

U.S. ARMY SERGEANTS MAJOR ACADEMY (BNCOC)

T321 / RISK MANAGEMENT PROCESS

OCT 04



Stand Alone Common Core

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TRAINING SUPPORT PACKAGE (TSP)

TSP Number / Title	T321 / THE RISK MANAGEMENT PROCESS
Effective Date	01 Oct 2004
Supersedes TSP(s) / Lesson(s)	T321 The Risk Management Process OCT 03
TSP Users	600-BNCOC Basic Noncommissioned Officer Course
Proponent	The proponent for this document is the Sergeants Major Academy.
Improvement Comments	<p>Users are invited to send comments and suggested improvements on DA Form 2028, <i>Recommended Changes to Publications and Blank Forms</i>. Completed forms, or equivalent response, will be mailed or attached to electronic e-mail and transmitted to:</p> <p style="text-align: center;">COMDT USASMA ATTN ATSS DC BLDG 11291 BIGGS FIELD FORT BLISS TX 79918-8002</p> <p style="text-align: center;">Telephone (Comm) (915) 568-8875 Telephone (DSN) 978-8875</p> <p style="text-align: center;">E-mail: atss-dcd@bliss.army.mil</p>
Security Clearance / Access	Unclassified
Foreign Disclosure Restrictions	FD5. This product/publication has been reviewed by the product developers in coordination with the USASMA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

PREFACE

Purpose

This Training Support Package provides the instructor with a standardized lesson plan for presenting instruction for the risk management process.

Task Number**Task Title**

Apply the risk management process to a task.

**This TSP
Contains**

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THE RISK MANAGEMENT PROCESS
T321 / Version 1
01 Oct 2003

SECTION I. ADMINISTRATIVE DATA

All Courses Including This Lesson	<u>Course Number</u>	<u>Version</u>	<u>Course Title</u>
	600-BNCOC	1	Basic Noncommissioned Officer Course

Task(s) Taught(*) or Supported	<u>Task Number</u>	<u>Task Title</u>
	850-001-2000	Employ Accident Prevention Measures and Risk Assessment Process.
	850-001-3001	Control mission safety hazards.
	850-001-4001	Integrate risk management into unit mission.

Reinforced Task(s)	<u>Task Number</u>	<u>Task Title</u>

Academic Hours The academic hours required to teach this lesson are as follows:

	<u>Resident Hours/Methods</u>
	1 hr 35 mins / Conference / Discussion 15 mins / Practical Exercise (Performance)
Test	0 hrs
Test Review	0 hrs
Total Hours:	2 hrs

Test Lesson Number	<u>Hours</u>	<u>Lesson No.</u>
Testing (to include test review)	3 Hrs	E303

Prerequisite Lesson(s)	<u>Lesson Number</u>	<u>Lesson Title</u>
	None	

Clearance Access Security Level: Unclassified
Requirements: There are no clearance or access requirements for the lesson.

Foreign Disclosure Restrictions FD5. This product/publication has been reviewed by the product developers in coordination with the USASMA foreign disclosure authority. This product is releasable to students from all requesting foreign countries without restrictions.

References

<u>Number</u>	<u>Title</u>	<u>Date</u>	<u>Additional Information</u>
FM 100-14	Risk Management	23 Apr 1998	

Student Study Assignments

Before class

- Read Student Handouts 1 and 2.
- Skim FM 100-14, Appendixes 1 thru 17.

During class

- Participate in the class discussion.
- Complete the practical exercise.

After class

- Review all reference material.

Instructor Requirements

1:16 BNCOC graduate, SSG, ITC and SGITC qualified.

Additional Support Personnel Requirements

<u>Name</u>	<u>Stu Ratio</u>	<u>Qty</u>	<u>Man Hours</u>
None			

Equipment Required for Instruction

<u>ID Name</u>	<u>Stu Ratio</u>	<u>Instr Ratio</u>	<u>Spt</u>	<u>Qty</u>	<u>Exp</u>
441-06 LCD Projection System	1:16	1:1	N	1	N
559359 SCREEN PROJECTION	1:16	1:1	N	1	N
702101T134520 DELL CPU, MONITOR, MOUSE, KEYBOARD	1:16	1:1	N	1	N
703500T102257 DESKTOP/EPSON PRINTER	1:16	1:1	N	1	N
7110-00-T81-1805 DRY ERASE BOARD	1:16	1:1	N	1	N
SOFTWARE-2 WINDOWS XP, LATEST GOVERNMENT APPROVED VERSION	1:16	1:1	N	1	N

Materials Required

Instructor Materials:

- FM 100-14, Risk Management.
- T321, The Risk Management Process.
- VGTs (16).

Student Materials:

- Student Handouts 1and 2.
- Pencils or pens.
- Writing paper.

Classroom, Training Area, and Range Requirements

CLASSROOM INSTRUCTION 900 SF, 16 PN or Classroom Conducive to Small Group Instruction of 16 Students.

Ammunition Requirements

<u>Id</u>	<u>Name</u>	<u>Exp</u>	<u>Stu Ratio</u>	<u>Instr Ratio</u>	<u>Spt Qty</u>
None					

Instructional Guidance

NOTE: Before presenting this lesson, instructors must thoroughly prepare by studying this lesson and identified reference material.

Before class—

- Issue all recoverable materials NLT than three days prior to class. Read all TSP material. Study and be ready to conducts PEs.

During class—

- Facilitate group process IAW TSP.
- Conduct PE.

After class—

- Collect recoverable material. Report any lesson discrepancies to the Senior Instructor.
- Conduct after action review for the lesson.

Proponent Lesson Plan Approvals

<u>Name</u>	<u>Rank</u>	<u>Position</u>	<u>Date</u>
/s/ Maestas, Francis	Contractor	Training Specialist	
/s/ King, Phillip W.	GS11	Course Manager, B/ANCOC	
/s/ Bennett-Green, Agnes D.	SGM	Course Chief, B/ANCOC	
/s/ Lemon, Marion	SGM	Chief, CDDD	

SECTION II. INTRODUCTION

Method of Instruction: <u>Conference / Discussion</u>
Technique of Delivery: <u>Small Group Instruction (SGI)</u>
Instructor to Student Ratio is: <u>1:16</u>
Time of Instruction: <u>5 min</u>
Media: <u>None</u>

Motivator As leaders, your fundamental purpose is to fight and win the nation’s wars. For this purpose, the country gives you its critical resources, including those most valuable: her sons and daughters. You will use those resources to generate overwhelming combat power to fight, to win quickly, decisively, and with minimal losses. Your inherent responsibility to the nation is to protect and preserve its resources at all levels. Risk management is an effective process for preserving resources. It is not an event. It is both an art and a science. Risk management identifies tactical and accident risks, so you can avoid, control, or eliminate the hazards.

Terminal Learning Objective **NOTE:** Inform the students of the following Terminal Learning Objective requirements. At the completion of this lesson, you [the student] will--

Action:	Apply the risk management process to a task.
Conditions:	As a small unit leader in a company or battalion level unit.
Standards:	Applied the risk management process to a task IAW FM 100-14.

Safety Requirements None

Risk Assessment Level Low

Environmental Considerations **NOTE:** It is the responsibility of all soldiers and DA civilians to protect the environment from damage.

None

Evaluation

At the end of this course of instruction, you will take a 50-question written examination. The examination will include questions on the ELOs and TLO from this lesson. You must correctly answer 35 questions or more to receive a passing score (70 percent). This is a graduation requirement.

**Instructional
Lead-In**

FM 100-14 applies across the wide range of Army operations. It explains the principles, procedures, and responsibilities to successfully apply the risk management process to conserve combat power and resources. This manual applies to both Army and civilian personnel during Army activities, including joint, multinational, and interagency environments.

FM 100-14 will help commanders, their staffs, leaders, and managers at all levels to develop a framework to make risk management a routine part of planning, preparing, and executing operational missions and everyday tasks. This framework will allow soldiers to operate with maximum initiative, flexibility, and adaptability. Although the manual's prime target audience is Army field units, the principles of risk management apply to all Army activities.

SECTION III. PRESENTATION

NOTE: Inform the students of the Enabling Learning Objective requirements.

A. ENABLING LEARNING OBJECTIVE

ACTION:	Define the risk management process.
CONDITIONS:	As a squad leader in a classroom environment and given FM 100-14.
STANDARDS:	Defined the risk management process by-- <ul style="list-style-type: none"> • Stating the definition of risk management. • Identifying the basic risk management principles. • Identifying the key aspects of risk management IAW FM 100-14.

1. Learning Step / Activity 1. Define risk management and its basic principles for Implementation.

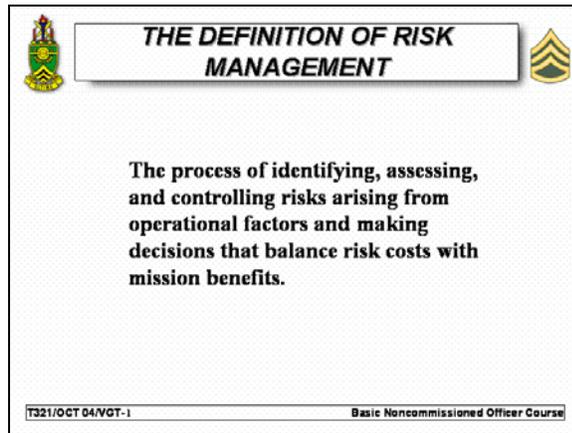
Method of Instruction: Conference / Discussion
Technique of Delivery: Small Group Instruction (SGI)
Instructor to Student Ratio: 1:16
Time of Instruction: 15 min
Media: VGT-1 thru VGT-4

Soldiering is a tough, demanding, risky business. Every mission in training or combat is a fight against two enemies. One enemy is the opposing force; the other is accidents. Since the end of the Vietnam conflict, we have had more injuries and deaths in non-combat incidents than in combat.

During Operation Desert Shield/Desert Storm, accidents caused more than half of the deaths. This caused the Army to rethink the role of safety in all training and combat operations. Risk management answered the problem.

QUESTION: What is the definition of risk management?

ANSWER: SEE VGT-1.

SHOW VGT-1, THE DEFINITION OF RISK MANAGEMENT

Ref: SH-2 (Extract from FM 100-14), page 1-1

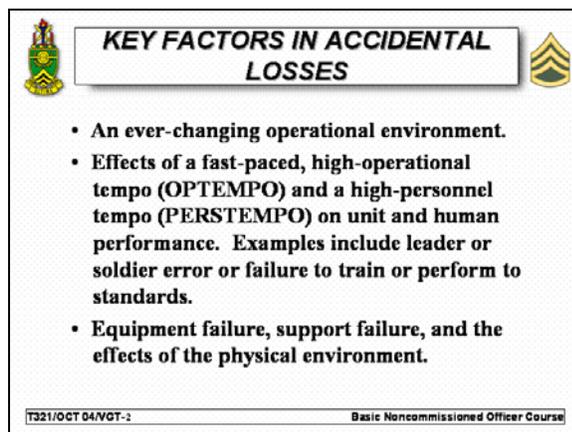
NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-1

Historically, the Army's accidental losses including fratricide (friendly fire) have exceeded the losses from enemy action. During peacetime training exercises we experience the same types of accidental losses. No enemy or adversary is the cause of these losses.

QUESTION: What are some key factors in the accidental losses?

ANSWER: SEE VGT-2.

SHOW VGT-2, KEY FACTORS IN ACCIDENTAL LOSSES

Ref: SH-2 (Extract from FM 100-14), page 1-3

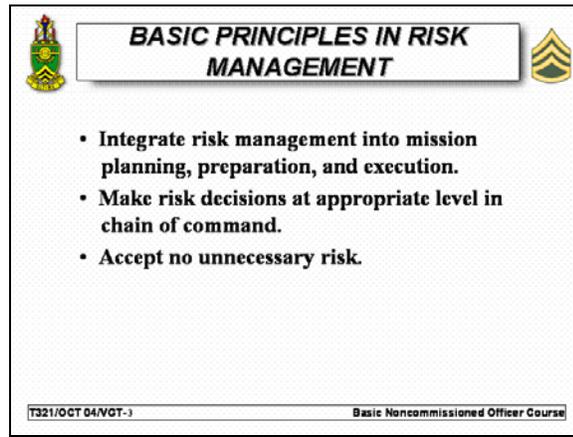
NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-2

Leaders and soldiers at all levels in the Army use risk management in all operations, missions and environments. Risk management is fundamental in developing confident and competent leaders and units.

QUESTION: What are the basic principles in implementing risk management?

ANSWER: SEE VGT-3.

SHOW VGT-3, BASIC PRINCIPLES IN RISK MANAGEMENT


BASIC PRINCIPLES IN RISK MANAGEMENT

- Integrate risk management into mission planning, preparation, and execution.
- Make risk decisions at appropriate level in chain of command.
- Accept no unnecessary risk.

T321/OCT 04/VGT-3 Basic Noncommissioned Officer Course

Ref: SH-2 (Extract from FM 100-14), page 1-3

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-3

Let's look at how to implement the basic principles of risk management.

All leaders and staffs are continuously identifying hazards as well as assessing both accident and tactical risks. You will use the accident hazards to develop and coordinate the necessary control measures to determine the level of risk. Leaders must integrate all control measures into staff estimates, operation plans (OPLANS), operation orders (OPORDS), and missions.

Leaders must brief their soldiers on risk controls and continuously supervise to ensure their soldiers observe them.

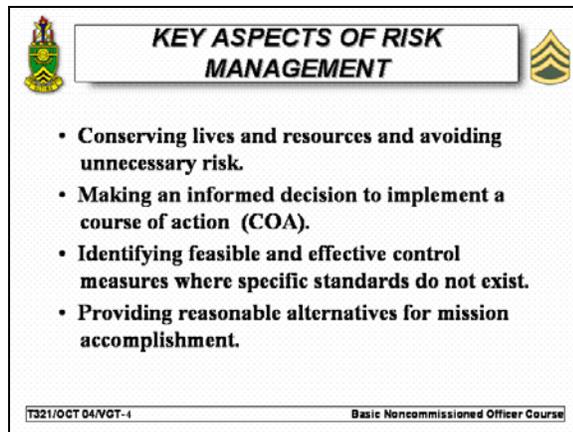
The commander should address risk guidance in his commander's guidance. He bases his risk guidance on established Army and other appropriate policies and on his higher commander's direction. He then gives guidance on how much risk he is willing to accept and delegate. Squad leaders seek the higher commander's approval to accept risks that might imperil the next higher commander's intent.

Commanders must only accept the risks when the mission's expectations outweigh the potential costs or losses. The decision to accept the level of residual risk to accomplish the mission remains with commanders only.

QUESTION: What are the key aspects of risk management available in assisting the commander or leader?

ANSWER: See VGT-4.

SHOW VGT-4, KEY ASPECTS OF RISK MANAGEMENT



Ref: SH-2 (Extract from FM 100-14), page 1-4

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-4

The key aspects of risk management will not do the following:

- Inhibit the commanders and leader’s flexibility and initiative.
- Remove risk altogether or support zero defects mind set.
- Require a GO/NO-GO decision.
- Sanction or justify violating the law.
- Remove the necessity for standard drills, tactics, techniques, and procedures.

Risk management allows commanders, leaders, and soldiers to perform operations and missions with the responsibility to make decisions at the appropriate level.

CHECK ON LEARNING:

QUESTION: What are some key factors in the accidental losses?

- ANSWER:
1. An ever-changing operational environment.
 2. Effects of a fast-paced, high-operational tempo (OPTEMPO) and a high-personnel tempo (PERSTEMPO) on unit and human performance. Examples include leader or soldier error or failure to train or perform to standards.
 3. Equipment failure, support failure, and the effects of the physical environment.

QUESTION: What are the basic principles in implementing risk management?

- ANSWER:
1. Integrate risk management into mission planning, preparation, and execution.
 2. Make risk decisions at appropriate level in chain of command.
 3. Accept no unnecessary risk.

B. ENABLING LEARNING OBJECTIVE

ACTION:	Explain the five steps of the risk management process.
CONDITIONS:	As a squad leader in a classroom environment and with FM 100-14.
STANDARDS:	Explained the five steps of the risk management process IAW FM 100-14.

1. Learning Step / Activity 1. Identify the Five-Step Risk Management Process

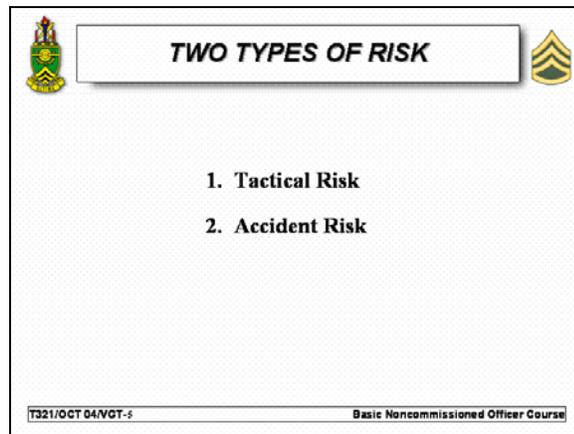
- Method of Instruction: Conference / Discussion
- Technique of Delivery: Small Group Instruction (SGI)
- Instructor to Student Ratio: 1:16
- Time of Instruction: 40 min
- Media: VGT-5 thru VGT-9

As leaders, you will base your risk decisions upon awareness rather than mechanical habit. You should act on a keen appreciation for essential factors that make each situation unique instead of a conditional response. You must apply the risk management process to all missions and operations. Keep in mind that hazards can exist with or without a hostile force involvement. As leaders, you will encounter two types of risk in Army operations.

QUESTION: What are the two types of risk?

ANSWER: See VGT-5.

SHOW VGT-5, TWO TYPES OF RISK



Ref: SH-2 (Extract from FM 100-14), page 2-2

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

Tactical risk: A tactical risk is a hazard that exists because of the presence of an adversary. A tactical risk applies to all levels of war and across the spectrum of operations.

Accident risk: Includes--

- All operational risk considerations other than tactical risk.
- Risk to the friendly force.
- Risks posed to civilians by an operation, as well as an operational impact on the environment.
- Activities associated with hazards concerning friendly personnel, civilians, equipment readiness, and environmental conditions.

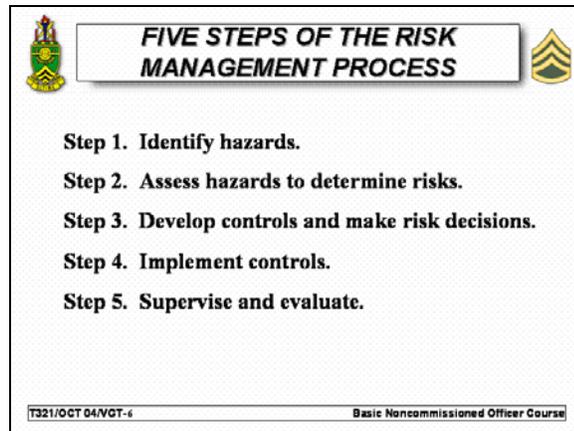
REMOVE VGT-5

You will consider the two types of risk in the planning of all missions and operations. You begin the risk management process when you identify the risk. The risk management process consists of five steps. Steps 1 and 2 comprise the risk assessment and steps 3 through 5 are the essential follow-through actions to effectively manage the risk. The risk assessment steps 1 and 2 provide for enhanced situational awareness and builds confidence. This awareness and confidence allows soldiers and units to take timely, efficient, and effective protective measures. Steps 3 through 5 allow you to balance risk against costs and combat power and to take appropriate actions to eliminate unnecessary risk. During planning, preparation, and execution, you must continuously assess the risk to the overall mission and to those involved in the task. You and your soldiers will evaluate the effectiveness of the controls and provide lessons learned so that others may benefit from the experience.

QUESTION: What are the five steps of the risk management?

ANSWER: See VGT-6.

SHOW VGT-6, FIVE STEPS OF THE RISK MANAGEMENT PROCESS



Ref: SH-2 (Extract from FM 100-14), page 2-2 to 2-19

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-6

Step 1, Identify Hazards

Let's take a close look at the first step of risk assessment. Upon receiving a mission and analyzing its tasks, you must identify any actual or potential conditions that could cause injury, illness, or death of personnel, damage to or loss of equipment and property, and mission degradation. Remember that hazards can exist with or without hostile force involvement and are present in all operational environments, including training. You must identify these hazards during the first four steps of the military decision-making process: mission receipt, mission analysis, COA development, and COA analysis. Your abilities to detect hazards are key in the effectiveness of the mission.

Due to the maneuver ability of units and equipment today, you must understand that small hazards can quickly become major hazards and that some old control measures may no longer control hazards in rapidly changing situations. You must use the factors of METT-T (mission, enemy, terrain and weather, troops, and time available) when planning, preparing, and executing operations. When applying risk management to METT-T during mission analysis, leaders and staff should look for hazards that affect both tactical and accident risks. Let's look at each METT-T factor:

- **Mission:** First analyze the mission by type and possible subsequent missions. Look for hazards associated with the plan such as a complex scheme of maneuver and the impact of a fragmentary order (FRAGO).
- **Enemy:** Look for the enemy capabilities that pose significant hazards to the operation. Ask yourself this question, "What can the enemy do to defeat my operation?" Use intelligence, intelligence preparation of the battlefield (IPB), and the key word "SALUTE" to identify hazards associated with the tactical risk.

- **Terrain and Weather:**
 - A. The most obvious hazards to military operations are terrain and weather. You will encounter many types of hazard due to the terrain and weather during military operations. Your enemy will use terrain to his advantage to create a tactical risk for you. The aspects of terrain and weather may create situations where accident risks predominate. It is important that you familiarize your subordinates and yourself with the terrain and environment in your area of operation (AO). Know the length of time your unit will be operating in an environment and climate. Check the AO for tracks and signs of crossings by vehicles or soldiers. Use the five main military aspects of terrain--
 - 1) Observation
 - 2) Field of fire
 - 3) Cover and concealment
 - 4) Obstacles, key and decisive terrain
 - 5) Avenues of approach (OCOKA) to identify and assess the hazards impact on friendly forces.
 - B. Know that weather and terrain works together to create hazards. Identify and assess the impact of weather hazards on your operating systems. Always consider the following before, during, and after your operations--
 - 1) Effects of heat and cold hazards on the performance of soldiers.
 - 2) Effects of climate and weather on maintenance of vehicles and equipment before beginning an operation.
 - 3) Hazardous effects of weather on the five military aspects of terrain.
- **Troops:** Analyze the capabilities of available friendly troops. Know the level of training, manning levels, maintenance condition of vehicles and equipment, morale, availability of supplies and services, and physical and emotional health of the soldiers. Be vigilant to the fact that hazards in these areas can adversely affect a mission. This may even occur when all tactical considerations point to success. Remember that the physical and emotional health of soldiers, task organization or units participating in an operation, and long-term mission can cause mission failure.
- **Time Available:** Give subordinate units enough time to plan, prepare, and execute operations. Insufficient time in these areas will create a hazard for the entire unit or task force. Leaders normally use the one-third/two-thirds rule (as studied in FM 7-10, Chap 2) to give subordinate units maximum time to plan. Remember, time is critical to all elements in mission accomplishment or failure.
- **Civilians:** Commanders are legally responsible for hazards to, and safeguarding of, civilians in their areas of operations. Civilians include anyone not an active member of an armed force put at risk by military operations. Commanders must consider hazards that can occur across the range of operations, such as--
 - 1) In a wartime environment. The commander must consider the hazard of collateral damage which may result in creating new adversaries.
 - 2) In a peacetime environment. The commander must consider the political attitude and previous actions of civilians in identifying hazards to friendly forces and the populace itself.

You may encounter adversaries which are hostile elements other than the enemy, during any operation. These adversaries will present additional hazards and may organize individuals to challenge authority. They may include such diverse elements as rioters, criminals, rogues, or gangs that might want to harass a peace enforcement mission. The Army's missions in Bosnia, Haiti, and Somalia were evidence of this.

This completes step 1 of the five-step risk management process.

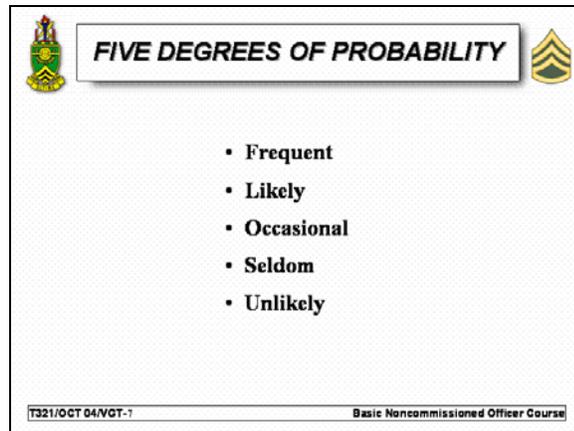
Step 2, Assess Hazards

You must remember that every hazard has a risk associated with it. You have to assess each hazard in terms of probability and severity to determine the risk level. Probability is the likelihood that an event will occur. Leaders and staffs assess each hazard in relation to the probability of hazardous incident.

QUESTION: What are the five degrees of probability?

ANSWER: See VGT-7.

SHOW VGT-7, FIVE DEGREES OF PROBABILITY



Ref: SH-2 (Extract from FM 100-14), page 2-8 and page 2-9

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

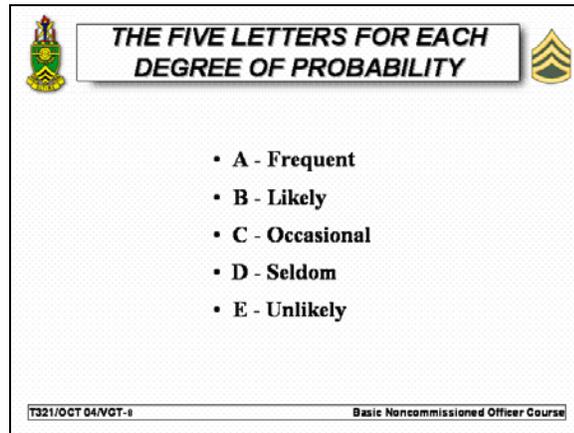
REMOVE VGT-7

You will identify the probability levels for each hazard during the first three steps of the military decision-making process: mission analysis, COA development, and COA analysis.

QUESTION: What are the five letters for each degree of probability?

ANSWER: See VGT-8.

SHOW VGT-8, THE FIVE LETTERS FOR EACH DEGREE OF PROBABILITY



Ref: SH-2 (Extract from FM 100-14), page 2-8 and page 2-9

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-8

Five Degrees of Probability

Let's look at the five degrees of probability.

NOTE: Refer the students to SH-2 (Extract from FM 100-14), page 2-8 and page 2-9. Read and discuss the five degrees of probability in the risk assessment matrix with the students. Explain to the students that the letters in the parentheses represent the degree of probability used in the risk assessment matrix. The information shown in the following is the same as the students will see in the SH-2. Clarify any questions the students may have regarding the five degrees of probability.

FREQUENT (A) Occurs very often, continuously experienced	
Single Item	Occurs very often in service life. Expected to occur several times over duration of a specific mission or operation. Always occurs.
Fleet or inventory of Items	Occurs continuously during a specific mission or operation, or over a service life.
Individual soldier	Occurs very often in career. Expected to occur several times during mission or operation. Always occurs.
All soldiers exposed	Occurs continuously during a specific mission or operation.
LIKELY (B) Occurs several times	
Single Item	Occurs several times in service life. Expected to occur during a specific mission or operation.
Fleet or inventory of Items	Occurs at a high rate, but experienced intermittently (regular intervals, generally often).
Individual soldier	Occurs several times in career. Expected to occur during a specific mission or operation.
All soldiers exposed	Occurs at a high rate, but experienced intermittently.
OCCASIONAL (C) Occurs sporadically	
Single Item	Occurs some in service life. May occur about as often as not during a specific mission or operation.
Fleet or inventory of Items	Occurs several times in service life.
Individual soldier	Occurs some times in career. May occur during a specific mission or operation, but not often.
All soldiers exposed	Occurs sporadically (irregularly, sparsely, or sometimes).

SELDOM (D) Remotely possible; could occur at some time	
Single Item	Occurs some in service life, but only remotely possible. Not expected to occur during a specific mission or operation.
Fleet or inventory of Items	Occurs as isolated incidents. Possible to occur some time in service life, but rarely. Usually does not occur.
Individual soldier	Occurs as isolated incident during a career. Remotely possible, but not expected to occur during a specific mission or operation.
Il soldiers exposed	Occurs rarely within exposed population as isolated incidents.
UNLIKELY (E) Can assume will not occur, but not impossible	
Single Item	Occurrence not impossible, but can assume will almost never occur in service life. Can assume will not occur during a specific mission or operation.
Fleet or inventory of Items	Occurs very rarely (almost never or impossible). Incidents may occur over service life.
Individual soldier	Occurrence not impossible, but may assume will not occur in career or during a specific mission or operation.
All soldiers exposed	Occurs very rarely, but not impossible.

BREAK TIME: 00:50 to 01:00

TIME: 01:00 to 01:10 (continue learning step/activity 1, ELO B)

Now let's look at the degrees of hazard severity.

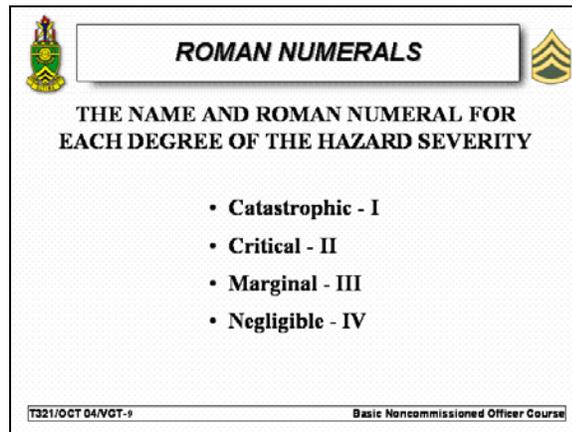
Hazard Severity

You will identify the severity level for each hazard during the first three steps of the military decision-making process: mission analysis, COA development, and COA analysis.

QUESTION: What is the name and Roman numeral for each degree of the hazard severity?

ANSWER: See VGT-9.

SHOW VGT-9, THE NAME AND ROMAN NUMERAL FOR EACH DEGREE OF THE HAZARD SEVERITY



Ref: SH-2 (Extract from FM 100-14), page 2-10

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

Let's look at the definition of each degree of hazard severity.

NOTE: Read and discuss each degree of hazard severity with the students.

Catastrophic (I): Catastrophic hazard could cause--

- Loss of ability to accomplish the mission or a mission failure.
- Death or permanent total disability (accident risk).
- Loss of major or mission-critical system or equipment.
- Major property (facility) damage.
- Severe environmental damage.
- Mission – critical security failure.
- Unacceptable collateral damage.

Critical (II): Critical hazard could cause—

- Significantly (severely) degraded mission capability or unit readiness.
- Permanent partial disability, temporary total disability exceeding 3 months time (accident risk).
- Extensive (major) damage to equipment or systems.
- Significant damage to property or the environment.
- Security failure.
- Significant collateral damage.

Marginal (III): Marginal hazard could cause—

- Degraded mission capability or unit readiness.
- Minor damage to equipment.
- Minor damage to equipment or systems, property, or the environment.
- Lost day due to injury or illness not exceeding 3 months (accident risk).
- Minor damage to property or the environment.

Negligible (IV): Negligible hazard could cause—

- Little or no adverse impact on mission capability.
- First aid or minor medical treatment (accident risk)
- Slight equipment or system damage, but fully functional and serviceable.
- Little or no property or environmental damage.

REMOVE VGT-9

Risk Assessment Matrix

NOTE: Refer the students to SH-2 (Extract from FM 100-14), page 2-11 thru 2-13, and tell them to use this matrix during this part of the discussion. The risk assessment matrix on the following page is for your reference.

So far we have reviewed the frequency of probability and hazard severity. Now let's discuss the risk assessment matrix which puts it all together.

You must estimate the levels of risk for each hazard and overall risk for the operation. Your estimate will require the use of historical lessons learned, intuitive analysis, experience, and good judgment. The risk assessment matrix is a useful tool in determining the level of risk associated with a particular hazard by weighing the hazard's probability of occurrence against the hazard severity.

Once you establish the degree of severity and probability of the hazardous incidents from the severity row and probability column, enter this information into a risk assessment matrix. The point where the severity row and probability column intersect defines the level of risk. For example, you estimate a hazard to have a critical severity (II) and likely probability (B), the level of risk is high (H).

Risk Assessment Matrix						
Probability						
Severity		Frequent A	Likely B	Occasional C	Seldom D	Unlikely E
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Marginal	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L
<p>E – Extremely High Risk H – High Risk M – Moderate Risk L – Low Risk</p>						
E – Extremely High	Loss of ability to accomplish the mission if hazards occur during mission. A <i>frequent</i> or likely probability or catastrophic loss (IA or IB) or <i>frequent</i> probability of <i>critical</i> loss (IIA) exists.					
H – High Risk	Significant degradation of mission capabilities in term of the required mission standard, inability to accomplish all parts of the mission, or inability to complete the mission to standard if hazards occur during the mission. <i>Occasional</i> to <i>seldom</i> probability of catastrophic loss (IC or ID) exists. A <i>likely</i> to <i>occasional</i> probability exists of a critical loss (IIB or IIC) occurring. <i>Frequent</i> probability of <i>marginal</i> losses (IIIA) exists.					
M – Moderate Risk	Expected degraded mission capabilities in term of the required mission standard will have a reduced mission capability if hazards occur during mission. An <i>unlikely</i> probability of catastrophic loss (IE) exists. The probability of a <i>critical</i> loss is <i>seldom</i> (IID). <i>Marginal</i> losses occur with a <i>likely</i> or <i>occasional</i> probability (IIIB or IIIC). A <i>frequent</i> probability of negligible (IVA) losses exists.					
L – Low Risk	Expected losses have little or no impact on accomplishing the mission. The probability of <i>critical</i> loss is <i>unlikely</i> (IIE), while that of <i>marginal</i> loss is <i>seldom</i> (IIID) or <i>unlikely</i> (IIIE). The probability of a <i>negligible</i> loss is <i>likely</i> or <i>less</i> (IVB) through (IVE).					

Step 3, Develop Controls and Make Risk Decisions

This completes the risk assessment. Let's look at the next step to the risk management process. You must assess each hazard and develop one or more controls to either eliminate the hazard or reduce the risk. Develop your controls into three basic categories: educational controls, physical controls, and avoidance. These controls must meet three criteria: suitability, feasibility, and acceptability. After development and acceptance of controls, you must determine the residual risk in each hazard and the overall residual risk for the mission.

Step 4, Implement Controls

Let's look at the fourth step to the risk management process. You should integrate the controls into the unit's SOPS, all orders, mission briefings, and staff estimates. Make sure these controls are clear, simple, executable orders understood at the lowest level.

Step 5, Supervise and Evaluate

The next step in the risk management process is supervise and evaluate (step 5). You--

- Must enforce standards and control measures during mission rehearsal and execution.
- Must identify any shortcoming and modify the controls to keep risk at an acceptable level.
- Should conduct an AAR to evaluate the execution of the risk management process.

For ineffective controls, determine why and what to do the next time the hazard appears as a risk.

Remember, the intent of the risk management process is to provide reasonable controls to support mission accomplishment without exposing the force to unnecessary residual risk.

CHECK ON LEARNING:

QUESTION: What are the two types of risk?

ANSWER: 1. Tactical.
2. Accident.

QUESTION: What are the five steps of the risk management?

ANSWER: 1. Identify hazards.
2. Assess hazards to determine risks.
3. Develop controls and make risk decisions.
4. Implement controls.
5. Supervise and evaluate.

C. ENABLING LEARNING OBJECTIVE

ACTION:	State the responsibilities and considerations necessary to effectively integrate and assess risk management within a unit.
CONDITIONS:	As a squad leader in a classroom environment and with FM 100-14.
STANDARDS:	Stated the risk management responsibilities and considerations procedures correctly IAW FM 100-14.

1. Learning Step / Activity 1. State the responsibilities and considerations necessary to effectively integrate and assess risk management within a unit.

Method of Instruction: Conference / Discussion
 Technique of Delivery: Small Group Instruction (SGI)
 Instructor to Student Ratio: 1:16
 Time of Instruction: 20 min
 Media: VGT-10 thru VGT-15, PE-1

Risk management begins at the highest level of the chain of command. As leaders, you must understand that all missions will have some degree of errors, flaws, or less than perfect performance. Leaders with an attitude of zero defects will create timid subordinates. You must accept that things may go wrong; even knowing your subordinates did all within their power to prevent it. When this happens, you have to accept the responsibility for your actions along with the responsibilities of your subordinates. Commanders must establish a command climate favorable for risk management integration.

QUESTION: How does a commander establish a command climate for risk management integration into his unit?

ANSWER: See VGT-10 thru 12.

SHOW VGT-10, COMMANDERS' COMMAND CLIMATE

	COMMANDER'S COMMAND CLIMATE	
<p>Commanders establish a command climate favorable for risk management integration by--</p> <ul style="list-style-type: none"> • Demonstrating consistent and sustained risk management behavior through leading by example-- <ol style="list-style-type: none"> 1) Habitually doing risk management. 2) Actively participating throughout the risk management process. • Providing clear guidance, when appropriate, on where or what risk to accept. • Obtaining and providing to subordinates the necessary assets to control risk. 		
<p>T321/OCT 04/VGT-10 Basic Noncommissioned Officer Course</p>		

Ref: SH-2 (Extract from FM 100-14), page 3-2 and page 3-3

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-10**SHOW VGT-11, COMMANDERS' COMMAND CLIMATE (CON'T)**

	COMMANDER'S COMMAND CLIMATE (CON'T)	
<ul style="list-style-type: none"> • Knowing their own limitations, their leaders' and soldiers' limitations, and their units' capabilities. • Preventing a zero-defects mindset from creeping into their command's culture. • Allowing subordinates to make mistakes and learn from them. 		
<p>T321/OCT 04/VGT-11 Basic Noncommissioned Officer Course</p>		

Ref: SH-2 (Extract from FM 100-14), page 3-3

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-11

SHOW VGT-12, COMMANDERS' COMMAND CLIMATE (CON'T)

COMMANDER'S COMMAND CLIMATE (CON'T)

- **Demonstrating full confidence in subordinates' mastery of their trade and their ability to execute a chosen COA.**
- **Keeping subordinates informed; consulting with subordinate leaders before making a decision, if feasible.**
- **Listening to subordinates.**

T321/OCT 04/VGT-12 Basic Noncommissioned Officer Course

Ref: SH-2 (Extract from FM 100-14), page 3-3

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-12

Commanders will face situations where an increase in risk may affect their unit's ability to comply with the intent of their higher commander. Commanders are responsible and accountable for their own actions and those of their subordinates. Commanders will use the risk management process to control risk with the intent to eliminate unnecessary risk.

Leaders and commanders have many similar risk management tasks.

QUESTION: What are some risk management responsibilities for leaders' in a unit?

ANSWER: See VGT-13 and 14.

SHOW VGT-13, LEADERS

LEADERS

Leaders' specific responsibilities in managing risk include--

- **Establishing clear, feasible risk management policies and goals.**
- **Conducting detailed planning within time constraints.**
- **Making informed risk decision and establishing and clearly communicating risk guidance.**
- **Training the risk management process.**
- **Capturing and disseminating lessons learned.**
- **Assessing unit's risk management program.**

T321/OCT 04/VGT-13 Basic Noncommissioned Officer Course

Ref: SH-2 (Extract from FM 100-14), page 3-5

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-13

SHOW VGT-14, LEADERS (CON'T)



LEADERS (CON'T)



- Examining how subordinates manage risk and how soldiers protect themselves.
- Supervising and evaluating the unit's execution of risk controls during the mission to correct areas needing improvement.
- Advising his chain of command on risks and risk-reduction measures.
- Providing subordinates with feedback on their performance and ways to improve.

T321/OCT 04/VGT-14
Basic Noncommissioned Officer Course

Ref: SH-2 (Extract from FM 100-14), page 3-5

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-14

Leaders with the responsibility, authority, and accountability for risk management decisions can identify and act on hazards within their area of expertise and in areas outside their immediate responsibility.

Young soldiers are more susceptible to accidents because of their level of expertise, lack of maturity, and lack of ability to make good individual judgment calls. Realistic technical and tactical training will help them to understand and apply the risk management process.

Individuals must learn to execute the hazard controls and risk reduction measures issued in all operation orders. Remember, some soldiers and individuals will disregard established standards and create their own. This is due to inexperience or complacency. Individuals must look out for others—anyone has the authority to halt something that is inherently unsafe.

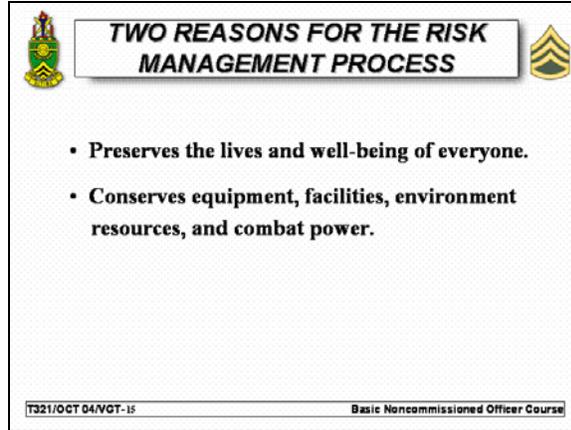
Individuals can use the risk management process to reduce risks in any situation. They can use this process any time in performing an individual or collective mission or task.

Risk management belongs in all planning processes, hasty or deliberate. Risk management is most beneficial when incorporated into training and operational planning cycles.

QUESTION: What are two reasons for integrating the risk management process into training and operations?

ANSWER: See VGT-15.

SHOW VGT-15, TWO REASONS FOR THE RISK MANAGEMENT PROCESS



Ref: SH-2 (Extract from FM 100-14), page 3-8

NOTE: Call upon a student to answer the question before giving the answer to the class and clarify any questions from the students.

REMOVE VGT-15

Leaders must integrate the risk management process up front in all operations, and not as an afterthought. The risk management process exists in all system acquisition processes, the training management process, and the collective/individual decision-making process. Risk management integrated into these processes gives leaders the ability to make informed decisions that result in mission success and the preservation of combat power.

QUESTION: Why must leaders continue to assess during the time of sustained operations when integrating risk management?

ANSWER:

- The complexity of mission development and associated changing interrelationships with other agencies.
- The inclusion of civilian contractors, for Logistics Civil Augmentation Program (LOGCAP), as part of the force.
- The presence of the media, Nongovernmental Organizations (NGO), and Private Voluntary Organizations (PVO).

Ref: SH-2 (Extract from FM 100-14), page 3-9

Leaders have two key considerations relevant to managing risk in a complex operational environment. The first consideration is understanding the culture of the indigenous population or society and its way of doing business. Leaders should respect the population's way of life and not interfere with local customs. Such interference could risk damaging relationships and increase the potential for introducing instability into the local society. Leaders must not, however, intentionally allow these considerations to endanger their force or its mission. The second consideration is the dynamics of managing risk and the way the leader and his subordinates manage risk. Leaders manage risk by--

- Having the right combination of well-trained, disciplined, well-armed, and well-equipped forces.
- Issuing clear guidance to minimize risk.
- Determining and implementing risk controls for carrying out the mission.
- Maintaining situational awareness, especially of vulnerabilities.
- Avoiding unnecessary accident risk.

Risk management is most beneficial when incorporated into the training and operational planning cycles. The plans then act as risk management tools and provide for--

- Development of policy, goals, objectives, and priorities in the commander's quarterly training guidance.
- The commander's training assessment, by identifying hazards and risk controls.
- Systematic observation and assessment of the unit's risk management performance and feedback into the training management cycle and SOPs.

You will attain the necessary skills, knowledge, and attitude to manage risks in all operations through effective training. This training will prepare you to accomplish any mission without unnecessary risk.

Leaders--

- Assess their unit's risk management process to determine its current status and how effective the program is.
- Use their assessment, lessons learned, and subordinates' feedback to improve their risk management program. The assessment objectives are to determine how effective risk management is in planning and preparing for operations.
- Assess the effectiveness of their units by reviewing how well units identify hazards and how well risk controls are specified in oral and written OPORDs, OPLANs, and SOPs.
- Communicate to lowest level of chain of command.
- Participated in short-, near-, long-term training plans.
- Participated in after-action reviews to focus on lessons learned.
- Focus their risk management program on risk reduction and risk behavior only.

2. Learning Step / Activity 2. PE-1 The Risk Management Process

Method of Instruction: Practical Exercise (Performance)
 Technique of Delivery: Small Group Instruction (SGI)
 Instructor to Student Ratio: 1:16
 Time of Instruction: 15 mins
 Media: PE-1 and SPE-1

NOTE: The remainder of this lesson consists of a practical exercise. The exercise requires the students to perform actions similar to those they will perform in their positions. You should divide the class into mini-groups of three to four students each. This will facilitate information transfer between students and enable them to make the best use of the limited time available. The practical exercise permits the students to examine the risk management process in more detail. Issue one copy of the PE to each student. Instruct the students that, working as a mini-group, they will have 10 minutes to complete the requirement. Once time is up, issue the students the SPE and briefly discuss the solution for 5 minutes.

CHECK ON LEARNING:

QUESTION: How does a commander establish a command climate for risk management integration into his unit?

ANSWER: Commanders established a command climate favorable for risk management integration by--

1. Demonstrating consistent and sustained risk management behavior through leading by example--
 - a. Habitually doing risk management.
 - b. Actively participating throughout the risk management process.
2. Providing clear guidance, when appropriate, on where or what risk to accept.
3. Obtaining and providing to subordinates the necessary assets to control risk.
4. Knowing their own limitations, their leaders' and soldiers' limitations, and their units' capabilities.
5. Preventing a zero-defects mindset from creeping into their command's culture.
6. Allowing subordinates to make mistakes and learn from them.
7. Demonstrating full confidence in subordinates' mastery of their trade and their ability to execute a chosen course of action (COA).
8. Keeping subordinates informed; consulting with subordinate leaders before making a decision, if feasible.
9. Listening to subordinates.

QUESTION: What are two reasons for integrating the risk management process into training and operations?

ANSWER:

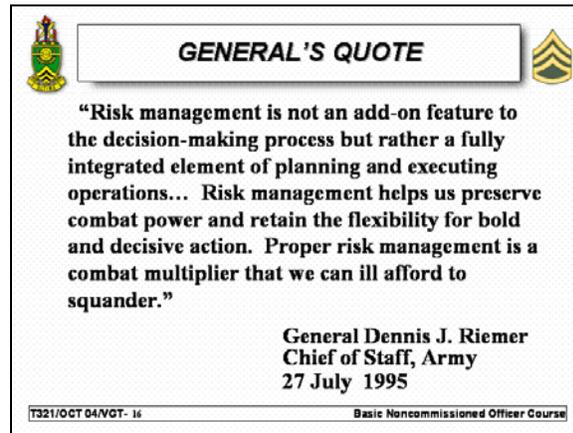
1. Preserves the lives and well-being of everyone.
2. Conserves equipment, facilities, environment resources, and combat power.

SECTION IV. SUMMARY

Method of Instruction: Conference / Discussion
 Technique of Delivery: Small Group Instruction (SGI)
 Instructor to Student Ratio is: 1:16
 Time of Instruction: 5 min
 Media: VGT-16

Check on Learning

Practical Exercise 1 serves as the check on learning for this lesson.

Review / Summarize Lesson**SHOW VGT-16, GENERAL'S QUOTE**

This lesson discussed the risk management process, its basic principles for implementation, the five-step process, and responsibilities and considerations necessary to effectively integrate and assess risk management within the Army. You learned that the objective of risk management is not to remove all risk, but to eliminate unnecessary risk. You learned that tough, realistic training and command involvement will eliminate unnecessary risk.

REMOVE VGT-16

SECTION V. STUDENT EVALUATION

**Testing
Requirements**

NOTE: Describe how the student must demonstrate accomplishment of the TLO. Refer student to the Student Evaluation Plan.

At the end of this course of instruction, you will take a 50-question written examination. The examination will include questions on the ELOs and TLO from this lesson. You must correctly answer at least 35 questions to receive a passing score (70 percent). This is a graduation requirement.

**Feedback
Requirements**

NOTE: Feedback is essential to effective learning. Schedule and provide feedback on the evaluation and any information to help answer students' questions about the test. Provide remedial training as needed.

None

VIEWGRAPHS FOR LESSON 1: T321 version 1

Enabling Learning Objective A

Learning Step 1

VGT-1, THE DEFINITION OF RISK MANAGEMENT



***THE DEFINITION OF RISK
MANAGEMENT***

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

T321/OCT 04/VGT-1 **Basic Noncommissioned Officer Course**

VGT-2, KEY FACTORS IN ACCIDENTAL LOSSES



KEY FACTORS IN ACCIDENTAL LOSSES



- **An ever-changing operational environment.**
- **Effects of a fast-paced, high-operational tempo (OPTEMPO) and a high-personnel tempo (PERSTEMPO) on unit and human performance. Examples include leader or soldier error or failure to train or perform to standards.**
- **Equipment failure, support failure, and the effects of the physical environment.**

VGT-3, BASIC PRINCIPLES IN RISK MANAGEMENT

***BASIC PRINCIPLES IN RISK
MANAGEMENT***

- **Integrate risk management into mission planning, preparation, and execution.**
- **Make risk decisions at appropriate level in chain of command.**
- **Accept no unnecessary risk.**

T321/OCT 04/VGT-3

Basic Noncommissioned Officer Course

VGT-4, KEY ASPECTS OF RISK MANAGEMENT



KEY ASPECTS OF RISK MANAGEMENT



- **Conserving lives and resources and avoiding unnecessary risk.**
- **Making an informed decision to implement a course of action (COA).**
- **Identifying feasible and effective control measures where specific standards do not exist.**
- **Providing reasonable alternatives for mission accomplishment.**

Enabling Learning Objective B

Learning Step 1

VGT-5, TWO TYPES OF RISK

The slide features a white background with a light gray dot pattern. At the top left is the crest of the United States Coast Guard, and at the top right is a gold sergeant's rank insignia. The title ***TWO TYPES OF RISK*** is centered in a white box with a black border. Below the title, the following list is centered:

- 1. Tactical Risk**
- 2. Accident Risk**

At the bottom left, a small box contains the text **T321/OCT 04/VGT-5**. At the bottom right, another small box contains the text **Basic Noncommissioned Officer Course**.

VGT-6, FIVE STEPS OF THE RISK MANAGEMENT PROCESS

***FIVE STEPS OF THE RISK
MANAGEMENT PROCESS***

- Step 1. Identify hazards.**
- Step 2. Assess hazards to determine risks.**
- Step 3. Develop controls and make risk decisions.**
- Step 4. Implement controls.**
- Step 5. Supervise and evaluate.**

VGT-7, FIVE DEGREES OF PROBABILITY

***FIVE DEGREES OF PROBABILITY***

- **Frequent**
- **Likely**
- **Occasional**
- **Seldom**
- **Unlikely**

VGT-8, THE FIVE LETTERS FOR EACH DEGREE OF PROBABILITY

**THE FIVE LETTERS FOR EACH
DEGREE OF PROBABILITY**

- **A - Frequent**
- **B - Likely**
- **C - Occasional**
- **D - Seldom**
- **E - Unlikely**

VGT-9, ROMAN NUMERALS

**ROMAN NUMERALS****THE NAME AND ROMAN NUMERAL FOR
EACH DEGREE OF THE HAZARD SEVERITY**

- **Catastrophic - I**
- **Critical - II**
- **Marginal - III**
- **Negligible - IV**

Enabling Learning Objective C

Learning Step 1

VGT-10, COMMANDER'S COMMAND CLIMATE



COMMANDER'S COMMAND CLIMATE



Commanders establish a command climate favorable for risk management integration by--

- **Demonstrating consistent and sustained risk management behavior through leading by example--**
 - 1) **Habitually doing risk management.**
 - 2) **Actively participating throughout the risk management process.**
- **Providing clear guidance, when appropriate, on where or what risk to accept.**
- **Obtaining and providing to subordinates the necessary assets to control risk.**

T321/OCT 04/VGT-10

Basic Noncommissioned Officer Course

VGT-11, COMMANDER'S COMMAND CLIMATE (CON'T)

**COMMANDER'S COMMAND
CLIMATE (CON'T)**

- **Knowing their own limitations, their leaders' and soldiers' limitations, and their units' capabilities.**
- **Preventing a zero-defects mindset from creeping into their command's culture.**
- **Allowing subordinates to make mistakes and learn from them.**

VGT-12, COMMANDER'S COMMAND CLIMATE (CON'T)

**COMMANDER'S COMMAND
CLIMATE (CON'T)**

- **Demonstrating full confidence in subordinates' mastery of their trade and their ability to execute a chosen COA.**
- **Keeping subordinates informed; consulting with subordinate leaders before making a decision, if feasible.**
- **Listening to subordinates.**

VGT-13, LEADERS



LEADERS



Leaders' specific responsibilities in managing risk include--

- **Establishing clear, feasible risk management policies and goals.**
- **Conducting detailed planning within time constraints.**
- **Making informed risk decision and establishing and clearly communicating risk guidance.**
- **Training the risk management process.**
- **Capturing and disseminating lessons learned.**
- **Assessing unit's risk management program.**

VGT-14, LEADERS (CON'T)

***LEADERS (CON'T)***

- **Examining how subordinates manage risk and how soldiers protect themselves.**
- **Supervising and evaluating the unit's execution of risk controls during the mission to correct areas needing improvement.**
- **Advising his chain of command on risks and risk-reduction measures.**
- **Providing subordinates with feedback on their performance and ways to improve.**

VGT-15, TWO REASONS FOR THE RISK MANAGEMENT PROCESS

***TWO REASONS FOR THE RISK
MANAGEMENT PROCESS***

- **Preserves the lives and well-being of everyone.**
- **Conserves equipment, facilities, environment resources, and combat power.**

VGT-16, GENERAL'S QUOTE

**GENERAL'S QUOTE**

“Risk management is not an add-on feature to the decision-making process but rather a fully integrated element of planning and executing operations... Risk management helps us preserve combat power and retain the flexibility for bold and decisive action. Proper risk management is a combat multiplier that we can ill afford to squander.”

**General Dennis J. Riemer
Chief of Staff, Army
27 July 1995**

Appendix B Test(s) and Test Solution(s) (N/A)

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PRACTICAL EXERCISE SHEET T321

Title	THE RISK MANAGEMENT PROCESS						
Lesson Number/Title	T321 version 1 / THE RISK MANAGEMENT PROCESS						
Introduction	This practical exercise requires you to apply the risk management process to a 10-mile cross-country forced march (dismounted). You must complete a risk management worksheet for this scenario IAW FM 100-14.						
Motivator	Each year many soldiers receive injuries or die from someone overlooking the obvious and not so obvious risks associated with taskings. This practical exercise illustrates the number and diversity of hazards identified in performing a task.						
Terminal Learning Objective	<p>NOTE: The instructor should inform the students of the following Terminal Learning Objective covered by this practical exercise.</p> <p>At the completion of this lesson, you [the student] will--</p> <table border="1"> <tr> <td>Action:</td> <td>Apply the risk management process to a task.</td> </tr> <tr> <td>Conditions:</td> <td>Given a classroom environment and FM 100-14.</td> </tr> <tr> <td>Standards:</td> <td>Applied the risk management process to a task IAW FM 100-14.</td> </tr> </table>	Action:	Apply the risk management process to a task.	Conditions:	Given a classroom environment and FM 100-14.	Standards:	Applied the risk management process to a task IAW FM 100-14.
Action:	Apply the risk management process to a task.						
Conditions:	Given a classroom environment and FM 100-14.						
Standards:	Applied the risk management process to a task IAW FM 100-14.						
Safety Requirements	None						
Risk Assessment Level	Low						
Environmental Considerations	None						
Evaluation	You have 10 minutes to complete the PE. At the end of the PE, you will receive a solution sheet and briefly discuss the solution. Your overall participation and solution to this practical exercise will determine your understanding of the material presented and discussed during the class.						
Instructional Lead-In	None						

Resource Requirements**Instructor Materials:**

- FM 100-14, Risk Management, T321, The Risk Management Process, and VGTs (16).

Student Materials:

- Student Handout-2.
- Pencil.
- Risk Management Worksheet.

Special Instructions

None

Procedures

1. You are a squad leader in the 1st Platoon; Company A, 3-33, 3d Armored Division. Your squad will participate in a 10-mile cross-country road march, dismounted, as observers, during the morning hours, in the outskirts of Basrah, Iraq. The S2 verified that the weather conditions will be hot with temperatures near the 100's. All soldiers will carry their M16A2 rifles (with live ammunition), a 30-pound rucksack, and cross some areas that are considered contaminated in MOPP 4 gear.
2. Proposed major events during the road march are as follows:
 - Assemble at the company area (0600).
 - Main concerns during the Road March are Improvised Explosive Devices (IED) and ambushes.
 - Start point will be from the parking area of the motor pool.
 - Checkpoint Alpha requires a stream crossing (water is about waist deep).
 - Checkpoint Bravo requires a road crossing (four lane highway)
 - Checkpoint Charlie is going through a village.
 - Return through Checkpoint Alpha.
 - The release point (RP) is the motor pool.
 - March to the company location.
 - Troop formation, AAR, and dismissal.
3. Using the risk management worksheet, conduct a risk management assessment on each event.

RISK MANAGEMENT WORKSHEET

A. Mission or Task:		B. Date/Time Group Begin: End:		C. Date Prepared:	
C. Prepared By: (Rank, Last Name, Duty Position)					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Control	I. Determine Residual Risk	J. Implement Control ("How To")
K. Determine overall mission/task risk level after controls are implemented (circle one)					
LOW (L) MODERATE (M) HIGH (H) EXTREMELY HIGH (E)					

Feedback Requirements

None

**SOLUTION FOR
PRACTICAL EXERCISE T321**

RISK MANAGEMENT WORKSHEET

A. Mission or Task: Cross Country Road March (Dismounted)	B. Date/Time Group Begin: 010600JULXX End: 010900JULXX	C. Date Prepared:
--	---	--------------------------

C. Prepared By: (Rank, Last Name, Duty Position)

SGT Smith, Squad Leader

E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Control	I. Determine Residual Risk	J. Implement Control ("How To")
Identify activity while navigating from one point on the ground to another point (dismounted)	Inexperienced soldiers	High (H)	Additional instruction and increased supervision	Moderate (M)	Modified training schedule, additional instruction
	Seasonal Risk (Hot weather injuries)	Moderate (M)	Hot weather clothing and equipment; Soldier/ leader awareness training	Low (L)	Severe weather alert/action plan
	Improvised Explosive Device (IED)	Extremely High (E)	Additional instruction and increased supervision.	High (H)	Stress to soldiers to stay alert.
	Ambushes	Extremely High (E)	Additional instruction and increased supervision.	High (H)	Stress to soldiers to stay alert
	Water crossing (Drowning-Fall Into Stream)	Extremely High (E)	Additional instruction and increased supervision.	High (H)	Modified training schedule, additional instruction.
	Road Crossing (Vehicle Danger)	Extremely High (E)	Additional instruction and increased supervision.	High (H)	Modified training schedule, additional instruction.
	Walking Risk (Fractures, Strains, Blisters, Scratches)	Extremely High (E)	Additional instruction and increased supervision.	High (H)	Modified training schedule, additional instruction.

K. Determine overall mission/task risk level after controls are implemented (circle one)

LOW (L) MODERATE (M) HIGH (H) EXTREMELY HIGH (E)

HANDOUTS FOR LESSON 1: T321 version 1

**This Appendix
Contains**

This appendix contains the items listed in this table---

Title/Synopsis	Pages
SH-1, Advance Sheet	SH-1-1 thru SH-1-2
SH-2, Extract from FM 100-14	SH-2-1 thru Appendix-17

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Student Handout 1

This student handout contains Advance Sheet.

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Student Handout 1

Advance Sheet
Lesson Hours

This lesson consists of two hours of small group instruction.

Overview

The intent of this lesson is to teach you the risk management process at the section/squad level. The lesson defines the risk management process, its basic principles for implementation, and considerations necessary to effectively integrate and assess risk management within the Army.

This lesson consists of a before class reading assignment and 2 hours of small group instruction/discussion. You will apply your knowledge of the risk management process during the FTX at the end of this course.

Learning Objective

Terminal Learning Objective (TLO)

Action:	Apply the Risk Management Process to a task.
Conditions:	Given a classroom environment and FM 100-14.
Standards:	Applied the risk management process to a task IAW FM 100-14.

ELO A: Define the risk management process.

ELO B: Explain the five steps of the risk management process.

ELO C: State the responsibilities and considerations necessary to effectively integrate and assess risk management within a unit.

Assignment

The student assignments for this lesson are:

- Read Student Handout-1.
- Read Student Handout-2 (Extract from FM 100-14, Risk Management, Chapter 1 thru Chapter 3).
- Skim thru Student Handout-2 (Extract from FM 100-14, Risk Management, Appendix-1 thru Appendix-17).

Additional Subject Area Resources

None

Bring to Class

- Student Handouts 1 and 2.
- Pencils or pens.
- Writing paper

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Student Handout 2

Extracted Material from FM 100-14

This student handout contains 57 pages of extracted material from the following publication:

FM 100-14, Risk Management, 23 April 1998

Chapter 1	pages 1-1 thru 1-7
Chapter 2	pages 2-1 thru 2-21
Chapter 3	pages 3-1 thru 3-10
Appendix	pages Appendix-1 thru Appendix-17

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Chapter 1

Risk Management Fundamentals

Sizing up opponents to determine victory, assessing dangers and distances is the proper course of action for military leaders.

Sun Tzu, The Art of War, "Terrain"

Risk management is the process of identifying, assessing, and controlling risks arising from operational factors and making decisions that balance risk costs with mission benefits. Leaders and soldiers at all levels use risk management. It applies to all missions and environments across the wide range of Army operations. Risk management is fundamental in developing confident and competent leaders and units. Proficiency in applying risk management is critical to conserving combat power and resources. Commanders must firmly ground current and future leaders in the critical skills of the five-step risk management process.

Risk is characterized by both the probability and severity of a potential loss that may result from hazards due to the presence of an enemy, an adversary, or some other hazardous condition. Perception of risk varies from person to person. What is risky or dangerous to one person may not be to another. Perception influences leaders' decisions. A publicized event such as a training accident or a relatively minor incident may increase the public's perception of risk for that particular event and time—sometimes to the point of making such risks unacceptable. Failure to effectively manage the risk may make an operation too costly—politically, economically, and in terms of combat power (soldiers lives and equipment). This chapter presents the background, principles, applicability, and constraints relating to the risk management process.

BACKGROUND

Throughout the history of armed conflict, government and military leaders have tried to reckon with the effect of casualties on policy, strategy, and mission accomplishment. Government and military leaders consider battle losses from different perspectives. However, both must balance the following against the value of national objectives:

- Effects of casualties.
- Impact on civilians.
- Damage to the environment.
- Loss of equipment.
- Level of public reaction.

War is inherently complex, dynamic, and fluid. It is characterized by uncertainty, ambiguity, and friction. *Uncertainty* results from unknowns or lack of information. *Ambiguity* is the blurring or fog that makes it difficult to distinguish fact from impression about a situation and the enemy. *Friction* results from change, operational hazards, fatigue, and fears brought on by danger. These characteristics cloud the operating environment; they create risks that affect an army’s ability to fight and win. In uncertainty, ambiguity, and friction, both danger and opportunity exist. Hence, a leader’s ability to adapt and take risks are key traits. Chapter 2 of FM 100-5 provides information on the challenging circumstances of military operations during conflict.

Historically, the Army has had more accidental losses, including fratricide (friendly fire), than losses from enemy action. See Figure 1-1. These accidental losses are the same types experienced in peacetime

Army	World War II 1942–1945	Korea 1950–1953	Vietnam 1965–1972	Desert Shield/ Storm ¹ 1990–1991
Accidents	56%	44%	54%	75%
Friendly Fire	1%	1%	1%	5%
Enemy Action	43%	55%	45%	20%

¹These numbers include the relatively long buildup time and short period of combat action

Figure 1-1. Battle and Nonbattle Casualties

during training exercises. These losses are not caused by the enemy or an adversary. Factors include—

- An ever-changing operational environment.
- Effects of a fast-paced, high-operational tempo (OPTEMPO) and a high-personnel tempo (PERSTEMPO) on unit and human performance. Examples include leader or soldier error or failure to train or perform to standards.
- Equipment failure, support failure, and the effects of the physical environment.

PRINCIPLES

The basic principles that provide a framework for implementing the risk management process are—

- *Integrating risk management into mission planning, preparation, and execution.* Leaders and staffs continuously identify hazards and assess both accident and tactical risks. They then develop and coordinate control measures. They determine the level of residual risk for accident hazards in order to evaluate courses of action (COAs). They integrate control measures into staff estimates, operation plans (OPLANs), operation orders (OPORDs), and missions. Commanders assess the areas in which they might take tactical risks. They approve control measures that will reduce risks. Leaders ensure that all soldiers understand and properly execute risk controls. They continuously assess variable hazards and implement risk controls.
- *Making risk decisions at the appropriate level in the chain of command.* The commander should address risk guidance in his commander's guidance. He bases his risk guidance on established Army and other appropriate policies and on his higher commander's direction. He then gives guidance on how much risk he is willing to accept and delegate. Subordinates seek the higher commander's approval to accept risks that might imperil the next higher commander's intent.
- *Accepting no unnecessary risk.* Commanders compare and balance risks against mission expectations and accept risks only if the benefits outweigh the potential costs or losses. Commanders alone decide whether to accept the level of residual risk to accomplish the mission.

APPLICABILITY

Risk management applies to all situations and environments across the wide range of Army operations, activities, and processes. Risk management is useful in developing, fielding, and employing the total Army force. Figure 1-2 summarizes the key aspects of risk management.

DEVELOPMENT

Development concerns include force design, manpower allocation, training and training developments, and combat and materiel developments (equipment and weapons systems) and battle laboratories.

Risk management assists the commander or leader in—

- Conserving lives and resources and avoiding unnecessary risk.
- Making an informed decision to implement a COA.
- Identifying feasible and effective control measures where specific standards do not exist.
- Providing reasonable alternatives for mission accomplishment.

Risk management does not—

- Inhibit the commander's and leader's flexibility and initiative.
- Remove risk altogether, or support a zero defects mindset.
- Require a GO/NO-GO decision.
- Sanction or justify violating the law.
- Remove the necessity for standard drills, tactics, techniques, and procedures.

Figure 1-2. Key Aspects of Risk Management

Force Design

Concerns include risks introduced in trade-off decisions that involve the design and equipping of—

- Tables of organization and equipment (TOE).
- Modification tables of organization and equipment (MTOE).
- Tables of distribution and allowances (TDA) organizations.

Manpower Allocations

Concerns include shortfalls in manning that put unit readiness and full use of combat system capabilities at risk.

Training and Training Developments

Concerns include hazardous and critical training tasks and feasible risk reduction measures that provide leaders with the flexibility to safely conduct tough, realistic training.

Combat and Materiel Developments and Battle Laboratories

Concerns include providing a means to assist in making informed trade-off decisions such as—

- Balancing equipment form, fit, and function.
- Balancing the durability and cost of equipment and spare parts against their reliability, availability, and maintainability requirements.
- Determining the environmental impact.
- Determining whether to accept systems with less than the full capabilities prescribed in requirement documents and experimental procedures.

ARs 70-1 and 385-16 and MIL-STD-882 provide details on risk management application in the Army materiel acquisition process.

FIELDING

Fielding concerns include personnel assignments, sustainment and logistics, training, and base operations.

Personnel Assignments

Concerns include making informed decisions in assigning replacement personnel. For example, a risk is associated with assigning a multiple launch rocket system crewmember as a replacement for a tube artillery cannon crewmember.

Sustainment and Logistics

Concerns include enhancing one's ability to determine support requirements, the order in which they should be received, and the potential impact of logistics decisions on operations.

Training

Concerns include helping leaders determine the—

- Balance between training realism and unnecessary risks in training.
- Impact of training operations on the environment.
- Level of proficiency and experience of soldiers and leaders.

Base Operations

Concerns include prioritizing the execution of base operations functions to get the most benefit from available resources. Examples include allocating resources for pollution prevention, correcting safety and health hazards, and correcting violations of environmental protection regulations. FM 20-400 provides specific guidance on environmental protection in military operations.

EMPLOYMENT

Employment concerns include force protection and deployment, operations, and redeployment.

Force Protection

Concerns include developing a plan that identifies threats and their associated hazards and balancing resource restraints against the risk.

Deployment, Operations, and Redeployment

Concerns include—

- Analyzing the factors of mission, enemy, terrain, troops, and time available (METT-T) to determine both tactical and accident risks and appropriate risk reduction measures.
- Determining the correct units, equipment composition, and sequence.
- Identifying controls essential to safety and environmental protection.

CONSTRAINTS

Risk management does not convey authority to violate the law-of-land warfare or deliberately disobey local, state, national, or host nation laws. It does not justify ignoring regulatory restrictions and applicable standards. Neither does it justify bypassing risk controls required by law, such as life safety and fire protection codes, physical security, transport and disposal of hazardous material and waste, or storage of classified material. Commanders may not use risk management to alter or bypass legislative intent. However, when restrictions imposed by other agencies adversely affect the mission, planners may negotiate a satisfactory COA if the result conforms to the legislative intent.

Risk management assists the commander in complying with regulatory and legal requirements by—

- Identifying applicable legal standards that affect the mission.
- Identifying alternate COAs or alternate standards that meet the intent of the law.
- Ensuring better use of limited resources through establishing priorities to correct known hazardous conditions that will result in projects with the highest return on investment funded first.

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Chapter 2

Risk Management Process

First reckon, then risk

Field Marshal Helmuth von Moltke

This chapter provides the essence of the five-step risk management process. It illustrates the application of each step to military operations through the factors of METT-T.

THE FIVE STEPS: AN OVERVIEW

Risk management is the process of identifying and controlling hazards to conserve combat power and resources. The five steps of risk management are—

- Step 1. Identify hazards.
- Step 2. Assess hazards to determine risks.
- Step 3. Develop controls and make risk decisions.
- Step 4. Implement controls.
- Step 5. Supervise and evaluate.

This five-step process is integrated into the military decision-making process as shown in Figure 2-1.

FM 100-40 provides insight into the context in which the risk management process is applied herein. Areas of particular interest in FM 100-40 include—

- Solving tactical problems (Chapter 1).
- The science and art of tactics (Chapter 1).
- Hasty versus deliberate operations (Chapter 1).
- The plan-prepare-execute cycle (Chapter 1).
- Basic tactical control measures (Chapter 2).
- The factors of METT-T (Chapter 2).

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
Mission Receipt	X				
Mission Analysis	X	X			
COA Development	X	X	X		
COA Analysis	X	X	X		
COA Comparison			X		
COA Approval			X		
Orders Production				X	
Rehearsal ¹	X	X	X	X	X
Execution and Assessment ¹	X	X	X	X	X

¹All boxes are marked to emphasize the continued use of the risk management process throughout the mission

Figure 2-1. Risk Management Steps Correlated with Military Decision-Making Tasks

Risk decisions should be based upon awareness rather than mechanical habit. Leaders should act on a keen appreciation for the essential factors that make each situation unique instead of from conditioned response. Throughout the entire operational continuum, the commander must consider US Government civilians and contract support personnel in his risk management process. Hazards can exist, regardless of enemy or adversary actions, in areas with no direct enemy contact and in areas outside the enemy’s or adversary’s

influence. The two types of risk that exist across the wide range of Army operations are *tactical risks* and *accident risks*.

- *Tactical risk* is risk concerned with hazards that exist because of the presence of either the enemy or an adversary. It applies to all levels of war and across the spectrum of operations.
- *Accident risk* includes all operational risk considerations other than tactical risk. It includes risks to the friendly force. It also includes risks posed to civilians by an operation, as well as an operations impact on the environment. It can include activities associated with hazards concerning friendly personnel, civilians, equipment readiness, and environmental conditions.

STEPS 1 AND 2

Steps 1 and 2 together comprise the risk assessment. In Step 1, individuals identify the hazards that may be encountered in executing a mission. In Step 2, they determine the direct impact of each hazard on the operation. The risk assessment provides for enhanced situational awareness. This awareness builds confidence and allows soldiers and units to take timely, efficient, and effective protective measures.

STEPS 3 THROUGH 5

Steps 3 through 5 are the essential follow-through actions to effectively manage risk. In these steps, leaders balance risk against costs—political, economic, environmental, and to combat power—and take appropriate actions to eliminate unnecessary risk. During execution, as well as during planning and preparation, leaders continuously assess the risk to the overall mission and to those involved in the task. Finally, leaders and individuals evaluate the effectiveness of controls and provide lessons learned so that others may benefit from the experience.

THE FIVE STEPS APPLIED

STEP 1. IDENTIFY HAZARDS

A *hazard* is an actual or potential condition where the following can occur due to exposure to the hazard:

- Injury, illness, or death of personnel.
- Damage to or loss of equipment and property.
- Mission degradation.

Hazards are sources of danger or risks due to enemy or adversary presence and other conditions not due to enemy or adversary capabilities. Hazards are found in all operational environments. Combat operations, stability operations, base support operations, and training present unique hazards for units involved in these kinds of missions. Hazards are identified during the first four steps of the military decision-making process: *mission receipt*, *mission analysis*, *COA development*, and *COA analysis*.

The ability of unit leaders and staffs to identify hazards is key. One reality of today's missions is that the aspect of a hazard can change rapidly. Things of little risk initially can quickly become major threats due to unforeseen natural or man-made events. Leaders should be aware of this possibility. Complacency to the fact that existing controls may not continue to control hazards in rapidly changing situations should be viewed as a hazard in itself.

The factors of METT-T provide a sound framework for identifying hazards when planning, preparing, and executing operations. When applying risk management to METT-T during mission analysis, leaders and staffs should look for hazards that affect both tactical and accident risks. They must identify all hazards that may present significant risks to the mission.

Mission

Leaders first analyze the assigned mission. They look at the type of mission to be accomplished and consider possible subsequent missions. Certain kinds of operations are inherently more dangerous than others. For example, a deliberate frontal attack, because of the associated movement, is more likely to expose a unit to losses than would a defense from prepared positions. Identifying missions that routinely present great risk is imperative. Leaders also look for hazards associated with complexity of the plan such as—

- A scheme of maneuver that is difficult to understand or too complex for accurate communications down to the lowest level.
- The impact of operating under a fragmentary order (FRAGO).

Enemy

Commanders look for enemy capabilities that pose significant hazards to the operation. For example, "What can the enemy do to

defeat my operation?” Common shortfalls that can create hazards during operations against an enemy include failure to—

- Assess potential advantages to the enemy provided by the battlefield environment.
- Fully assess the enemy’s capabilities.
- Understand enemy collection capabilities and friendly vulnerabilities to those capabilities.
- Accurately determine the enemy’s probable COAs.
- Plan and coordinate active ground and aerial reconnaissance activities.
- Disseminate intelligence about the enemy to lower levels.
- Identifying terrorist threats and capabilities.

Intelligence plays a critical part in identifying hazards associated with tactical risk. Intelligence-preparation-of-the-battlefield (IPB) is a dynamic staff process that continually integrates new information and intelligence that ultimately becomes input to the commander’s risk assessment process. Intelligence assists in identifying hazards during operations by—

- Identifying the opportunities and constraints the battlefield environment offers to threat and friendly forces.
- Thoroughly portraying threat capabilities and vulnerabilities.
- Collecting information on populations, governments, and infrastructures.

FMs 34-130 and 34-60, respectively, provide detailed information on IPB and on counterintelligence operations and multidiscipline counterintelligence analysis.

Terrain and Weather

In addition to those due to the enemy or adversaries, the most obvious hazards to military operations are due to terrain and weather. Terrain and weather affect the type of hazard encountered. When the enemy uses terrain to his advantage, the risk is clearly tactical. The aspects of terrain and weather may create situations where accident risks predominate. When looking at this from a purely mission perspective, familiarity of the unit with the terrain and its associated environment must be paramount. Basic issues include—

- How long the unit has operated in the environment and climate.
- Whether the terrain has been crossed before.

Terrain. The five main military aspects of terrain—*observation and fields of fire, cover and concealment, obstacles, key terrain and decisive terrain, and avenues of approach (OCOKA)*—can be used to identify and assess hazards impacting on friendly forces. Chapter 2 of FM 100-40 has details on OCOKA. The terrain analysis includes both map and on-the-ground reconnaissance to identify how well unit capabilities and mission demands can be accommodated by the terrain.

- *Observation and fields of fire.* Hazards associated with this usually involve when the enemy will be able to engage a friendly unit and when friendly unit weapons capabilities allow it to effectively engage the enemy.
- *Cover and concealment.* Hazards associated with cover and concealment are created by the enemy's ability to place direct or indirect fire on friendly forces.
- *Obstacles.* Hazards associated with obstacles may be accident or tactical. They may be due to natural conditions such as rivers or swamps or man-made such as minefields or built-up areas.
- *Key terrain and decisive terrain.* Hazards are a marked advantage terrain provides to the enemy if he controls such terrain or denies its use to friendly forces.
- *Avenues of approach.* Hazards associated with avenues of approach can affect both tactical and accident risks. Such hazards include conditions where an avenue of approach impedes deployment of friendly combat power or where it supports deployment of enemy combat power.

Weather. Weather works hand-in-hand with terrain to create hazards. To identify weather hazards, leaders and soldiers must assess the impact on operating systems. Mistakes include not considering the—

- Adverse effects of heat and cold hazards on the performance of soldiers.
- Effects of climate and weather on maintenance of vehicles and equipment before beginning an operation.
- Hazardous effects of weather on the five military aspects of terrain.

Troops

Leaders analyze the capabilities of available friendly troops. Associated hazards impact both the soldier and unit. Key considerations are level of training, manning levels, the condition and maintenance of vehicles and equipment, morale, availability of supplies and services, and the physical and emotional health of soldiers. Leaders and soldiers must be vigilant to the fact that hazards in these areas can adversely affect a mission, even when all tactical considerations point to success. Mission failure can be caused by—

- *Hazards to the physical and emotional health of soldiers.* Inadequate sanitation facilities, water purification capabilities, medical attention, and evacuation capabilities are key hazards that can arise from incomplete logistical planning. Care of troops requires long-range projections of all classes of supply, with close monitoring of mission changes that could impact availability or depletion of supplies. When beginning an operation immediately upon arriving in theater, hazards include not implementing measures to help soldiers overcome fatigue or acclimatize them to the geographical area and associated climate.
- *Hazards to task organization or units participating in an operation.* Hazards include how long units have worked together under a particular command relationship. During stability operations, task organizations may change often. Hazards include poor communication, unfamiliarity with higher headquarters SOPs, and insufficient combat power to accomplish the mission.
- *Hazards associated with long-term missions.* Long-term missions include nation building, peacekeeping, or insurgency/counterinsurgency operations. Hazards associated with these missions include the turmoil of personnel turnover, lack of continuity of leadership, inexperience, and lack of knowledge of the situation and the unit's operating procedures. An especially insidious hazard is critical-skills atrophy that results from not performing METL-related missions.

Time Available

The hazard is insufficient time to plan, prepare, and execute operations. Planning time is always at a premium. Leaders routinely apply the one-third/two-thirds rule to ensure their subordinate units are given maximum time to plan. Failure to accomplish a mission on

time can result in shortages of time for subordinate and adjacent units to accomplish their mission.

Civilians

The commander's legal responsibility is to consider hazards to, and safeguarding of, civilians in his area of operations. *Civilians* include nongovernmental organizations (NGOs), private voluntary organizations (PVOs), US Government civilians, foreign national civilians, the media, and dislocated civilians put at risk by military operations. The commander must consider hazards that can occur across the range of operations, such as—

- *In a wartime environment.* The commander must consider the hazard of collateral damage which may result in creating new adversaries.
- *In a peacetime environment.* The commander must consider the political attitudes and previous actions of civilians in identifying hazards to friendly forces and the populace itself.

Adversaries are hostile elements other than the enemy that may be encountered during any operation. They present additional hazards. They may be organized opposition or individuals that challenge authority. They may include such diverse elements as rioters, criminals, rogues, or gangs that might want to harass a peace enforcement mission.

STEP 2. ASSESS HAZARDS

Step 2 completes the risk assessment. Risk is the chance of hazard or bad consequences. This step examines each hazard in terms of probability and severity to determine the risk level of one or more hazardous incidents that can result from exposure to the hazard. This step is conducted during three steps of the military decision-making process—*mission analysis*, *COA development*, and *COA analysis*. This step is also conducted after controls are developed.

The incident must be credible in that it must have a reasonable expectation of happening. The end result is an estimate of risk from each hazard and an estimate of the overall risk to the mission caused by hazards that cannot be eliminated. Leaders must also assess the risk to civilians posed by the operation. They may need to assess the operations' impact on the environment. This step is conducted in three substeps.

Substep A

Leaders and staffs assess each hazard in relation to the *probability* of a hazardous incident. The probability levels estimated for each hazard may be based on the mission, COAs being developed and analyzed, or frequency of a similar event. Figure 2-2 provides a summary of the five degrees of probability. The letters in parentheses following each degree (A through E) provide a symbol for depicting probability. For example, the letter *A* represents *frequent* probability.

FREQUENT (A) Occurs very often, continuously experienced	
Single item	Occurs very often in service life. Expected to occur several times over duration of a specific mission or operation. Always occurs.
Fleet or inventory of items	Occurs continuously during a specific mission or operation, or over a service life.
Individual soldier	Occurs very often in career. Expected to occur several times during mission or operation. Always occurs.
All soldiers exposed	Occurs continuously during a specific mission or operation.
LIKELY (B) Occurs several times	
Single item	Occurs several times in service life. Expected to occur during a specific mission or operation.
Fleet or inventory of items	Occurs at a high rate, but experienced intermittently (regular intervals, generally often.).
Individual soldier	Occurs several times in career. Expected to occur during a specific mission or operation.
All soldiers exposed	Occurs at a high rate, but experienced intermittently.
OCCASIONAL (C) Occurs sporadically	
Single item	Occurs some time in service life. May occur about as often as not during a specific mission or operation.
Fleet or inventory of items	Occurs several times in service life.
Individual soldier	Occurs some time in career. May occur during a specific mission or operation, but not often.
All soldiers exposed	Occurs sporadically (irregularly, sparsely, or sometimes).

Figure 2-2. Hazard Probability

SELDOM (D) Remotely possible; could occur at some time	
Single item	Occurs in service life, but only remotely possible. Not expected to occur during a specific mission or operation.
Fleet or inventory of items	Occurs as isolated incidents. Possible to occur some time in service life, but rarely. Usually does not occur.
Individual soldier	Occurs as isolated incident during a career. Remotely possible, but not expected to occur during a specific mission or operation.
All soldiers exposed	Occurs rarely within exposed population as isolated incidents.
UNLIKELY (E) Can assume will not occur, but not impossible	
Single item	Occurrence not impossible, but can assume will almost never occur in service life. Can assume will not occur during a specific mission or operation.
Fleet or inventory of items	Occurs very rarely (almost never or improbable). Incidents may occur over service life.
Individual soldier	Occurrence not impossible, but may assume will not occur in career or during a specific mission or operation.
All soldiers exposed	Occurs very rarely, but not impossible.

Figure 2-2. Hazard Probability (continued)

Substep B

Substep B addresses the *severity* of each hazard. It is expressed in terms of—

- Degree of injury or illness.
- Loss of or damage to equipment or property.
- Environmental damage.
- Other mission-impairing factors such as lost combat power.

The degree of severity estimated for each hazard may be based on knowledge of the results of similar past events. Figure 2-3 provides a summary of the four degrees of hazard severity. The Roman numerals in parentheses following each degree (I through IV) provide a convenient symbol for depicting severity. For example, *I* represents the *catastrophic* degree of severity.

CATASTROPHIC (I)	Loss of ability to accomplish the mission or mission failure. Death or permanent total disability (accident risk). Loss of major or mission-critical system or equipment. Major property (facility) damage. Severe environmental damage. Mission-critical security failure. Unacceptable collateral damage.
CRITICAL (II)	Significantly (severely) degraded mission capability or unit readiness. Permanent partial disability, temporary total disability exceeding 3 months time (accident risk). Extensive (major) damage to equipment or systems. Significant damage to property or the environment. Security failure. Significant collateral damage.
MARGINAL (III)	Degraded mission capability or unit readiness. Minor damage to equipment or systems, property, or the environment. Lost day due to injury or illness not exceeding 3 months (accident risk). Minor damage to property or the environment.
NEGLIGIBLE (IV)	Little or no adverse impact on mission capability. First aid or minor medical treatment (accident risk). Slight equipment or system damage, but fully functional and serviceable. Little or no property or environmental damage.

Figure 2-3. Hazard Severity

Substep C

In this substep leaders and staffs expand what they understand about probable hazardous incidents into estimates of levels of risk for each identified hazard and an estimate of the overall risk for the operation. Estimating risk follows from examining the outcomes of Substeps A and B; that is, both the probability and severity of hazardous incidents. This substep is more art than science. Much depends on the use of historical lessons learned, intuitive analysis,

experience, and judgment. Uncertainty can arise in the assessment of both the probability and severity of a hazardous incident. Uncertainty results from unknowns about a situation; from incomplete, inaccurate, undependable, or contradictory information; and from unforeseen circumstances. Therefore, assessment of risk requires good judgment.

Figure 2-4 is a standardized matrix that can be used to assist in this process. Leaders and staffs enter the estimated degree of severity and probability for each hazard in Substeps A and B from the severity row and probability column, respectively. The point where the severity row and probability column intersect defines the level of risk. For example, if the hazard is estimated to have a *critical* severity (II) and a *likely* probability (B), the level of risk is high (H).

Figure 2-5 provides a summary of the levels of risk. It also provides examples of hazardous incidents for each risk level. Several examples illustrate the trade-off between tactical and accident risks.

Risk Assessment Matrix						
		Probability				
Severity		Frequent A	Likely B	Occasional C	Seldom D	Unlikely E
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Marginal	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L
E – Extremely High Risk H – High Risk M – Moderate Risk L – Low Risk						

Figure 2-4. Risk Assessment Matrix

E - Extremely High: Loss of ability to accomplish the mission if hazards occur during mission. A *frequent* or likely probability of catastrophic loss (IA or IB) or *frequent* probability of *critical* loss (IIA) exists.

Example: A commander finds that one of his implied tasks to attack an objective involves crossing a normally shallow riverbed. After looking at the factors of METT-T, he discovers that three days of intense rain have raised the water level to rise above flood stage, with currents far in excess of his ability to safely ford with armored vehicles. After discussing COAs with his staff, he determines the accident risk is extremely high because of the likely probability and catastrophic severity of losing vehicles and killing soldiers. His conclusions are based on his experience with and knowledge of fording armored vehicles under the existing conditions of water depth and current speed.

H - High: Significant degradation of mission capabilities in terms of the required mission standard, inability to accomplish all parts of the mission, or inability to complete the mission to standard if hazards occur during the mission. *Occasional* to *seldom* probability of catastrophic loss (IC or ID) exists. A *likely* to *occasional* probability exists of a critical loss (IIB or IIC) occurring. *Frequent* probability of *marginal* losses (IIIA) exists.

Example: During a preplanned ambush, the leader discovers that the force he intends to ambush has significantly more combat power than his own force can accommodate. He realizes that he could only delay rather than destroy the enemy. He knows his casualty estimates would be very high if the enemy reorganized and counterattacked. He also knows that the size of the enemy force could seriously impact adjacent units conducting a movement to contact. He determines the situation is *high risk* because he estimates (based on his training and experience) there is a likely probability of the enemy reorganizing and counterattacking and the severity of loss to his unit would be critical.

M - Moderate: Expected degraded mission capabilities in terms of the required mission standard will have a reduced mission capability if hazards occur during mission. An *unlikely* probability of catastrophic loss (IE) exists. The probability of a *critical* loss is *seldom* (IID). *Marginal* losses occur with a *likely* or *occasional* probability (IIIB or IIIC). A *frequent* probability of negligible (IVA) losses exists.

Example: A commander in a defensive position receives a warning order to be prepared to counterattack if the enemy attacks again. He chooses to use pre-positioned ammunition caches to support his defense, as opposed to moving his ammunition resupply forward by truck. He determines that the severity of not having an immediate resupply of ammunition available during the counterattack will have a *critical* impact on his combat power. He realizes that if the enemy forces him to abandon his forward positions, the severity of the loss of his

Figure 2-5. Levels of Risk

ammunition caches will critically impact his combat power. He considers that his unit is deployed in excellent defensive positions. He has repelled two attacks that resulted in the destruction of an estimated 50 percent of the enemy's combat power. He receives information that the probability of the enemy attacking is *likely*, but that the probability of the enemy being reinforced and attacking in overwhelming force is remote (*seldom*). The commander concludes that the risk of conducting a counterattack with limited ammunition is greater than the *moderate* risk of the enemy pushing him back.

L - Low: Expected losses have little or no impact on accomplishing the mission. The probability of *critical* loss is *unlikely* (IIE), while that of *marginal* loss is *seldom* (IIID) or *unlikely* (IIIE). The probability of a *negligible* loss is *likely* or *less* (IVB through (IVE).

Example: A mechanized task force (TF) conducting a movement to contact in a desert environment is overtaken by nightfall before reaching its limit of advance (LOA). The terrain along the axis of advance is flat and open. Visibility is about 800 meters under a clear sky illuminated by a full moon. Estimates put the enemy, which has been hastily withdrawing for the past three days, at approximately 30 percent strength. Contact has been light with no defensible terrain along the TF's axis. The TF commander considers all the factors. In addition, the TF is 100 percent operational in using night vision devices. The TF commander estimates that it is *unlikely* that his unit will incur losses of *critical* severity by being surprised by the enemy or lose *critical* combat power due to an accident. He estimates the risk to his force in continuing a nighttime movement is *low*.

Figure 2-5. Levels of Risk (continued)

STEP 3. DEVELOP CONTROLS AND MAKE RISK DECISIONS

Risk management is the recognition that decision making occurs under conditions of uncertainty. Decisions must remain consistent with the commander's stated intent and offer a good expectation of success. The risk-taking skill requires competency as a prerequisite.

FM 100-7, Decisive Force:
The Army in Theater Operations, May 1995

Step 3 is accomplished in two substeps: develop controls and make risk decisions. This is done during the COA development, COA analysis, COA comparison, and COA approval of the military decision-making process.

Substep A - Develop Controls

After assessing each hazard, leaders develop one or more controls that either eliminate the hazard or reduce the risk (probability and/or

severity) of a hazardous incident. When developing controls, they consider the reason for the hazard not just the hazard itself.

Types of Control Controls can take many forms, but fall into three basic categories—*educational controls*, *physical controls*, and *avoidance*.

- *Educational controls.* These controls are based on the knowledge and skills of the units and individuals. Effective control is implemented through individual and collective training that ensures performance to standard.
- *Physical controls.* These controls may take the form of barriers and guards or signs to warn individuals and units that a hazard exists. Additionally, special controller or oversight personnel responsible for locating specific hazards fall into this category.
- *Avoidance.* These controls are applied when leaders take positive action to prevent contact with an identified hazard.

Criteria for Control To be effective, each control developed must meet the following criteria:

- *Suitability.* It must remove the hazard or mitigate (reduce) the residual risk to an acceptable level.
- *Feasibility.* The unit must have the capability to implement the control.
- *Acceptability.* The benefit gained by implementing the control must justify the cost in resources and time. The assessment of acceptability is largely subjective. Figure 2-6 gives criteria for determining acceptability of controls for each identified hazard.

Support	Availability of adequate personnel, equipment, supplies, and facilities necessary to implement a suitable controls.
Standards	Guidance and procedures for implementing a control are clear, practical, and specific.
Training	Knowledge and skills are adequate to implement a control.
Leadership	Leaders are competent to implement a control.
Individual	Individual soldiers are sufficiently self-disciplined to implement a control.

Figure 2-6. Criteria for Determining Acceptability of Controls

Examples of Controls Examples of controls include—

- Engineering or designing to eliminate or control hazards.
- Selecting a COA that avoids identified hazards.
- Limiting the number of people and the amount of time they are exposed to hazards, consistent with mission requirements.
- Selecting personnel with appropriate mental, emotional, and physical capabilities.
- Providing protective clothing, equipment, and safety and security devices.
- Providing such services as adequate sanitation facilities and water purification capabilities.
- Providing warning signs and signals.
- Scheduling vehicle and aircraft silhouette drills.
- Planning training, including rehearsals, rock drills, battle drills, and so forth.
- Programming communications links for key civilian organizations.
- Establishing battlefield controls such as areas of operations and boundaries, direct fire control measures, fire support coordination measures, rules of engagement, airspace control measures, bridge classification, traffic control, and so forth.
- Developing terrorist attack warning systems and response plans.

The key is to specify who, what, where, when, and how each control is to be used. For example—

- Planning and scheduling intensive threat and friendly vehicle identification refresher training for all antiarmor and air defense weapons crews before the mission reduces the probability of engaging a friendly vehicle or aircraft (fratricide).
- Programming installation of crashworthy passenger seats in the UH-60 Blackhawk, when mission circumstances do not indicate their removal, can reduce the severity of injuries in crashes.
- Requiring soldiers to wear flak vests and helmets during movement to contact, or when riding in vehicles in areas where enemy fire is likely, can reduce the probability and severity of a wound from small arms fire or fragments.

- Establishing strong continuity documents and planning overlap tours for key leaders facilitate smooth transitions during extended operations.

Residual Risk Once the responsible leader develops and accepts controls, he determines the residual risk associated with each hazard and the overall residual risk for the mission.

- *Residual risk* is the risk remaining after controls have been selected for the hazard. Residual risk is valid (true) only if the controls for it are implemented. As controls for hazards are identified and selected, the hazards are reassessed as in Step 2 and the level of risk is then revised. This process is repeated until the level of residual risk is acceptable to the commander or leader or cannot be further reduced. See Figures A-3 through A-5.
- *Overall residual risk* of a mission must be determined when more than one hazard is identified. The residual risk for each of these hazards may have a different level, depending on the assessed probability and severity of the hazardous incident. Overall residual mission risk should be determined based on the incident having the greatest residual risk. Determining overall mission risk by averaging the risks of all hazards is not valid. If one hazard has high risk, the overall residual risk of the mission is high, no matter how many moderate or low risk hazards are present.

Substep B - Make Risk Decision

A key element of the risk decision is determining if the risk is justified. The commander must compare and balance the risk against mission expectations. He alone decides if controls are sufficient and acceptable and whether to accept the resulting residual risk. If he determines the risk level is too high, he directs the development of additional controls or alternate controls, or he modifies, changes, or rejects the COA.

Leaders can use the risk assessment matrix in Figure 2-4—in conjunction with their commanders' guidance—to communicate how much risk they are willing to delegate. For example, a commander may place constraints on his subordinates that restrict their freedom of action to accept risk in instances where the risk might imperil his intent, his higher commander's intent, or a critical capability of the unit.

STEP 4. IMPLEMENT CONTROLS

Leaders and staffs ensure that controls are integrated into SOPs, written and verbal orders, mission briefings, and staff estimates. The critical check for this step, with oversight, is to ensure that controls are converted into clear, simple execution orders understood at all levels. Implementing controls includes coordination and communication with—

- Appropriate superior, adjacent, and subordinate units and those executing the mission.
- Logistics Civil Augmentation Program (LOGCAP) organizations and civilian agencies that are part of the force.

The media, NGOs, and PVOs must be included in coordination when their presence impacts or is impacted by the force.

Leaders must explain how supervisors will implement controls. Examples of control implementation include—

- Conducting vehicle and aircraft silhouette drills.
- Conducting rehearsals, rock drills, battle drills, and so forth.
- Conducting intensive threat and friendly vehicle identification refresher training for all antiarmor and air defense weapons crews.
- Conducting orientation for replacement personnel.
- Installing and maintaining communications links for key civilian organizations.
- Operating in convoys of four vehicles minimum.
- Carrying weapons and wearing flak jackets and helmets when outside secure compounds.

STEP 5. SUPERVISE AND EVALUATE

Leaders must supervise the execution of their orders. The more untrained the troops, the more detailed this supervision must be.

Infantry in Battle, 1939

During mission preparation and execution, leaders must ensure that their subordinates understand how to execute risk controls. Leaders continuously assess risks during the conduct of operations,

especially during long-term missions. Leaders maintain situational awareness. They guard against complacency to ensure that risk control standards are not relaxed or violated. To gain insight into areas needing improvement, leaders must continuously evaluate their units' effectiveness in managing mission risks.

Supervise

Leaders supervise mission rehearsal and execution to ensure standards and controls are enforced. Techniques may include spot-checks, inspections, situation reports and brief-backs, buddy checks, and close supervision. During the mission, leaders continuously monitor controls to ensure they remain effective. They modify them as necessary. Leaders and individuals anticipate, identify, and assess new hazards to implement controls. They continually assess variable hazards such as fatigue, equipment serviceability, and the environment. Leaders modify controls to keep risks at an acceptable level.

During sustained operations, leaders continue planning to ensure that controls emplaced at the beginning of the mission apply to changes in the operation's current situation and to hazardous conditions. Leaders must maintain an extraordinary degree of discipline. They must avoid complacency, which can result from boredom and overconfidence. Leaders must ensure that soldiers do not relax their vigilance due to performing repetitive tasks—despite changing roles and missions, unit turbulence and turnover, and declining skills. Leaders maintain a close overwatch on controls put in place to reduce risks over a prolonged period. For example, during stability operations, land mine hazards may not be solved in the near term, but may require continual attention. Other examples of long-term hazards that may be encountered include—

- Climatic extremes.
- NBC and hazardous waste contamination.
- Diseases native to a particular area of operation or indigenous population.
- Terrorist threats.

Evaluate

After a mission, leaders and individuals evaluate how well the risk management process was executed. They—

- Determine how to ensure that successes are continued to the next mission.

- Capture and disseminate lessons learned so that others may benefit from the experience.
- Consider the effectiveness of the risk assessment in identifying and accurately assessing the probability and severity of hazards that resulted in mission degradation.
- Determine whether the level of residual risk of each hazard and of the overall mission were accurately estimated.
- Evaluate the effectiveness of each control in reducing or removing risk, including whether controls were effectively communicated, implemented and enforced.

Leaders and individuals determine why some controls were ineffective and what should be done when the hazard is encountered again. A control may be altered; the way it is implemented or supervised may be changed to make it effective; or a completely different control may be more effective. Leaders must energize the system to fix systemic problems that hinder combat effectiveness.

Figure 2-7 shows that the risk management process continues throughout a mission as well as from mission to mission. It is integral to the military decision-making process. Its application requires good judgment and intuitive analysis borne of confidence, experience, and situational awareness.

TOOLS AND PITFALLS

The appendix provides examples of risk management tools to help leaders assess identified hazards, develop controls, and make risk decisions. The tools should be tailored to suit particular situations and missions. The examples in Figures A-3 through A-5 are tools to manage risk at the tactical level. The example in Figure A-6 is a tool to manage risk at the operational level. Units may develop additional tools suitable for their needs.

Units train to a standard. They operate and train regardless of the degree of real or perceived difficulty. Risk reduction begins with commanders identifying their METLs. Commanders use the risk management process to assess the degree of risk related to each METL their unit must perform. From this assessment, risk reducing standard operating procedures evolve.

Figure A-7 provides an example of risk management considerations integrated into a mission training plan (MTP) task.

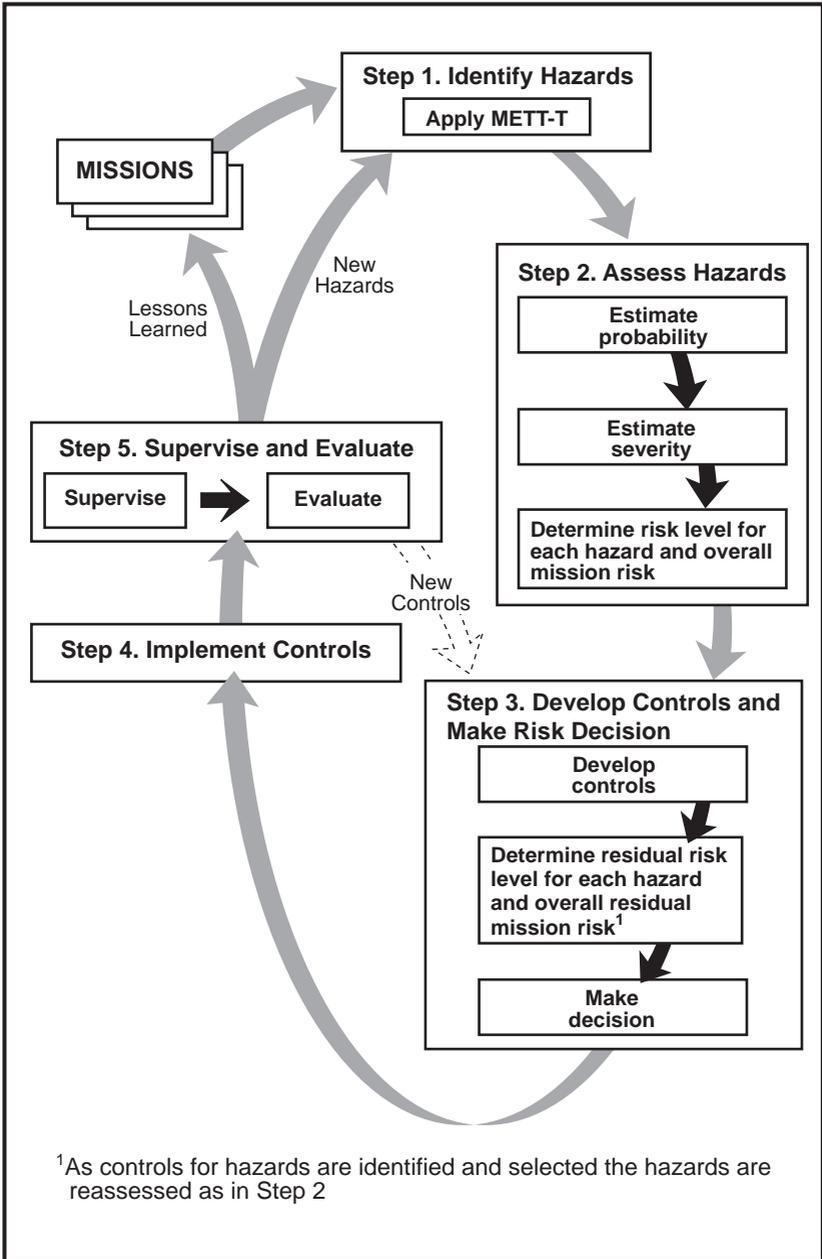


Figure 2-7. Continuous Application of Risk Management

Pitfalls arise when risk management tools are used without adaptation to the factors of METT-T. Using a standardized risk assessment card or checklist may be of some value initially in the mission analysis and COA development or in cases where a routine task is performed in an unchanging environment or static situation. However, such a tool used alone will not likely identify all hazards for every mission in a changing operational environment.

Completing the risk assessment alone, but failing to identify effective controls, usually results in a GO or NO-GO decision based on the initial risk. If the risk assessment does not accurately identify the hazards and determine the level of residual risk, the leader is likely to make his risk decision based upon incomplete or inaccurate information. If the risk assessment places missions in a routine, low-risk category, the commander may not be informed of a risk decision resulting in an accepted risk level that could imperil his or his higher commander's intent or other affected organizations. The risk management process is intended to provide reasonable controls to support mission accomplishment without exposing the force to unnecessary residual risk.

Chapter 3

Risk Management Implementation

It is imperative to develop twenty-first century leaders who trust their subordinates' abilities and judgment. Such leaders must be willing to underwrite their subordinates' honest errors and coach them on to excellence, without tolerating incompetence or laxity. We must recognize that Army leaders are not perfect, and that activity at the ragged edge of audacity sometimes leaves debris in its wake.

GEN William W. Hartzog
Commanding General
US Army Training and Doctrine Command

This chapter presents the moral and ethical implications of risk management. It outlines essential responsibilities and considerations necessary to effectively integrate and assess risk management within the Army. Leaders should tailor these essentials to develop specific how-to procedures suited to their circumstances, available resources, and mission.

MORAL AND ETHICAL IMPLICATIONS FOR LEADERS

To be successful, risk management must be underwritten by the chain of command. Leaders should not expect that all missions will be accomplished with zero defects—free from errors, flaws, or less-than-perfect performance. Demanding such rigid standards leads to oversupervision and paralysis; it produces timid leaders, afraid to make tough decisions in crisis and unwilling to take risks necessary for success in military operations. A zero defects mindset creates conditions that will lead inevitably, in the larger sense, to failure in battle and higher casualties. Leaders are morally bound to support a subordinate's decision to accept risks that are within his commander's intent and guidance, as he understands it.

Leaders accept that things may go wrong, even with the certain knowledge that a subordinate has done all within his power to prevent an incident. In such an event, the leader steps forward and

accepts the responsibility along with his subordinate. Furthermore, risk management does not justify taking actions to facilitate an unethical or immoral action. FM 22-100 addresses the moral and ethical aspects of protecting the force within the overall framework of how to apply leadership at all levels to meet mission requirements.

Everyday as we respond to the nation's needs, we expose our soldiers to hazards in uncertain and complex environments. We do this with the full knowledge that there are inherent risks associated with any military operation. The nature of our profession will not allow for either complacency or a cavalier acceptance of risk.

General Dennis J. Reimer
Chief of Staff, Army

RESPONSIBILITIES

One critical task for all operations is minimizing risk. Every military plan must make this a priority. It is an inherent part of every mission and a basic responsibility of commanders. Whether for training or operational deployments, commanders issue clear risk guidance. Minimizing risk—eliminating unnecessary risk—is the responsibility of everyone in the chain of command. This responsibility runs from the highest commander, through his subordinate leaders, to the soldier.

The commander and his staff must look at tactical risks and accident risks. They use the same risk management process to manage both types. Commanders—with the assistance of their leaders and staffs—manage accident risks. Commanders determine how and where they are willing to take tactical risks.

Leaders and soldiers at all levels are responsible and accountable for managing risks by ensuring that hazards and associated risks are—

- Identified during planning, preparation, and execution of operations.
- Controlled during preparation and execution of operations.

Soldiers are responsible for executing risk controls to standards. They must continuously assess variable hazards such as fatigue, equipment serviceability, and the environment. They must take care of one

another and make risk decisions consistent with the higher commander's guidance.

Sometimes commanders are not properly advised in situations where the assumption of risk may affect or imperil their units, the intent of their higher commander, or the operations of an adjacent unit. This is most often attributed to—

- The *risk denial syndrome* in which leaders do not want to know of the risk.
- A staff member who believes that the risk decision is part of his job and does not want to bother his commander or section leader.
- A subordinate who does not fully understand the higher commander's guidance.
- Complacency—outright failure to recognize a hazard or the level of risk involved, or overconfidence in one's abilities or the unit's capabilities to avoid or recover from a hazardous incident.
- Use of a standardized risk assessment tool, such as a risk assessment card, that is not tailored to the unit's mission or adapted to the factors of METT-T and which may put missions in the routine low-risk category.

COMMANDERS

The commander directs the organization and sets priorities and the command climate (values, attitudes, and beliefs). Successful preservation of combat power requires embedding risk management into unit behavior. This requires commitment and creative leadership—innovative planning, careful management. It also requires the chain of command's demonstrated support of the risk management process. Only then will the Army begin to capture the full power of risk management. Commanders establish a command climate favorable for risk management integration by—

- Demonstrating consistent and sustained risk management behavior through leading by example—habitually doing risk management—and actively participating throughout the risk management process.
- Providing clear guidance, when appropriate, on where or what risk to accept.

- Obtaining and providing to subordinates the necessary assets to control risk.
- Knowing their own limitations, their leaders' and soldiers' limitations, and their unit's capabilities.
- Preventing a zero-defects mindset from creeping into their command's culture.
- Allowing subordinates to make mistakes and learn from them.
- Demonstrating full confidence in subordinates' mastery of their trade and their ability to execute a chosen COA.
- Keeping subordinates informed; consulting with subordinate leaders before making a decision, if feasible.
- Listening to subordinates.

Commanders are responsible and accountable for their own actions and those of units under their charge. Commanders must weigh the repercussions of casualties, damage to the environment, and loss of equipment. They must also consider the level of public reaction to loss against national, strategic, operational, or tactical objectives. Commanders are also responsible for keeping soldiers from falling into complacency. During sustained operations in particular, complacency can creep in as a result of accepting the status quo. For example, a unit can be deployed for several months and nothing may happen. The unit then gets very satisfied with itself and its performance. It gets conditioned to its initial circumstances—being well-armed, well-equipped, well-disciplined, and well-trained. It thinks it has risks under control and does not need to change. Such complacency, and the associated loss of situational awareness, can result in leaders and soldiers taking a gamble instead of a prudent risk. A risk is the accepted result of an informed decision; a gamble is an uninformed bet or guess on a hopeful outcome. Leaders and soldiers must clearly understand the difference.

Command is often exercised in conditions of uncertainty and ambiguity, where violence, danger, fear, and friction abound, and under the ever present time constraints driven by OPTEMPO. Risk decisions are frequently required by and dependent on the immediate situation. Judgment is required; a formula, rule, or checklist, by itself, is not appropriate under such circumstances.

Avoiding the zero-risk mindset requires the exercise of positive leadership. The commander's approach to managing risk should be

through empowering leaders by pushing risk decisions as far down the chain of command as feasible within the next higher commander's guidance. Commanders must insist that subordinates exercise their freedom of action to act decisively and aggressively to complete assigned missions and promote success of the larger force. Subordinates must consider hazards outside their assigned responsibilities that impact the mission. The result is to encourage coordination and communication—laterally and up and down the chain of command. This requires and encourages initiative, which demands well-trained, determined, disciplined soldiers.

Risk management is a two-way street. It is important that those involved in mission preparation and execution be fully aware of the amount of command involvement and actions necessary to control or remove hazards. The higher commander's guidance specifies the degree of damage or risk to subordinate units that he is willing to accept during the current operation. Subordinates ensure they understand and implement their commander's intent and guidance. If, during the planning process, the accident and/or tactical residual risk exceeds that which the higher commander is willing to accept, the subordinate informs his commander. He requests the resources necessary to mitigate the risk. If, during mission execution, the subordinate determines the risk is too great, he directs the development of additional or alternate controls or modifies or changes the COA. He should notify his next higher commander of his decision. Requiring subordinates to report to the higher commander when a risk decision point is reached during mission execution can result in paralysis.

The objective of managing risk is not to remove all risk, but to eliminate unnecessary risk. Commanders conduct tough, realistic training, knowing that they may put lives and property at risk in the course of military operations. Nothing is worth the cost of a life as the result of taking unnecessary risk. If an action will result in an unacceptable risk, measures should be taken to mitigate it. If the risk cannot be mitigated to an acceptable level, the action should not be executed. Circumstances may occur during mission execution when a decision to stop and defer execution of the operation should be made to avoid taking unwarranted risk. Such a situation will generally occur at the tactical level. For example, circumstances may determine if a trade-off between maintaining the momentum of the attack or risking fratricide or serious accidents is justified. For example, during the deployment of TF Eagle to Bosnia-Herzegovina, there was pressure to

complete the Sava River bridge as quickly as possible. The commander assessed the situation and decided to call for a short rest period because his soldiers were tired and getting careless. Consequently, they completed the bridge ahead of schedule under the most difficult conditions imaginable and without injuries.

LEADERS

Many of the tasks identified for commanders apply to all leaders. Leaders' specific responsibilities in managing risk include—

- Establishing clear, feasible risk management policies and goals.
- Conducting detailed planning within time constraints; assessing each mission and task in terms of its risk; continuously reassessing risk as the mission and conditions change and experience is gained.
- Making informed risk decisions and establishing and clearly communicating risk guidance.
- Training the risk management process. Ensuring subordinates understand the who, what, where, when, how, and why of managing risk and how the process applies to their circumstances and assigned responsibilities.
- Examining how subordinates manage risk and how soldiers protect themselves.
- Supervising and evaluating the unit's execution of risk controls during the mission to correct areas needing improvement.
- Advising his chain of command on risks and risk-reduction measures.
- Providing subordinates with feedback on their performance and ways to improve.
- Assessing the effectiveness of their unit's risk management program.
- Capturing and disseminating lessons learned to ensure they are continued from mission to mission so that others may benefit from the experience.

STAFFS

The chief of staff or executive officer is responsible for supervising integration of risk management across the staff. He coordinates development of risk reduction controls with emphasis on deconflicting controls that affect multiple functional areas and adjacent units. The staff officer helps the commander eliminate unnecessary risks by—

- Analyzing his functional area and applying risk management during the military decision-making process.
- Identifying constraints in the higher commander's risk guidance.
- Including hazards and their risks in the mission analysis briefing.
- Including a risk assessment for the commander's estimate.
- Considering the risk assessment in the operations estimate.
- Including risks and recommending ways to reduce their impact in the staff estimate.
- Implementing risk controls by coordinating and integrating them into the appropriate paragraphs and graphics of the OPORD and into products such as SOPs and OPLANs.
- Establishing procedures and standards that are clear and practical.
- Determining the effectiveness of hazard/risk controls and continuously assessing their suitability, feasibility, and acceptability.
- Supervising, evaluating, and assessing the integration of risk management during an operation.
- Continuously identifying hazards, assessing initial and residual risks for each hazard, recommending control measures to reduce the risk to the force.
- Identifying and assessing hazards associated with complacency, especially during extended operations, and recommending appropriate actions to the commander.

At the operational level, staffs focus on hazards and their risks across the spectrum of protecting the force

INDIVIDUALS

The level of expertise and maturity of the individual influence his proficiency in managing risk. Managing risk is subjective because its basis is individual judgment. Young soldiers are routinely charged with executing hazard controls and risk reduction measures. By nature, some of them are impulsive risk takers. Their limited experience, coupled with an infallible attitude, can significantly increase the level of risk they are willing to accept. Their sense of indestructibility, motivation (*esprit de corps*), and willingness to achieve the mission at any cost also play a part.

Some soldiers and individuals ignore existing standards and improvise their own. Due to inexperience or complacency, they become susceptible to—

- Overestimating their ability to respond to or recover from a hazardous incident—they become overconfident.
- Underestimating the level of risk posed by a hazard.

It is imperative that individuals understand and execute controls implemented by leaders and staffs.

Individuals must maintain situational awareness and self-discipline when they perform their duties. They must—

- Understand and apply risk management.
- Execute controls directed by their leaders, that is, *perform to standards*.
- Carry risk management over into training and activities—both on and off duty.
- Look out for others—anyone has authority to halt something that is inherently unsafe.

INTEGRATION INTO TRAINING AND OPERATIONS

ARFOR commanders/leaders must continuously employ risk management approaches to effectively preclude unacceptable risks to personnel and property, including protecting forces preparing for or en route to combat.

FM 100-7, *Decisive Force: The Army in Theater Operations*,
May 1995

Integrating risk management into training and operations—

- Preserves the lives and well-being of everyone.
- Conserves equipment, facilities, environmental resources, and combat power.

Risk management must not be treated as an afterthought. It must be planned for up front. Leaders and managers of materiel acquisition, base operations, and industrial operations must budget risk control costs up front at the level of expected payback over the duration of the activity, or the life cycle of materiel/weapons system.

When integrating risk management into sustained operations, leaders must consider increases in turbulence, personnel turnover, critical skill atrophy, and mission development. Leaders must continuously assess—

- The complexity of mission development and associated changing interrelationships with other agencies.
- The inclusion of civilian contractors, for example, LOGCAP, as part of the force.
- The presence of the media, NGOs, and PVOs.

These diverse elements need to be integrated into the risk management process.

Two key considerations relevant to managing risk in complex operational environments include—

- Understanding the culture of the indigenous population or society and its way of doing business. Leaders should respect their way of life and not interfere with local customs. Such interference could risk damage to relationships and increase the potential for introducing instability into the local society. Leaders must not, however, intentionally allow these considerations to endanger their force or its mission.
- The dynamics of managing risk and the way the leader and his subordinates manage risk. Leaders manage risk by—
 - Having the right combination of well-trained, disciplined, well-armed, and well-equipped forces.
 - Issuing clear guidance to minimize risk.
 - Determining and implementing risk controls for carrying out the mission.

-
- Maintaining situational awareness, especially of vulnerabilities.
 - Avoiding unnecessary accident risk.

Risk management works best when incorporated into existing command training and operational planning cycles. They then act as risk management tools and provide for—

- Development of policy, goals, objectives, and priorities in the commander's quarterly training guidance.
- The commander's training assessment, by identifying hazards and risk controls.
- Systematic observation and assessment of the unit's risk management performance and feedback into the training management cycle and SOPs.

Leaders and soldiers must have the skills, knowledge, and attitude to effectively manage risks inherent in all operations. Effective training helps soldiers become proficient. It qualifies them technically and tactically, and as leaders, to accomplish the mission without unnecessary risk.

Doctrine developers must integrate risk management into planning for all Army processes, especially the training management cycle defined in FMs 25-100 and 25-101. Unit leaders and their staffs must continually assess and evaluate the integration of risk management into short-, near-, and long-term training plans. They must continually review METLs to ensure that training is supported by realistic risk management objectives. In the past, unprepared or improperly trained units paid a high price for veteran status. The Army must learn from past experiences if it is to avoid repeating such losses.

ASSESSMENT OF THE RISK MANAGEMENT PROCESS

To assess the risk management process is to determine a unit's current level of proficiency in implementing the process. The term *assessment*, as discussed here, differs from *evaluation* as used in Step 5 of the process. Evaluation is used to measure demonstrated ability to accomplish specified objectives within a discrete operation or exercise. Assessment, as used here, also differs from

the aspect of assessing hazards for probability and severity, as addressed in Step 2 of the process.

How well risk is managed affects readiness. Leaders need to know the current status and effectiveness of their organization's risk management program. They self-assess their unit's effectiveness in managing risk in order to gain insight into areas for improvement and get feedback on subordinates' understanding and application of risk guidance. The assessment objectives are to determine how—

- Effectively risk management is embedded into planning and preparing for operations.
- Well risk management is understood by subordinate leaders and soldiers.
- Effectively risk management is used to execute operations.

Leaders assess the effectiveness of their units by reviewing how well hazards are identified and risk controls are—

- Specified in oral and written OPORDs, OPLANs, and SOPs.
- Communicated to lowest level of chain of command.
- Included in short-, near-, and long-term training plans.
- Implemented into training and activities on and off duty.
- Embedded into protect-the-force programs such as safety and health and antiterrorism.
- Part of after-action reviews and fed into lessons learned.

Risk management cannot be seen as a competitive program whereby a unit or leader is judged or compared in a competitive sense. Focus is strictly on both reduction of risk and risk behavior.

Take calculated risks. That is quite different from being rash.

General George S. Patton, Jr.

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Appendix

Examples of Risk Management Application

The examples in this appendix are designed to help those charged with managing risk.

TRACKING TOOL

The work sheet instructions are in Figure A-1.

Work Sheet Instructions	
Block	
A – D	Self explanatory
E	Identify task relating to the mission or task in Block A
F	Identify Hazards – Identify hazards by reviewing METT-T factors for the mission or task. Additional factors include historical lessons learned, experience, judgment, equipment characteristics and warnings, and environmental considerations.
G	Assess Hazards – Assessment includes historical lessons learned, intuitive analyses, experience, judgment, equipment characteristics and warnings, and environmental considerations. Determine initial risk for each hazard by applying risk assessment matrix (Figure 2-4). Enter the risk level for each hazard.
H	Develop Controls – Develop one or more controls for each hazard that will either eliminate the hazard or reduce the risk (probability and/or severity) of a hazardous incident. Specify who, what, where, why, when, and how for each control. Enter controls.
I	Determine Residual Risk – Determine the residual risk for each hazard by applying the risk assessment matrix (Figure 2-4). Enter the residual risk level for each hazard.
J	Implement Controls – Decide how each control will be put into effect or communicated to the personnel who will make it happen (written or verbal instruction; tactical, safety, garrison SOPs, rehearsals). Enter controls.
K	Determine Overall Mission/Task Risk – Select the highest residual risk level and circle it. This becomes the overall mission or task risk level. The commander decides whether the controls are sufficient to accept the level of residual risk. If the risk is too great to continue the mission or task, the commander directs development of additional controls or modifies, changes, or rejects the COA.
	Supervise and Evaluate – This last step is not on the worksheet. Plan how each control will be monitored for implementation (continuous supervision, spot-checks) and reassess hazards as the situation changes. Determine if the controls worked and if they can be improved. Pass on lessons learned.

Figure A-1. Risk Management Work Sheet Instructions

The work sheet (Figure A-2) provides a starting point to logically track the process of hazards and risks. It can be used to document risk management steps taken during planning, preparation, and execution of training and combat missions and tasks.

A. Mission or Task:		B. Date/Time Group Begin: End:		C. Date Prepared:	
D. Prepared By: (Rank, Last Name, Duty Position)					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
K. Determine overall mission/task risk level after controls are implemented (circle one)					
LOW (L)		MODERATE (M)		HIGH (H)	
				EXTREMELY HIGH (E)	

Figure A-2. Sample Risk Management Work Sheet

Examples provided in Figures A-3 through A-6 should help individuals manage risk at the tactical level.

A. Mission or Task: Prepare defensive positions		B. Date/Time Group Begin: 010035R May XX End: 010600R May XX		C. Date Prepared: 29 April XX	
D. Prepared By: (Rank, Last Name, Duty Position) LT Jones, Plt Ldr					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Construct nonstandard antivehicular wire obstacle	Back injuries and wire cuts during materiel offload	Moderate (M)	Use proper lift and carry methods and wear concertina wire gloves and safety goggles	Low (L)	Unit TACSOP, ARTEP 5-145 DRILL (pg 2-44) ARTEP 5-335-11-MTP
	Blunt trauma and cuts in pounding of U-shaped pickets	Moderate (M)	Wear helmet and increase situational awareness	Low (L)	Unit TACSOP, ARTEP 5-145 DRILL (pg 2-44) ARTEP 5-335-11-MTP
	Cuts when unrolling concertina	Moderate (M)	Wear concertina wire gloves and maintain situational awareness	Low (L)	Unit TACSOP, ARTEP 5-145 DRILL (pg 2-44) ARTEP 5-335-11-MTP
	Cuts when installing concertina	Moderate (M)	Wear concertina wire gloves and maintain situational awareness	Low (L)	Unit TACSOP, ARTEP 5-145 DRILL (pg 2-44) ARTEP 5-335-11-MTP
	Cuts when installing barbed wire	Moderate (M)	Wear concertina wire gloves and maintain situational awareness	Low (L)	Unit TACSOP, ARTEP 5-145 DRILL (pg 2-44) ARTEP 5-335-11-MTP
K. Determine overall mission/task risk level after controls are implemented (circle one)					
<input checked="" type="radio"/> LOW (L) <input type="radio"/> MODERATE (M) <input type="radio"/> HIGH (H) <input type="radio"/> EXTREMELY HIGH (E)					

Figure A-3. Example of Completed Risk Management Work Sheet for Squad/Platoon

Figure A-4. Example of Completed Risk Management Work Sheet for Company/Team

A. Mission or Task: Conduct a deliberate attack		B. Date/Time Group Begin: 010035R May XX End: 010600R May XX		C. Date Prepared: 29 April XX	
D. Prepared By: (Rank, Last Name, Duty Position) CPT William Wallace, Cdr					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Conduct obstacle breaching operations	Obstacles	High (H)	Develop and use obstacle reduction plan	Low (L)	Unit TACSOP, OPORD, training handbook
	Inexperienced soldiers	High (H)	Additional instruction and increased supervision	Moderate (M)	Modified training schedule, additional instruction
	Operating under limited visibility	Moderate (M)	Use NVDs; use IR markers on vehicles	Low (L)	Unit TACSOP, OPORD
	Steep cliffs	High (H)	Rehearse use of climbing ropes	Moderate (M)	FM 90-6, <i>Mountain Operations</i> TC 90-6-1, <i>Mountaineering</i>
	Insufficient planning time	High (H)	Plan and prepare concurrently	Moderate (M)	OPORD, troop-leading procedures
K. Determine overall mission/task risk level after controls are implemented (circle one)					
LOW (L) MODERATE (M) HIGH (H) EXTREMELY HIGH (E)					

A. Mission or Task: Redeploy unit to home station		B. Date/Time Group Begin: 010035R May XX End: 010600R May XX		C. Date Prepared: 29 April XX	
D. Prepared By: (Rank, Last Name, Duty Position) MAJ Woolsey, S3					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Conduct convoy operations-movement from Grafenwohr to home base	Fatigue leading to poor judgment/ accident-causing errors	Moderate (M)	<ol style="list-style-type: none"> 1. Ensure all drivers receive adequate rest the night before movement 2. Brief planned rest stops and actions to take if driver becomes too tired/ill or has doubts about alertness 3. Have NCOs check physical alertness of drivers prior to movement 	Low (L)	Unit SOP, OPORD on Tactical Road March, STP 21-2-MQS (Tactical Road March)
	Fast moving traffic mix of cars and large trucks with trailers	Moderate (M)	<ol style="list-style-type: none"> 1. Use extreme caution when passing 2. Continue to scan (be aware of) traffic 3. Brief all drivers and vehicle commanders on lane-changing procedures 	Low (L)	German laws and unit SOP
	Accidents and breakdowns blocking road	Moderate (M)	<ol style="list-style-type: none"> 1. Brief drivers on actions to take <ol style="list-style-type: none"> a. Pull as far off the road as possible b. Get out on passenger side c. Post triangle sign at least 100 meters behind vehicle d. Stay as far away from vehicle and traffic as possible e. Brief all personnel on maintenance plan/action if vehicle is disabled f. Brief all personnel on procedures for vehicle exits on the traffic side 	Low (L)	Unit SOP, OPORD on Tactical Road March

Figure A-5. Example of Completed Risk Management Work Sheet for Battalion/Task Force

A. Mission or Task: Redeploy unit to home station (continued)		B. Date/Time Group Begin: 010035R Dec XX End: 010600R Dec XX		C. Date Prepared: 29 Nov XX	
D. Prepared By: (Rank, Last Name, Duty Position) MAJ Woolsey, S3					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Conduct convoy operations-movement from Grafenwohr to home base	Accidents and breakdowns blocking road (continued)	Moderate (M)	<ol style="list-style-type: none"> Leaders ensure that proper maintenance are done prior to move (PMCS), dispatching and licensing procedure. Contact team follows convoy and repairs or removes disabled vehicles from highway. 	Low (L)	Unit SOP and vehicle operations manual
	Weather conditions– high winds, sleet, snow	High (H)	<ol style="list-style-type: none"> Reduce speed according to environmental conditions less stopping distance available. Road conditions especially right after rains – hydroplaning – review procedures for skids or hydroplanes. Maintain convoy interval to allow for braking and assist civilian traffic in passing. 	Moderate (M)	
	High winds– reduction visibility, sudden reduction due to passing traffic	Moderate (M)	<ol style="list-style-type: none"> Change lanes carefully; ensure clearance and avoid erratic moves Be aware of winds and effects on vehicles. Drive defensively. 	Low (L)	German traffic laws
	20% downgrade at checkpoint 1	Moderate (M)	<ol style="list-style-type: none"> Use lower gears. Reduce speed to 25 mph 	Low (L)	Unit SOP and vehicle operations manual

Figure A-5. Example of Completed Risk Management Work Sheet for Battalion/Task Force (continued)

Figure A-5. Example of Completed Risk Management Work Sheet
for Battalion/Task Force (continued)

A. Mission or Task: Redeploy unit to home station (continued)		B. Date/Time Group Begin: 010035R Dec XX End: 010600R Dec XX		C. Date Prepared: 29 Nov XX	
D. Prepared By: (Rank, Last Name, Duty Position) MAJ Woolsey, S3					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Conduct convoy operations-movement from Grafenwohr to home base	Heavy traffic, traffic jams, and congestion	Moderate (M)	<ol style="list-style-type: none"> 1. Use extreme caution when passing 2. Use headlights at all times 3. Brief convoy speeds and vehicle intervals 4. Brief actions to take if vehicle pulls in front <ol style="list-style-type: none"> a. Maintain clearance from vehicle b. Maintain braking distance 5. Stay in right lane in construction zones 6. Ensure AMVs 2 or more meters wide remain in right lane 7. Continuously scan surroundings (situational awareness) 	Low (L)	<p>Provide risk assessment to convoy leaders.</p> <p>Provide safety brief information to leaders and drivers</p>
K. Determine overall mission/task risk level after controls are implemented (circle one) LOW (L) MODERATE (M) HIGH (H) EXTREMELY HIGH (E)					

A. Mission or Task: Peace Enforcement		B. Date/Time Group Begin: 010035R May XX End:		C. Date Prepared: 29 April XX	
D. Prepared By: (Rank, Last Name, Duty Position) G-3 Div/Corps/EAC					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Occupy area of operations	Assault on facilities	Moderate (M)	Identify and isolate combatants, terrorists, supporters Harden potential terrorist targets	Low (L)	Coordination with local law enforcement agencies FM 5-103, <i>Survivability General /Order</i>
	Ambush	Moderate (M)	Kevlar helmets and flak jackets required outside cantonment area Minimum of 4 vehicles for movement Two qualified drivers per vehicle	Low (L)	Rehearsals Immediate action drills General orders
	Mines	High (H)	Countermine plan Mine awareness training Predeployment training	Moderate (M)	FM 20-32, <i>Mine/Countermine Operations</i> Lessons learned

Figure A-6. Example of Completed Risk Management Work Sheet for Division/Corps/EAC Task Force

Figure A-6. Example of Completed Risk Management Work Sheet
for Division/Corps/EAC Task Force (continued)

A. Mission or Task: Peace Enforcement		B. Date/Time Group Begin: 010035R May XX End:		C. Date Prepared: 29 April XX	
D. Prepared By: (Rank, Last Name, Duty Position) G-3 Div/Corps/EAC					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Occupy area of operations	Fratricide	Moderate (M)	Identify friend/foe Antifratricide training LNO augmentations	Low (L)	Lessons learned ROE Weapons control procedures AOR orientation
	Seasonal risk (cold weather injuries)	Moderate (M)	Cold weather clothing and equipment Soldier/leader awareness training	Low (L)	Severe weather alert/action plan TB Med 507
	Seasonal risk (hot weather injuries)	Moderate (M)	Hot weather clothing and equipment Soldier/leader awareness training	Low (L)	Severe weather alert/action plan TB Med 507
	Disease	Moderate (M)	Immunizations Field sanitation Preventive medicine	Low (L)	Spring thaw plan Focused medical training Vector control program

A. Mission or Task: Peace Enforcement		B. Date/Time Group Begin: 010035R May XX End:		C. Date Prepared: 29 April XX	
D. Prepared By: (Rank, Last Name, Duty Position) G-3 Div/Corps/EAC					
E. Task	F. Identify Hazards	G. Assess Hazards	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls ("How To")
Occupy area of operations	Vehicle accidents	Moderate (M)	Driver qualifications Driver fatigue reduction Convoy safety procedures Monitor route conditions Vehicle inspections	Low (L)	Driver qualification training Driver sleep plans Two qualified drivers per vehicle Convoy safety briefings Route reconnaissance Vehicle inspections
K. Determine overall mission/task risk level after controls are implemented (circle one) LOW (L) <input checked="" type="radio"/> MODERATE (M) HIGH (H) EXTREMELY HIGH (E)					

Figure A-6. Example of Completed Risk Management Work Sheet for Division/Corps/EAC Task Force (continued)

MISSION TRAINING PLAN

Figure A-7 shows risk management integrated into an MTP task. The example portrays a possible method for integrating the risk management process and products into MTPs. The text in bold italics indicates suggested areas in which to integrate risk management.

TASK: C² THE BATTALION (7-1-1901)(FM 7-20)

ITERATION: 1 2 3 4 5 (circle)

TRAINING STATUS: T P U (circle)

CONDITION: The brigade issues an OPORD or FRAGO

TASK STANDARD :

- a. The battalion plan accomplishes the directed mission and specified tasks according to the brigade commander's concept and intent. The plan is received and understood by the leadership of the battalion, who makes the plan successful. It is coordinated with higher, adjacent, and supporting elements.
- b. The plan is as fully prepared as time allows to initiate the mission at the directed time.
- c. The battalion controls and synchronizes subordinate and supporting elements so that it accomplishes the mission and preserves the force. ***Include commander's risk guidance.***
- d. The battalion keeps higher, adjacent, subordinate, supporting, and supported headquarters informed of essential information key to controlling the battle or making required decisions.

SUBTASKS AND STANDARDS: **GO** **NO-GO**

+1. Battalion leaders issue the warning order.

- a. A complete warning order is issued within 15 minutes of receipt of the brigade order.
- b. Warning order is received by all platoons within 45 minutes of issuance of battalion warning order.

+ Critical task.

* Leader task.

Figure A-7. Integration of Risk Management into MTP Task

*2. Battalion commander analyzes mission and gives initial guidance.

- a. Guidance includes restated mission, which includes brigade commander's intent for battalion and identifies all specified and implied tasks.
- b. Guidance is given within 30 minutes of receipt of order.
- c. Guidance includes instructions on information requirements and initially required preparation actions (movement, resupply) to start. **Guidance includes chain of command authorized to accept risk (extremely high, high, moderate, and low) affecting higher command's intent, resources, or adjacent units' missions.**

+3. Battalion accomplishes reconnaissance and other actions to gather needed information.

- a. Reconnaissance actions begin to physically gain information on the enemy and terrain as early as possible.
- b. Commander conducts a personal reconnaissance, when possible. If not, the commander conducts a detailed map reconnaissance.
- c. Subordinate leaders perform a personal reconnaissance when possible. See subordinate company (ARTEP 7-10-MTP) and platoon (ARTEP 7-8-MTP) T&EOs.
- d. Staff coordinates with subordinate, higher, supporting, and adjacent headquarters to gather information for planning. **Staff analyzes mission to identify hazards.**
- e. Staff provides operations, intelligence, and CSS estimates to include all critical METT-T factors and **risk assessment considerations (identified hazards/risks).**

+4. Battalion commander develops and wargames courses of action and selects one.

Figure A-7. Integration of Risk Management into MTP Task (continued)

- a. Tactically feasible courses of action (include CS and maneuver) are made and wargamed with the available staff (commander, S3, and FSO are best for quick planning sequences; XO, S2, engineer, S4, S3 (Safety), and ADA officer are best in more deliberate situations). **Each course of action contains assessment of hazards, risk level, and control measures identified to lower or control the risk.**
- b. Best COA is selected.
- c. COA is wargamed and refined by the command and staff. The staff must understand the concept to produce a sound OPORD and rehearse. **The staff continually assesses the situation to identify new hazards, assess the risk from each hazard, develop acceptable control measures, and reassess for residual risk to the mission. COA should pose minimum risk to soldiers, equipment, and mission accomplishment. Risk acceptance decisions for the COA are made at the appropriate level in the chain of command.**

*5. Staff develops an OPLAN and OPORD from the commander's guidance.

OPLAN and OPORD successfully accomplish the mission according to higher commander's intent. **Hazards and risk control measures are included in the appropriate paragraphs and graphics.**

*6. Battalion commander and staff issue implementing FRAGOs (accident risk controls).

*7. Battalion commander issues the OPORD/FRAGO.

- a. OPORD/FRAGO is issued IAW the one-third, two-thirds rule and makes full use of daylight time.
- b. OPORD/FRAGO accomplishes all directed missions and tasks, complies with the brigade commander's intent, controls risk, and is doctrinally sound. It is based on evaluator judgment and on comparison of brigade and battalion OPORDs.

Figure A-7. Integration of Risk Management into MTP Task (continued)

- c. All subordinate and supporting elements receive the OPORD/FRAGO.
- d. OPORD/FRAGO contains task organization, mission, concept, **accident risk controls**, intent for maneuver, supporting fires, and obstacles; missions and tasks for each subordinate; fire support and CSS instructions; and coordinating instructions to synchronize the efforts of maneuver forces and CS.
- e. If more time is available, the battalion commander issues a fully developed OPORD (although an initial FRAGO may be issued to allow subordinates to begin preparation and followed by a full OPORD.)
- f. Order is given at a location that reduces travel time, allows observation of the zone/sector, and promotes OPSEC. (Depending upon the METT-T factors, observation of the zone/sector may not be possible.)
- g. Battalion commander should perform brief-backs and war gaming, **to include identifying hazards and control measures**, immediately after the order to improve subordinate understanding and reaction.
- h. Subordinate leaders and staff should perform lateral coordination before leaving the orders site.

+8. Commander and staff coordinate and refine the plan.

- a. Time is well used to continue gathering information and to improve the plan (contingency plans, **hazard identification and controls**, fire plans) .
- b. New information is disseminated and coordinated with higher, adjacent, and supporting headquarters to include—
 - Changes or refinements in plan.
 - Information on the enemy in the sector or zone.

Figure A-7. Integration of Risk Management into MTP Task (continued)

- Information that impacts on planning and execution (***risk acceptance decisions/hazard controls***) of subordinate elements.
- Adjustments/changes in the plans.

+*9. Battalion executes changes in task organization.

- a. Main CP coordinates link-up location, time, and responsible element.
- b. Attachments/new elements are received at the coordinated location and time; updated on current situation, OPOrDs, and SOIs; and resupplied.
- c. Detachments reach the link-up point at the time and place directed.

+*10. Battalion performs and commander and staff perform, supervise, and monitor preparations.

- a. Command group/XO performs brief-backs with subordinate commanders, leaders, and key staff.
- b. Main CP maintains status of preparations.
- c. Elements make full use of time to prepare for the operation. Subjective judgment of the evaluator is based on the analysis of preparation charts and available preparation time.

+*11. Battalion sees the battlefield.

- a. Command group is positioned to see and move.
- b. Companies and other subordinates accurately report critical information on actions and changes in combat status within five minutes. See subordinate MTPs.
- c. Main CP collects, analyzes, and passes processed critical information.
- d. Subordinates execute intelligence collection plan. See

Figure A-7. Integration of Risk Management into MTP Task (continued)

subordinate element MTPs. ***Subordinates integrate the risk management process when developing plans and executing tasks.***

+*12. Battalion leaders command and control the execution.

- a. Subordinate elements report enemy and friendly actions, change in status, and any other factor that would require change within three minutes.
- b. Battalion leaders win the battle by directing the maneuver of units, controlling direct and indirect fires, ***properly integrating risk management into planning, preparation, and execution***, and directing other CS actions to cope with new METT-T/risk factors. Indicators are:
 - (1) Elements not following OPLAN and OPORD are corrected.
 - (2) Responses to new METT-T hazards are directed soon after the new situation occurs.
 - (3) No friendly casualties inflicted by friendly direct or indirect fires or other accidents.
 - (4) Number/percentage of direct fire weapons engaging the enemy.
 - (5) Number/percentage of indirect fire rounds fired and percentage hitting/suppressing the enemy.
 - (6) Number of enemy casualties.
 - (7) Number of friendly casualties.
- c. The C² and CSS assets are controlled to support maneuver effort. Indicators are—
 - (1) Effective CSS and C².
 - (2) C² or CSS elements not destroyed by enemy direct fires.
- d. FRAGOs are clear, concise, ***include risk management***, and are quickly executed by subordinates.

Figure A-7. Integration of Risk Management into MTP Task (continued)

e. Changes that affect the battle are disseminated within five minutes.

+13. Subordinate commanders, leaders, and staff laterally coordinate actions during the battle.

All battle actions requiring coordination between elements are coordinated.

+*14. Battalion coordinates with adjacent and supporting headquarters.

All battle actions requiring coordination with other headquarters are laterally and promptly coordinated.

+*15. Battalion reports.

Battalion CPs submit all critical and required reports to brigade. They report events to adjacent and supporting elements that impact on them in time for those units to react. ***They advise the chain of command, as appropriate, on risks and risk-reduction measures.***

**Figure A-7. Integration of Risk Management into MTP Task
(continued)**

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