 6-1b. Measure: Unit TDA documents.			
3.	Is an aviation safety council established? Standard: AR 385-95, paragraphs1-6a(11) and 3-4a. Measure: Commander states in writing council members by name and position.			
	Education, Training, and Promotion			
4.	Does the ASO conduct monthly safety education and training classes? Standard: AR 385-95, paragraph 1-6d(6c); AR 385-10, paragraph 2-2e(1). Measure: Annual training plan, classes on file with attendees noted, and make-up procedures for missed training.			

	Aviation Safety (cont)	**YES**	**NO**	**Remarks**
5.	Is there an active aviation safety awards program? Standard: AR 385-95, paragraphs 1-6d(6q) and 3-7; AR 672-74. Measure: Awards program in writing.			
	Inspections, Surveys, and Assessments			
6.	Are aviation accident prevention surveys conducted semiannually? Standard: AR 385-95, paragraph 3-2; FM 1-300, paragraph 6-1b. Measure: On file with commanders' review.			
7.	Is appropriate follow-up action taken to correct deficiencies found during the accident prevention surveys? Standard: AR 385-95, paragraphs 3-1f and 3-2. Measure: Hazards log properly maintained.			
8.	Does the ASO maintain a suspense file to ensure action is taken to correct deficiencies noted during aviation accident prevention surveys? Standard: AR 385-95, paragraphs 3-1f and 3-2c. Measure: Hazards log properly maintained.			
	Accident Investigation, Reporting, and Recordkeeping			
9.	Are all accidents reported to the safety office? Standard: AR 385-40. Measure: Copies of accident reports.			
	Hazard Analysis/Countermeasure Development			
10.	Does ASO analyze identified operating errors to identify systems defects (root cause)? Standard: AR 385-95, paragraph 3-1a and b. Measure: Unit risk assessment on file.			

	Aviation Safety (cont)	YES	NO	Remarks
11.	Are follow-up inspections conducted? Standard: AR 385-95, paragraphs 3-1a, b, and e. Measure: Unit risk assessment on file.			
12.	Is there a system in place to ensure action is taken on all Operational Hazard Reports (OHRs)? Standard: AR 385-95, paragraph 1-6d. Measure: OHRs managed and filed with ASO.			
13.	Are rescue and fire fighting facilities and equipment adequate to cope with any emergency that might reasonably be expected to occur? Standard: AR 420-90, paragraph 5-6. Measure: Compliance with regulatory guidance.			
14.	Was a pre-accident plan developed and published? Standard: AR 385-95, paragraphs 1-6a(4d) and 1-6c(7). Measure: On file in Flight Operations.			
15.	Is the pre-accident plan rehearsed at least quarterly to ensure its currency? Standard: AR 385-95, paragraphs 1-6c(8) and2-3d(1). Measure: On file in Flight Operations.			
16.	Is the pre-accident plan functional and effective? Standard: AR 385-95, paragraphs 1-6c(8) and 2-3d(1). Measures: Tested on quarterly basis and After Action Reviews on file.			
17.	Does the primary alarm system include flight operations, control tower, crash fire station, ambulance station, helicopter ambulance crew, and special crash rescue (when required)? Standard: AR 385-95, appendix C, paragraph C-1b; AR 420-90, paragraph 5-5. Measures: SOP specifies duties and responsibilities.			

	Aviation Safety (cont)	YES	NO	Remarks
18.	Does the secondary alarm include airfield or post fire department, ASO, Flight Surgeon, Provost Marshal, Aviation Maintenance Officer, Transportation Officer, Public Affairs Officer, Personnel Officer, Post Engineer, Airfield Weather Officer, Installation Safety Officer, and anyone else the command deems necessary? Standard: AR 385-95, appendix C, paragraph C-1c; AR 420-90, paragraph 5-5. Measures: SOP specifies duties and responsibilities.			
19.	Is the primary alarm tested daily? Is a log maintained of the daily test? Standard: AR 385-95, appendix C. Measures: Documented in log.			

B-13. Transportation safety.

a. Most motor vehicle accidents are caused by driver error. Proper selection, training, and supervision can reduce the incidence of these errors. Commanders are ultimately responsible for the implementation of effective motor accident prevention efforts within their commands and should ensure the individuals they select as drivers are well trained, motivated, and supervised. This includes responsibility for operation of privately owned vehicles by members of their commands. (A transportation safety checklist is found at table B-13.)

b. Commanders should:

(1) Comply with requirements of 23 CFR 1230, DODI 6055.4, and ARs 385-55 and 600-55.

(2) Develop and prescribe local procedures for the safe operation of motor vehicles.

(3) Develop and execute training, education, and motivation programs for motor vehicle operation.

(4) Ensure motor vehicle activities and accident data are collected and analyzed.

Table B-13
Transportation safety

	Transportation Safety	YES	NO	Remarks
	Program Management			
1.	Are driving instructors and assistant instructors trained and licensed to operate the vehicle or equipment and appointed in writing? Standard: AR 600-55, paragraph 4-2a. Measure: Copy of appointment orders indicating vehicle and equipment that individual may instruct. Copy of DA Form 348.			
2.	Is a remedial drivers training program established? Standard: AR 600-55, paragraph 4-8. Measure: Copy of POI/lesson plans, attendance rosters.			
3.	Are personnel provided with vehicle accident avoidance training? Standard: AR 385-55, paragraph 3-2. Measure: Copy of POI/lesson plan, frequency of offering, and copies of attendance rosters.			
4.	Is there an adverse weather dispatch policy? Standard: AR 385-55, paragraph 2-9. Measure: Current copy of adverse weather dispatch policy.			
	Education, Training, and Promotion			
5.	Do motorcyclists, at no cost, receive required training? Standard: DODI 6055.4, paragraph E3.2; AR 385-55, paragraph 3-2a(2). Measure: Scheduled motorcycle defense driving course.			
	Inspections, Surveys, and Assessments			
	Accident Investigation, Reporting, and Record Keeping			
	Hazard Analysis/Countermeasure Development			

Appendix C
Conditioning/Obstacle Course Criteria

The following checklists provides conditioning/endurance course inspection and standardization criteria.

C-1. Initial military training conditioning/endurance course checklist.

Initial Military Training
Conditioning/Endurance Course Checklist

Course: _____

Location: _____ Date of Inspection: _____

Inspector:
Name: _____ Organization: _____

POC:
Name: _____ Organization: _____

Phone: _____

1. Courses will be evaluated to identify any safety hazards/concerns. Deficiencies found during the inspection will be annotated and corrective actions initiated by the responsible organization.

2. This evaluation will also assist in standardizing courses used at TRADOC activities.

3. Obstacle Category: Conditioning and Endurance.

Note: Surface refers to the area beneath and around obstacles to include travel lanes. Impact absorbing material depth under obstacles is 18 inches for sand, 12 inches of shredded rubber, and 24 inches for saw dust.

4. Standards for Conditioning/Endurance Courses are a combination of those found in Engineer Drawing DEF 028-13-95, Obstacle Course Layout Plan; FM 21-20, Physical Fitness Training; and TRADOC Reg 350-6, Enlisted Initial Entry Training (IET) Policies and Administration.

Section I: General Inspection Criteria, Administrative

	AREA	STANDARD	GO	NO GO
1.	**Training Requirement**	a. Training event is supported by TSP, POI, or lesson plan.		
		b. Standing Operating Procedures (SOP) are published and on hand at each course.		
2.	**Administrative**	Condition service logs are maintained on all ropes used for surmounting and suspension.		
3.	**Risk Management**	a. Generic risk assessment maintained is on site.		
		b. Daily risk assessment is on site during training identifying hazards associated with personnel, equipment, and environment.		
4.	**Inspections**	a. Copy of last safety inspection report conducted by professional safety staff on site.		
		b. Copy of daily preoperations inspection maintained at site.		
		c. Existing deficiencies are documented and maintained by the responsible organization.		
		d. Copy of current work orders maintained by responsible organization.		
5.	**Accident trends**	A list of all injuries sustained on obstacles is maintained by responsible organization and safety office.		

Section II: General Inspection Criteria

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. No protruding nails or splinters that may cause injury when obstacle is negotiated.		
		c. All timbers are connected securely together to prevent movement when put under stress.		
2.	**Wall Boards**	a. All boards are securely attached to structure with proper hardware (bolts and nuts).		
		b. All boards free of protruding nails, splinters, rot, or damage.		
		c. Edges of boards rounded/smooth where used to support individual's weight.		
		a. All bolts, nuts, and washers in place and of the designated type, size, and placement.		
		b. All anchors are made of three or more galvanized guy wire.		

		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow adjustment.		
		d. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		

Section II: General Inspection Criteria (cont)

	AREA	STANDARD	GO	NO GO
4.	**Fiber Ropes**	a. All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections.		
		b. All ropes designed for surmounting are 1.5 inches in diameter.		
		c. Ropes are securely mounted to supporting timbers with ends tied and taped.		
		d. Ends of ropes are tied in a knot or wrapped to prevent fraying.		
		e. Condition/service logs are maintained on all ropes used for surmounting and suspension.		
5.	**Design**	Professional safety staff reviews obstacle construction plans.		
6.	**Fall Protection**	a. The surface under conditioning obstacles will be free of any tripping hazard and covered with sand or saw dust.		
		b. Any obstacle requiring negotiation at an elevated level (in excess of 6 feet) will have impact absorbing material beneath it.		
		c. Forged steel hooks are used to fasten nets to its supports.		
		d. Nets are weight tested by competent person every 6 months by dropping a 500 pound, 5 cubic feet weight onto it from a height of 25 feet.		
		e. All nets are suspended below high obstacles (in excess of 10 feet) have padding or small mesh material to prevent limbs from penetrating net		
		f. All padding is in good condition with no tears, holes, or loose material to trip personnel when dismounting.		
		g. All pole-vaulting pads are placed properly at base of designated high obstacles.		
7.	**Padding**	a. All safety padding attached to timbers is in good condition without signs of damage.		
		b. All pads are securely attached to the timber supports to prevent movement when impacted.		
8.	**Base Containment Box**	a. Base containment box is adequate to contain all absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box extends far enough from dismount point of obstacle to prevent creating a tripping hazard.		
		d. Containment box is filled with either 18 inches of sand, 12 inches of shredded rubber, or 24 inches of sawdust.		
9.	**Surfaces**	All surfaces beneath low obstacles are free of hazards that have the potential to cause injury when crawled upon.		

Section II: General Inspection Criteria (cont)

	AREA	STANDARD	GO	NO GO
10.	**Condition**	a. Designated course is free of tripping hazards.		
		b. Course surface is well maintained to prevent injury in case of falls.		
		c. Course surface is raked and policed prior to each use.		
		d. Course surface is free of large rocks, stones, or concrete materials that may cause injury in the event of a fall.		
11.	**Safety**	Installation safety staff conducts quarterly inspections.		

Section III: Obstacle Specific Design Criteria

1. The following criteria supplement sketches found in FM 21-20, Physical Fitness Training, chapter 8, and Department of the Army Corps of Engineer Drawing DEF 028-13-95, Obstacle Course Layout Plan.

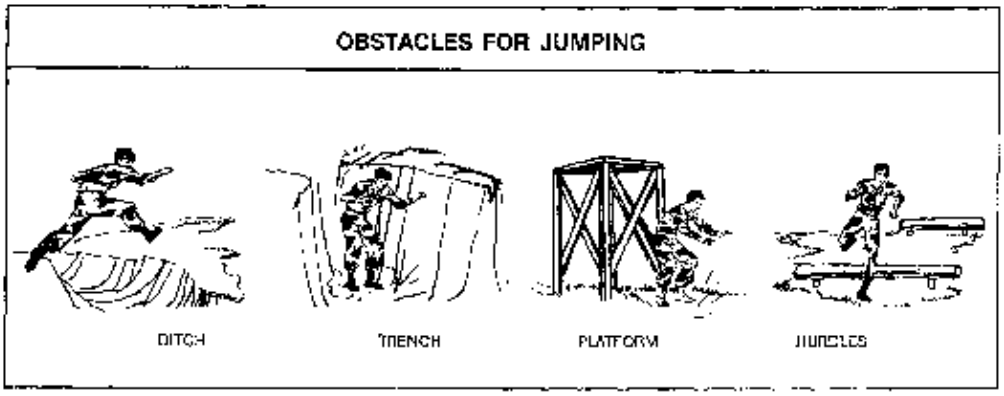
a. **Climbing ropes that are 1 1/2 inches wide and either straight or knotted.**

b. **Walls 7 or 8 feet high.**

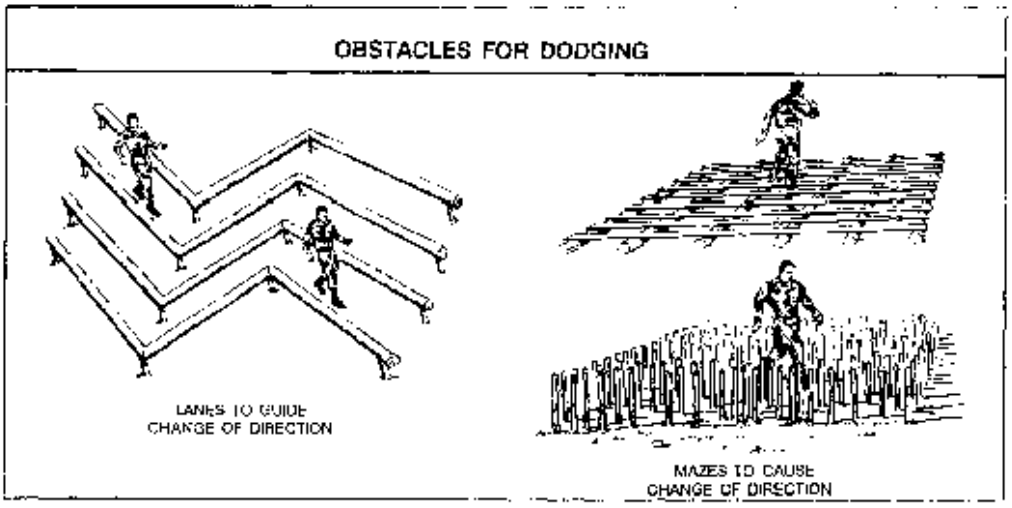
2. Ground covering should be maintained to prevent excessive erosion and compaction.

3. This criteria applies to the following specific obstacle courses:

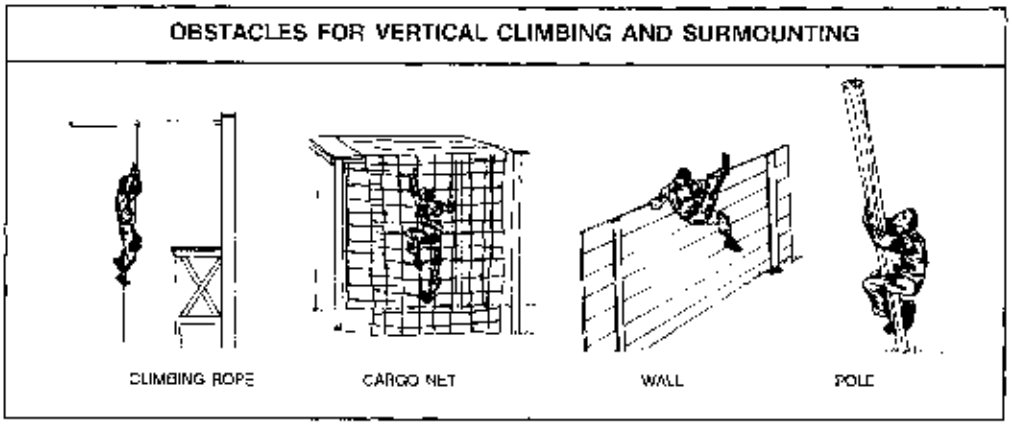
a. Obstacles for jumping.



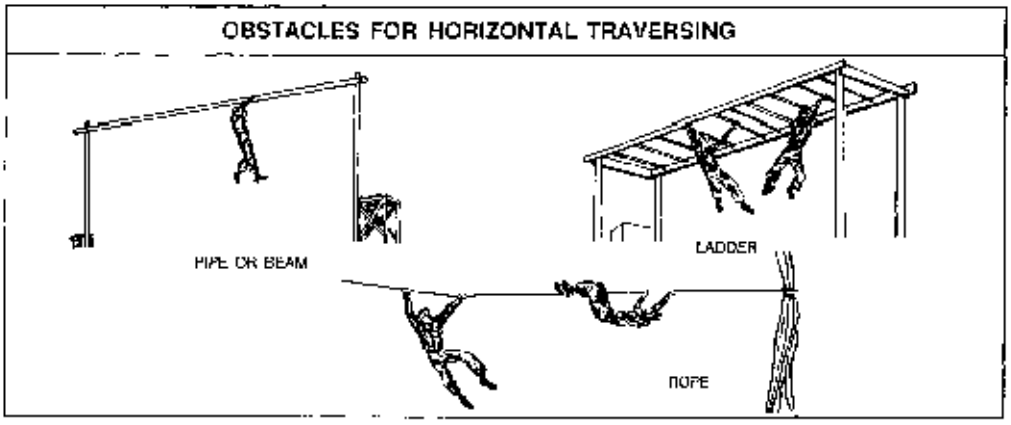
b. Obstacles for dodging.



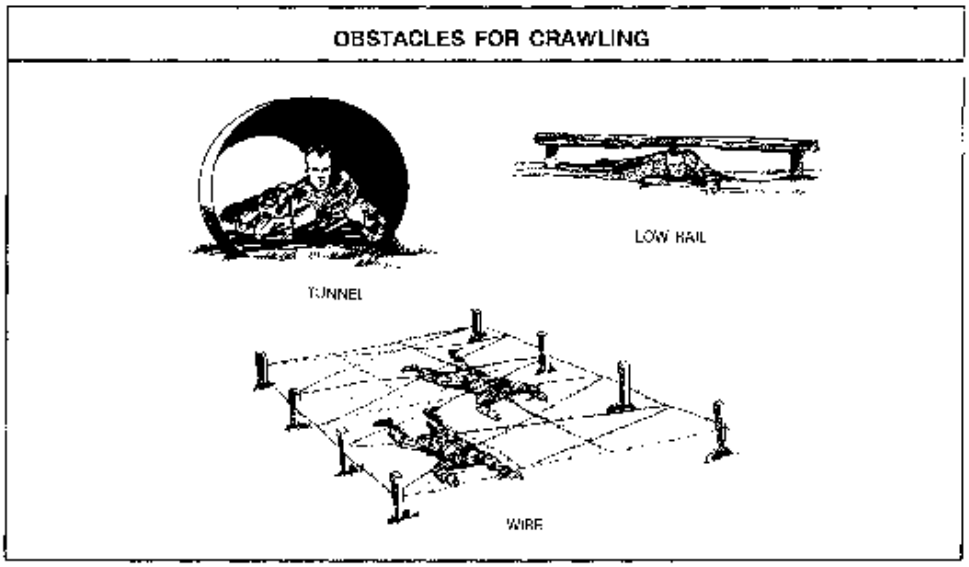
c. Obstacles for climbing and surmounting.



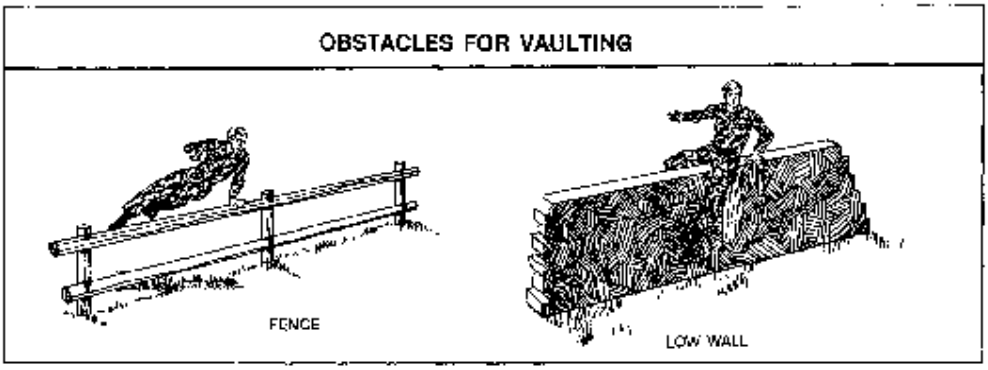
d. Horizontal traversing.



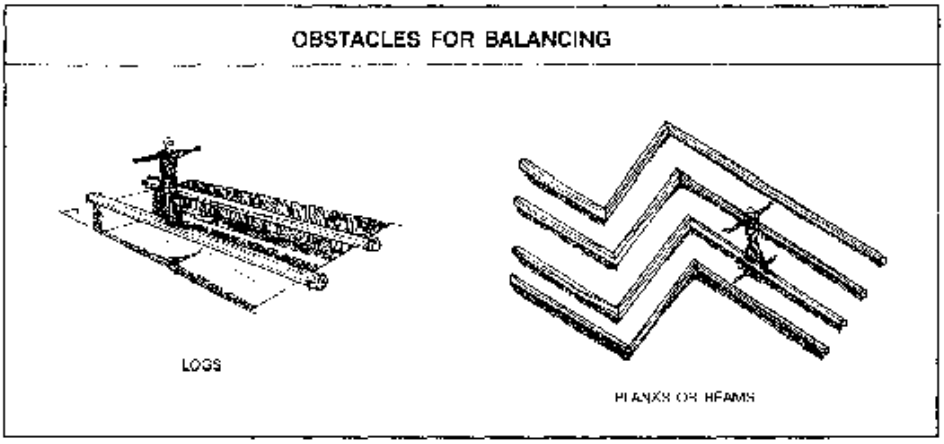
e. Obstacles for crawling.



f. Obstacles for vaulting.



g. Obstacles for balancing.



C-2. Initial military training obstacles checklist.

Initial Military Training
Obstacles Checklist

Obstacle Course: _____

Location: _____ Date of Inspection: _____

Inspector:
Name: _____ Organization: _____

POC:
Name: _____ Organization: _____

Phone: _____

1. Courses will be evaluated to identify any safety hazards/concerns. Deficiencies found during the inspection will be annotated and corrective actions initiated by the responsible organization.

2. This evaluation will also assist in standardizing courses used at TRADOC activities.

3. Obstacle categories: Standard, Nonstandard, and Other.

Note: Where indicated on checklist, "fall protection" refers to devices or systems emplaced beneath obstacles to prevent injury during falls; "fall arrest systems" are devices attached to personnel to limit the distance of falls; and "surface" refers to the area beneath and around obstacles, to include travel lanes. Impact absorbing material depth under obstacles is 18 inches for sand, 12 inches of shredded rubber, and 24 inches for saw dust.

4. Standards for Conditioning/Endurance Courses are a combination of those found in Engineer Drawing DEF 028-13-95, Obstacle Course Layout Plan; FM 21-20, Physical Fitness Training; and TRADOC Reg 350-6, Enlisted Initial Entry Training (IET) Policies and Administration.

Section I: General Inspection Criteria, Administrative

	AREA	STANDARD	GO	NO GO
1.	**Training Requirement**	a. Training event is supported by TSP, POI, or lesson plan.		
		b. Standing Operating Procedures (SOP) are published and on hand at each course.		
2.	**Administrative**	a. All ropes used for surmounting and suspension have condition service logs available.		
		b. Weight testing logs are maintained for nets.		

Section I: General Inspection Criteria, Administrative (cont)

	AREA	STANDARD	GO	NO GO
3.	**Risk Management**	a. Generic risk assessment is completed and maintained on training site.		
		b. Daily risk assessment is completed and on site during training, identifying hazards associated with personnel, equipment, and environment.		
4.	**Inspections**	a. Copy of last professional safety staff's safety inspection report is on site.		
		b. Copy of daily inspection is maintained at training site.		
		c. A list of all current deficiencies is maintained by the responsible organization.		
		d. Copies of current work orders are maintained by the responsible organization.		
5.	**Accident Trends**	A list of all injuries sustained on obstacles is maintained by the responsible organization and safety office.		

Section II: General Inspection Criteria

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. There are no protruding nails or splinters to cause injury when obstacle is negotiated.		
		c. All timbers are securely connected together without excess separation between joints.		
2.	**Wall Boards**	a. All boards are securely attached to structure with proper hardware.		
		b. All boards free of protruding nails, splinters, rot, or damage.		
		c. Edges of boards rounded/smooth where used to support individual's weight.		
3.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		

Section II: General Inspection Criteria (cont)

	AREA	STANDARD	GO	NO GO
4.	**Fiber Ropes**	a. All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excessive wear, or contact with the ground.		
		b. All ropes designed for surmounting are 1.5 inches in diameter.		
		c. Ropes are securely mounted to supporting timbers with ends tied and taped.		
		d. Ends of ropes are tied in a knot or wrapped to prevent fraying.		
		e. Condition/service logs are maintained on all ropes used for surmounting and suspension.		
5.	**Design**	Obstacle adheres to blue print specifications.		
6.	**Fall Protection**	a. All nets meet American National Standards Institute (ANSI) load bearing standard for personnel (ANSI 10.11/ OSHA 1926.105) 3.5-inch nylon mesh, 17,500 pound (lb) impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall.		
		c. Forged steel hooks are used to fasten nets to its supports.		
		d. Nets are weight tested every 6 months by dropping a 500 lb, 5 cubic feet weight onto it from a height of 25 feet.		
		e. All nets are suspended below high obstacles (in excess of 10 feet) have padding or small mesh material to prevent limbs from penetrating net.		
		f. Pole vaulting pads are in good condition with no tears, holes, or loose material which can trip personnel when dismounting.		
		g. All pole-vaulting pads are placed properly at base of designated high obstacles.		
7.	**Padding on Timbers**	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
8.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
		d. Containment box is filled with either 18 inches of sand, 12 inches of shredded rubber, or 24 inches of sawdust.		

Section II: General Inspection Criteria (cont)

	AREA	STANDARD	GO	NO GO
9.	**Surfaces**	All surfaces beneath low obstacles are free of hazards with the potential to cause injury.		
10.	**Course Condition**	a. Designated course is free of tripping hazards.		
		b. Course surface is well maintained to prevent injury in case of falls.		
		c. Course surface is raked and policed prior to each use.		
		d. Course surface is free of large rocks, stones, or concrete materials that may cause injury in the case of a fall.		
11.	**Safety**	Professional safety staff reviews obstacle construction plans.		

Section III: Obstacle Specific Inspection Criteria

1. The accompanying checklists and sketches supplement FM 21-20 (Physical Fitness Training), chapter 8, Department of the Army Corps of Engineer Drawings DEF 028-13-95, Obstacle Course Layout Plan, and TRADOC Reg 350-6. They serve as minimum construction/safety standards for obstacle courses used by Initial Military Training facilities.

2. The "Jump and Land" and “Swinger” are not included and will not be used. These obstacles are conducive to lower extremity injuries.

3. Safety equipment (nets, pads, ground covering) should be procured from reliable sources, inspected and tested frequently, and replaced before deterioration/failure.

4. Detailed obstacle course safety inspection checklists and sketches follow for:

a. “The Tough One.”

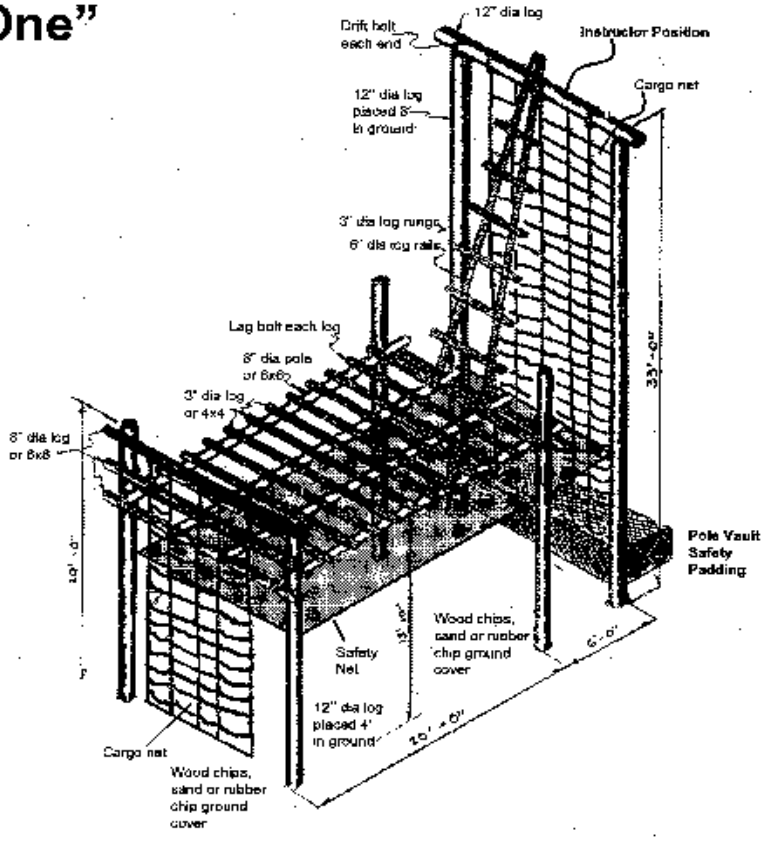
THE TOUGH ONE

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Reg 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are connected securely together without excess separation between joints.		

2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type, size, and placement.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Fall Protection**	a. All nets meet ANSI load bearing standard for personnel (ANSI 10.11/OSHA 1926.105) 3.5-inch nylon mesh, 17,500 lb impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall.		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested every 6 months by dropping a 500 lb, 5 cubic feet weight onto it from a height of 25 feet.		
		e. Pole vaulting pads are in good condition with no tears, holes, or loose material which can trip personnel when dismounting.		
		f. Pole-vaulting pads are placed properly at base of designated obstacles.		
8.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

"The Tough One"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in their mental and physical abilities while cultivating personal courage.
This obstacle is not timed.
Execution of obstacle: Soldier mounts and climbs net on lowest end (13 ft) of obstacle. Soldier goes over or between logs at top of rope, net or pole. Soldier moves across log walkway, climbs ladder to the high end (33 ft.), then climbs down the cargo net to the ground.
Safety: Instructors conduct inspection and provide orientation and demonstration on apparatus. At a minimum, all ropes, nets and wood surfaces are inspected prior to use for rips, tears or worn / unsecure surfaces. Distance between rungs on log ladder should not exceed 36". Safety padding sufficient to break a fall should be emplaced at bottom of high (33 ft) cargo net. Instructor should be positioned at the top of the wooden ladder to observe /assist soldiers over log at high point and onto cargo net; instructor is to be secured with safety belt or harness to horizontal log to prevent instructor from being pulled off by soldier negotiating apparatus.



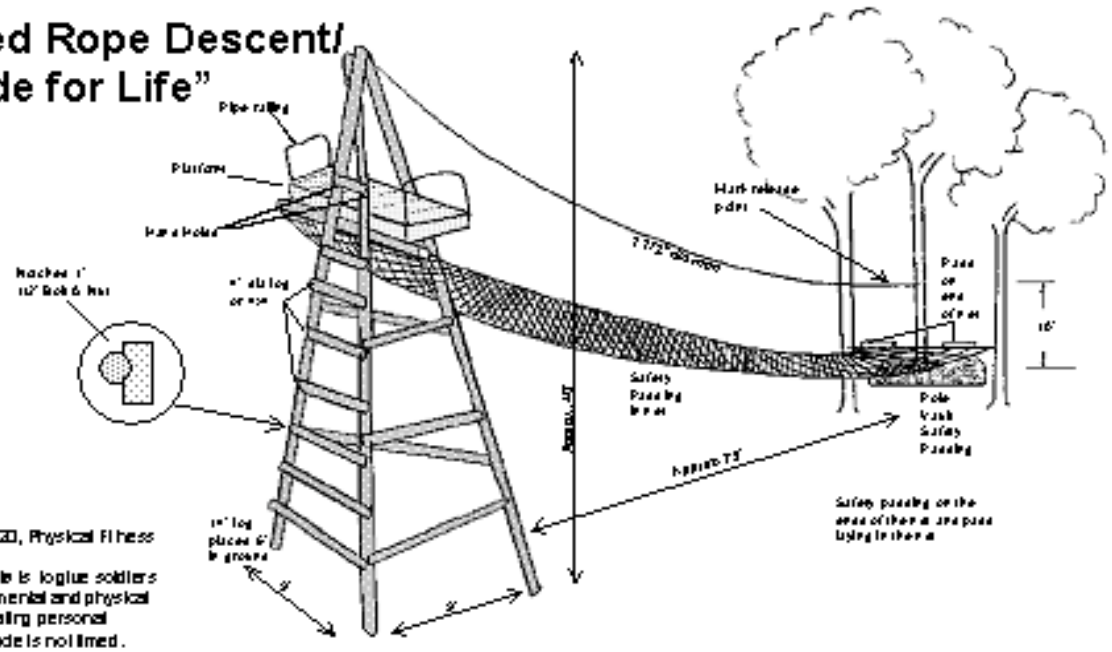
b. "Inverted Rope Descent/The Slide for Life."

INVERTED ROPE DESCENT/THE SLIDE FOR LIFE

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Reg 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are connected securely together without excess separation between joints.		
2.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		

		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
3.	**Fiber Ropes**	a. All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excessive wear, or contact with the ground.		
		b. All ropes designed for surmounting are 1.5-inches in diameter.		
		c. Ropes are securely mounted to supporting timbers with ends tied and taped.		
4.	**Design**	Professional safety staff reviews obstacle construction plans.		
5.	**Fall Protection**	a. All nets meet ANSI load bearing standard for personnel (ANSI 10.11/OSHA 1926.105) 3.5-inch nylon mesh, 17,500 lb impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from edge of obstacle.		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested every 6 months by dropping a 500 lb, 5 cubic feet weight onto it from a height of 25 feet.		
		e. All nets suspended below high obstacles (excess of 10 feet) have padding or small mesh material to prevent limbs from penetrating mesh.		
		f. Pole vaulting pads are in good condition with no tears, holes, or loose material which can trip personnel when dismounting.		
		g. Pole-vaulting pads are properly placed at base of designated obstacles.		
6.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

"Inverted Rope Descent/ The Slide for Life"



Reference: FM 21-20, Physical Fitness Training, Chapter 8

Purpose of obstacle is to give soldiers confidence in their mental and physical abilities while cultivating personal courage. This obstacle is not timed.

Execution of obstacle: Soldier climbs ladder, mounts center of platform (instructor available to assist), grasps rope firmly and swings legs upward. Soldier holds rope with legs to distribute weight between legs and arms. Braking the slide with feet and legs, soldier proceeds down the rope. Soldiers must be warned that they could get rope burns on their hands if improperly executed. This obstacle can be dangerous when the rope is slippery. Soldiers release the rope at a clearly marked point of release. Only one soldier at a time is allowed on the rope.

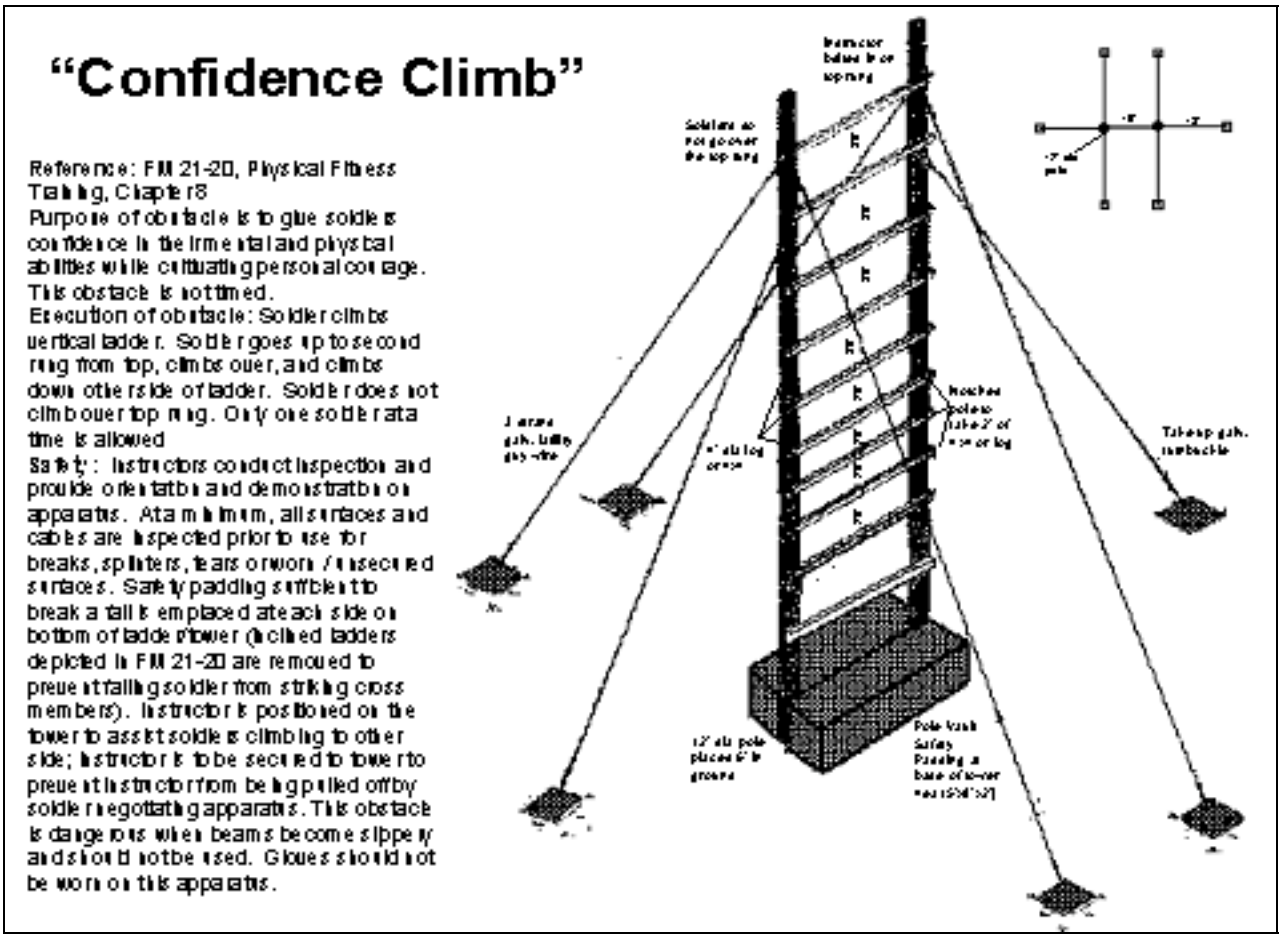
This obstacle requires two instructors – one on the platform and the other on the ground.

Safety: Instructors conduct inspection and provide orientation and demonstration on apparatus. At a minimum, all ropes, nets and wood surfaces are inspected prior to use for rips, tears or worn/unsecured surfaces. Spacing between the rungs on the log ladder should not exceed 36". Rope will be 1.5 inch diameter with no knots in the vicinity of the mounting point. A safety net is attached so that a soldier falling from any portion of the rope will land in the net before striking any part of the tower. Padding placed in the net will reduce likelihood of hands/fingers being twisted in the net. Safety padding sufficient to break a fall should be emplaced at the drop off point. Instructor is positioned on the lower platform to assist soldiers mounting the rope; instructor is to be secured to lower to prevent instructor from being pulled off by soldier negotiating apparatus. Padding is emplaced at the bottom end of the net (nearest release point) to prevent soldier from injury on tightened portion of net. This obstacle is dangerous when rope becomes wet/slippery and should not be used. Gloves should not be worn on this apparatus.

c. "Confidence Climb."

CONFIDENCE CLIMB

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Reg 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Fall Protection**	a. Pole vaulting pads are in good condition with no tears, holes, or loose material which can trip personnel when dismounting.		
		b. All pole-vaulting pads are properly placed at base of designated obstacles.		
5.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				



d. "Skyscraper."

SKYSCRAPER

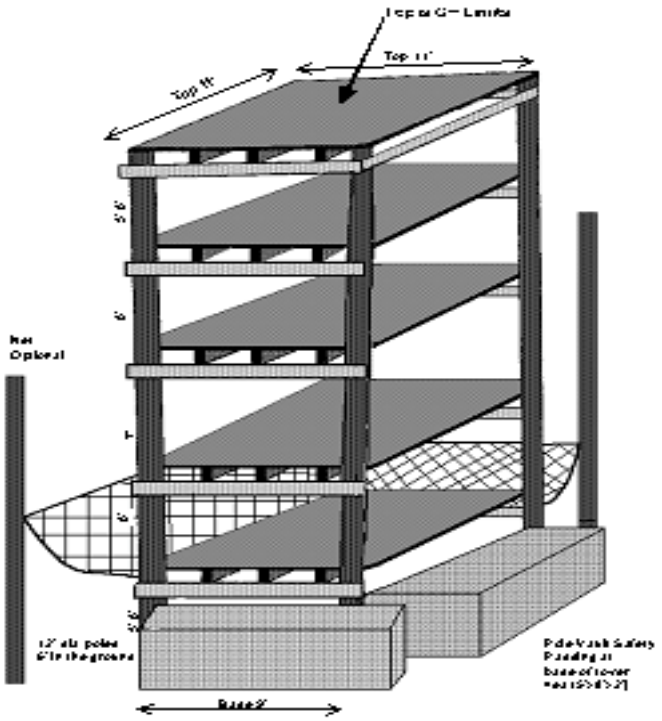
	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire or larger.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		

		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Fall Protection**	a. All nets meet ANSI load bearing standard for personnel (ANSI 10.11/OSHA 1926.105) 3.5-inch nylon mesh, 17,500 lb impact resistant.		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall.		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested every 6 months by dropping a 500 lb, 5 cubic feet weight onto it from a height of 25 feet.		
		e. All nets suspended below high obstacles (excess of 10 feet) have padding to prevent limbs from penetrating net.		
		f. Pole vaulting pads are in good condition with no tears, holes, or loose material which can trip personnel when dismounting.		
		g. Pole-vaulting pads are properly placed at base of designated obstacles.		

Remarks:

"Skyscraper"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in their mental and physical abilities while cultivating personal courage and developing teamwork. This obstacle is not timed.
Execution of obstacle: Team of soldiers (4-6) jump or climb to the first floor and either climb corner posts or help one another to higher floors. Subsequent climbing is done on side of tower over net (if available). They descend to the ground as a team as well. The top level roof is off limits / not used. One team at a time should be on the obstacle. Soldiers should never jump to the ground from above the first level.
Safety: Instructors conduct inspection and provide orientation and demonstration on apparatus. At a minimum, all surfaces and any supporting cables are inspected prior to use for breaks, splinters, tears or worn / unsecured surfaces. Safety padding sufficient to break a fall is emplaced on the ground under the climbing side(s) of the tower. This obstacle is dangerous when slippery and should not be used. Gloves should not be worn on this apparatus. NOTE: optional net on two sides allows mounting over pads then subsequent climbing over the net.



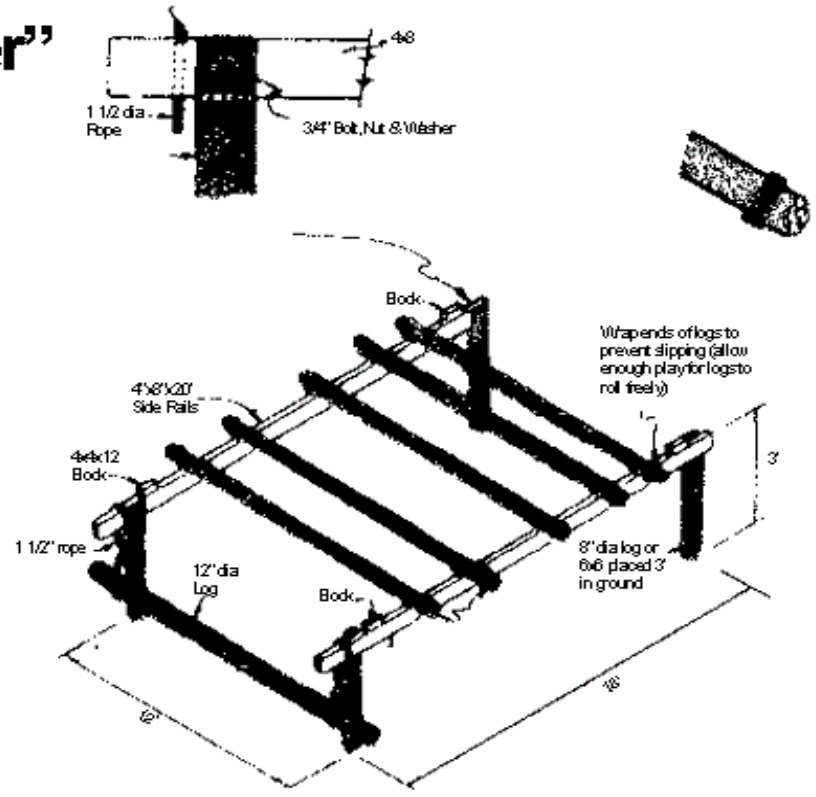
e. "Belly Robber."

BELLY ROBBER

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

"Belly Robber"

Reference: FM21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities while cultivating toughness.
Execution of obstacle: Soldiers step on lower log and take prone, stomach down position on the horizontal logs. Soldiers crawl over logs to opposite end of obstacle, then dismount feet first.
Safety: Instructor conducts inspection and provides orientation to obstacle. Rope gaskets must be attached to the ends of the logs to keep the hands from being pinched and to ensure logs cannot fall from perpendicular cradle logs. Logs should be free of nails and splinters. A center "lane" / line should be marked to canalize users down the center of the obstacle.



f. "The Tarzan."

THE TARZAN

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Reg 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. Rungs on horizontal ladder are modified to support Gender Integrated Training (diameter is reduced to accommodate smaller hand sizes).		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

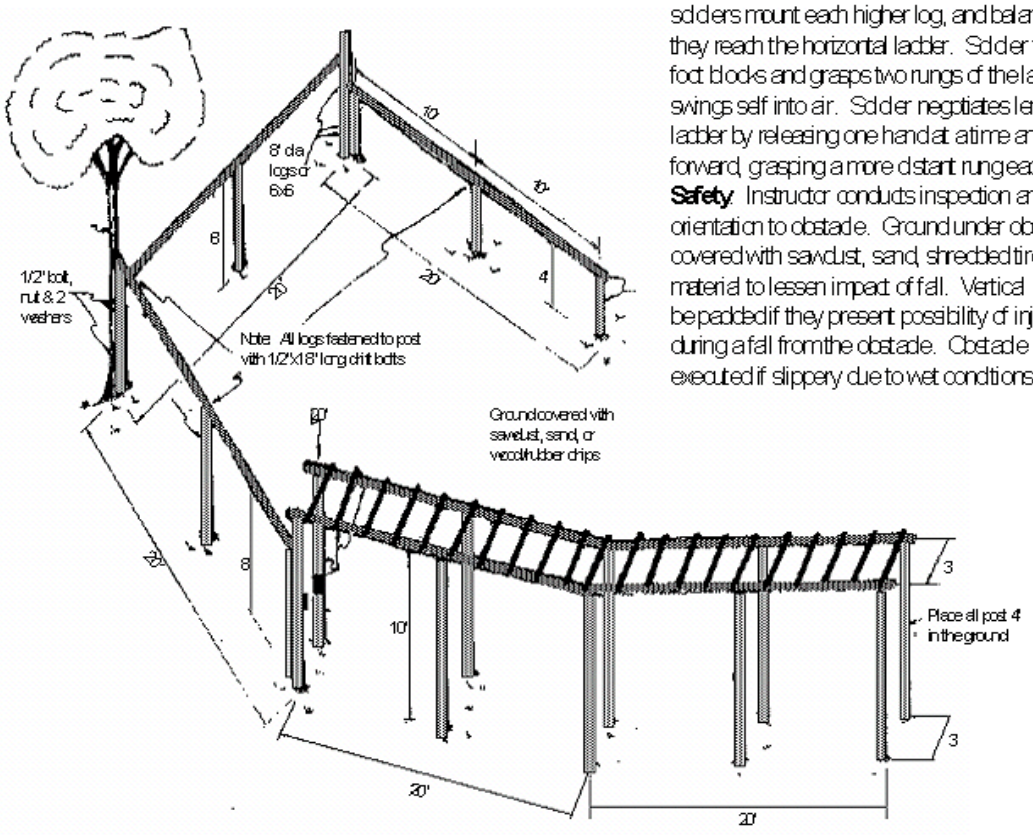
"The Tarzan"

Reference: FM21-20, Physical Fitness Training, Chapter 8

Purpose of obstacle is to give soldiers confidence in physical abilities to include balance and upper body strength.

Execution of obstacle: Soldiers mount the lowest log and maintain balance while walking length of it. Then soldiers mount each higher log, and balance-walk until they reach the horizontal ladder. Soldier then steps onto foot blocks and grasps two rungs of the ladder and swings self into air. Soldier negotiates length of the ladder by releasing one hand at a time and swinging forward, grasping a more distant rung each time.

Safety: Instructor conducts inspection and provides orientation to obstacle. Ground under obstacle must be covered with sawdust, sand, shredded tire, or similar material to lessen impact of fall. Vertical surfaces should be padded if they present possibility of injury if struck during a fall from the obstacle. Obstacle should not be executed if slippery due to wet conditions.



g. "Low Belly Over."

LOW BELLY OVER

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Fiber Ropes**	All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excessive wear, or contact with the ground.		
4.	**Design**	Professional safety staff reviews obstacle construction plans.		
5.	**Padding on Timbers**	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
Remarks:				

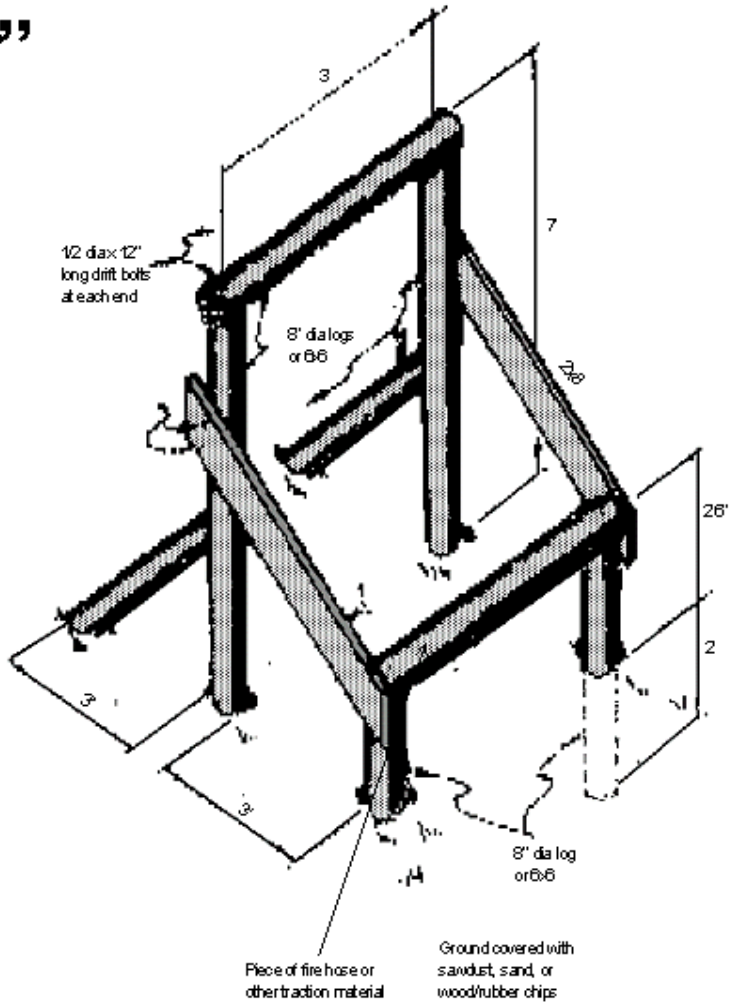
"Low Belly Over"

Reference: FM 21-20, Physical Fitness Training, Chapter 8

Purpose of obstacle is to give soldiers confidence in physical abilities to include balance and upper body strength.

Execution of obstacle: Soldiers mount the low log and jump onto high log. They grasp over the top of the log with both arms, keeping the belly area in contact with it. They swing their legs over the log, then lower themselves to the ground.

Safety: Instructor conducts inspection and provides orientation to obstacle. Ground under obstacle must be covered with sawdust, sand, shredded tire, or similar material to lessen impact of fall. Vertical surfaces should be padded if they present possibility of injury if struck during a fall from the obstacle. Obstacle should not be executed when slippery due to wet conditions. Spotters should be used.



Note: Add a rope for soldiers to climb down from the top log.

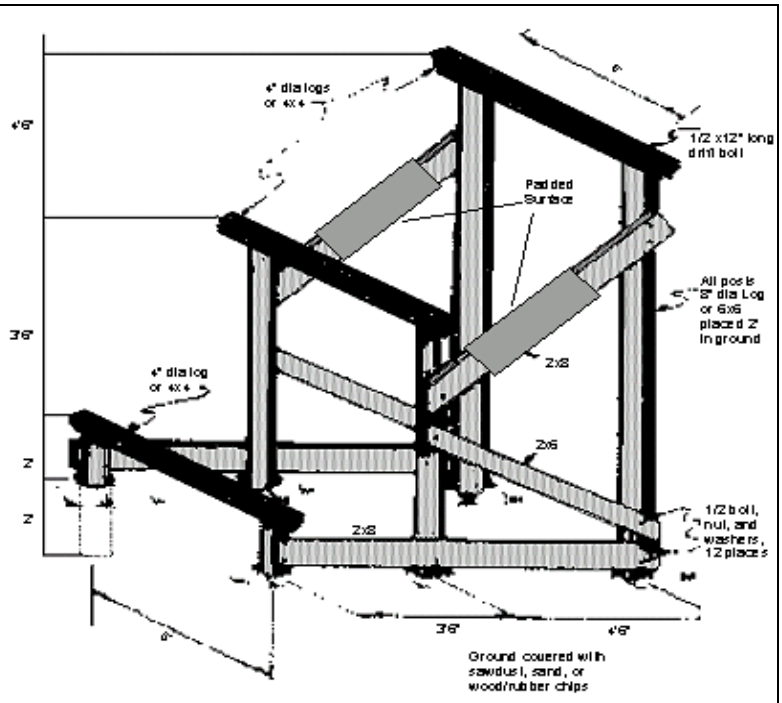
h. "The Dirty Name."

THE DIRTY NAME

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Padding on Timbers**	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
5.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

"The Dirty Name"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities to include balance and upper body strength.
Execution of obstacle: Soldiers mount the low log and jump onto middle log. Soldiers pull themselves onto middle log and jump onto high log. They grasp over the top of the log with both arms, keeping the belly area in contact with it. They swing their legs over the log, then lower themselves to the ground.
Safety: Instructor conducts inspection and provides orientation to obstacle. Ground under obstacle must be covered with sawdust, sand, shredded tire, or similar material to lessen impact of fall. Vertical surfaces should be padded if they present possibility of injury if struck during a fall from the obstacle. Obstacle should not be executed when slippery due to wet conditions. Spotters should be used.



i. "The Tough Nut."

THE TOUGH NUT

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	All wire/bolts are of the designated type and size.		
3.	**Design**	a. Professional safety staff reviews obstacle construction plans.		
		b. Center height of X does not exceed 30 inches.		
Remarks:				

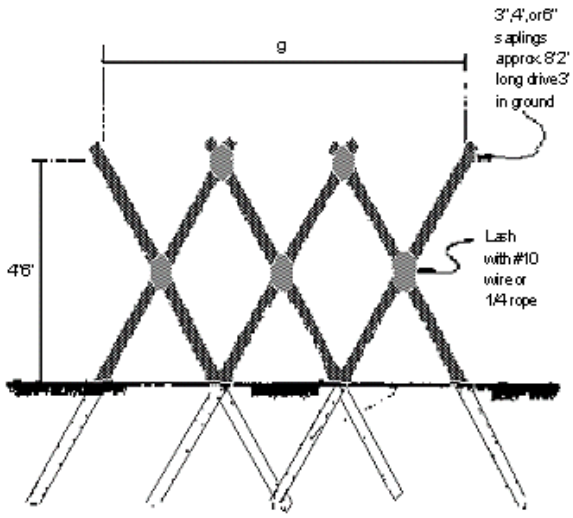
"The Tough Nut"

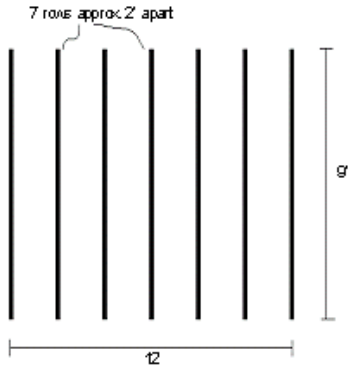
Reference: FM 21-20, Physical Fitness Training, Chapter 8

Purpose of obstacle is to give soldiers confidence in physical abilities.

Execution of obstacle: Soldiers step over each "X" in each lane.

Safety: Instructor conducts inspection and provides orientation to obstacle. Ensure obstacle does not have sharp edges or splinters.





Note: The height of each "X" should not exceed 30 inches.

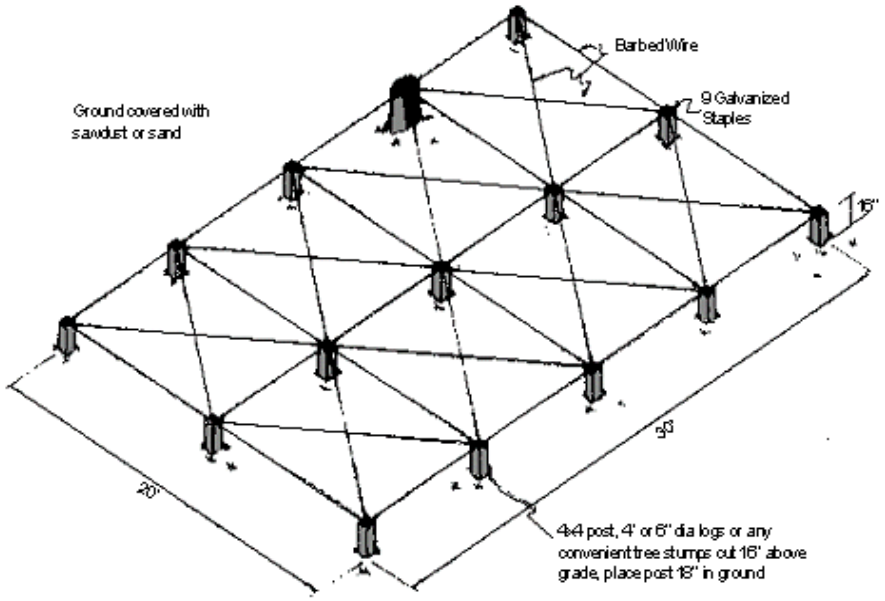
j. “Belly Crawl.”

BELLY CRAWL

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
2.	**Hardware**	All wires, screws, or nails are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Surfaces**	All surfaces beneath low surfaces are free of hazards with the potential to cause injury.		
Remarks:				

"Belly Crawl"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers move forward under wire, on their stomachs, to the end of the wire obstacle.
Safety: Instructor conducts inspection and provides orientation to obstacle. Wire should be 16" above ground. Crawling surface should be sand or sawdust, free of sharp objects. Direction of negotiating crawl may be reversed from time to time to maintain more level crawling surface.



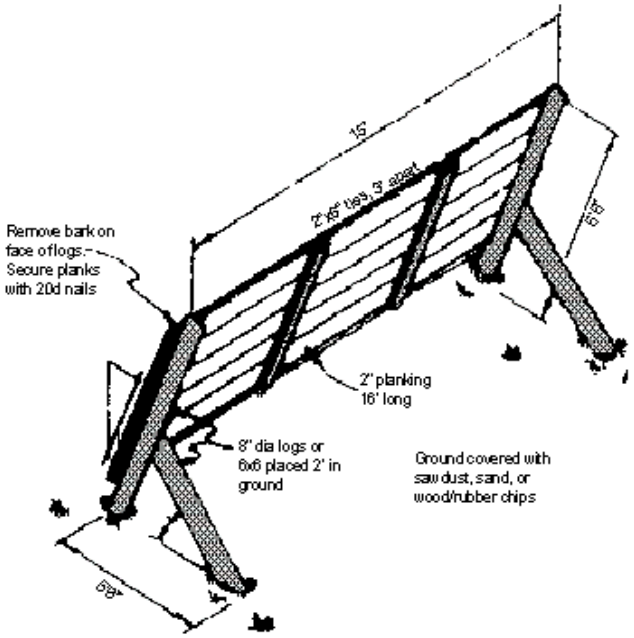
k. “Inclining Wall.”

INCLINING WALL

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2.	**Wall Boards**	a. All boards are securely attached to structure with proper hardware.		
		b. All boards free of protruding nails, splinters, rot, or damage.		
		c. Edges of boards rounded/smooth where used to support individual’s weight..		
3.	**Hardware**	a. All bolts, nuts, and washers in place and of the designated type, size, and placement.		
		b. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
4.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

"Inclining Wall"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers approach the underside of wall, jump up and grasp the top, and pull themselves over. They slide or jump down the incline to the ground.
Safety: Instructor conducts inspection and provides orientation to obstacle. Ground under near side of obstacle must be covered with sawdust, sand, shredded tire, or similar material to lessen impact of fall. Wood surface must be free of nails and splinters. Spotters should be used on near side of obstacle.



l. "High Step Over."

HIGH STEP OVER

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	a. All bolts, nuts, and washers in place and of the designated type, size, and placement.		
		b. Maximum height of step does not exceed 3 feet, 4 inches.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

m. “Swing, Stop, & Jump.”

SWING, STOP & JUMP

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier’s ability to negotiate obstacle.		
2.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. Surmounting ropes have knots at ends or are taped to prevent fraying.		
3.	**Fiber Ropes**	All ropes are free of rips, tears, cuts, frays, rot, or unraveled sections due to age, excess wear, or contact with the ground.		
4.	**Design**	Professional safety staff reviews obstacle construction plans.		
5.	**Padding on Timbers**	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
6.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

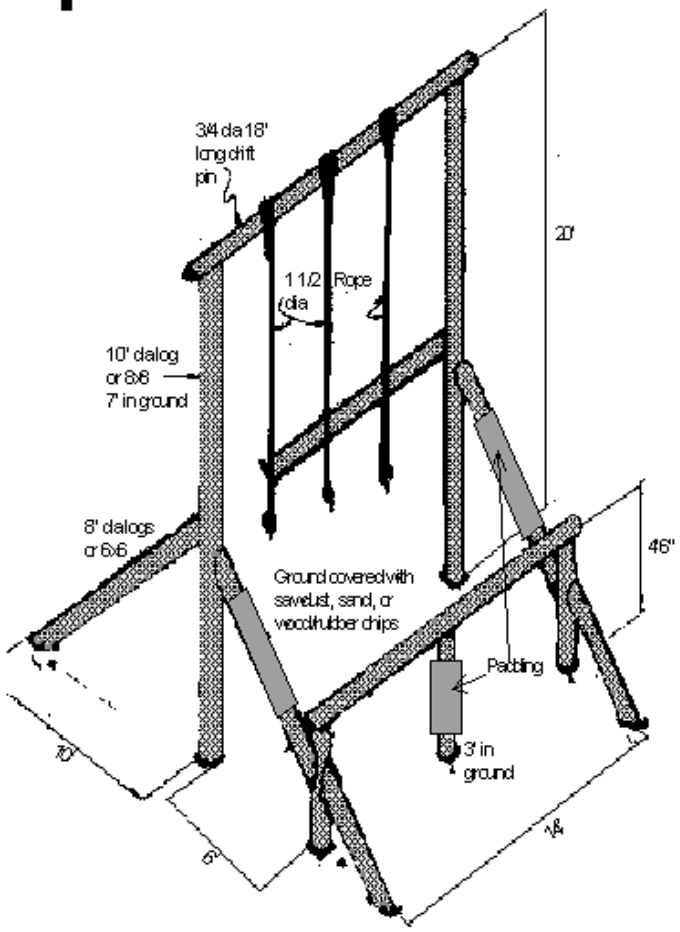
"Swing, Stop, & Jump"

Reference: FM 21-20, Physical Fitness Training, Chapter 8

Purpose of obstacle is to give soldiers confidence in physical abilities and develop agility.

Execution of obstacle: Soldiers gain momentum with a short run, grasp the rope, and swing their bodies forward to the top of the wall. They release the rope while standing on the wall and jump to the ground.

Safety: Instructor conducts inspection and provides orientation to obstacle. Wood wall surface must be free of nails and splinters. Ground under obstacle should be covered with sand, sawdust, or shredded rubber to absorb shock and falls. Vertical surfaces may be padded if there is danger of falling soldier striking support or similar structures. Rope should be tested daily to ensure no frays or loosening of attachment to overhead support. Obstacle should not be used when wall surface is wet.



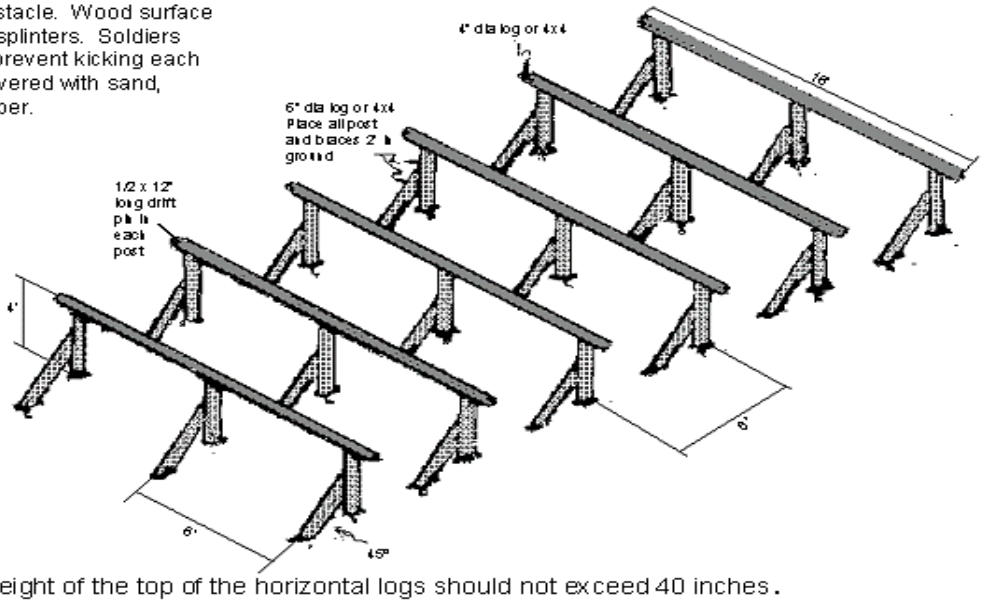
n. "Six Vaults."

SIX VAULTS

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

"Six Vaults"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers vault over each log using one or both hands.
Safety: Instructor conducts inspection and provides orientation to obstacle. Wood surface must be free of nails and splinters. Soldiers must be spaced so as to prevent kicking each other. Ground may be covered with sand, sawdust, or shredded rubber.



Note: Height of the top of the horizontal logs should not exceed 40 inches.

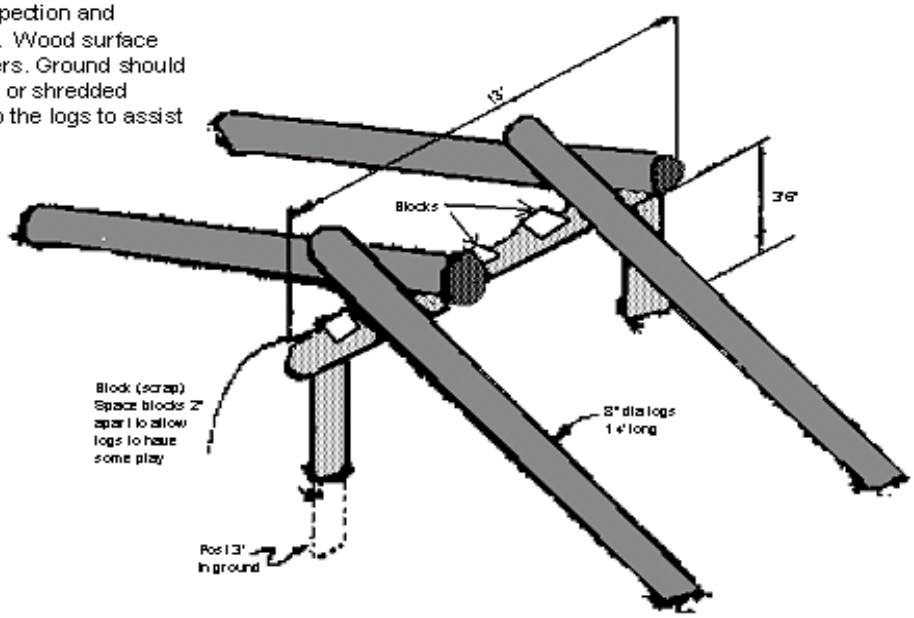
o. “Easy Balancer.”

EASY BALANCER

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier’s ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

"Easy Balancer"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers walk up one inclined log and down the one on the other side to the ground. (No Running).
Safety: Instructor conducts inspection and provides orientation to obstacle. Wood surface must be free of nails and splinters. Ground should be covered with sand, sawdust, or shredded rubber. Notches can be cut into the logs to assist with traction.



Note: Need spotters at the horizontal log.

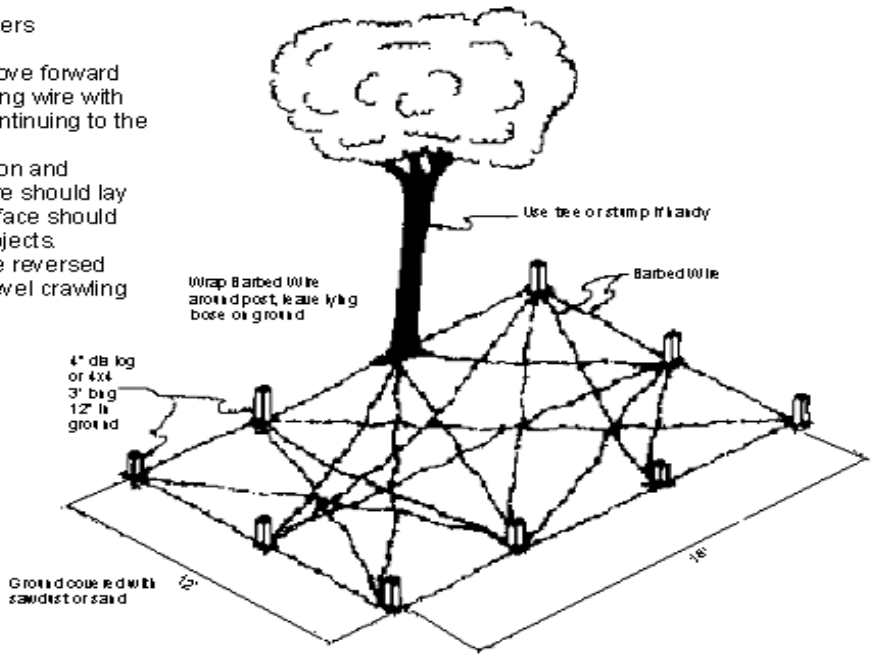
p. "Low Wire."

LOW WIRE

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
2.	**Hardware**	All wire, nails, or screws are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Surfaces**	All surfaces beneath low obstacles are free of hazards with the potential to cause injury.		
Remarks:				

"Low Wire"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers move forward under wire, on their backs while raising wire with their hands to clear their bodies. Continuing to the end of the wire obstacle.
Safety: Instructor conducts inspection and provides orientation to obstacle. Wire should lay loosely on the ground. Crawling surface should be sand or sawdust, free of sharp objects. Direction of negotiating crawl may be reversed from time to time to maintain more level crawling surface.



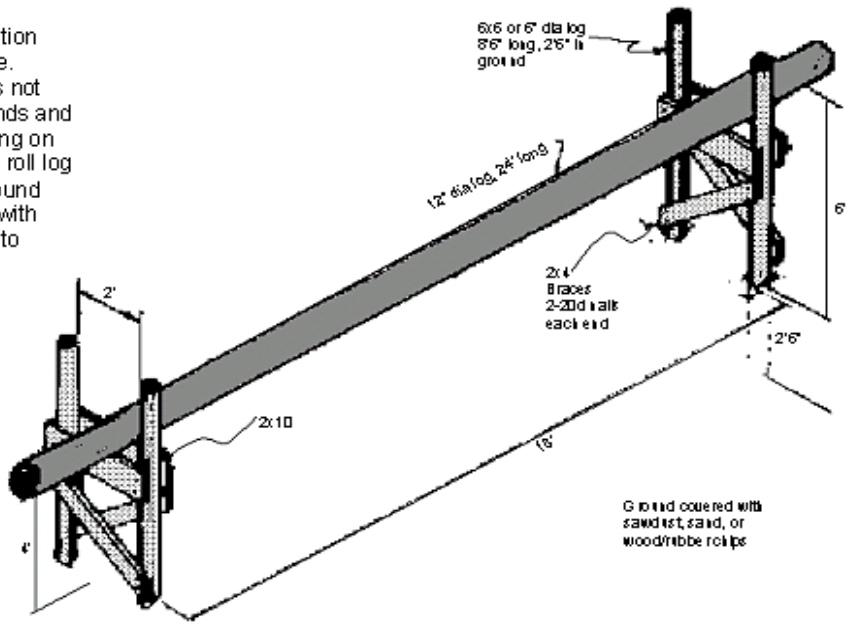
q. "The Belly Buster."

THE BELLY BUSTER

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. Soldiers are warned to keep hands and fingers away from parts of log resting on cradle.		
		c. Soldiers are informed not to rock or roll log while others are negotiating obstacle.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

"The Belly Buster"

Reference: FM 21-20, Physical fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers vault, jump or climb over log.
Safety: Instructor conducts inspection and provides orientation to obstacle. Soldiers must be warned that log is not stationary. Soldiers must keep hands and fingers away from parts of log resting on cradle. Soldiers should not rock or roll log while others are negotiating it. Ground under obstacle should be covered with sand, sawdust or shredded rubber to lessen impact in event of fall.



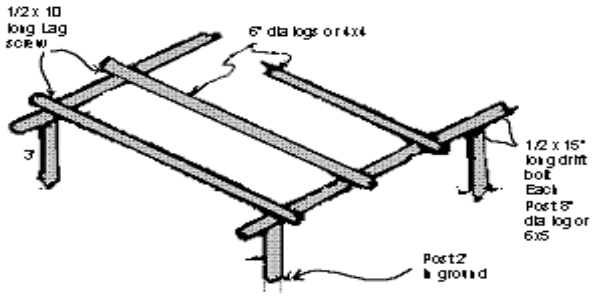
r. "Hip-Hip."

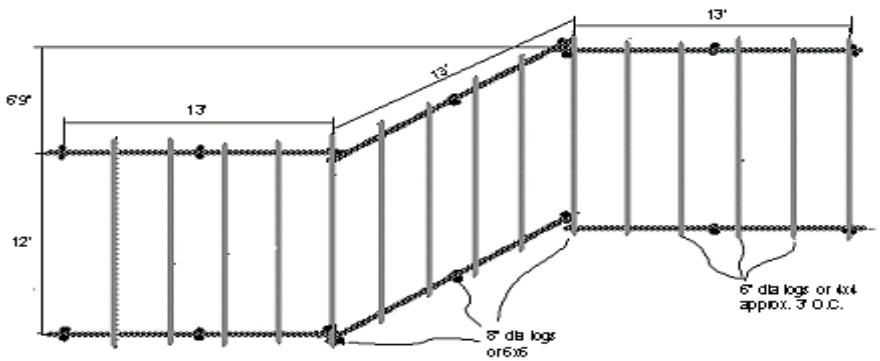
HIP-HIP

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Surfaces**	All surfaces beneath low obstacles are free of hazards with the potential to cause injury.		
Remarks:				

"Hip-Hip"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers step over each bar: they either alternate legs or use the same leg each time while making an effort not to use their hands. (Shorter soldiers may be required to use hands).
Safety: Instructor conducts inspection and provides orientation to obstacle. Wood surface must be free of nails and splinters. Soldiers must be spaced so as to prevent kicking each other.





Note: Height of the top of the horizontal logs should not exceed 40 inches.

s. “Reverse Climb.”

REVERSE CLIMB

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier’s ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Padding on Timbers**	a. All padding on timbers is in good condition without signs of damage.		
		b. Pads are securely attached to the timber supports to prevent movement when impacted.		
5.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

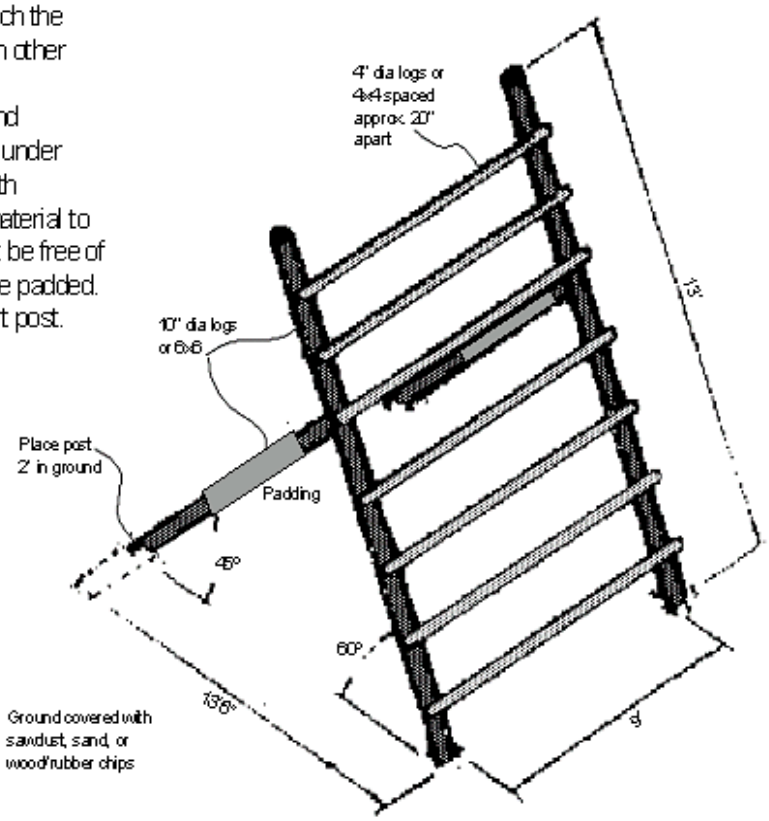
"Reverse Climb"

Reference: FM 21-20, Physical fitness Training, Chapter 8

Purpose of obstacle is to give soldiers confidence in physical abilities.

Execution of obstacle: Soldiers approach the underside of climbing ladder and go down other side to the ground.

Safety: Instructor conducts inspection and provides orientation to obstacle. Ground under near side of obstacle must be covered with sawdust, sand, shredded tire or similar material to lessen impact of fall. Wood surface must be free of nails and splinters. Support braces will be padded. Spotters will be used between the support post.



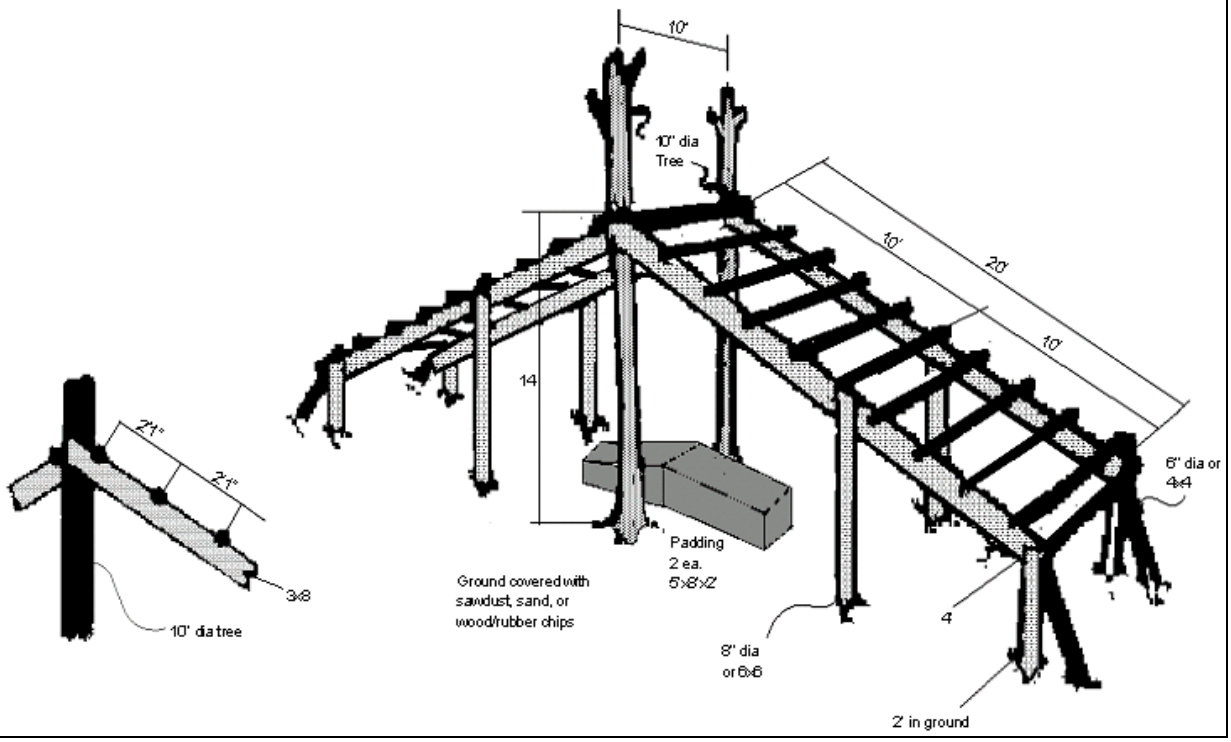
t. “The Weaver.”

THE WEAVER

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier’s ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
4.	**Base Containment Box**	a. Base containment box is adequate for containment of absorbent material located at base of obstacle.		
		b. Containment box does not display signs of rot, damage, or instability.		
		c. Containment box is large enough to dismount from obstacle without causing injury.		
Remarks:				

"The Weaver"

Reference: FM 21-20, Physical fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers move from one end of the obstacle to the other by weaving their bodies under one bar and over the next.
Safety: Instructor conducts inspection and provides orientation to obstacle. Ground under obstacle must be covered with sawdust, sand, shredded tire or similar material to lessen impact of fall. Wood surface must be free of nails and splinters. Spotters should be used in center. Safety pads will be used under the apex.



u. "Balancing Logs."

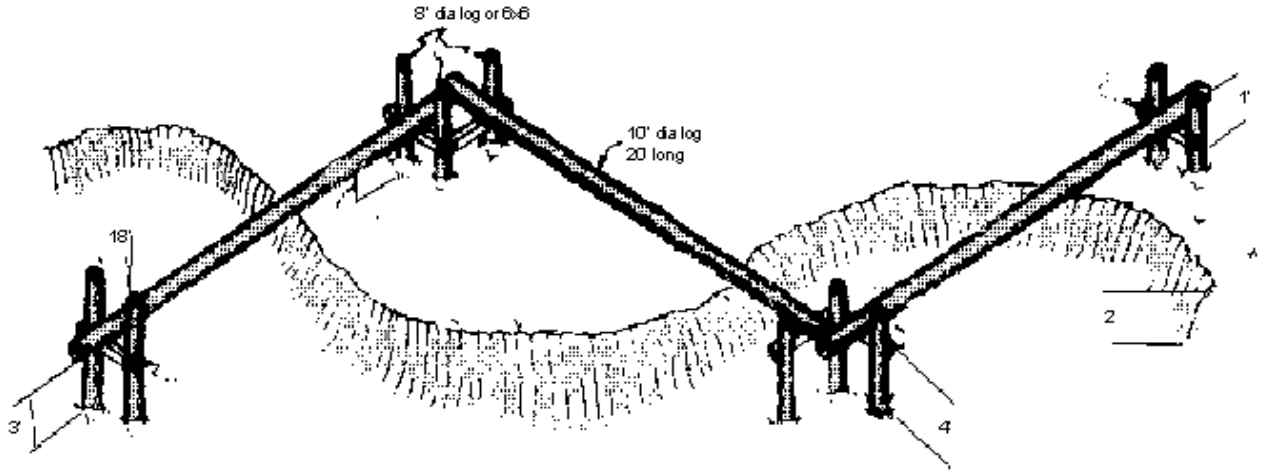
BALANCING LOGS

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are securely connected together without excess separation between joints.		

		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
2.	**Hardware**	All bolts, nuts, and washers are in place and of the designated type and size.		
3.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

"Balancing Logs"

Reference: FM 21-20, Physical fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers walk or run along logs while maintaining their balance.
Safety: Instructor conducts inspection and provides orientation to obstacle. Wood surface must be free of nails and splinters. Tops of supports should not have any sharp edges. Ground should be covered with sand, sawdust or shredded rubber. Nearby vertical surfaces, if any,should be padded.



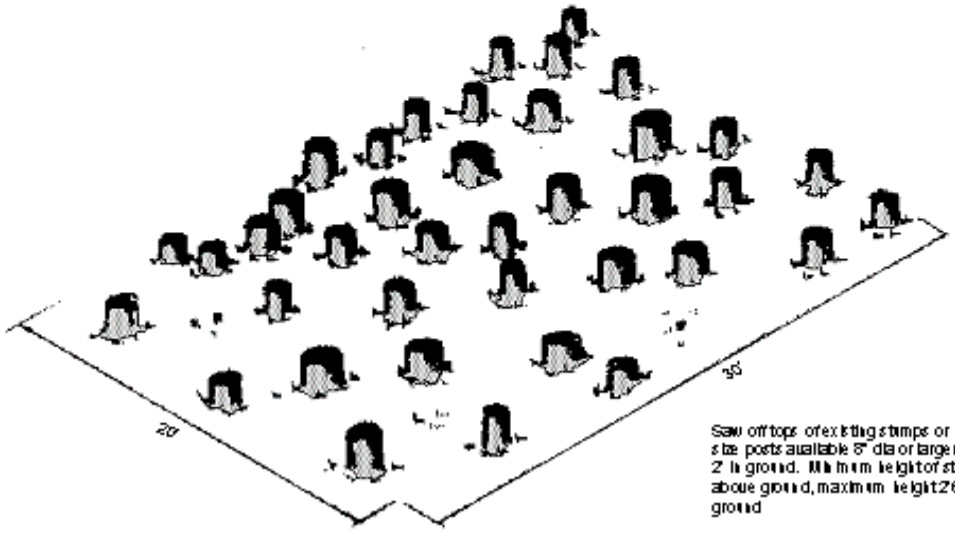
v. "Island Hoppers."

ISLAND HOPPERS

	AREA	STANDARD	GO	NO GO
1.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings.		
2.	**Design**	Professional safety staff reviews obstacle construction plans.		
Remarks:				

"Island Hoppers"

Reference: FM 21-20, Physical Fitness Training, Chapter 8
Purpose of obstacle is to give soldiers confidence in physical abilities.
Execution of obstacle: Soldiers jump from one log to another until obstacle is negotiated from near to far side.
Safety: Instructor conducts inspection and provides orientation to obstacle. Wood surface should be free of sharp edges and should not be slippery (it may be necessary to rough up tops of logs/stumps to ensure traction or use 1-inch nails driven into the tops).



Section IV. Fitness Tower Inspection Criteria

FITNESS TOWER

	AREA	STANDARD	GO	NO GO
1.	**Administration**	Copies of engineer drawings are maintained at the local safety office/facility engineers.		
2.	**Wood Timbers**	a. There are no signs of rot, warping, severe weathering, or impact damage.		
		b. All timbers meet specified dimensions as stated in engineer drawings and TRADOC Reg 350-6.		
		c. There are no protruding nails or splinters that may cause injury when obstacle is negotiated.		
		d. All timbers are connected securely together without excess separation between joints.		
		e. All timbers are free of chemical coatings or substances that affect soldier's ability to negotiate obstacle.		
3.	**Hardware**	a. All bolts, nuts, and washers are in place and of the designated type and size.		
		b. All anchors are made of 3-strand galvanized guy wire.		
		c. Take-up galvanized turnbuckles are used at anchor points of each cable to allow for adjustment.		
		d. Anchor cables are not used to support obstacles not properly constructed or improperly emplaced in the ground.		
		e. All cable clamps are positioned with U-bolt placed on the dead or short end of cable.		
		f. All attachment points are tested to ensure each will support 1.5 times usage weight.		
		g. Certified rappel masters inspect all ropes used for rappelling prior to each use.		
		h. Ropes used for surmounting are all 1.5 inches in diameter.		
4.	**Design**	Professional safety staff reviews obstacle construction plans.		
5.	**Fall Protection**	a. All areas in and around tower facility are covered with noncompressed wood chips, mulch, sawdust, or shredded tire rubber..		
		b. All nets designed for fall protection extend 8 feet out from point of potential fall.		
		c. Forged steel hooks are used to fasten net to its supports.		
		d. Nets are weight tested every 6 months by dropping a 500 lb, 5 cubic feet weight onto it from a height of 25 feet.		
		e. Nets with padding are placed beneath all suspended bridges.		

	AREA	STANDARD	GO	NO GO
6.	**Rappelling**	a. Instructors working at the top of tower are secured to tower with fall arrest system/attached harness..		
		b. Only certified and current Rappel Masters conduct rappel operations.		
		c. All anchor point have been tested to support loads in excess of 500 lbs.		
		d. All anchor points are secure and free of damage.		
		e. Top edge of rappel wall is padded to protect rope from cuts or abrasion.		
		f. Protective padding at top of rappel wall is tightly secured on all edges.		
		g. Rappel wallboards are free of damage, rot, protruding nails, and secured to tower with proper hardware.		
		h. Rappel landing area is free of obstructions and hazards.		
		i. Landing areas extends an uninterrupted distance of 15 feet from base of tower.		
		j. Landing area is cushioned with 24 inches of noncompressed wood chips, mulch, sawdust, 18 inches of sand, or 12 inches of shredded tire rubber.		
		k. Landing area cushioning material held in place by a containment barrier (timbers/sand bags).		
7.	**Ladders**	a. All ladders are inspected for structural integrity.		
		b. Rungs spacing on ladders do not exceed 36 inches.		
		c. Nets are placed under all rope bridges.		
		d. Nets used for fall protection have padding installed to prevent limbs from passing through webbing.		

Section V. Fall Protection

1. Fall protection will be provided for those obstacles designated as high, or have the ability to cause injury during a fall, or required by design.

2. The areas under and around obstacles will be covered with an impact reducing material appropriate for preventing serious injury in the event a soldier falls while negotiating subject obstacle.

3. When purchasing fall protection equipment required for an obstacle, installations will ensure equipment meets or exceeds standards without creating a greater hazard. Where impact-reducing material is required, sand, wood chips, saw dust, or shredded tire rubber is sufficient.

4. Below are required essential items of fall protection, identified by obstacle.

a. "The Tough One":

(1) Wood chips/sand/or shredded rubber beneath obstacle.

(2) Pole vault safety pad placed at base of obstacle.

(3) Safety net placed beneath obstacle, extended 8 feet out from point of potential fall. All netting will be rated for outside use and meet OSHA specifications for fall protection.

(4) Eye bolt or hook for instructor safety harness positioned at top of obstacle.

b. "Inverted Rope Descent/Slide for Life":

(1) Instructor platform with eye bolt or metal hook to secure safety harness.

(2) Net placed beneath the length of descent rope.

(3) Padding placed on net beneath descent rope.

(4) Pads at end of net near release point.

(5) Pole vault pad at the base of release point.

(6) The area under and around obstacles covered with impact reducing material.

c. "Confidence Climb":

(1) Eye bolt or hook for instructor's safety harness at top of obstacle.

(2) Pole vault padding on both sides at base of obstacle (4 each @ 5 feet x 8 feet x 2 feet).

(3) Ground around base of obstacle covered with impact reducing material.

d. "Skyscraper":

(1) Pole vault padding at base of tower.

(2) Netting extended from first level (optional).

(3) Belly Robber.

(4) Ground beneath obstacle covered with impact reducing material.

e. "The Tarzan" - Ground beneath obstacle covered with impact reducing material.

f. "Low Belly Over":

(1) Ground covered with impact reducing material.

(2) Tops of side rails covered with padding.

g. "The Dirty Name":

(1) Padding on tops of upper side braces.

(2) Ground beneath obstacle covered with impact reducing material.

h. "The Tough Nut" - Ground beneath obstacle covered with impact reducing material (optional).

i. "Belly Crawl" - Ground beneath obstacle covered with impact reducing material.

j. "Inclining Wall" - Ground beneath obstacle covered with impact reducing material.

k. "High Step Over" - Ground beneath obstacle covered with impact reducing material.

l. "Swing, Stop, and Jump":

(1) Padding on tops of front support logs.

(2) Ground beneath obstacle covered with impact reducing material.

m. "Six Vaults" - Ground beneath obstacle covered with impact reducing material.

n. "Easy Balancer" - Ground beneath obstacle covered with impact reducing material.

o. "Low Wire" - Ground beneath obstacle covered with impact reducing material.

p. "The Belly Buster" - Ground beneath obstacle covered with impact reducing material.

q. "Hip-Hip" - Ground beneath obstacle covered with impact reducing material.

r. "Reverse Climb":

(1) Padding on the tops of rear support logs.

(2) Ground beneath obstacle covered with impact reducing material.

s. "The Weaver":

(1) Pole vault padding beneath center of obstacle.

(2) Ground beneath obstacle covered with impact reducing material.

t. "Balancing Logs" - Ground beneath obstacle covered with impact reducing material.

u. "Island Hopper" - Ground beneath obstacle covered with impact reducing material.

5. Safety equipment (nets, pads, and ground covering) should be procured from reliable sources. If shredded rubber is used, get samples prior to purchasing. Several companies are selling shredded rubber contaminated with petroleum products that may cause allergic reaction in some people. When procuring netting, ensure provider includes design specifications and usage restrictions.

6. To ensure maximum life of safety equipment, inspect on a regular interval and store away from extreme weather conditions when possible.

REQUIRED INFORMATION:

Total number of obstacles: _____

Number of standard obstacles: _____

Number of nonstandard obstacles: _____

Number of modified obstacles: _____

Total injuries occurring at each obstacle course:

Remarks:

Glossary

Section I
Abbreviations

ADIP	Army Driver Improvement Program
ADSO	Additional Duty Safety Officer
ANSI	American National Standards Institute
AR	Army Regulation
ASO	Aviation Safety Officer
ATLS	Advanced Trauma Life Support
CFR	Code of Federal Regulations
CSM	Command Sergeant Major
DA	Department of the Army
DDESB	Department of Defense Explosives Safety Board

DOD	Department of Defense
DODI	Department of Defense Instruction
DOTMLPF	Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, and Facilities
DS	drill sergeant
FM	field manual
HAZCOM	hazardous communication
IAW	in accordance with
IET	initial entry training
lb	pound
LRSO	Local Radiation Safety Officer
MANPRINT	manpower and personnel integration
NRC	Nuclear Regulatory Commission
OHR	Operational Hazard Report
OSHA	Occupational Safety and Health Act
PC&E	protective clothing and equipment
PHL	preliminary hazard list
POI	program of instruction
POV	privately-owned vehicle
PT	physical training
QASAS	quality assurance specialist ammunition surveillance
RAC	risk assessment code
RPRB	Range Project Review Board
RSO	Radiation Safety Officer
SOH	safety and occupational health
SOP	standing operating procedure
SSRA	System Safety Risk Assessment
TB	technical bulletin
TC	training circular
TM	technical manual
TDA	table of distribution and allowance
TRADOC	U.S. Army Training and Doctrine Command
TSP	training support package
USATCES	U.S. Army Technical Center for Explosives Safety

Section II
Terms

branch proponent
The service school that has primary responsibility for developing concepts, doctrine, tactics, training, techniques, procedures, organizational designs, and materiel requirements for a particular branch in the Army.

branch safety proponency
School commandants are the safety officers for their branch, responsible for integrating safety into the development and employment of service school products (i.e., DOTMLPF) and monitoring safety performance of branch units and proponent materiel systems worldwide.

explosives
All items of ammunition; propellants, liquid and solid; high and low yield explosives; pyrotechnics; and substances associated with the foregoing that present real and potential hazards to life or property. The term includes any device or assembly of devices that contains an explosive material. Examples are bombs, guided or unguided; water and land mines; depth charges; non-nuclear warheads; explosive-loaded projectiles; explosive components of aircrew escape systems; missile propellants; unguided missiles; pyrotechnic, illuminating, and signaling devices; and cartridge-actuated tools, such as stud drivers.

manpower and personnel integration (MANPRINT)
A comprehensive management and technical program to enhance human performance and reliability in the operation, maintenance, and use of weapon systems and equipment. MANPRINT achieves this objective by integrating the full range of human factors--engineering, manpower, personnel, training, system safety, and health hazard consideration--into the materiel development.

residual hazard
A hazard that was not eliminated by design.

residual risk
Expected loss from a residual hazard. The risk remaining after one or more cycles of risk reduction efforts.

risk
An expected loss or danger resulting from a hazard. Risk is expressed in terms of estimated severity and probability of injury or damage. Over time, uncontrolled HIGH level risks will produce high levels of loss.

risk acceptance
A formal or implied decision to accept the consequences of a risk based on a risk assessment.

risk assessment
Evaluation of expected consequences of a risk against the benefits to gain from accepting the risk.

risk management
Making tradeoff decisions between potential/expected loss/injury versus the mission benefit of accepting the residual risk. Risk management supports the commander's overall estimate and decisionmaking process. The objective is to accomplish the mission safely by identifying and eliminating unnecessary risk.

safety assessment report
A formal, comprehensive summary of the safety data collected during the design and development of a system. It includes the hazard potential of the item; provides risk assessments; and recommends procedures or other corrective actions to reduce the exposure or consequences of these hazards.

safety awareness
A consciousness of hazards, and the knowledge to avoid them or minimize their effect. Safety awareness training gives leaders the knowledge and motivation to accomplish the mission, while not unnecessarily jeopardizing the lives of personnel or readiness of equipment. Safety awareness leads to a proactive approach that uses risk management to evaluate the risks and eliminate those with inadequate benefits.

Safety lesson learned
A safety or health-related warning, based on experience, which can be applied to current and future operations and systems to prevent recurrence of the hazard.

System Safety Risk Assessment (SSRA)
A document that comprehensively evaluates the residual risks of an operation, activity, or materiel system and documents their acceptance by the materiel developer and combat developer.

FOR THE COMMANDER:

OFFICIAL:

ANTHONY R. JONES
Lieutenant General, U.S. Army
Deputy Commanding General/
Chief of Staff

/signed/
JANE F. MALISZEWSKI
Colonel, GS
Chief Information Officer