

Department of the Army
Pamphlet 385-1

Safety

Small Unit Safety Officer/ Noncommissioned Officer Guide

Headquarters
Department of the Army
Washington, DC
23 May 2013

UNCLASSIFIED

SUMMARY of CHANGE

DA PAM 385-1
Small Unit Safety Officer/
Noncommissioned Officer Guide

This major revision, dated 23 May 2013--

- o Updates Army accidents investigation and reporting procedures (chap 5).
- o Addresses hazards and risk mitigation for ground operational activities (chap 6).
- o Emphasizes protective measures for off-duty activities (chap 7).
- o Provides updated privately owned vehicle accident prevention policy (app D).
- o Provides Web links to risk management programs and tools available through the U. S. Army Combat Readiness Center (app F).
- o Updates risk management terminology (throughout).
- o Makes administrative changes (throughout).

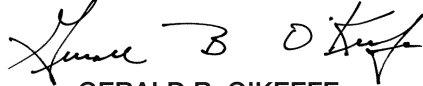
Safety

Small Unit Safety Officer/ Noncommissioned Officer Guide

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History. This publication is a major revision.

Summary. This pamphlet provides guidance for commanders/additional duty safety officers/noncommissioned officers to assist them in developing and executing a unit safety program.

Applicability. This pamphlet applies to the active Army, the Army National

Guard/Army National Guard of the United States, and the U.S. Army Reserve, unless otherwise stated. During mobilization, procedures in this pamphlet can be modified to support policy changes as necessary.

Proponent and exception authority.

The proponent of this pamphlet is the Director, Army Staff. The proponent has the authority to approve exceptions or waivers to this pamphlet that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this pamphlet by providing justification that includes a full analysis of the expected benefits and must include a formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy

proponent. Refer to AR 25-30 for specific guidance.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Headquarters, Department of the Army Safety Office, Building 1456, 9351 Hall Road, Fort Belvoir, VA 22060-5527.

Distribution. This publication is available in electronic media only and is intended for command levels A, B, C, D, and E for the active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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Chapter 1

Unit Safety Management

1-1. Purpose

Unit readiness starts with safe operations. This pamphlet is written for the additional duty safety officer/noncommissioned officer (ADSO/NCO) at company-level ground units. The ADSO/NCO assists the commander with safety responsibilities when there is no assigned safety officer (SO) by table of organization and equipment or table of distribution and allowances. This pamphlet provides guidance in applying policies and procedures and necessary information for managing a unit safety program. Separate chapters discuss how to establish and maintain a unit safety program, apply the risk management (RM) process, conduct safety surveys, report and investigate accidents, ensure safety in tactical operations, and promote safety in garrison and off-duty activities, including privately owned vehicle (POV) and privately owned motorcycle (POM) accident prevention. Aviation-specific safety requirements and guidance for aviation unit safety programs are contained in AR 385-10 and DA Pam 385-90. The ultimate safety responsibility for preserving human and material resources rests with the commander.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this pamphlet are explained in the glossary.

1-4. Unit safety program

a. Readiness depends on the ability of a unit to perform its mission essential task list (METL) to standard. Ready units have the following:

- (1) Self-disciplined Soldiers who consistently perform to standards.
- (2) Leaders who are ready, willing, and able to enforce standards.
- (3) Training that provides skills needed for performance to standards.
- (4) Standards and procedures for task performance that are clear and practical.
- (5) Support for task performance, including required equipment, maintenance, facilities, and services.

b. Performing to standard is one of the key steps in preventing accidents. However, each leader must be aware that written standards may not exist for every task. All tasks must be identified and reviewed to ensure that adequate standards exist and that unnecessary risks are eliminated. It is the leader's responsibility to ensure standards are enforced and unnecessary risks are not taken.

c. When safety and RM are fully integrated into unit planning and operations, human error, equipment breakdowns, and the negative effects of the operating environment are kept to a minimum.

1-5. Safety guidance

a. Commanders are responsible for Soldier safety and the quality of the unit safety program.

b. The success of the unit safety program depends on command emphasis, the recommendations of the ADSO/NCO to the commander, and application of sound RM principles. To underscore this command emphasis, the ADSO/NCO should be a conscientious and experienced Soldier. A successful unit safety program depends upon a genuine and supportive collaboration between leaders and Soldiers.

(1) The commander is the foundation of the unit safety program. The commander directly supports the safety program by verbal and written guidance, action, and example.

(2) The ADSO/NCO advises and assists the unit commander in developing and implementing safety policy, including RM. The ADSO/NCO also develops and assists leaders in executing an integrated and comprehensive accident prevention program within the scope of the unit's table of organization and equipment or table of distribution and allowances mission.

c. The ADSO/NCO is a member of the staff and performs within guidelines set by the commander. These guidelines may specify selected activities that require the commander's personal approval regardless of controls that may mitigate risk to a lower level. The ADSO/NCO should have direct access to the commander to address safety related issues. Commanders should delegate authority to the ADSO/NCO to direct necessary action when personnel, property, or equipment are endangered. Recommendations made by the ADSO/NCO in the name of the commander will be in line with policy and guidance provided by the commander.

d. The Army develops accident prevention programs and procedures to mitigate risk and sustain Army operations. However, accident prevention programs and procedures only sustain the force when commanders implement them at unit level with the help of the ADSO/NCO, unit leaders, and Soldiers.

1-6. Safety program elements

a. Accident prevention and safety have no defined boundaries. Virtually every activity, whether on-duty or off-duty, contains a safety component.

b. Most safety programs within the Army comprises five core elements—

- (1) Safety program management.
- (2) Inspections/assessments.
- (3) Accident investigation/reporting.
- (4) Promotion and awareness.
- (5) Hazard analysis and countermeasures (see DA Pam 385-10).

c. Additional safety elements are added based on the mission, functions, and tasks performed by the organization, such as range safety, explosives safety, aviation safety, radiation safety, workplace safety, chemical safety, and tactical safety.

1-7. ADSO/NCO functions

a. The functions of the ADSO/NCO include, but are not limited to, the following:

(1) Conduct surveys and hazard analyses, prioritize hazards identified during the survey by accident probability and severity, recommend controls or corrective action, track hazards on a hazards control log, track abatement of the identified hazards, and advise the commander and unit leaders as appropriate.

(2) Participate in unit-level mission planning, preparation, execution, and recovery to ensure that hazard identification, risk assessment, and integration of controls are addressed by the commander and other mission planners (such as platoon leader, operations officer, supply officer) prior to and during unit operations.

(3) Observe unit operations to detect and correct unsafe practices.

(4) Advise the commander on the status and adequacy of the unit safety program and the current status of the hazards control log on a regular basis, not less than quarterly.

(5) Advise the commander on all safety matters which degrade or inhibit mission accomplishment and recommend effective courses of action.

(6) Ensure all personnel attached or assigned are trained in RM and other safety-related subjects.

(7) Ensure unit accidents are reported and investigated in accordance with AR 385-10 and DA Pam 385-40, and coordinated with the host installation safety office. Review reports for accuracy, completeness, and timeliness.

(8) Assist in developing and reviewing unit standard operating procedures (SOPs) to ensure safety and RM are integrated and controls are established for identified hazards.

(9) Monitor tests of the unit's pre-accident plan, conduct after action reviews, and recommend improvements to the plan, as necessary.

(10) Survey the condition of unit property (organizational equipment) and facilities, (ammunition storage areas, arms rooms, motor pools, and field training sites, including bivouac sites). When safety deficiencies are found, advise the commander and recommend corrective action. Follow up to ensure the corrective action is taken.

(11) Acquire and maintain required references to perform assigned duties; AR 385-10, DA Pam 385-10, and DA Pam 385-40 as well as higher headquarters supplements are essential in daily operations. Appendix A contains a list of safety references that may assist in the performance of assigned duties. Safety references can be found on the Internet at one of the sites listed in appendix E. The division, installation, or supporting safety offices can also assist with locating reference material.

(12) Provide safety oversight to unit operations involving the transport or storing of arms, ammunition, explosives, petroleum products, radioactive materials and other hazardous material.

(13) Monitor unit Hazard Communication Program to ensure that personnel working with or around hazardous materials are informed of the hazards and trained in the Hazard Communication Program.

(14) Manage unit accident prevention/safety awards program (see AR 385-10 and DA Pam 385-10).

(15) Consult the local safety office for help identifying required safety records and files and setting up a system for their maintenance.

(16) Participate in after action reviews to ensure that lessons learned are captured and disseminated for use in planning and executing the next iteration of the same mission or similar missions.

(17) Perform other actions to enhance and promote the unit safety program and individual Soldier involvement in preventing accidents. For example, conduct a periodic safety awareness day. Suggested activities are found in appendix C.

(18) Assist the commander in promoting POV safety (see para 7-2 in this publication), including motorcycle safety.

(19) Participate in all Army/command/installation required safety training and any necessary unique training required to support the unit safety program.

b. The effectiveness of the ADSO/NCO depends on a positive working relationship with all unit personnel. Barriers

that inhibit communication could delay identification and correction of hazards. The ADSO/NCO should establish and maintain open channels of communication with the commander, unit leaders, and unit personnel.

Chapter 2

The Unit Safety Program

2-1. Starting the unit safety program

a. This chapter provides step-by-step procedures for preventing incidents that can result in death, injury, damaged or destroyed equipment, and loss of mission capability.

b. The key to accident prevention is compliance with standards and successful application of the composite RM process to eliminate hazards or reduce the risk. To achieve this, measures must be taken by leadership and Soldiers at all levels to enforce standards and implement controls that eliminate hazards or reduce the risk of injury or the chance of damage to equipment.

2-2. Where to begin

a. Request an in-brief with the commander to obtain the commander's intent for the unit safety program and to obtain guidance on the role of the ADSO/NCO in the safety program. This meeting will serve as the basis for subsequent meetings and set the tone for the ADSO/NCO's role in unit safety. Items for discussion should include—

- (1) RM in unit operations.
- (2) Unit safety surveys and inspections.
- (3) Unit and ADSO/NCO safety training.
- (4) Development of a unit strategic safety plan.
- (5) Unit accident reporting and notification procedures.
- (6) Promoting unit off-duty/Family safety.
- (7) Role/Authority of the ADSO/NCO to direct necessary corrective action.
- (8) Accident trends and analysis.
- (9) Unit safety SOPs.
- (10) Commander's safety philosophy.
- (11) Pre-accident plan.
- (12) POV/POM accident prevention plan.
- (13) Safety awards program.

b. Request training from the installation or supporting safety office and arrange for participation in an ADSO/NCO course as soon as possible. Recommend attending the Ground Safety Officer Course when feasible. Also, ensure your role as the ADSO/NCO is documented on unit orders and is provided to the installation or supporting safety office. Ask questions, identify support resources (promotional items, training materials, U.S. Army Combat Readiness/Safety Center (USACRC) Web site (<http://safety.army.mil>)), and establish a good working relationship with your supporting safety office. Additional duty safety personnel will complete the Additional Duty Safety Course (ADSC) within 90 days of appointment as an ADSO per AR 385-10.

c. Review the unit's overall mission and understand the unit's METL—

- (1) What key elements are essential for mission success?
- (2) What personnel, items of equipment, facilities, tools, or supplies are on hand and important for mission success?
- (3) Consider the risks in all aspects of the unit METL.

d. Conduct an initial safety survey of the unit, using checklists to assist in identifying hazards. If it has been more than a year, schedule and request external assistance in accomplishing a Standard Army Safety and Occupational Health Inspection. Then, focus on the unit activities and missions that are immediately ahead (for example, the next field training exercise or mission readiness exercise; the unit receiving new weapons systems, to include lasers, ammunition, or Army motor vehicles; or drastically changed operational procedures). Keep individual focus on these areas as one collects needed information. References in appendix A and appropriate Army regulations, technical publications, field manuals, doctrinal publications, SOPs, and tactic, techniques, and procedures will help identify standards that must be followed to ensure safe unit operations.

e. Using the references mentioned above, evaluate how effectively safety standards and RM have been integrated into the SOPs. Talk to key personnel in the unit and get the opinions regarding the effectiveness of the unit safety program, any potential accident areas, and document findings. The objectives are to detect the likelihood for an accident and minimize the chance that one will occur.

f. The unit should have a detailed pre-accident plan listing actions to be taken if an accident occurs. A good plan will include emergency action to be taken in case of an accident, as well as actions to assist an investigation board to complete its task. A guide to preparing a pre-accident plan is at appendix B.

g. Use the information gathered from referenced publications, checklists, survey results, talking to key personnel, and reviewing accident reports to evaluate the unit safety status. Consult with the experts in the supporting safety office. Use this information to narrow one's attention to the problem areas that pose the most risk to the unit, its people, equipment, and mission. Evaluate each problem area, assign priorities, develop control options, and decide how to effectively present the results to the commander. A professional, fact-based recommendation will aid the commander in determining appropriate courses of action to keep identified risks manageable. Remember, the commander makes the final decision once advised of all the facts.

h. When ready to discuss the status of the safety program and make recommendations for improvement, set up a meeting with the commander and other key leaders. At this meeting—

- (1) Direct attention to the areas where the unit is strong and also to the areas where one has detected significant hazards or problems.
- (2) Recommend specific actions to eliminate or reduce hazards in the problem areas.
- (3) Obtain the commander's approval and personal support for corrective action in these areas.
- (4) Clarify ADSO/NCO authority to make or direct the corrective action.

Note. Commanders want to support the safety program; however, perceived conflicts with time, resources, readiness, and mission requirements may arise.

The job is to make sure that the recommendations clearly protect Soldiers' lives and equipment and help accomplish the unit mission. The commander's job is to make a decision, balancing the recommendations against the perceived conflicts, based upon his level of authority to accept risk.

i. Other topics one may want to discuss with the commander and unit leaders include—

(1) Make sure the commander's directives for controlling hazards reach the key people who must implement them. Follow up regularly to make sure that controls remain in place and are achieving the desired results. Remember, it is the responsibility of the commander and subordinate leaders to execute the safety program. The ADSO/NCO role is to make recommendations and coordinate safety activities.

(2) Safety awards that recognize individual and unit safety performance are a great tool for generating enthusiasm for the unit safety program. Develop an awards program based on AR 385-10 and DA Pam 385-10, request funds to support it, and recommend safety awards that recognize individuals or units for specific acts that support accident prevention. Installation/support safety offices can assist in the program.

(3) A unit safety council provides a forum for a review of RM, all hazards, mishaps, inspection findings, and support facility hazards that impact unit operations. An effective council has members that represent a cross section of the unit with all sections of the unit represented. Use this forum to invite outside agencies such as Installation Safety, Preventive Medicine, Alcohol and Drug Abuse Prevention and Control, Chaplain Services, Environmental Compliance Specialists, and so forth, to provide assessment of the unit programs or to give insight into available services. AR 385-10 and DA Pam 385-90 contain safety council requirements for aviation units and provides useful guidelines for the ADSO/NCO to develop an effective ground unit safety council.

(4) Get involved in unit training planning process and integrate safety and RM up front. Apply the RM process outlined in chapter 3 of this publication. Seize the many opportunities to help the commander integrate safety standards into the performance of METL tasks in the unit training management cycle. An industrial hygienist can assist with training on occupational exposures such as asbestos brake repair, respirator use, ergonomics, and personal protective equipment. The radiation safety officer can assist with safety of radioactive materials, laser systems, and electromagnetic radiation sources.

(5) Have the S-1 put the ADSO/NCO on the in-processing checklist. Conduct a safety-oriented briefing for new personnel in the unit. Provide specific safety information about the unit safety program. Gather personal information such as if the individual rides a motorcycle, is a swimmer, owns an all terrain vehicle, and so on, and maintain such data on a tracker. Platoon and section sergeants are responsible for briefing newly assigned personnel on specific job-related safety issues, such as wearing hearing protection, eye protection, protective clothing, and vehicle operations. Commanders should screen prospective drivers and ensure adequate training is provided.

(6) One of the tasks as ADSO/NCO is to support unit compliance with directives and guidelines from higher headquarters. The ADSO/NCO can request various promotional materials such as posters, handouts, checklists, videos, and safety packets from the supporting safety office. This information could help prevent accidents in specific operational areas. For this material to be effective, it must be used. The ADSO/NCO plays a very important role in ensuring that these tools get to the organizations and personnel who need them. If one is experiencing a particular hazard/problem, get help from the supporting safety office and use the U.S. Army Safety Web site (<http://safety.army.mil/>).

2-3. Operational safety

a. ADSO/NCOs assist in preventing accidents in all areas of operations (during peacetime and combat). Army doctrine recognizes the adverse impact of accidents on Army operations and mission accomplishment. Protecting the force regardless of whether it is during training, peacekeeping, or combat operations is critical to mission success.

b. In any theater of operations, safety efforts should focus on applying RM to ensure safe mission accomplishment. The effective ADSO/NCO should—

- (1) Get involved in planning unit operations.
 - (2) Assist in applying RM techniques to identify unnecessary risks and recommend adequate control measures.
 - (3) Ensure controls are executed during the operation.
 - (4) Collect information on, and report, all accidents. Higher headquarters will analyze this information to help develop strategies to prevent recurrence.
 - (5) Follow up to ensure lessons learned are implemented.
- c. A strong peacetime safety program will carry over into battlefield operations.

2–4. Other sources of assistance

a. Safety and occupational health are parallel programs with several common elements. The ADSO/NCO can request assistance from local occupational health personnel/industrial hygienist to assist in certain aspects of the safety program. Some areas where their expertise will benefit the unit are hearing conservation, vision conservation, occupational health/medical surveillance, industrial hygiene, respiratory protection, ergonomics, and monitoring for exposure to hazardous materials.

b. Additional sources of assistance are listed in appendix E of this publication.

Chapter 3 Risk Management

3–1. Introduction

Protecting the force by managing risk is the commander's responsibility. It is the responsibility of the ADSO/NCO to advise and assist the commander in ensuring RM is an integral part of the unit's operations and training.

a. RM is the Army's principal risk reduction process for protecting the force from losses and conserving resources. The purpose of RM is to identify hazards and risks and to take reasonable measures to reduce or eliminate them. The RM process consists of identifying and assessing hazards, developing controls and making risk decisions, implementing controls, supervising and evaluating.

b. RM allows units to operate successfully in high-risk environments. Leaders at every level have the responsibility to identify hazards, to take measures to reduce or eliminate hazards, and to accept risk only to the point that the benefits outweigh the potential losses. The risk decision can then be made at the appropriate level of leadership, in accordance with published risk acceptance authority.

c. RM is not an add-on feature to the decisionmaking process or troop-leading procedures. It is a fully integrated element of planning and executing operations. The goal of integrating the process is to make RM a routine part of planning and executing operational missions.

d. Figure 3–1 describes the RM process as it is integrated into the military decisionmaking process. Figure 3–2 shows the RM process as it is integrated into troop-leading procedures. Figure 3–3 provides guidance on determining the kinds of hazards to risk manage. Figure 3–4 provides a key for determining risk level (see key RM terms and their definitions in the glossary).

e. The Army's doctrinal manuals articulate the RM process as its principal risk-reduction tool. ATP 5–19 and ADRP 5.0 provide further information on the application of the RM process. Sample RM worksheets are in ATP 5–19. You can also find other RM tools and information at USACRC's Web site (<https://safety.army.mil>) and in the Ground Risk Assessment Tool (<https://safety.army.mil/GRAT>).

3–2. Risk management steps

The RM process is applied by the commander and the staff to any situation, mission, and environment. The five steps of RM are—

a. *Step 1. Identify hazards.* Identify hazards that will negatively affect personnel, equipment, or mission accomplishment. Consider all aspects of mission, enemy, terrain, troops, time, civil considerations (METT-TC) for current and future situations. Sources of information include reconnaissance, experience of commander and staff, brainstorming, experts, publications (such as SOPs and technical manuals), the unit's accident history, and scenario thinking. Hazards that cannot be eliminated by the unit or its subordinate units are most likely to result in loss of combat power. These types of hazards should be risk-managed. One tool to determine this is to answer the questions in figure 3–3. Another tool is the commander's guidance. A commander may set local standards that place specific activities outside the scope of RM without his personal approval, such as activities where the risk might imperil his intent, his higher commander's intent, or a critical capability of the unit. For example, a commander might require his personal approval before any personnel who have not completed drown-proof training can participate in river-crossing operations.

b. *Step 2. Assess the hazards.* Determine the risk of potential loss based on probability and severity of the hazard. In

other words, what are the chances something bad is going to occur; and, if it does, what are the consequences, using a worst-case scenario? Determining the risk associated with a hazard is more an art than a science. Use historical data, intuitive analysis, your judgment and that of experienced personnel, and the matrix at figure 3–4 in this publication to estimate the probability and severity of each hazard. The intersection of the probability column and the severity row defines the level of risk.

c. Step 3. Develop controls and make risk decision.

(1) *Develop controls.* For each hazard, develop one or more controls that will eliminate or reduce the risk of the hazard. Specify who, what, where, when, and how for each control. Consider the reason for the hazard, not just the METT–TC itself (see fig 3–3 in this publication). One way to implement effective controls is through individual and collective training that ensures performance to standard.

(2) *Determine residual risk.*

(a) For each hazard, as controls are developed, revise the assessment of the level of risk remaining (residual risk), assuming the controls for it are implemented.

(b) Overall risk of a mission is determined after all controls are assumed to have been implemented. If one hazard has a high residual risk, the overall risk of the mission is high, no matter how many moderate or low-risk hazards are present.

(3) *Make risk decision.* The commander alone decides whether or not to accept the level of residual risk or to elevate the decision to a higher level of command. The determination to elevate the decision is based on the risk acceptance authority published by higher headquarters. If the commander determines the risk is too great to continue the mission or a course of action, he or she will direct the development of additional controls or modify, change, or reject the course of action or mission.

d. Step 4. Implement controls. State how each control will be put into effect and communicated to personnel who will make it happen.

e. Step 5. Supervise and evaluate.

(1) *Supervise controls.* Leaders supervise mission rehearsal and execution to ensure standards and controls are enforced. Techniques include spot checks, brief backs, and inspections.

(2) *Evaluate controls.* Determine the effectiveness of each control in reducing or eliminating risk. For controls that are not effective, determine why and what to do the next time the hazard is identified. For example, in the next operation, the commander and staff might change the control, develop a different control, or change how the control will be implemented or supervised. To complete the process, the commander should disseminate lessons learned.

Military Decision-Making Process*	Risk Management Steps				
	Step 1 Identify Hazards	Step 2 Assess Hazards	Step 3 Develop Controls and Make Risk Decision	Step 4 Implement Controls	Step 5 Supervise and Evaluate
1. Receipt of Mission	X				
2. Mission Analysis	X	X			
3. COA Development	X	X	X		
4. COA Analysis (War Games)	X	X	X		
5. COA Comparison			X		
6. COA Approval			X		
7. Orders Production			X	X	
8. Rehearsal	X	X	X	X	X
9. Execution and Assessment	X	X	X	X	X

Figure 3-1. Risk management actions integrated into the military decisionmaking process

Troop-leading steps	Risk Management Steps					
		1. Identify hazards	2. Assess hazards	3. Develop controls/make decision	4. Implement controls	5. Supervise and evaluate
1	Receive mission	X	X			
1A	Perform initial METT-T analysis	X				
2	Issue the warning order	X	X	X		
3	Make a tentative plan	X	X	X		
3A	Make estimate of the situation	X	X			
3B	Detail mission analysis	X	X			
3C	Develop situation and courses of action for -	X	X			
3C1	- Enemy situation (enemy COAs)	X	X			
3C2	- Terrain & weather (OCOKA)	X	X			
3C3	- Friendly situation (troops and time available)	X	X			
3C4	- Courses of action (friendly)	X	X			
3D	Analyze courses of action - wargame	X	X			
3E	Compare courses of action			X		
3F	Make decision			X		
3G	Expand selected COA into tentative plan			X		
4	Initiate movement	X	X	X	X	
5	Conduct reconnaissance	X	X	X	X	
6	Complete the plan	X	X	X	X	
7	Issue the order			X	X	X
8	Supervise and refine the plan				X	X

Figure 3–2. Risk management actions integrated into the troop-leading procedures

Q – Is hazard adequately controlled?		Adequate	
		Yes	No
Identified METT-T Hazard	Support – Is type/capability/condition of support adequate to control the hazard? -Personnel -Equipment/material -Supplies -Services/facilities	SAMPLE	
	Standards – Is guidance/procedure adequately clear/practical/specific to control the hazard?		
	Training – Is training adequately thorough and recent to control the hazard?		
	Leader - Is leadership ready, willing, and able to enforce standards required to control the hazard?		
	Unit Self-Discipline – Is unit performance and conduct sufficiently self-disciplined to control the hazard?		

A – If all “yes,” no further action

B – If one or more “no,” risk manage this hazard

Figure 3–3. Hazard assessment

Risk Assessment Levels: E H – Extremely High (Loss of ability to accomplish mission) H – High (Significant degradation of mission capabilities in terms of required mission standard) M – Moderate (Degradation of mission capabilities in terms of required mission standards) L – Low (Little or no impact on accomplishment of mission)		Hazard Probability				
		Frequent (Continuously experienced, occurs often)	Likely (Occurs frequently or several times)	Occasional (Will occur several times or sporadically)	Seldom (Unlikely, but can be expected to occur at some time)	Unlikely (Improbable but possible to occur)
Severity (The expected consequence of an event in terms of degree of injury, property damage, or other mission impairing factors)	Catastrophic (Death or permanent total disability, system loss, major property damage)	EH	EH	H	H	M
	Critical (Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage)	EH	H	H	M	L
	Marginal (Minor injury, lost workday accident, minor system damage, minor property damage)	H	M	M	L	L
	Negligible (First aid or minor medical treatment, slight system impairment)	M	L	L	L	L

Figure 3–4. Individual hazard risk matrix

3–3. The role of the ADSO/NCO

The ADSO/NCO plays a key role in all phases of the RM process, advising the commander on hazards, risks, and controls associated with the mission. Additionally, the ADSO/NCO does his or her best to ensure that RM is integrated into unit planning, processes, and procedures and assists in developing hazard identification and assessment tools tailored for the unit mission.

Chapter 4 Surveys

4–1. General

a. Accidents don't just happen. Human error, materiel failures, and environmental factors cause accidents. The result can be death, injury, damage or destruction of equipment or other property, and loss of mission capability.

b. A critical function of the ADSO/NCO is to conduct a thorough survey of the unit's activities and facilities to identify hazards. Review the unit accident/casualty history prior to the survey to assess the unit's safety program and overall safety climate. If a copy of the most recent safety inspection is not available, contact the installation/support safety office for a copy and for added information on accident experience. Analyzing this information can help the ADSO/NCO decide where to direct attention during the survey.

c. Surveys should have a positive effect on the unit. The survey results should be used to improve operations and procedures and eliminate hazards in the workplace.

d. Commanders also have a part in the survey process. As a result of surveys, commanders can initiate safer work procedures, provide safer work areas, and instill safer attitudes in unit personnel.

e. Improper/unsafe acts should be corrected on the spot. Turning a blind eye to a known hazard reinforces poor discipline and sets a new, lower standard.

f. The ADSO/NCO coordinates with the installation safety office/supporting safety office to ensure that the periodic standard Army safety and occupational health inspections, required by AR 385–10 are accomplished by qualified inspectors.

4–2. Benefits of surveys

Adequately planned safety surveys will allow the ADSO/NCO to—

- a. Detect hazards that can be eliminated, mitigated, or controlled.
- b. Emphasize the need for current SOPs and other workplace controls, such as equipment safeguards, and personal protective equipment.
- c. Promote the safety program by encouraging a positive, cooperative attitude.
- d. Encourage personnel to inspect their own work areas for potential safety hazards.
- e. Communicate with unit personnel and better understand the nature of the hazards they face in the workplace.

4-3. Planning and conducting surveys

a. Inspect all areas at least annually. High-hazard areas should be inspected more frequently. Request assistance from supervisors, technical experts, and maintenance personnel during safety surveys. The supporting safety office will also provide guidance.

b. During surveys, be concerned with equipment and work area conditions, unsafe personnel practices, and unsafe job practices. Make recommendations to eliminate or minimize the hazard and support the successful outcome of the mission.

c. To have a successful survey program, the ADSO/NCO must accomplish several tasks.

- (1) *Prioritize.* Look first at areas/operations that have the highest potential for loss.
- (2) *Schedule.* Develop a schedule of what to inspect and when, with hazardous and high-accident-occurrence areas scheduled more often. Include surveys on the training schedules.
- (3) *Use checklists.* Use of a safety checklist is recommended for unit evaluations. Provide checklists that you will use to those targeted areas. Locally developed checklists tailored to your unit are also helpful. Include references when possible.
- (4) *Survey.* Look closely at the unit personnel, facilities, processes, and areas.
- (5) *Communicate.* Talk to people and ask them about safety in the workplace.
- (6) *Keep records.* Previous survey records show where improvement has been made and areas that still need improvement. A two-year unit history of accident summaries provided by your battalion or local safety office will be beneficial. Use these to prepare for the survey of your unit.
- (7) *Correct problems.* Once the survey is completed, brief the commander and other leaders on the findings. Make recommendations and assist with corrective actions, which should be implemented immediately. Coordinate with your supporting installation safety office to submit work orders related to identified safety hazards
- (8) *Follow up.* Follow up on corrective actions and report to the commander on a regular basis until the actions are completed. If serious hazards cannot be corrected within 30 days, report the deficiency to the installation safety office to be recorded on DA Form 4756 (Installation Hazard Abatement Plan).

4-4. Survey teams

a. *Commander participation.* The commander should participate in the survey as an indication of personal support for the safety program.

b. *Survey teams.* Consider using survey teams to increase Soldier participation and ensure comprehensive coverage. The ADSO/NCO should determine the size and composition of the survey team after consulting with the commander.

c. *Organizing the survey.*

- (1) After survey team members have been selected, organize them into sub-teams and assign individual responsibilities. Ensure that team members understand the purpose of the survey.
- (2) Brief the survey team on the organizational structure and mission of the unit and on the purpose and use of the safety checklist.
- (3) Provide the survey team with necessary references and tools to accomplish the survey.
- (4) Prepare in/out-brief for the commander.
- (5) Ensure survey results are documented and filed for future review.

Chapter 5 Accident Investigation and Reporting

5-1. General

a. The primary purpose of investigating and reporting accidents is to identify accident causes in order to prevent similar accidents. It is part of the accident prevention process.

b. All accidents involving personnel injury or property damage must be reported promptly to the chain of command and the unit safety office. Persons involved in or aware of an accident will report it immediately to the chain of command.

c. The type of accident investigation and report required depends on two things—determining whether the injury or damage constitutes an Army accident and, if it does, the accident classification.

d. Accident prevention, reporting, and investigation are a non-aviation chain of command responsibility. The ADSO/NCO is a key player in the process and may be the accident investigator for a Class C or Class D accident.

e. AR 385–10 and DA Pam 385–40 provide information concerning accident reporting and investigation.

5–2. The role of the additional duty safety officer/noncommissioned officer in accident investigation and reporting

a. One of the primary roles of the ADSO/NCO is ensuring that a pre-accident plan is in place, which includes emergency notification procedures, the responsibilities of all unit organizations responding to the accident, and procedures and priorities at the accident site.

b. Once an Army accident has occurred, the role of the ADSO/NCO is to ensure that the pre-accident plan is followed, to advise the chain of command on the classification of the accident and the type of investigation required, to assist and support the unit and/or the safety accident investigation board, and to monitor the investigation.

c. The type of support required of the ADSO/NCO prior to and following the arrival of the safety accident investigation board is listed in the pre-accident plan at appendix B.

d. The ADSO/NCO may be required to personally conduct the accident investigation and complete the report for certain non-aviation Class C and Class D accidents, in accordance with AR 385–10 and DA Pam 385–40.

5–3. Identifying Army accidents

a. An Army accident is an unplanned event, or series of events, that results in one or more of the following:

(1) Occupational illness to Army military or Army civilian personnel.

(2) Injury to on-duty Army civilian personnel.

(3) Injury to Army military personnel both on- and off-duty.

(4) Damage to Army property.

(5) Damage to public or private property and/or injury or illness to non-Army personnel caused by Army operations (the Army had a causal or contributing role in the accident).

b. Army accidents do not include events in which there is intent to cause harm or damage such as enemy action, vandalism, assault, arson, fleeing from police, and suicide. Also not reported as Army accidents are events that result from fair wear and tear when damage is restricted to that particular component (see AR 385–10, for more detailed listings). The ADSO/NCO can use sources such as the unit readiness report, sick call logs, serious incident reports, MP blotter reports, and consult with medical and maintenance personnel to assist them in identifying reportable accidents.

5–4. Classifying Army accidents

Accident classes are used to determine the appropriate investigative and reporting procedures. They are based on the injury severity and damage costs (see AR 385–10 for accident classes).

5–5. Notification procedures

a. Chain of command notification will be in accordance with DA Pam 385–40 and the applicable command SOP. Notify the installation or supporting safety office as applicable.

b. The commander who first becomes aware of any Class A, Class B, or Class C aviation accident will notify USACRC immediately. Telephone numbers and telephonic notification forms are located in AR 385–10 and DA Pam 385–40.

c. No immediate notification to the U.S. Army Combat Readiness Center (USACRC) is required for Class C ground accidents or Class D and E accidents (unless safety-of-use or ground precautionary message information is identified). However, all classes of accidents must be investigated and reported in accordance with AR 385–10 and DA Pam 385–40.

5–6. Determining who will conduct the safety accident investigation

a. Accident classification determines who will investigate an accident.

(1) Class A and B accidents will be investigated by either a USACRC accident investigation board or a board appointed by a local appointing authority.

(2) Ground Class C accidents and below will be investigated as determined by the chain of command. (Aviation Class C accidents will be investigated by a board in accordance with DA Pam 385–40.)

b. Investigation procedures and board appointing procedures are covered in detail in AR 385–10 and DA Pam 385–40.

5–7. Conducting safety accident investigations

Since an accident investigation occurs after the fact, its primary focus is on identifying what happened, why it happened, and how to prevent it from happening again.

a. Determining what happened is often the easiest part. The investigator looks at the accident site and collects information from personnel involved in the accident and from witnesses on what caused the accident and the injuries. Accident causes can fall into three broad categories—human, materiel, and environmental factors. The causes could be a combination of any of the three.

b. Deciding why an accident happened is often the most difficult part of the investigation. Human error accidents, the most common cause, result from one or more of the following system inadequacies. Figure 5–1 is a useful diagram for determining these inadequacies.

(1) *Support failure.* Equipment/facilities are either not available or inadequate. For example, the unit tire cage was not properly constructed or the unit does not have a twelve-foot extension for the air hose.

(2) *Standards failure.* The standard is not clear, practical, or does not exist. When this happens, the command (or the Army) has not provided adequate standards. For example, the unit SOP requires the use of a tire cage; however, it does not require the use of a twelve-foot air hose extension.

(3) *Training failure.* Training standards exist, but the Soldier has not been adequately trained to standard. For example, an individual had never had training on how to service split rims and did not know that a tire cage and air hose extension were required for inflation.

(4) *Leader failure.* The standard is known but is not enforced. When leaders do not enforce standards, Soldiers develop their own (shortcuts) and the risk of an accident increases. For example, a leader sees an unqualified individual in the motor pool changing the tire and does not take immediate corrective action.

(5) *Individual failure.* The standard is known but is not followed by the Soldier. The Soldier has been properly trained and knows the correct procedures but chooses not to follow them. For example, the Soldier knows there is a requirement to be certified on servicing tires; and, although not certified, the Soldier attempts to service the tire anyway and does not wait for maintenance personnel.

c. The investigation process is not complete until recommendations are developed on how to prevent a similar accident from happening. When the causes of the accident and their systemic inadequacies have been identified, specific recommendations must be developed. To be effective, they must be targeted at the level of command most responsible for correcting the deficiency—unit-level, higher-level, or DA-level. Then, a system to ensure that recommendations are implemented closes the loop.

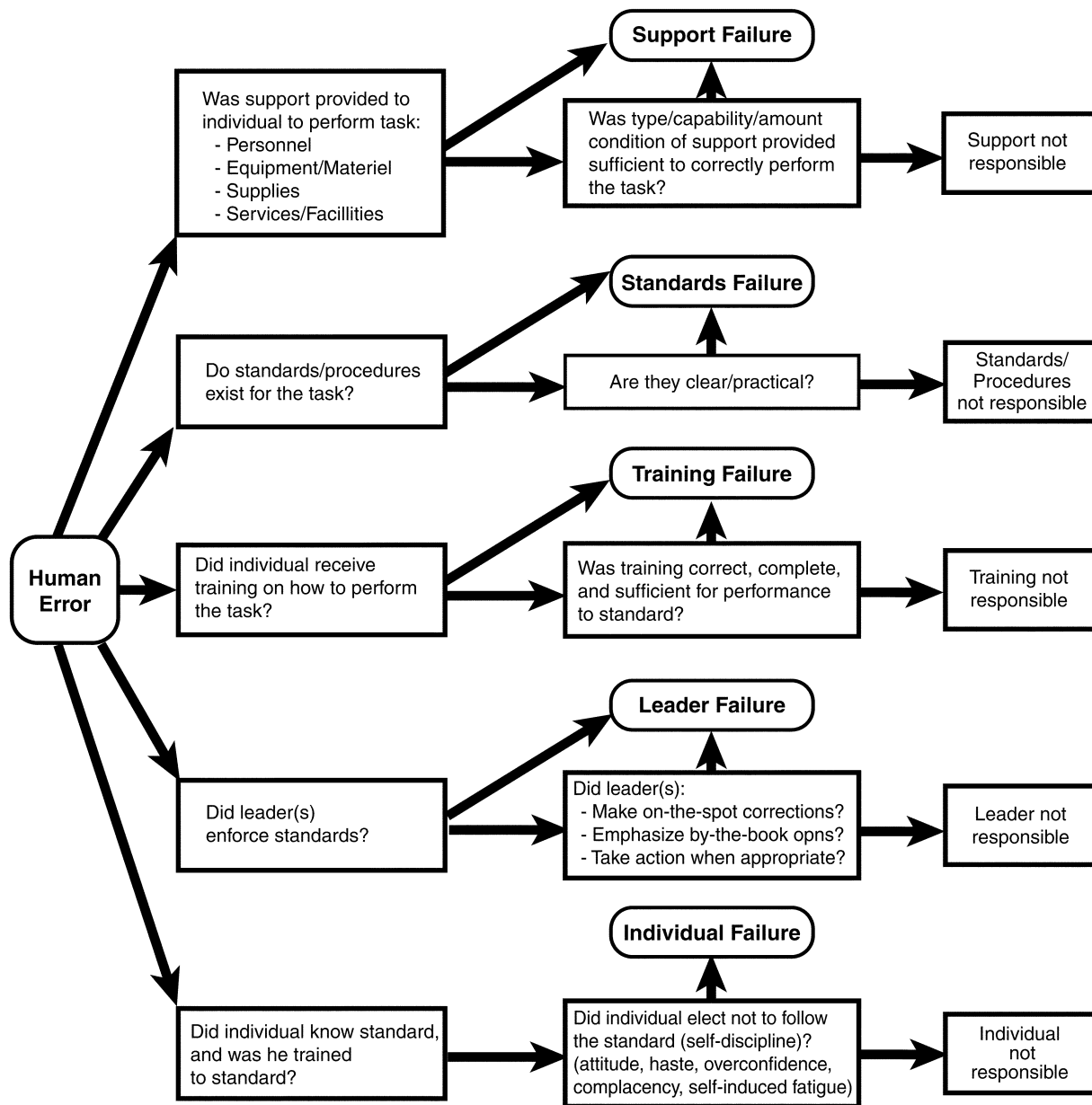


Figure 5-1. Determining system inadequacies responsible for human error

5-8. The accident report

a. The USACRC uses accident reports to determine lessons learned, Army wide problems, and unfavorable trends. Valid and reliable accident reports may lead to a change in equipment design, development of new standards, or modifications to existing training. For example, after reviewing accident reports prepared by ADSO/NCOs, the Army recognized that a significant number of sports injuries were happening on baseball fields. Injuries were occurring as runners slid into bases that were fixed in place. A program was established to replace fixed bases with breakaway bases. The installation of these breakaway bases has significantly reduced this type of injury. Before making a decision of this kind, the Army needs evidence to justify such a change; this evidence was provided by accident reports filed by ADSO/NCOs. Many other accident reports involving aircraft, tanks, and other equipment have resulted in design changes and operational manual changes. Identification of problems and implementation of corrective actions depend heavily on SOs/NCOs. Use of the information from accident reports saves lives, saves millions of Army dollars, and increases mission capability.

b. The Army Accident Prevention Program, therefore, depends on thorough accident investigations and accurate and complete accident reports, and will use the appropriate forms prescribed in AR 385–10 and DA Pam 385–40. The DA Form 285-series (Technical Report of U.S. Army Ground Accident) is used for ground accidents; the DA Form 2397-series (Technical Report of U.S. Army Aircraft Accident) is used for aviation accidents. DA Pam 385–40 contains instructions and completed sample reports. Units can use the online ReportIt tool (<http://reportit.safety.army.mil/>) to complete and submit accident reports.

c. If the accident was caused by materiel failure, an equipment improvement report in accordance with DA Pam 750–8 or a product quality deficiency report should be submitted, as appropriate. The unit maintenance officer and command logistics assistance officer can assist in completing the equipment improvement report. For aviation, use the product quality deficiency report in accordance with DA Pam 738–751 and work with the unit aviation SO.

5–9. Release of accident reports and information

Accident information, reports, and records will only be used for accident prevention purposes. This information will not be released to anyone for any other purpose. Refer requests for this information to the installation safety office or the USACRC as prescribed in AR 385–10.

Chapter 6 Safety in Ground Operations

6–1. General

In both garrison and tactical environments, safety depends upon compliance with established standards and the integration of RM. Risk management assists commanders in anticipating and controlling hazards in the planning phase and in dealing with unexpected hazards as they arise in the execution phase.

6–2. Vehicle operations

Military vehicle operations continue to be one of the leading accident-producing activities in the Army. The most common mistakes operators make are driving too fast for conditions, abrupt/improper steering, and misjudging clearance. Inexperienced or untrained operators, lack of crew coordination, poor planning/reconnaissance, inadequate supervision, fatigue, and indiscipline are generally the contributing factors. Engaged leaders and properly trained crewmembers are key for accident prevention.

a. Considerations.

(1) A vehicle's height, weight, center of gravity, and turning radius effects its handling characteristics. Increased height, weight and center of gravity can make a vehicle difficult to maneuver and susceptible to rollovers. The increased height can also make a vehicle too tall to operate safely under overpasses, footbridges and overhead power lines, which are particularly hazardous to an exposed gunner. Driving too close to the shoulder or edge of the road can cause the road's surface to collapse, putting the vehicle into a roll. This risk is even greater on unimproved roads, near canals, or other bodies of water.

(2) In tactical vehicles, the gunner is the most at-risk crewmember since they are the most exposed. If they are not using an Army-approved gunner restraint system, the risk of them being ejected, injured, or crushed during a blast, accident, or abrupt maneuver increases greatly. Yet, Soldiers continue to get injured, some of them fatally, because they did not use an Army-approved gunner restraint system or seat belt.

(3) Ballistic windows, along with the vehicle's size, can restrict the crew's field of view making it difficult to judge vehicle clearance, to see people, or to view obstacles on the ground.

(4) Doors, hatches, ramps, and the turret gear are also a source of pinching or crushing injuries for many Soldiers. Additionally, a number of Soldiers experience injuries when they jump, misstep, or fall while mounting and dismounting vehicles. In some cases, Soldiers can catch a ring on the vehicle and deglove or lose a finger.

(5) Extreme operating temperatures, exposed wiring and electrical shorts, leaking fuel or oil sources, malfunctioning/locked brakes and riding on flat/improperly inflated tires are factors that have resulted in vehicle fires. Vehicle fires can quickly get out of control and cause damage to equipment and injury to personnel.

b. Potential mitigation strategies.

(1) Leaders, senior occupants, operators, and other crewmembers must be familiar with the characteristics, capabilities and limitations of their vehicles and understand their roles and responsibilities. Model-specific training is essential.

(2) Provide instruction on local driving customs and practices. Ensure crews are aware of flash flood dangers and what actions to take.

(3) Establish and enforce safe speed limits for the road and environmental conditions, such as blackout, sand/dust storms, or other restricted visibility.

(4) Ensure operators have adequate rest before conducting a mission.

(5) Reinforce braking and downhill driving procedures with all personnel.

(6) Deliberate planning and mission rehearsal prior to every mission is key. Route reconnaissance is especially important for missions involving heavy vehicles, poorly maintained or unimproved roads, or uncertain terrain. Take into consideration the size and weight of each vehicle, the capacity of bridges along the route, the type, and width of road surfaces, the presence of low-hanging electrical wires, and canals or other bodies of water. Leaders must brief this information to all personnel prior to the mission, along with convoy safe following distances and catch-up speeds for expected road and environmental conditions. When planning, allocate sufficient time for preventative maintenance checks and services (PMCS), pre-combat checks, pre-combat inspections, and rehearsals before every mission.

(7) Include medical support teams and recovery assets in the convoy or verify that they will be available upon request. When the tactical situation permits and a vehicle is disabled or impedes traffic, immediately have the operator turn on emergency flashers and make every effort to move the disabled vehicle off the roadway. Ensure each vehicle is equipped with a highway warning kit and that the crew knows to place the warning triangle a minimum of 100 meters to the rear of the disabled vehicle and remains clear of the road and the rear of the vehicle.

(8) Ensure operators perform special requirements covered in the “Operating under Unusual Conditions” section of their respective operator’s manual as required. Operators must perform a thorough PMCS before the mission begins and after operations inspection once they complete the mission to check for any possible maintenance hazards, fire ignition sources, and damage from the terrain or hostile engagements. Ensure fire suppression systems are functional, the proper hand held extinguishers are present and serviceable, and crewmembers know how to operate them.

(9) Ensure all prime movers and trailer brake systems are properly connected and fully mission capable.

(10) Rehearse rollover, emergency egress, and rescue drills prior to each mission.

(11) Clearly mark emergency exits with luminous tape or “chem-lights.” Doing so will help Soldiers quickly find the nearest point of egress during an emergency in limited visibility.

(12) Secure personnel and cargo-seat belts and gunner restraints save lives and prevent injury. Securing equipment prevents items from becoming projectiles, which can inflict injury while traveling on rough terrain, during an accident, or explosive blast. Approved cargo netting is available through the Army supply system.

(13) Never place vehicles transporting troops, ammunition, or petroleum, oils, and lubricants (POL) last in a convoy serial or march unit.

(14) Establish and mark designated sleeping/rest areas away from vehicle travel routes. Do not allow operators to park vehicles where they can roll toward sleeping personnel or on an incline, without chocks.

(15) Crew coordination and communication are critical. Each member of the crew plays a vital role in the safe operation of tactical vehicles and must be on the lookout for hazards—not only from the enemy, but also from the terrain around the vehicle. Continuous, relevant, clear communication among all occupants is necessary—practicing can highlight potential weaknesses or miscommunication issues.

(16) Ensure personnel wear the proper personal protective equipment (PPE), including hearing and eye protection.

c. Resources. Driver training resources are located at <https://safety.army.mil/drivertrainingtoolbox/>.

6-3. Physical training and sports

a. The top injury-producing activities on-duty are those associated with physical training and sports. Running, basketball, and football top the list followed by confidence course activities. The majority of these injuries are strains, sprains, and bruises. While most of the accidents associated with these activities are not serious, they affect the unit’s ability to accomplish their mission.

b. To reduce these types of injuries—

(1) Inspect all indoor and outdoor areas where Soldiers conduct physical training, play sports, or execute confidence courses for hazards. Correct deficiencies or put controls in place to mitigate the hazards.

(2) Ensure that run routes are away from high-volume traffic areas, surfaces are adequate, and Soldiers comply with regulatory guidance such as wearing reflective gear, running against the flow of traffic, and the prohibited use of headphones and cell phones.

(3) Remind Soldiers to use the proper PPE, such as mouth guards, goggles, and braces as appropriate.

(4) Tailor programs in accordance with FM 7-22, and encourage leaders to take the Injury Prevention through Leadership Course offered via the Army Learning Management System through the USACRC Web site.

(5) Adequately supervise training, and ensure rules are established, understood, and followed.

6-4. Maintenance

a. Maintenance-related injuries. When it comes to maintenance-related activities, the most serious (fatal) injuries occur when Soldiers are pinned or crushed between or under vehicles or equipment, burned during fuel handling operations, or electrocuted while conducting maintenance operations. However, the majority of maintenance-related injuries occur when Soldiers—

(1) Slip or fall from a vehicle or other elevations.

(2) Pinch or crush body parts by the hood, hatch, door, or ramp.

(3) Strike hands or fingers on moving parts in the engine compartment (for example, fan blades, belts, and so on).

- (4) Strike the face or eyes with debris, fluid, metal chips or other objects.
 - (5) Lose their grip on objects or use improper lifting techniques.
- b. Minimize injuries.* To minimize these types of injuries, follow these tips—
- (1) Ensure areas are clear of obstructions and hazards.
 - (2) Make work platforms available when possible.
 - (3) Have personnel use fall protection when working at heights above six feet.
 - (4) Remind personnel to use safety pins and devices that secure hoods, hatches, doors, and ramps.
 - (5) Institute lockout/tagout procedures for hazardous machinery and equipment operations. Stress the importance of situational awareness and the need for clear and concise communication between work crewmembers.
 - (6) Conduct spot checks to ensure appropriate guards and barriers are in place.
 - (7) Make available and enforce the use of appropriate PPE to include safety goggles, face shields, and gloves while conducting maintenance tasks.
 - (8) Promote a positive safety climate through training and incentives. Conduct training that addresses work place hazards and controls. Develop metrics that measure positive, proactive safety behavior, and institute a challenging but attainable awards program.
- c. Recovery/towing operations.* The most serious injuries occur when Soldiers are pinned between vehicles, struck by snapped cables or chains while standing too close, or during rollover accidents while towing a vehicle. Soldiers also have injured their backs, hands, and feet while attempting to install or remove tow bars.
- (1) Only allow trained and certified personnel to conduct recovery operations.
 - (2) Never allow personnel to stand directly behind a moving vehicle or position themselves where they could be pinned or crushed.
 - (3) Do not allow personnel to ride in a disabled vehicle while towing it.
 - (4) Ensure anyone handling recovery cables wears heavy leather gloves and eye protection.
 - (5) Remind personnel to stand clear of all cables under tension.
 - (6) Remind personnel to use the buddy system when removing and installing a tow bar.
 - (7) Reiterate and enforce safe towing speeds.
 - (8) Remind recovery personnel to use a braking vehicle when required by the technical manual.
- d. Tire repair.*
- (1) When possible/feasible, order tires and rims as a complete set.
 - (2) Insist mechanics always use a tire cage when repairing split-rim wheels and to keep their hands out of the cage when inflating tires.
 - (3) Remind personnel to use the proper tools and a 10-foot inflation hose on all tires.
 - (4) Reiterate the use of the buddy system when lifting, removing, and installing tires.
- e. Equipment safety issues.* Keeping up with equipment safety issues is important. You can access important safety messages and alerts through the tactical command Unique Logistics Support Applications Web site (Safety First link). In addition, know who your local logistics assistance representative is, so you can contact them regarding equipment concerns or questions.

6–5. Weapons, ammunition, and explosives

a. Weapons-related injuries and fatalities as a result of fratricide/friendly fire and unintended impacts are major concerns. These occurrences are often a result of poor fire control plans and enforcement; inadequate coordination, reporting and communication; lack of positive target identification; reliance on instruments, and navigation errors. A few potential prevention techniques include—

- (1) Identify and assess potential fratricide risks during planning (military decisionmaking process and troop leading procedures).
- (2) Maintain situational understanding.
- (3) Ensure positive target identification.
- (4) Maintain effective fire control.
- (5) Establish a command climate with emphasis on prevention (see FM 3–21.10, for more information).

b. Occurring all too often and topping the list of weapons safety issues are negligent discharges, improper headspace and timing, ricochets, and inadequate maintenance. These issues are often a result of inadequate training, overconfidence, complacency, and indiscipline. The constant exposure to weapons in a deployed environment increases the potential for Soldiers to become complacent and overconfident in their ability to handle a weapon, which provides greater opportunities for negligent discharges to occur.

- (1) Negligent discharges commonly occur when—
 - (a) Cleaning, clearing, or performing a functions check on individual weapons.
 - (b) Entering or exiting vehicles.
 - (c) Retrieving, uploading, or emplacing weapons.

- (d) Playfully pointing a weapon at one's self or someone else.
 - (e) Unmindfully fiddling with a weapon.
 - (f) Handling unfamiliar weapons, particularly foreign weapons.
 - (g) Changing mission, duty, or weapon's status.
- (2) Steps to mitigate weapons handling risk—
- (a) Encourage leaders to conduct frequent spot checks and aggressively change the way Soldiers THINK about weapons safety! Treat every weapon as if it is loaded. Handle every weapon with care. Identify the target before you fire. Never point the muzzle at anything you do not intend to shoot. Keep the weapon on safe and your finger off the trigger until you intend to fire.
 - (b) Ensure there is adequate command policy in place regarding authorized holsters. Avoid holsters that orient muzzles towards personnel.
 - (c) Institute keeping the muzzle in a safe direction and removing source of ammunition (magazine, belt, and so forth) as the first steps in clearing a weapon. Do not allow personnel to clean weapons with a magazine in the weapon.
 - (d) Establish and implement policy regarding handling and use of foreign weapons and ammunition.
 - (e) Provide Soldiers with adequate training for their assigned weapons, and conduct reinforcement training as needed.
 - (f) Train and certify an adequate amount of crews on crew-served and specialty weapon systems.
 - (g) Have first line leaders conduct checks for cleanliness, lubrication, and serviceability.
 - (h) Make sure Soldiers use the proper gauge. The M2 and M3 are not interchangeable.
 - (i) Remind Soldiers when firing an individual weapon from the gunner's station to make sure the muzzle has cleared the turret. A good way to do this is to have them put the barrel over the turret.
- c. In both garrison and a tactical environment, procedures for storage and safe handling are critical. Common mistakes identified in reported accident cases are failing to treat non-lethal devices such as stun grenades, flares, simulators, or other pyrotechnics as explosives; not following proper handling procedures; and failure to use appropriate PPE. Inadequate training, lack of leader involvement, and overconfidence are frequently identified as contributing factors.
- (1) Ammunition and explosives accidents most commonly occur when personnel—
 - (a) Drop or inadvertently fire pyrotechnics/flares while riding in vehicle.
 - (b) Use small arms ammunition as a hammer to seat mounting pins or dislodge a jam.
 - (c) Handle improperly unexploded ordnance.
 - (d) Attempt to modify or disassemble ammunition, explosives.
 - (e) Fail to release grenades or simulators prior to detonation.
 - (f) Set off pyrotechnics or simulators in close proximity to personnel.
 - (g) Store ammunition in inappropriate/unauthorized areas.
 - (h) Use improper techniques such as taping grenades.
 - (2) Tips to prevent accidents and injuries—
 - (a) Get to know your unit's quality assurance specialist, ammunition surveillance, they can assist with ammunition and explosive issues.
 - (b) Aggressively enforce discipline and proper handling of ammunition and explosives.
 - (c) Enforce accountability and safety and security procedures for unexpended ammunition and explosives.
 - (d) Ensure personnel have adequate training. Do not allow personnel to use devices they are not trained on or that have not been inspected for serviceability.
 - (e) When possible, store all ammunition and explosives in its original packaging in a designated ammunition storage area (ammunition holding area, ammunition supply point, basic load storage area, and so on).
 - (f) Ensure there is adequate command policy in place regarding storage procedures. Remember the cardinal principle of explosives safety—expose the MINIMUM amount of personnel, to the MINIMUM amount of explosives, for the MINIMUM amount of time.
 - (g) Make every effort to comply with explosives safety requirements. If the minimum explosives safety quantity distances, internally or externally, cannot be obtained, then the situation calls for a Certificate of Risk Acceptance (CORA). A CORA replaces a waiver or exemption. Also use a CORA for other explosives safety deficiencies such as lack of lightning protection for ammunition storage or risk to mission capability (for example, less than asset preservation distance) (see DA Pam 385–64).
 - (h) Conduct frequent risk assessments and inspections.
 - (i) Ensure Soldiers understand the three Rs of unexploded ordnance—recognize, retreat and report.
- d. Green lasers are high tech devices that are a very desirable element of a Soldier's kit. However, green lasers pose a serious hazard to the eye. They can cause instant, severe, and irreversible damage to vision. Most green laser accidents most commonly occur when traveling in vehicle convoys/patrols; approaching entry control points or traffic control points; and during horseplay. Measures to reduce the risk—

- (1) Only allow trained personnel to use lasers. Ensure they are familiar with the associated hazards listed in the operator's manual and apply the appropriate controls.
- (2) Keep the laser on safe (batteries removed/safe cable disconnected) when not in use.
- (3) Never allow personnel to point the laser in someone's face unless it is an aggressor.
- (4) Include proper laser use and safety precautions when briefing the rules of engagement and escalation of force procedures during training exercises and mission briefs.
- (5) Ensure personnel exposed to laser beams wear laser eye protection.

6-6. Parachuting

Poor parachute landing falls cause most of these injuries. Using ankle braces has proven to reduce injuries. Use of braces and pre-jump training will eliminate most of the problems.

6-7. Combatives and hand-to-hand combat

a. Training in the art of hand-to-hand combat is an area in which Soldiers are at a high risk for injuries, particularly injuries to ankles, knees, wrists, elbows, shoulders, and the head. Risk management and appropriate safety precautions are critical for preventing injuries during combatives training.

b. Combatives training should ONLY be conducted in the presence of an instructor certified at the appropriate level, after risk decisions are made at the appropriate level of command. Numerous injuries have occurred while Soldiers engaged in horseplay or practiced combatives techniques off-duty.

c. Appropriate use of safety equipment and conducting training in areas with soft footing such as grassy or sandy areas, with training mats if available, will aid in injury prevention. Training and intensity levels should be conducted in accordance with TC 3-25.150, which provides specific guidance and safety precautions to prevent and minimize injuries during combatives training.

6-8. Fire prevention

a. Petroleum, oils, and lubricants storage and handling.

(1) POL handlers must know and practice safety rules and procedures. Inspect often to ensure safe storage and transfer of POL products.

(2) Proper grounding and bonding procedures must be established and include equipment inspections. Keep in mind, hot, dry, dusty conditions contribute to generation of static electricity. When handling fuel—

(a) Personnel must ground themselves by touching a large metal object before handling fuel hoses and nozzles. Fuel handlers must bond nozzles to the vehicle via a cable or by touching the end of the nozzle to the filler neck.

(b) Fuel handlers must wear fuel resistant or rubber gloves, rubber boots, protective clothing (flame retardant is preferred), and protective goggles. Do not allow them to wear clothing that generates static electricity such as wool, nylon, rayon, and silk. Have them wear cotton clothing with no metal zippers and ensure they remove all contents from their pockets. Also, ensure hearing protection is available and used when necessary.

(c) Only allow use of explosion-proof flashlights when checking fuel levels. Never use lighters, open flames, or unapproved flashlights. All of these have resulted in serious burn injuries and death.

(d) Ensure vehicles and radios are turned off during refuel operations.

(e) Do not fill vehicles to full capacity—allow for fuel expansion.

(f) Keep tanker truck hatches open during refueling to allow vapors to escape and to close them immediately after refueling.

(g) Stay on the windward side to prevent inhalation of fuel vapors.

(3) Ensure no-smoking areas are established and enforced.

(4) Establish an inspection system to ensure compliance with fire prevention standards. Ensure flammable materials are stored in accordance with appropriate directives and checklists.

(5) Ensure vehicle fire extinguishing/suppression systems are operational and that crews are proficient in their use.

(6) Provide a designated fire plan, equipment, and trained personnel.

(7) See FM 10-67-1 for more information.

b. Field heaters and stoves. Operators of all types of heaters and stoves must be trained and licensed (preferably in advance). Maintain and operate equipment in accordance with operating instructions, including use of proper fuel. Keep combustible material well away from heaters and stoves and ensure fire-fighting equipment is available for each heater and stove. Do not allow refueling of heaters or stoves with self-contained fuel supplies while it is on or still warm. Do not use heaters or stoves in tents or other confined spaces without use of proper ventilation, such as tent vent flaps, doors, or windows. Only use heaters and stoves approved by the U.S. Army Public Health Command.

c. Tactical living and work areas. The risk of fire is highest in areas with a large number of Soldiers in tactical living quarters. The following guidance will reduce the risk of fires:

(1) Establish a fire prevention and protection plan that includes procedures for inspecting and recharging fire extinguishers during tactical operations.

(2) Appoint a fire marshal for each tactical living/work areas and train them in their duties. Train Soldiers in fire prevention techniques as well as emergency procedures in the event of a fire.

(3) Establish safe distances between tactical living areas to reduce the risk of multiple losses from one fire.

(4) Provide available fire-fighting equipment (portable extinguishers, sand, water buckets, and shovels) to contain small fires. Ensure personnel are trained on their use.

(5) Establish procedures for sounding fire alarms.

6–9. Weather-related Injuries

Consider the effects of weather during planning. Unit effectiveness is lost quickly through weather-related casualties such as hot or cold weather injuries (for example, heat stroke, heat exhaustion, frostbite, and so forth), lightning strikes, and slips/falls. Instruct Soldiers in awareness, prevention, and first aid for weather-related injuries and when to expect these conditions.

6–10. Water operations

Plan water operations carefully. The risks of drowning and equipment loss are high during water operations. Identify nonswimmers and perform water survival training. Secure equipment and float it across rather than requiring individuals to carry their equipment. Use safety lines and personal flotation devices.

Chapter 7 Off-Duty Safety

7–1. General

Soldiers face hazards in off-duty activities as well as on-duty. In fact, the majority of all fatal accidents occur while Soldiers are engaging in off-duty activities. When it comes to off-duty activities, the top areas of concern are POV/POM operations, sports and water-related activities, and handling of privately owned weapons. To mitigate the risks, Soldiers must apply the principles of RM and leaders must remain engaged.

7–2. Privately owned vehicle operations

Army combat readiness is dependent upon the availability of its personnel. Readiness is clearly degraded when Army personnel die or are injured in accidents. More Soldiers die in POV accidents than in any accident category. POV/POM accidents have captured the attention of the Army's top leaders. As a result, Army policy outlined in AR 385–10 requires commanders and directors at all levels to provide training, education, and motivational programs to prevent motor vehicle accidents both on and off-duty. The items listed below outline the basis from which commander's should draw their efforts to reduce POV/POM accidents (see app D for further details)—

a. Positive leadership and involvement in the POV safety program at all levels is imperative.

b. Leaders set the command climate through their actions and must lead by example.

c. Risk management must be applied to all vehicle operations, whether on- or off-duty. Leaders should identify "at risk" Soldiers and take proactive measures to modify their risky behavior. The USACRC Web site contains a comprehensive set of tools and controls for POV/POM operations (<https://safety.army.mil/povmotorcyclesafety>).

d. Must be set and enforced.

e. Schedule activities on post whenever possible and promote use of alternative means of transportation. Additionally, leaders should encourage and support the formation of a Motorcycle Mentorship Program for motorcycle riders.

f. Commanders will ensure an investigation is conducted after every POV accident involving a fatality or injury per AR 385–10, DA Pam 385–40, and other USACRC guides and tools developed for accident investigation and reporting.

7–3. Sports

Participation in sports provides numerous benefits to include physical exercise, which improves strength and stamina, and development of leadership skills and teamwork. To gain the greatest benefit, it is extremely important to prevent sports injuries. Sports-related injuries not only hurt individuals, they can also have a significant impact on unit readiness. Proper planning, training, and use of appropriate protective equipment will aid in preventing injuries.

a. Team sports that produce the greatest number of injuries include football, basketball, and softball. Important contributors to the high number of injuries are lack of protective clothing, poor conditioning, and lack of adequate coaching to properly execute play.

b. Although there are fewer injuries reported in individual sports, some activities have a higher potential to result in severe injuries or death. According to Army accident data, swimming, fishing, canoeing/rafting, parachuting and hiking have a higher potential to result in fatal injuries, while snowboarding, skiing, bicycling, skateboarding, and running have a higher potential to result in non-fatal injuries.

c. Proper use of appropriate safety equipment while engaging in sporting activities can prevent or limit the severity

of injuries. Educating personnel on the purpose and effectiveness of safety equipment is critical to securing their cooperation and support. Most people will obey rules they understand; however, they are much less likely to obey rules they do not understand. If the SO/SNCO, sports supervisor, or coach simply presents a list of safety "dos" and "don'ts" without explaining the logic behind them, people will frequently ignore them. By educating and encouraging the proper attitude, the SO/SNCO can help individuals and teams run their own programs safely.

7-4. Water-related activities

Soldiers, along with their Family members, routinely engage in off-duty water-related activities such as swimming, boating and fishing. It is important to highlight the risks associated with water-related activities and provide guidance on how to safely enjoy activities on and around water. Learning to swim, wearing a life jacket/personal flotation device and avoiding alcohol while participating in water-related activities can significantly decrease the risk of drowning. It is important to be cognizant of local water hazards and weather along with understanding and obeying federal and state laws for watercraft operation. A variety of training and informational resources are available in the Water Safety section of the USACRC Web site at <https://safety.army.mil/offduty#watersafety/>.

7-5. Privately owned weapons

Proper handling of privately owned weapons off-duty is just as critical as the handling of military weapons on-duty. Not all weapons operate in the same manner and proficiency with an assigned military weapon does not make an individual an expert on all weapons. Soldiers should be encouraged to read their owner's manual and seek training for their privately owned weapons. Privately owned weapons accidents commonly occur in social settings where alcohol is present. Weapons should never be handled while or after consuming alcohol. Information and training materials for privately owned weapons are available in the Range & Weapons Safety Toolbox at <https://safety.army.mil/rangeweaponsafety/>.

Appendix A References

Section I Required Publications

AR 385-10

The Army Safety Program (Cited in paras 1-1c, 1-7a(7) , 1-7a(11) , 1-7a(14) , 2-2b, 2-2I(2) , 2-2I(3) , 4-1f, 5-1e, 5-2d, 5-4, 5-5b, 5-5c, 5-6b, 5-8b, 7-2, 7-2f, B-2f(1), B-2I(4), D-1a(4), D-1c.)

DA Pam 385-10

The Army Safety Program (Cited in paras 1-6b, 1-7a(11) , 1-7a(14) , 2-2(2).)

DA Pam 385-40

Army Accident Investigations and Reporting (Cited in paras 1-7a(7) , 1-7a(11) , 5-1e, 5-2d, 5-5a, 5-5b, 5-5c, 5-6a(2) , 5-6b, 5-8b, 7-2f, B-2f(1), B-2I(4).)

DA Pam 385-64

Ammunition and Explosives Safety Standards (Cited in para 6-5c(2)(g).)

DA Pam 385-90

Army Aviation Accident Prevention Program (Cited in paras 1-1c, 2-2I(3).)

ADRP 5-0

The Operations Process (Cited in para 3-1e.)

ATP 5-19

Risk Management (Cited in para 3-1e.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this publication.

AR 25-30

The Army Publishing Program

DA Pam 750-8

The Army Maintenance Management System Users Manual

DA Pam 738-751

Functional Users Manual for the Army Maintenance Management System - Aviation

FM 3-21.10

The Infantry Rifle Company

FM 7-22

Army Physical Readiness Training

FM 10-67-1

Concepts and Equipment of Petroleum Operations

TC 3-25.150

Combatives

Section III Prescribed Forms

This section contains no entries.

Section IV Referenced Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) Web site (<http://www.apd.army.mil>).

DA Form 285 Series

Technical Report of U.S. Army Ground Accident

DA Form 2028

Recommended Changes to Publications and Blank Forms

DA Form 2397 Series

Technical Report of US Army Aircraft Accident

DA Form 4756

Installation Hazard Abatement Plan

DA Form 7566

Composite Risk Management Worksheet

Appendix B
Guide to Preparing a Pre-Accident Plan

B-1. Accidents generally occur when they are least expected

Accidents generally occur when they are least expected; therefore, confusion can occur at the accident site, and valuable time and critical evidence may be lost or overlooked. The pre-accident plan is a tool to ensure that critical aspects of rescue and investigation are performed in a timely and efficient manner. This appendix is intended to assist commanders and ADSO/NCOs in establishing a pre-accident plan. It is not intended to be all-inclusive or restrictive and may be tailored to meet the requirements of the unit. However, every pre-accident plan should include the following:

- a. Responsibilities of all offices and individuals with a role to play in accident response.
- b. Procedures to ensure coordination among all personnel with responsibilities in the pre-accident plan.
- c. Procedures to activate the pre-accident plan.
- d. Lifesaving and evacuation procedures for injured personnel.
- e. Procedures for securing the accident site and rendering it free from explosives, radioactive materials, and environmental hazards.
- f. Procedures for notifying the chain of command, with current telephone numbers.
- g. Guidelines for identifying witnesses and people involved in the accident, as well as taking initial statements.
- h. Policy and procedures regarding the timely taking of toxicology fluid samples and radiobioassay samples by medical personnel.
- i. Requirements for periodic (at least annual) testing of the pre-accident plan.

B-2. The assignment of specific duties is the heart of the pre-accident plan

The following list of duties provides guidance for developing this plan:

- a. The operations center will activate the plan and will—
 - (1) Contact the emergency medical treatment staff, fire department, and military police for emergency lifesaving efforts.
 - (2) Contact the chain of command to alert them of an accident.
 - (3) Contact appropriate staff members, including the safety office, criminal investigation, provost marshal, chaplain, and public affairs office.
- b. The medical staff will—
 - (1) Dispatch medical personnel to the accident site as needed via ambulance or helicopter, whichever permits earliest arrival and evacuation of injured.
 - (2) Supervise removal and transportation of injured and provide emergency treatment.
 - (3) Transport injured to nearest (designated) medical facility for treatment.
 - (4) Estimate injury severity to facilitate accident classification.
- c. The fire department will—
 - (1) Respond immediately to the accident scene as appropriate.
 - (2) Conduct rescue and fire suppression as necessary.

(3) Supervise the accident area until fire, if any, is under control or until area is safe for entry by authorized personnel.

(4) Request additional fire-fighting equipment when necessary because of location or nature of fire.

(5) Maintain trained and equipped crash-rescue crew on alert.

(6) Provide appropriate training for personnel.

d. The provost marshal will—

(1) Dispatch security guards to assembly points as needed to provide adequate security and order at the accident site and to prevent pilferage of wreckage. Security personnel will remain on-duty until relieved by the safety accident investigation board president.

(2) Train security personnel on specific duties at accident scenes, including restraining spectators, handling wreckage, securing classified material, safeguarding government property, and accident site pass requirements.

(3) Escort recovery vehicles to accident scene.

e. The maintenance officer will—

(1) Ensure qualified personnel are available to assist the safety accident investigation board at the accident site.

(2) Provide the board with an estimated cost of damage to assist in determining accident classification.

(3) Help the board recover and identify wreckage and determine the operating conditions of various parts.

(4) Provide maintenance history.

f. The ADSO/NCO will—

(1) Know requirements of AR 385–10 and DA Pam 385–40.

(2) Review the pre-accident plan and ensure that it is tested at least once annually.

(3) Ensure the accident site is secure until the safety accident investigation board arrives.

(4) Classify the accident based upon the estimated cost of damage from the maintenance officer and injury severity estimates from the medical activity.

(5) Keep the chain of command informed.

(6) Act as an advisor to the safety accident investigation board and assist its members as necessary.

g. The public affairs officer will—

(1) Dispatch personnel to the accident scene to handle news releases.

(2) Maintain liaison with local news services.

(3) Help investigators identify witnesses and solicit return of wreckage pieces that may have been removed without authorization.

h. The facility engineer will—

(1) Provide, upon request from the safety accident investigation board, personnel and equipment needed to clear land, move earth, or perform other engineering functions related to accident investigation.

(2) Provide an environmental engineer to assess environmental damage.

i. Safety accident investigation board president will—

(1) Notify board members of responsibilities.

(2) Designate the assembly point for board members.

(3) Take charge of the accident site and initiate the investigation upon arrival at the scene after rescue and fire suppression have been completed.

(4) Conduct the investigation and prepare the report of the investigation per AR 385–10 and DA Pam 385–40.

j. The airfield weather officer will—

(1) Issue local weather observations.

(2) Determine if additional weather information will be required for investigation purposes. Analysis of weather conditions occurring at the time and place of accident is essential to the accident investigation. The weather unit must be promptly advised of an accident or emergency to determine the most accurate weather conditions at the time of the accident.

Appendix C

Suggested Unit Safety Awareness Activities

C–1. Commanders

Commanders will—

a. Participate actively in unit safety awareness activities.

b. Discuss unit accident experience and accident prevention measures with Soldiers.

c. Discuss hazard identification, risk assessment, and other aspects of RM applied to hazardous training activities.

- d.* Present on-the-spot safety promotional gifts to persons observed working safely, eliminating hazards, and so forth. Provide recognition awards, such as letters, safety promotional gifts, attaboys, and so forth.
- e.* Emphasize POV safety issues, such as seatbelt use and recent POV accident history.
- f.* Budget for his/her safety and safety awards programs.
- g.* Actively encourage personnel to participate in the Army Readiness Assessment Program.

C-2. Junior officers

Junior officers will—

- a.* Conduct safety classes for subordinates.
- b.* Develop unit safety programs and SOPs.
- c.* Monitor and supervise safety-training activities.
- d.* Review driver selection procedures and the Driver Training Program.

C-3. Senior noncommissioned officers

Senior NCOs will—

- a.* Teach RM techniques to junior NCOs.
- b.* Monitor and supervise first-line leaders during safety instruction and training.
- c.* Conduct safety surveys to ensure unit safety programs are implemented.
- d.* Review qualifications of personnel for assigned positions.
- e.* Review convoy procedures.
- f.* Review safety requirements for vehicle movement under tactical conditions.
- g.* Review procedures to locate unauthorized duds and weapons, including an amnesty program.

C-4. First-line leaders

First-line leaders will—

- a.* Conduct crew training with emphasis on safety and on hot/cold weather-related injuries.
- b.* Conduct safety classes on contingency mission area operations and survival.
- c.* Review unit medical evacuation procedures.
- d.* Review fuel point operations.
- e.* Discuss effects of dehydration with unit personnel.

C-5. Additional duty safety officer/noncommissioned officer

The ADSO/NCO will—

- a.* Review and update unit safety programs and publications.
- b.* Conduct safety in-brief for new personnel.
- c.* Review ammunition and explosives safety, radiation safety, laser safety, electromagnetic radiation safety, transportation, and storage requirements.
- d.* Conduct sports and recreational safety briefings.
- e.* Review fire prevention programs.
- f.* Conduct motor vehicle accident prevention classes.
- g.* Review safety requirements for field mess operations, field sanitation conditions, and waste disposal, in cooperation with medical and environmental personnel.
- h.* Coordinate specialized safety training for activities with special hazards.
- i.* Arrange safety awareness contests/events.
- j.* Ensure unit motorcyclists have received special training.
- k.* Arrange for non-punitive POV inspections in unit parking lot by maintenance personnel.
- l.* Conduct classes on pedestrian and runner safety, bicycle safety, and troop formation safety.
- m.* Coordinate with medical personnel for safety-related classes on relevant subjects (such as hearing conservation, laser safety, respiratory protection).
- n.* Coordinate with drug and alcohol personnel for classes on available programs.
- o.* Coordinate with fire department personnel to conduct fire-prevention and fire-extinguisher-use classes.
- p.* Conduct seatbelt promotion class. Discuss requirements and benefits, show video, and display posters.
- q.* Conduct spot checks in unit parking lot.
- r.* Conduct environmental hazards class, focusing on severe weather, poisonous plants, and insects.
- s.* Coordinate with local law enforcement agencies (state highway patrol, city police, sheriff's department, and military police) to conduct highway safety seminars.

C-6. Unit personnel

Unit personnel will—

- a. Conduct surveys of bivouac areas to identify and eliminate unsafe conditions.
- b. Review ground guide requirements and hand signals.
- c. Review emergency first-aid techniques.
- d. Review grounding requirements for generators and electrical equipment.
- e. Review PMCS on vehicles and ground support equipment.

Appendix D

Privately Owned Vehicle Accident Prevention Policy

The Motor Vehicle Accident Prevention Policy outlined in AR 385-10 states, “commanders and directors at all levels will provide training, education, and motivation programs to prevent motor vehicle accidents for on- and off-duty operation of a motor vehicle.” Base the commander’s accident prevention policy on the items listed below.

D-1. Command emphasis

a. *Commander’s policy.* Commanders will publish and implement policy on motor vehicle safety and ensure the local Office of the Staff Judge Advocate reviews the policy prior to publication. To be effective, the policy must—

(1) Encourage personal responsibility and emphasize leader involvement at all levels regarding vehicle operations. Leaders must also be proactive in the POV program; they are the key to minimizing the number one cause of accidental Soldier fatalities.

(2) Emphasize and positively reinforce the use of restraints and protective equipment, both on- and off-duty.

(3) Plainly define the consequences of high-risk behavior while operating a motor vehicle. Be very specific in discouraging driving under the influence/speeding violations, repeat offenders, and Soldiers that drive when unlicensed, untrained, or fatigued.

(4) Require participation in applicable training under Army Traffic Safety Training Program, Progressive Motorcycle Program, and Improvement/Remedial Driver Training as indicated in AR 385-10.

(a) Highlight local area hazards training; intermediate traffic safety training for newly assigned Soldiers under the age of 26; and the Accident Avoidance Course for all government vehicle operators.

(b) Require all Soldiers who operate a motorcycle to receive training in accordance with the Progressive Motorcycle Program (for example, basic rider, experience rider, sport bike, refresher, and sustainment courses).

(c) Address remedial/driver improvement training for personnel convicted of a moving traffic violation or who have been determined at fault in a traffic mishap, while operating a government motor vehicle. It may also require Soldiers to attend remedial drivers training based on high-risk driving behaviors, both on- or off-duty, or accumulation of five or more traffic points over a 12-month period.

(5) Address recording and tracking all drivers training through the Digital Training Management System.

b. *Web-based tools.* To assist leaders, Soldiers, and civilians in the development of driving safety programs and the safe operation of their vehicles, the USACRC Web site features best practice examples, mandatory requirements, and lessons learned throughout the Army and Department of Defense. These tools are located at <https://safety.army.mil/povmotorcyclesafety/>.

c. *Positive influence.* Typically, a Soldier’s first line supervisor asserts the most positive influence on how, when, and where Soldiers operate their POVs/POMs. For example, if a Soldier is going on leave or pass, the supervisor should take time to ensure the Soldier’s vehicle is in good condition and employ the POV automated risk assessment tool (per AR 385-10) before any travel outside the local area as determined by the commander.

d. *Responsibility.* Soldiers at all levels play a role in supporting a successful a POV/POM accident prevention policy. Leaders are instrumental in the training, supervision and conduct of Soldiers on- and off-duty. Individuals, whether operating a vehicle or riding as a passenger, are required to ensure the vehicle is operated in a safe manner to include the use of occupant protective devices.

D-2. Discipline

a. *Discipline starts with leaders.* Leaders set the command climate through their actions. Leadership and setting the example does not end at the gate.

b. *Undisciplined.* Defined as any Soldier, normally initial term, that has not fully been trained, counseled or mentored and has little to no direct involvement with leadership.

c. *Disciplined.* Defined as any Soldier, to include a leader, who has been trained, counseled and mentored, and is directly involved with leadership.

d. *Indisciplined.* Indisciplined is defined as any Soldier, to include a leader, who has been fully trained, counseled

and mentored and is directly involved with leadership, but operates a POV/POM in an unsafe manner and disregards known regulatory requirements, often resulting in mishap or fatality.

e. At-risk Soldiers must be identified. “At-risk” may include undisciplined or indisciplined Soldiers. Identifying these Soldiers will require active first line supervisor involvement and notifying the chain of command of high-risk behaviors. Soldiers and leaders can use the tools at <https://safety.army.mil/soldier-risk-assessments> to help assess an individual’s risk of causing an accident along with providing self-risk reduction. Proactive measures will assist in reducing risky behavior.

D–3. Risk management

Apply RM to all vehicle operations, whether on- or off-duty. Tools to assist with this responsibility are located on the USACRC Web site at <https://safety.army.mil/>.

a. Leaders and Soldiers all have a responsibility to identify, assess, and control the hazards associated with POV operations. The key is to train leaders and Soldiers on how to—

(1) Identify hazards associated with operating a vehicle as well as identifying "at risk" behavior (their own behavior, subordinates’ behavior, and other drivers’ behavior, such as road rage).

(2) Assess the hazards.

(3) Control the hazards.

b. Include a local area orientation program in unit policy and training. The SO/SNCO assists the command in implementing a local area orientation program with these common elements—

(1) A large, well-defined map of the local area, marked to show high-accident locations and alternate routes recommended for use during peak traffic periods. Point out hazards that pose a threat to certain types of traffic.

(2) A map of installation road and traffic patterns, location of gates, principal traffic routes, one-way streets, restricted areas, and location of major buildings and services. A presentation could be developed showing various intersections, dangerous cargo routes, special fire lanes, rush-hour routes, or streets that may be changed from one-way to two-way (or vice-versa) during certain peak traffic hours.

Appendix E Sources of Assistance

E–1. Supporting safety office

Safety codes, standards, regulations, and RM; guidance on preparation of hazard abatement plan; guidance/assistance on safety survey, annual inspections; hazard communication; advice on safety demonstrations, exhibits, or exercises; Occupational Safety and Health Administration; guidance on accident investigating and reporting; radiation safety officer; guidance on operating overall unit safety program; safety awareness materials; POV and motorcycle safety.

E–2. Transportation Office

Driver selection, testing, and licensing; driver training; vehicle maintenance; administration of vehicle safety check programs; Safe-driver Award Program; transportation of hazardous material.

E–3. Medical officer and/or sanitation, preventive medicine staff

Treatment of injuries; hygiene and first aid; prevention of hot- and cold-weather injuries; hearing conservation; respiratory protection; admissions records; vision safety; emergency room; preventive medicine and environmental health; physical qualifications of personnel.

E–4. Personnel Office

Assignments and transfers (selecting suitable jobs); knowledge of physical disabilities involved in job selection.

E–5. Provost Marshal

Enforcement and discipline; seatbelt enforcement; supervision of military police; POV registration; posting of traffic signs, signals, and markings.

E–6. Directorate of Public Works

Building repair and maintenance; supervision of fire prevention and protection activities; provision of traffic signs, signals, and roadway markings; environmental protection and waste disposal.

E–7. Chaplain

Moral persuasion (attitude development); suicide prevention.

E-8. Training Office

Incorporation of safety in training methods and activities.

E-9. Chemical Office

Chemical compatibility, storage, and disposal.

E-10. Drug and Alcohol Office

Drug and alcohol use statistics, training classes, education.

E-11. Defense Reutilization and Marketing Office

Equipment disposal.

E-12. Explosive Ordnance Disposal

Ordnance disposal; explosives training.

E-13. Army Materiel Command Logistic Assistance Representative

Advice on equipment operation and maintenance.

E-14. Range Control

Range safety and procedures.

E-15. Quality Assurance Specialist, Ammunition Surveillance

Ammunition safety, storage, malfunction, and quality standards.

E-16. Staff Judge Advocate

Legal advice; release of accident data.

E-17. Public Affairs Office

Media control; release of accident data.

E-18. Inspector General

Extension of the commander's eyes and ears.

Appendix F**Risk Management Programs and Tools**

The USACRC has a plethora of information, programs, and tools reinforcing the principles of RM that assist leaders, Soldiers, and Families in successfully mitigating accidental risk. You can find these resources at <https://safety.army.mil>. Below are some key items you can use to enhance your safety programs.

F-1. Operational programs and tools

a. The Ground Risk Assessment Tool augments the RM planning and decisionmaking process. It assists users in the identification, assessment, and control of hazards. Using information from units in the field, it provides users with a selection of potential accident hazards and controls for various ground operations and off-duty activities. Based on the selected operation/activity, the tool displays vignettes, accident summaries, and guidance and resources. It also facilitates users in producing an automated RM worksheet (DA Form 7566 (Composite Risk Management Worksheet)) they can edit, save, print, digitally sign, and email (<https://safety.army.mil/grat>).

b. The Deployment Guide for Brigade Combat Team Safety Professionals is a reference guide that can assist safety professionals in preparing and maintaining accident prevention programs before, during, and after a deployment. The guide covers common hazards, potential controls, tactics, techniques, and procedures and lessons learned for topics such as base operations, ammunition and explosives storage and handling, vehicle and convoy operations and weapons handling. It also contains links to briefings, checklists, relevant publications, posters, videos, Web sites, toolboxes, and sample RM worksheets and SOPs. Much of the content comes from previously deployed safety professionals (<https://safety.army.mil/deploymentguide>).

c. The Driver's Training Toolbox assists commanders, examiners, and instructors in the management of driver training. The toolbox is a central location for materials and resources necessary to set up and maintain an effective driver-training program (<https://safety.army.mil/drivertrainingtoolbox>).

d. The Mine Resistant Ambush Protected Safety Awareness Site features a safety awareness video and training support package that highlight the most common hazards and operator errors as well as potential mitigation strategies and techniques. These products can enhance existing driver training programs and bridge the gap in leader and crew

training. The site also contains links to other mine resistant ambush protected safety-related material and resources (<https://safety.army.mil/mrap>).

e. The Range & Weapons Safety Toolbox is a collection of resources that aid users in establishing and maintaining effective, safe range operations and weapons handling procedures/programs. The toolbox also includes resources and information for safe use of privately owned weapons (<https://safety.army.mil/rangeweaponssafety>).

f. The Civilian's Corner is a "one-stop" resource to obtain current, timely safety information and resources. It contains a myriad of topics to include worker's compensation, the Occupational Safety and Health Administration Voluntary Protection Program, The Department of Defense Pipeline Return-To-Work Program, and the President's Protecting Our Workers and Ensuring Re-employment initiative. It also features the Leader's Guide to Civilian Safety, which provides methods leaders and supervisors can use to educate, enforce safe work practices, and influence behavior (<https://safety.army.mil/civilianscorner>).

F-2. Off-duty programs and tools

a. The Leader's Engagement Kit includes 12 tools a leader can use to engage Soldiers. The tools don't take much time, cost little to nothing, and are easy to use. Each tool provides simple "how to" instructions along with any necessary checklist aid or video example (<https://safety.army.mil/leader-engagement-kit>).

b. The Off Duty Safety Awareness Presentation is a 50-minute presentation leaders can use to educate personnel about common off-duty hazards and potential controls they can use to in prevent the next accident. The presentation comes with embedded videos and speaker notes users can modify to fit their presentation style or to reflect what is happening in their organizations (<https://safety.army.mil/odsap>).

c. The Travel Risk Planning System is an automated trip-planning tool that incorporates the principles of RM and facilitates a dialogue between supervisors and their subordinates prior to POV travel (<https://safety.army.mil/trips>).

d. The POV/POM Toolbox is a Web-based program that assists leaders in developing driving safety programs. The toolbox contains best practices, mandatory requirements, and lessons learned from organizations throughout the Army and Department of Defense. It also features leader and rider roles and responsibilities and provides general information, guidelines, and metrics for developing and evaluating a safe and disciplined motorcycle riding culture (<https://safety.army.mil/pov-motorcycle-toolbox>).

e. The Leader and Rider Roles and Responsibilities Guide provides leaders and riders general information and guidelines for developing a safe and disciplined riding culture within their organizations. The goal is to reduce motorcycle accidents that lead to injuries and fatalities by identifying leader and individual responsibilities and defining metrics to indicate when a safe and disciplined riding culture has been established and maintained (<https://safety.army.mil/povmotorcyclesafety>).

f. The Motorcycle Mentorship Program site contains information and tips on establishing voluntary installation-level motorcycle organizations that bring seasoned and less experienced riders together in an effort to create an environment supportive of responsible motorcycle riding and enjoyment. This environment can foster safe operations and positive behaviors, which ultimately supports motorcycle accident prevention programs (<https://safety.army.mil/MMP>).

g. The Better Opportunities for Single Soldiers Safety Factor is a ready-to-use presentation that is anything but boring. It builds hazard awareness and encourages Soldiers to think safety during their off-duty hours, but not without a little fun. Some of today's top comedians take a humorous look at the hazards of Army life and send a safety message sure to get through to even the toughest audiences (<https://safety.army.mil/boss>).

h. The Family Engagement Kit is a tool aimed at increasing Family awareness of factors that may lead to post-deployment accidents. This presentation provides an overview of some of the challenges military Families may face and provides safety tips, information, resources that users can apply to keep themselves, their Family, and Soldier safe (<https://safety.army.mil/family-engagement-kit>).

i. The Firearms Safety Techniques is an interactive tool that has challenging and fun online activities and links to useful firearms safety information to increase Soldiers, civilians and Family members' awareness. Users can challenge friends, beat the high score, and show off their firearms safety skills by competing in the transporter, the simulation marksmanship lab and trigger tech challenges (<https://safety.army.mil/Firearm-Safety>).

j. The Water Safety Tool is an interactive Web page that puts challenging and fun online activities and links to useful water safety information at your fingertips. Users can challenge friends, beat the high score, and show off his or her skills by competing in the Water Safety Challenges. The tool is a great way to educate Soldiers, Civilians, and Family members alike (<https://safety.army.mil/watersafety>).

F-3. Accident information and analysis tools

a. Knowledge Magazine provides a forum for Soldiers, leaders and safety professionals to share their best practices and lessons learned through personally submitted articles. The magazine also publishes articles on the accident trends; safety hazards, messages, and alerts; mitigation strategies; and includes pull out posters. The goal of the magazine is to assist leaders, Soldiers, civilians, and Family members in successfully eliminating or mitigating accidental risk (https://safety.army.mil/knowledge_online).

b. The Risk Management Information System is the central data repository of reportable Army accidents. This tool

gives leaders, SOs and other personnel access to accident reports, so they can work to prevent similar incidents within their formations. Users can search the Risk Management Information System by a wide range of criteria including but not limited to case number; timeframe, equipment type or accident class; and display data results by age, grade, equipment, and additional variables. Additionally, preliminary centralized accident investigation results are available in the Risk Management Information System within four weeks of the completion of the field investigation. Included in the preliminary information is an executive summary of the accident and a prepared briefing slide (<https://rmis.safey.army.mil/rmis>).

c. Safety Sends is a senior leader-level message that provides a brief snapshot of the Army's safety performance during each quarter of the current fiscal year. It alerts readers of potential accident trends and the latest risk mitigation initiatives (<https://safety.army.mil/safetysends>).

d. Seasonal campaign products are available to raise awareness of the increased hazards associated with spring/summer and fall/winter activities. Topical feature articles, posters, and videos provide Soldiers, Family members and civilians the information they need to manage risk and reduce accidental injuries and deaths (<https://safety.army.mil/campaigns>).

e. ReportIt is a Web tool that features a question-based interface that enables even the most novice user to complete and submit an Army accident report (<https://safety.army.mil/reportit>).

F-4. Assessment tools

a. The Army Readiness Assessment Program assists battalion commanders in addressing root causes of accidental loss for their organization by focusing on climate and culture. The assessment captures the unit's posture as it relates to command and control, standards of performance, accountability, and RM (<https://arap.safety.army.mil>).

b. The Leader's Accident Risk Assessment of Subordinates helps leaders identify individuals within their formations who are at the highest risk for an accident. It also enables leaders do a quick self-assessment to ensure that they are being an engaged leader. Identifying and knowing those Soldiers who are the most at risk is essential in preventing accidents (<https://safety.army.mil/soldier-risk-assessments>).

c. The Battle Buddy Risk Assessment helps individuals identify behavior patterns in their battle buddies that increase the likelihood they will have an accident. This assessment can also help battle buddies examine their engagement level and determine if they are a positive force in their fellow Soldiers' lives (<https://safety.army.mil/soldier-risk-assessments>).

d. The Accident Risk Assessment for Individuals helps individuals assess their own risk level. This assessment helps them identify their risk factors and target areas where they can improve by making smart decisions (<https://safety.army.mil/soldier-risk-assessments>).

e. Figure F-1 identifies most-likely hazards for common operations and recommends sample controls.

Vehicle deficiencies not identified/fixed due to improper PMCS

- Report deficiencies to proper authority in a timely manner
- Ensure proper PMCS by conducting maintenance spot checks of vehicles before dispatch/operation

Unsafe road condition for wheeled vehicles

- Select and brief routes that minimize unsafe conditions for:
 - Slippery surface (wet/mud/ice/and so forth)
 - Inclines
 - Curves
 - Narrow congested passages

Excessive speed

- Brief TCs/senior occupants on speed limits for:
 - Road/trail/terrain hazards
 - Limited visibility
 - Convoy catch-up
 - Vehicle design/cargo loads
 - Bivouac areas/battle positions
 - Closed/open NBC protection modes

Following too close

- Set convoy vehicle intervals based on condition of drivers, visibility, road, vehicles. Increase intervals for:
 - Fatigued drivers
 - Limited visibility (night, fog, rain, snow, dust)
 - Slippery/rough road
 - Vehicles heavily loaded/poor condition

Improper ground guiding

- Ground guide required while:
 - Backing up
 - Operating in limited visibility
 - Operating in congested areas (bivouac, maintenance, assembly, and battle positions)
 - Vehicle intercom system inoperative (tracked vehicles only)

Unsecure/unstable load

- Ensure loads are per load plan and applicable manuals
- Spot check vehicles with emphasis on cargo center of gravity, ammo, and pyrotechnics

Figure F-1. Controls for most-likely hazards

Vehicle fire

- Brief/rehearse fire procedures per appropriate operator manuals

Vehicle rollover

- TC/senior occupant brief rollover procedures; ensure rollover drills conducted

Improper turning

- Yield right of way
- Avoid oversteering
- Perform U-turns only in authorized areas/locations

Improper passing

- Pass other vehicles only at safe places and times considering road, visibility, and traffic conditions
- Know the clearance space needed for both vehicle and trailer

Unsecure hatch/ramps

- Inspect and repair unsafe condition
- Secure with locking pin or latch devices during operation

Crew/passengers exposed during operation on rough terrain
(tracked vehicles)

- Position no higher than “nametag defilade”
- Equipment/cargo slowed and secured per load plan
- Wear seatbelts when seated

Improper crew coordination (tracked vehicles)

- Positive communication (confirm that crew members received and understood your communication or signal)
- Announce decision/action
- Perform all actions in the proper sequence and at the right time
- Provide and request assistance when needed

Figure F-1. Controls for most-likely hazards—continued

Seating/placement of passenger (wheeled vehicles)

- Spot check vehicles to ensure -
 - No passengers placed in the trailer/cargo area of vehicles carrying ammo, explosives, or hazardous material or in vehicle of convoy
 - Only one driver and passenger in the cab of vehicles with manual transmission
 - Seating provides three points of contact on fixed surface inside vehicle/sideboards

Hot/cold weather injuries

- Teach Soldiers how to recognize the symptoms of hot/cold weather injuries
- Identify Soldiers not acclimated or have previous heat/cold injuries
 - Report these Soldiers to the chain of command
 - Assign appropriate duties
 - Watch closely for symptoms
- Enforce work/rest/hydration schedules
- Adjust workload during temperature extremes (over 80°F, under 32°F)

Dismounted movement in conditions of limited visibility or adverse terrain

- Use night vision devices
- Wear eye protection
- Run/jump only when tactically necessary, if you cannot see - STOP!
- Use marked lanes when available
- Warn others of hazards encountered
- Maintain three points of contact in steep/slippery slopes

Improper lifting/carrying of weapons and individual equipment

- Brief/enforce the following precautions:
 - Use safe lifting/balancing/carrying techniques
 - Schedule rest halts and rotate heavy loads during halts
 - Treat all weapons as being loaded
 - Keep blank and live ammo separate
 - Keep weapons on SAFE until ready to fire
 - Do not use weapon as a support or pull stick

Figure F-1. Controls for most-likely hazards—continued

f. The below figure (see figure F-2) provides a Soldier a risk-readiness evaluation worksheet.

Are you/your Soldiers ready to perform duties?		Y	N
Qualification:	- License	SAMPLE	SAMPLE
	- Leader/NCO certification		
	- Combat lifesaver		
Training:	Drivers training (wheeled and tracked)		
	- Adverse weather/terrain		
	- Safe speed for conditions		
	- Convoy procedures (tactical/nontactical)		
	- Vehicle capabilities		
	- PMCS (before/during/after)		
	- Ground-guide procedures (signal, distance, and so forth)		
Drivers training (tracked only)			
- Rollover procedures (passengers/crew)			
- Crew coordination			
Material handling	- Lifting, carrying, balance, footing, and so forth		
Loading and securing (vehicles/trailers)	- Equipment		
	- Personnel		
Night operations	- METL, collective, and individual task		
Night vision devices	- Capabilities		
	- Maintenance		
	- Wear while performing		
	METL		
	Collective task		
	Individual task		
Weapons handling (safety procedures)	- Ammunition		
	- Duds		
	- Pyrotechnics		
	- Laser		
	- Fratricide prevention		
	- Clearing		
	- Limited visibility/adverse weather		

Figure F-2. Soldier risk-readiness evaluation worksheet

Are you/your Soldiers ready to perform duties?		Y	N
Training (continued):		SAMPLE	
	- Avoidance of poisonous plants		
	- Avoidance of wild animals, snakes, insects, and so forth		
	- Accident/unsafe-act reporting/correction procedures		
	- Hot/cold weather - related injury prevention		
	- Actions during adverse weather (lightning, and so forth)		
	- Terrain walk (time permitting)		
Experience:		SAMPLE	
	Newly assigned personnel		
	- Current		
	- Proficient	SAMPLE	
Physical/ decisionmaking ability:	Well rested and alert		
Equipment (personal protective and operational):	For example, in last 24 hours, less than 15 hours continuous duty and more than 5 hours sleep	SAMPLE	
	Personal protective equipment		
	- Seatbelts (when available)		
	- Goggles and scarf (dust, mud, snow, rain, and so forth)		
	- Kevlar/CVC helmet		
	- Hearing protection	SAMPLE	
Clothing:	Appropriate gear (seasonal)		
	- Inventory (accountability)		
	NBC protective gear	SAMPLE	

Figure F-2. Soldier risk-readiness evaluation worksheet—continued

Glossary

Section I Abbreviations

ADRP

Army Doctrine Reference Publications

ADSC

Additional Duty Safety Course

ADSO/NCO

additional duty safety officer/noncommissioned officer

AR

Army Regulation

ATP

Army Techniques Publication

COA

course of action

CORA

Certificate of Risk Acceptance

CVC

combat vehicle crewman

DA Pam

Department of Army pamphlet

FM

field manual

METL

mission-essential task list

METT-T

mission, enemy, terrain, troops, time

METT-TC

mission, enemy, terrain, troops-time and civil consideration

NBC

nuclear, biological, and chemical

NCO

noncommissioned officer

OCOKA

observation and fields of fire, cover and concealment, obstacles, key or decisive terrain, avenues of approach

PMCS

preventive maintenance checks and services

POL

petroleum, oils, and lubricants

POM

privately owned motorcycle

POV

privately owned vehicle

PPE

personal protective equipment

RM

risk management

SO

safety officer

SOP

standard operating procedure

TC

training circular

USACRC

U.S. Army Combat Readiness Center

Section II**Terms****Accident risk**

All operational risk considerations other than tactical risk, including activities associated with hazards concerning friendly personnel, equipment readiness, and environmental conditions.

Controls

Actions taken to eliminate, or reduce the risk of, hazards.

Exposure

The frequency and length of time personnel and equipment are subjected to a hazard.

Hazard

Actual or potential condition that can cause injury, illness, or death of personnel; damage to, or loss of, equipment or property; or mission degradation.

Probability

The likelihood that an event will occur.

Residual risk

The level of risk remaining after controls have been selected for hazards. (Controls are identified and selected until residual risk is at an acceptable level or until it cannot be practically reduced further.)

Risk

Chance of hazard or bad consequences. The probability of exposure to injury or loss from a hazard. Risk level is expressed in terms of hazard probability and severity.

Risk decision

The decision, made by the commander, leader, or the responsible individual, to accept the risks associated with an action.

Risk management

The process of identifying, assessing, and controlling risks arising from operational factors and making decisions that balance risk cost with mission benefits.

Severity

The expected consequence of an event in terms of degree of injury, property damage, or other mission-impairing factors.

Section III**Special Abbreviations and Terms**

This section contains no entries.

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PIN 004154-000