Employ The Risk Management Process During Mission Planning

TSG 154-6465

	TASK NUMBER	TASK TITLE
Task(s) Taught or	154-385-6465	**Employ The Risk Management Process During Mission Planning**
Supported	_____	_____
Task(s) Reinforced	TASK NUMBER	TASK TITLE
	154-385-6263	**Conduct a Risk Assessment**

Learning Objectives

- Enabling Learning Objective A - Identify the risk management process.
B - Enabling Learning Objective B - Conduct a risk assessment.
C - Enabling Learning Objective C - Develop controls.
D - Enabling Learning Objective D - Identify ways to implement the controls.
E - Enabling Learning Objective E - Identify how to supervise and evaluate the controls.

Student Products: Students will complete a written practical exercise as they take course and turn in PE as a final exam to PLDC School for evaluation. This course is more work intense than most because of the critical nature of this task skill. OpPlans and leadership steps may improve mission success. Risk Management assures getting your people back alive and unhurt!

(PE may be emailed: use 1-1a. ___ 1-1b ____ 1-1c ___ 1-1d ____ format . Answers will be text, of course)

Risk management is the Army's principle risk reduction process to help protect the force and increase the chance of mission accomplishment. The purpose of risk management is to identify operational risks, and take reasonable measures to reduce or eliminate the risks. **It applies to all situations and environments.** The army's goal is to integrate risk management into all Army processes and activities, and into every individual's behavior, both on and off duty. Risk management is a fully integrated element for planning, preparation, and executing operations. To be effective, the risk management process must be employed at the beginning of an operation, upon receipt of the mission or task. **It must be included in the troop leading procedure and the military decision making process.** Risk management will conserve combat power assets, enabling you to accomplish your mission/task successfully and to protect the force from unnecessary losses or accidents.

ENABLING LEARNING OBJECTIVE A: Identify the risk management process.

Learning Step/Activity 1 - Define risk management terms.

a. Risk Management - Risk management is a five-step process used in identifying and controlling hazards to protect the force and increase the chance of mission accomplishment. It is a continuous on-going process that begins with receipt of the mission. It is applicable to any situation and environment. Steps 1 and 2, taken together comprise the **risk assessment**. Steps 3 through 5 are follow through actions that are essential for **risk management**.

b. **Risk Assessment** - Risk assessment is the identification and assessment of hazards (the first two steps of the risk management process).

c. **Hazard** - Any actual or potential condition that can cause injury, illness, or death of personnel; damage to or loss of equipment or property; or mission degradation.

d. **Risk** - The probably of exposure to injury or loss from hazard. Risk level is expressed in terms of hazard probability and severity. There are two kinds of risks:

(1) **Tactical risk:** Risk associated with hazards that exist because of the presence of the enemy or an adversary.

(2) **Accident risk: Includes** all operational risk considerations other than tactical (combat) risk, and can include activities associated with hazards concerning friendly personnel, equipment readiness, and environmental conditions.

(a) Accident hazards can exist regardless of enemy action, even in the absence of an enemy force.

(b) Examples of accident hazards include personnel that are not adequately trained to conduct certain kinds of operations, equipment that is not fully operational and environmental conditions that make operations more dangerous.

e. **Probability** - The likelihood that an event will occur. There are five degrees of probability:

(1) Frequent - Occurs often, continuously experienced.
(2) Likely - Occurs several times.
(3) Occasional - Occurs sporadically.
(4) Seldom - Remotely possible; could occur at some time.
(5) Unlikely - Can assume it will not occur, but not impossible.

f. **Severity** - The degree of injury, property damage, or other mission impairing factors. There are four degrees of severity:

(1) Catastrophic - Loss of ability to accomplish the mission or mission failure. Death or permanent total disability, system loss, major property damage.

(2) Critical - Significantly (severely) degraded mission capability or unit readiness. Permanent partial disability, temporary total disability in excess of three months, major system damage, significant property damage.

(3) Marginal - Degraded mission capability or unit readiness. Minor injury, lost workday accident, minor system damage, minor property damage.

(4) Negligible - Little or no adverse impact on mission capability. First aid or minor medical treatment, minor system impairment.

g. **Risk Level** - Expressed in terms of hazard probability and severity. There are four levels of risk:

(1) Extremely High Risk (E) - Loss of ability to accomplish the mission if hazards occur during mission.

(2) High (H) - Significant degradation of mission capabilities in terms of required mission standards.

(2) Moderate (M) - Expected degraded mission capabilities in terms of required mission standards.

(4) Low (L) - Little or no impact on accomplishment of mission.

h. **Controls** - Controls are actions taken to eliminate hazards or reduce their risk. Controls fall basically into three categories:

(1) **Educational controls** - These controls based on the knowledge and skills of the units and soldiers. They are put in place by training required for the specific task.

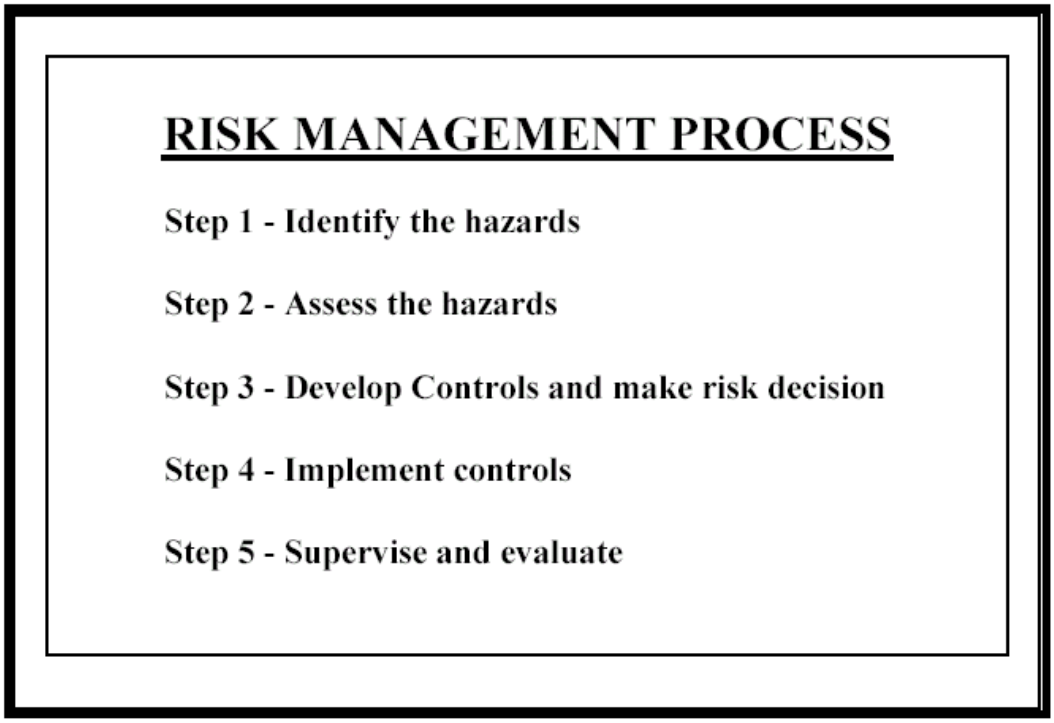
(2) **Physical controls** - These types may take the form of barriers and guards, or signs to warn individuals and units that the hazards exist.

(2) **Avoidance** - Controls applied by taking positive action to eliminate the presence of the identified hazard.

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

j. **Risk Decision** - The decision whether to accept or not to accept the level of residual risk associated with the mission/task.

Learning Step/Activity 2 - Identify the risk management process.

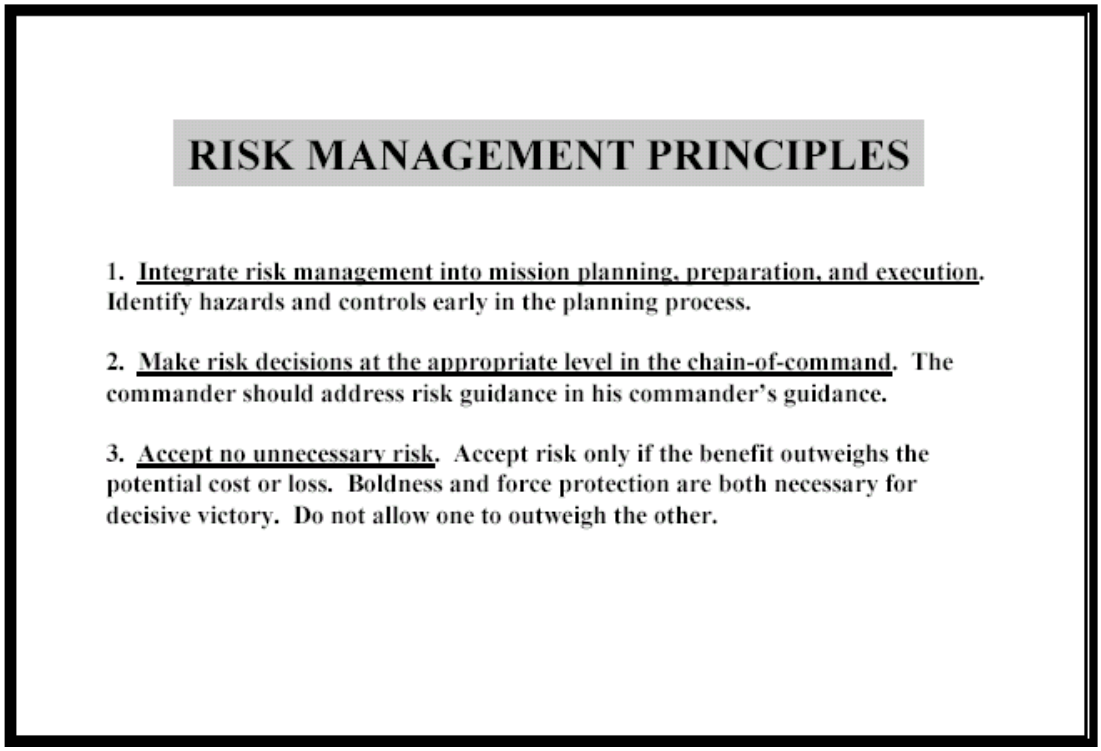


a. Risk management is a five-step process that is used to identify and control hazards. **It applies to any mission or task, in any situation, and in any environment**. The five steps of risk management are:

(1) **Step 1 - Identify hazards**
(2) **Step 2 - Assess hazards**
(3) **Step 3 - Develop controls and make risk decision**
(4) **Step 4 - Implement controls**
(5) **Step 5 - Supervise and evaluate**

b. Steps 1 and 2 together comprise the risk assessment . In step 1, individuals identify the hazards that may be encountered in executing a mission or task. In step 2, they determine the direct impact (level of risk) of each hazard on the operation.

c. Steps 3 through 5 are the essential follow-through steps that ensure action is taken to eliminate or reduce unnecessary risk.



(d)There are three basic principles that provide a framework for implementing the risk management process. They are used in conjunction with the five steps throughout the risk management process. The three principles are:

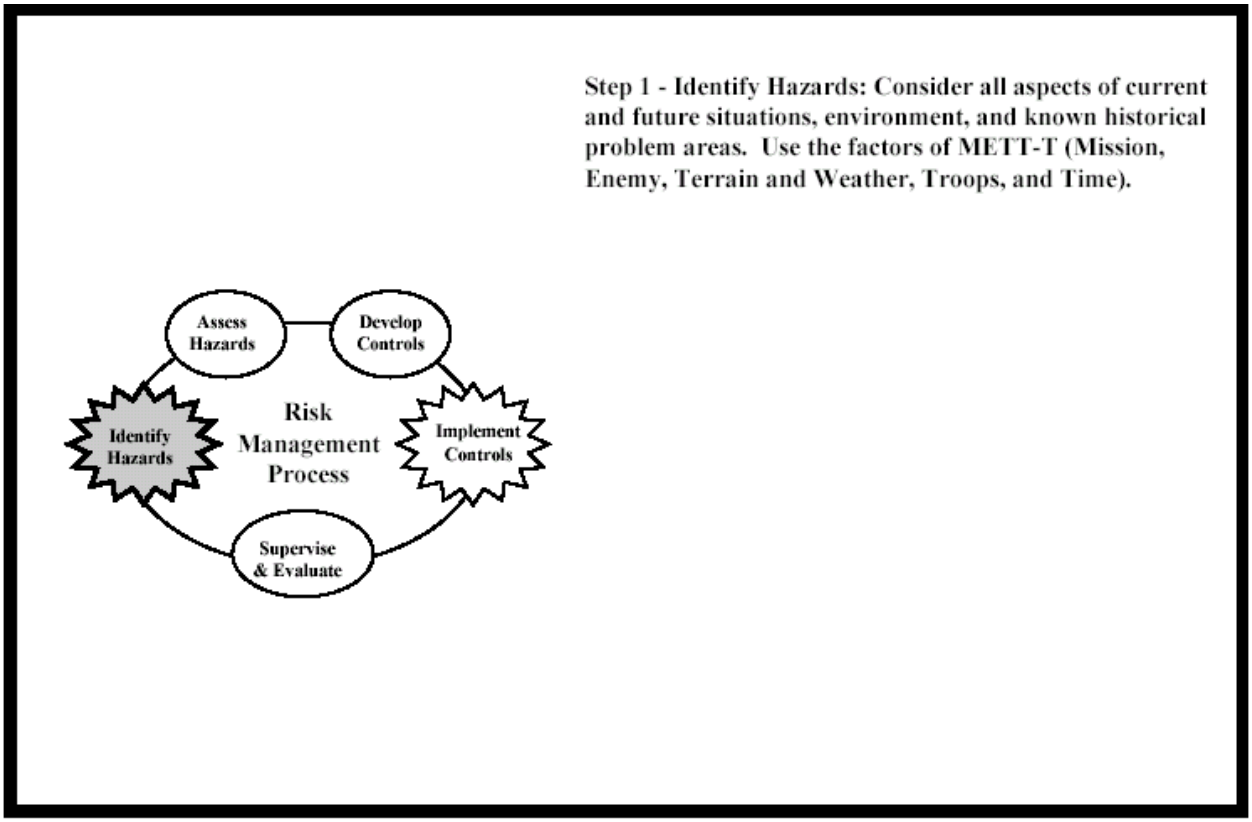
(1) Integrate risk management into mission planning, preparation, and execution . Identify hazards and controls early in the planning process.

(2) Make risk decisions at the appropriate level in the chain-of-command . Commanders must insist that subordinates exercise their freedom of action to act decisively and aggressively to complete assigned missions. However, if the residual risk exceeds the level of risk the higher commander has delegated, the subordinated must advise/inform his commander.

(3) Accept no unnecessary risk . The commander compares and balances the risk against the mission expectations, and accepts risk only in the benefit outweighs the potential cost or loss. Boldness and force protections are both necessary for decisive victory. Do not allow one to outweigh the other.

ENABLING LEARNING OBJECTIVE B: Conduct a risk assessment.

The risk management process begins upon receipt of the mission or task. The risk assessment involves the first two steps of the risk management process; identify and assess the hazards, and is conducted regardless of the time available for planning, preparation, or execution. Hazards are found in all operational environments, to include combat operations, stability operations, base support operations, and training.



(a)Step 1 - Identify Hazards: Step 1 of the risk management process, identify hazards, is the first step in conducting the risk assessment. To identify a hazard, ask two questions: "What areas do I need to examine?" and "How can I accomplish this?" These questions are best answered by using the factors of **METT-T** (Mission, Enemy, Terrain and Weather, Troops, and Time).

(1) Consider all aspects of METT-T for current and future situations, environment, and known historic problem areas. When applying risk management to the factors of METT-T during mission analysis, look for hazards that affect both accident and tactical risk, and present significant risk to the mission. Be sure to look for hazards that could contribute to fratricide risk.

(a) What is the **Mission**? When analyzing the mission, look at the type of mission to be accomplished. Certain kinds of operations are inherently more dangerous than others, for example, a deliberate frontal attack as opposed to a defense of prepared positions. Consider the mission-related fratricide risks (converging forces, weapons density).

(b) What is known about the **Enemy**? Size and capability (SALUTE). Look for enemy capabilities that pose significant hazards to the operation. Some common shortfalls that can create hazards include failure to:

- Assess potential advantages to the enemy provided by battlefield environment.
- Fully assess the enemy's capabilities and weakness.
- Determine accurately the enemy's probable course of action.

c) How will **Terrain** and weather affect the mission? Consider the effects of terrain and weather on enemy and friendly forces. Consider the terrain and weather-related fratricide risk (visibility). The five main military aspects of terrain (OCOKA) can be used as guidelines to help identify the hazards.

- Observation and fields of fire.
- Cover and concealment.
- Obstacles.
- Key terrain and decisive terrain.
- A venue of approach.

d) What **Troops** and equipment are available? Analyze the capabilities of friendly troops and equipment. Manning levels, condition and maintenance of vehicles and equipment, morale, and the physical health of soldiers are key considerations. Consider troop-related fratricide risks (fatigue, Rules of Engagement), and equipment-related fratricide risks (weapons effects, equipment backup).

(e) How much **Time** is available? The hazard is insufficient time to plan, prepare, and execute operations. Consider time-related fratricide risks (rehearsals, soldier and leader rest).

2) Some basic areas to consider when identifying hazards include; movement of personnel and equipment, vehicle operations, fuel storage and use, mess operations, explosives, ammunition storage and use, weapons handling, and bivouac operations.

(3) Sources of information about hazards include reconnaissance, past training experience, safety SOP, and unit's accident history. Your **past training and experience** is probably the most important source of information.

Determine which hazards to risk-manage

Q - Is hazard adequately controlled?		Adequate YES	Adequate NO
Identified METT-T hazards	Support - Is support available (personnel, equipment, supplies, facilities) adequate to control the hazard?		
	Standards - Is guidance or procedures adequately clear, practical, and specific to control hazard?		
	Training - Is training adequate to control the hazard?		
	Leader - Are leaders ready, willing, and able to enforce standards required to control hazard?		
	Individual - Is soldier performance sufficiently self-disciplined to control hazard?		

A - If all "yes," no further action.
- If one or more "no," risk-manage this hazard.

(b) Hazards that are not adequately controlled, and which are most likely to result in a loss or damage to personnel and equipment should be **risk-managed.** To determined if a hazard is adequately controlled or not, the following questions need to be answered (If all "yes," no further action required; if one or more "no," risk-manage the hazard).

(1) Support - Is support available (personnel, equipment, supplies, facilities) adequate to control the hazard?

(2) Standards - Is guidance or procedure adequately clear, practical, and specific to control the hazard?

(3) Training - Is training adequate to control the hazard?

(4) Leader - Are leaders ready, willing, and able to enforce standards required to control hazards?

(5) Individual - Is soldier performance sufficiently self-disciplined to control hazard?

RISK MANAGEMENT WORKSHEET

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. Residual Risk	J. Implement Controls ("How To")

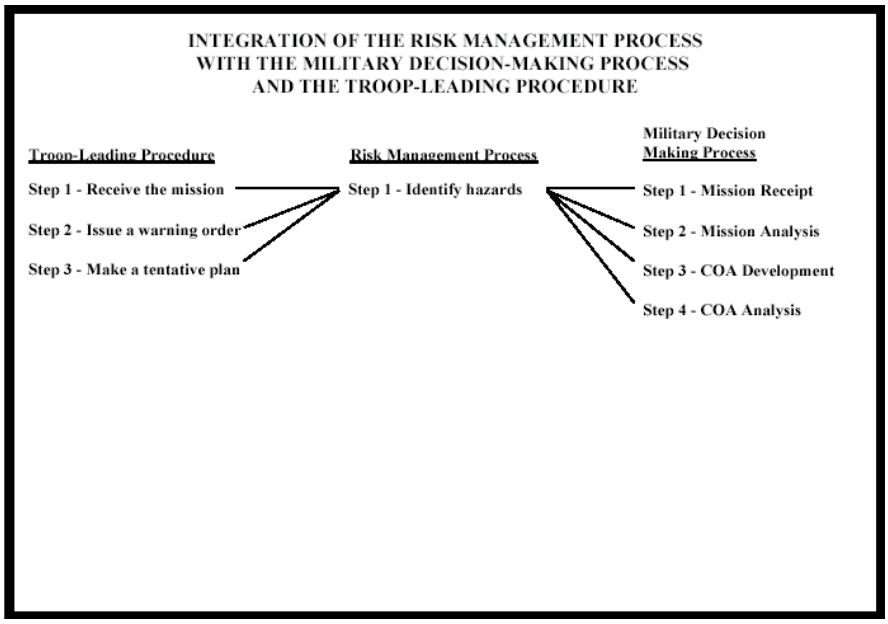
K. Overall risk level after controls are implemented (circle one)

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

c. The risk management worksheet is a tool that can be used to document risk management steps during planning, preparation, and execution of a mission or task.

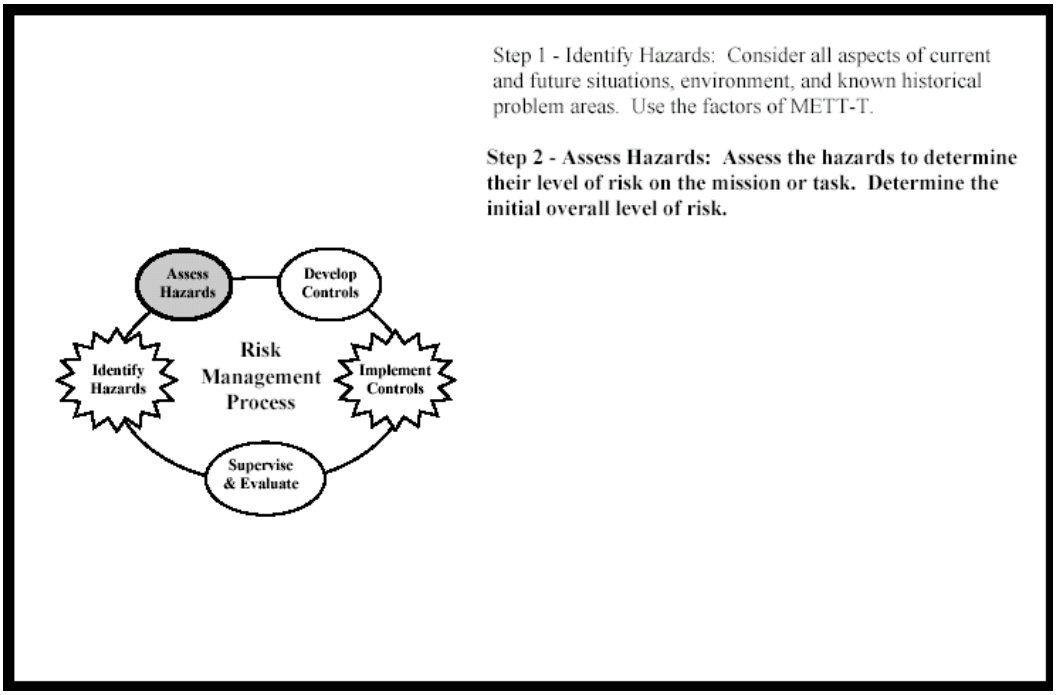
Completing the worksheet will enable you to progress more easily through the risk management process.

(1) **Blocks A-E** are self-explanatory
(2) **Block F - Identify Hazards:** Identify hazards using factors of METT-T. Additional factors include historical lessons learned, experience, judgment, equipment characteristics, and environmental considerations.
(3) **Block G - Assess Hazards:** Determine initial risk for each hazard.
(4) **Block H - Develop Controls:** Develop one or more controls for each hazard that will eliminate the hazard or reduce the risk.
(5) **Block I - Residual Risk:** Determine the residual risk for each hazard based on the controls being implemented.
(6) **Block J - Implement Controls:** Decide how each control will be put into effect or communicated to the personnel who will make it happen.
(7) **Block K - Overall risk level:** Select and circle the highest residual risk level based on the highest risk level in block I.



c. Hazards are identified during the first four steps of the military decision-making process, and the first three steps of the troop-leading procedure.

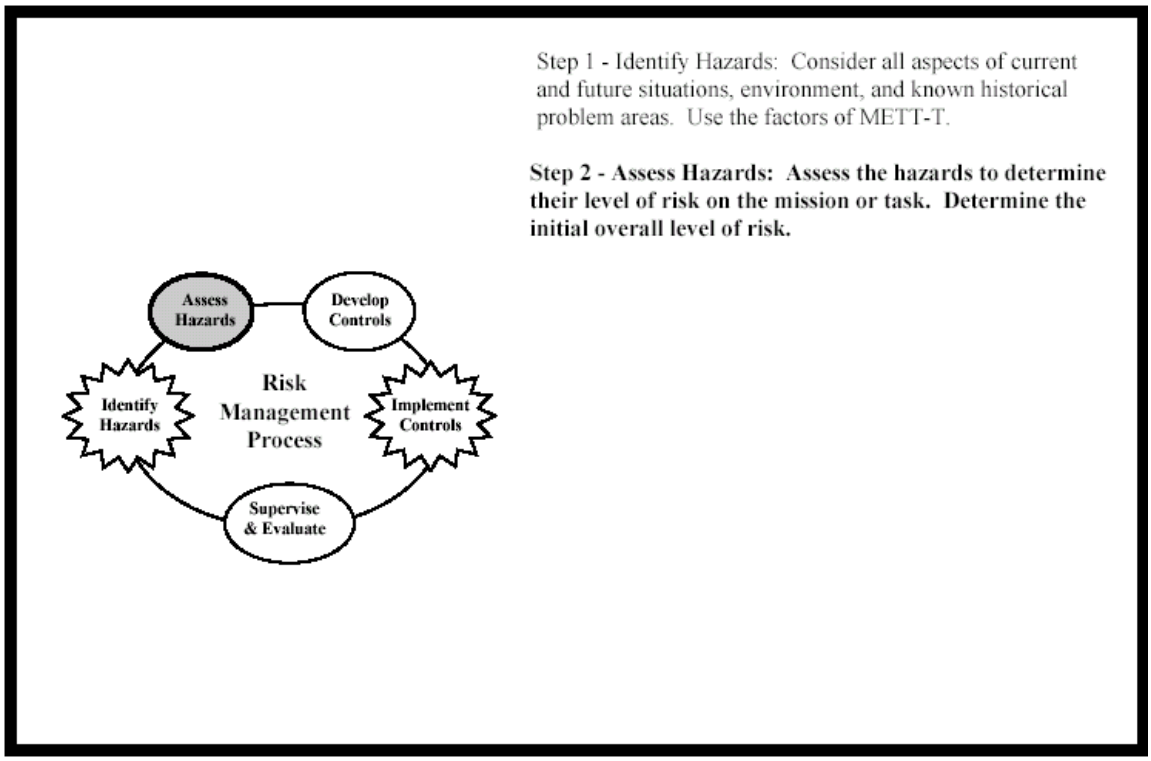
Learning Step/Activity 2 - Assess the hazards to determine their impact on the mission or task.



Step 2 - Assess hazards: Step 2 of the risk management process is to assess the hazards to determine their

impact (level of risk) on the mission. It also completes the risk assessment that was started in step 1. Determining the risk from a hazard is more of an art than a science. It involves using historical data, intuitive analysis, judgment, and at times the use of a risk assessment matrix to **estimate** the risk of each hazard.

(1) Determining the level of risk involves estimating the probability and severity levels based on your knowledge of how often, or frequently, the same event has occurred in the past and the results of similar past events **(past training and experience).** Step 2 is actually conducted in stages:



(a) **`Stage 1:`** Determine the probability (five degrees) of each hazard. What is the chance, or likelihood of a hazard related accident/incident or disruptive event occurring?

(b)

- **`Frequent:`** Occurs very often, continuously experienced.
- **`Likely:`** Occurs several times.
- **`Occasional:`** Occurs sporadically.
- **`Seldom:`** Remotely possible: could occur at some time.
  `-Unlikely:` Can assume will not occur, but not impossible.

`NOTE: Example:` A mission or task taking place at night could have an identified hazard of limited visibility. The degree of probability would be *`frequent.`*

DETERMINE THE DEGREE OF SEVERITY

SEVERITY - The degree of injury, property damage, or other mission impairing factors. There are four degrees of severity.

- Catastrophic - Loss of ability to accomplish the mission or mission failure. Death or permanent total disability, system loss, or major property damage.

- Critical - Significantly degraded mission capability or unit readiness. Permanent partial disability, temporary total disability in excess of three months, major system damage, or significant property damage.

- Marginal - Degraded mission capability or unit readiness. Minor injury, lost workday accident, minor system damage, and minor property damage.

- Negligible - Little or no adverse impact on mission capability. First aid or minor medical treatment, minor system impairment.

(b) **Stage 2:** Determine the severity (four degrees) of each hazard. What would be the result or outcome (the potential loss or cost) of the hazardous incident or event?

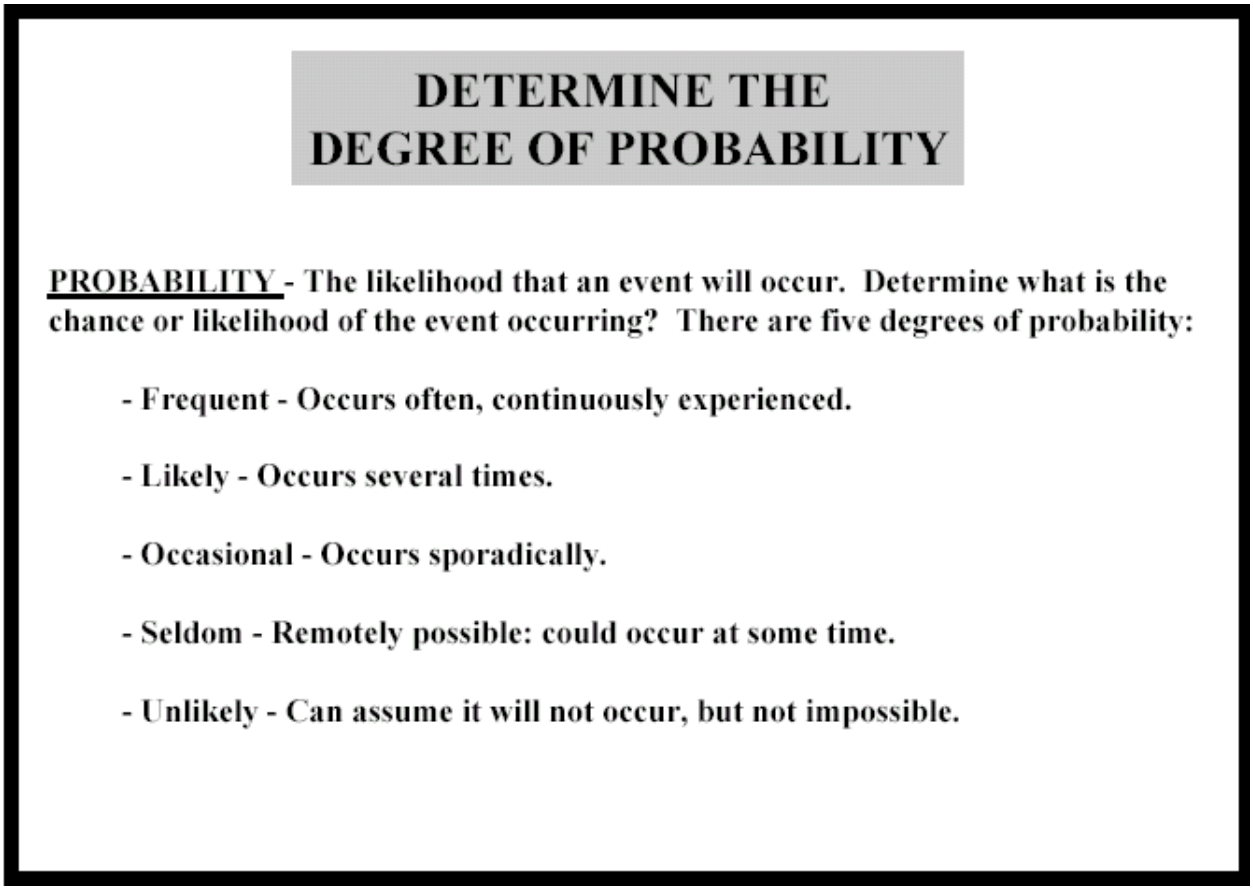
- **Catastrophic:** Loss of ability to accomplish the mission or mission failure.
Death or permanent total disability, system loss, major property damage.

-Critical: Significantly (severely) degraded mission capability or unit readiness. Permanent partial disability, temporary total disability in excess of three months, major system damage, significant property damages.

- **Marginal:** Degraded mission capability or unit readiness. Minor injury, lost workday accident, minor system damage, minor property damage.

- **Negligible:** Little or no adverse impact on mission capability. First aid or minor medical treatment, minor system impairment.

NOTE: Example: The mission or task taking place at night with a limited visibility hazard and degree of probability of *frequent*, would have a severity of *critical* or *catastrophic*.



a) **Stage 1:** Determine the probability (five degrees) of each hazard. What is the chance, or likelihood of a hazard related accident/incident or disruptive event occurring?

- **Frequent:** Occurs very often, continuously experienced.
- **Likely:** Occurs several times.
- **Occasional:** Occurs sporadically.
- **Seldom:** Remotely possible: could occur at some time.
- **Unlikely:** Can assume will not occur, but not impossible.

NOTE: Example: A mission or task taking place at night could have an identified hazard of limited visibility. The degree of probability would be *frequent.*

DETERMINE THE DEGREE OF SEVERITY

SEVERITY - The degree of injury, property damage, or other mission impairing factors. There are four degrees of severity.

- Catastrophic - Loss of ability to accomplish the mission or mission failure. Death or permanent total disability, system loss, or major property damage.

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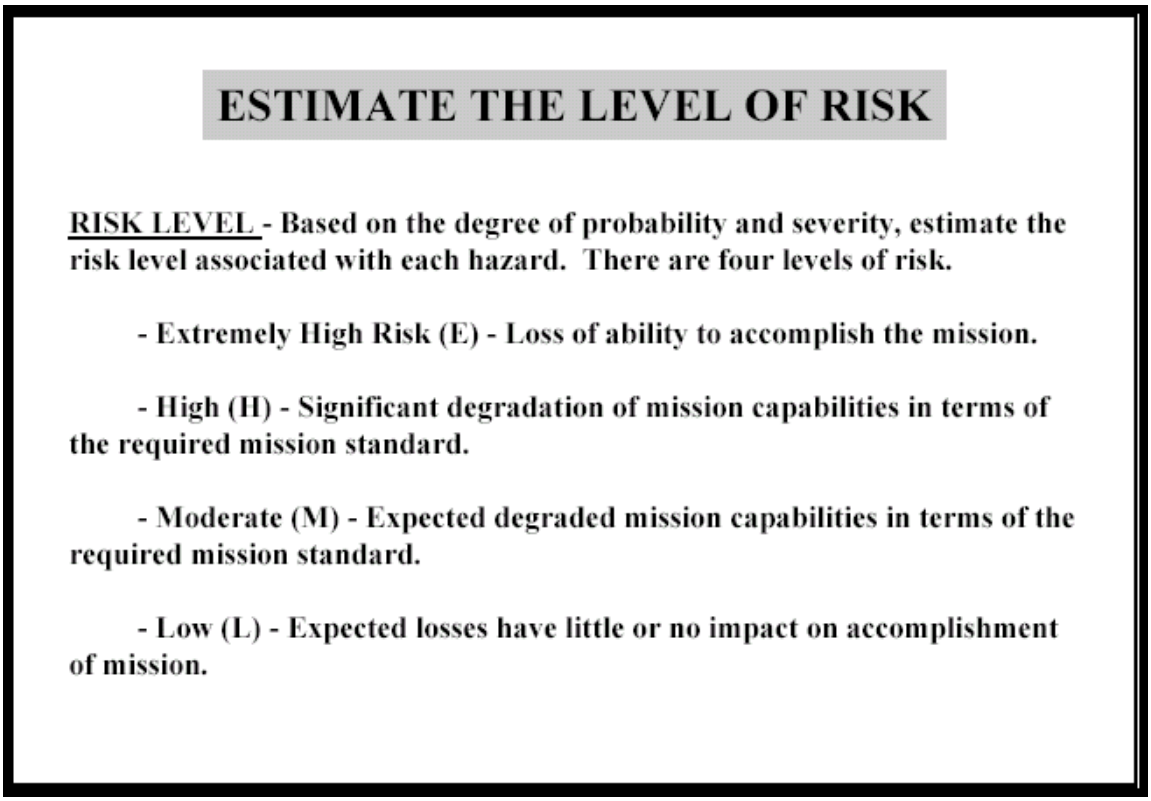
NOTE: Example: The mission or task taking place at night with a limited visibility hazard and degree of probability of *frequent*, would have a severity of *critical* or *catastrophic*.



(c) **Stage 3:** Estimate the level of risk (four levels) for each hazard. Based on the degree of probability and severity, estimate the risk level associated with each individual hazard.

- **Extremely High (E):** Loss of ability to accomplish the mission if hazards occur during the mission.

- **High (H):** Significantly degrades mission capabilities in terms of required mission standards.

- **Moderate (M):** Degrades mission capabilities in terms of required mission standards.

- **Low (L):** Little or no impact on accomplishment of the mission.

NOTE: Example: Based on the above example, a probability of *frequent* and severity of *critical* or *catastrophic* could produce a risk level of *extremely high* or *high*.

INDIVIDUAL HAZARD RISK ASSESSMENT MATRIX

SEVERITY		HAZARD PROBABILITY				
		Frequent	Likely	Occasional	Seldom	Unlikely
	Catastrophic	E	E	H	H	M
	Critical	E	H	H	M	L
	Marginal	H	M	M	L	L
	Negligible	M	L	L	L	L

NOTE: The matrix can be a useful tool, but is not a replacement for a detailed, careful analysis.

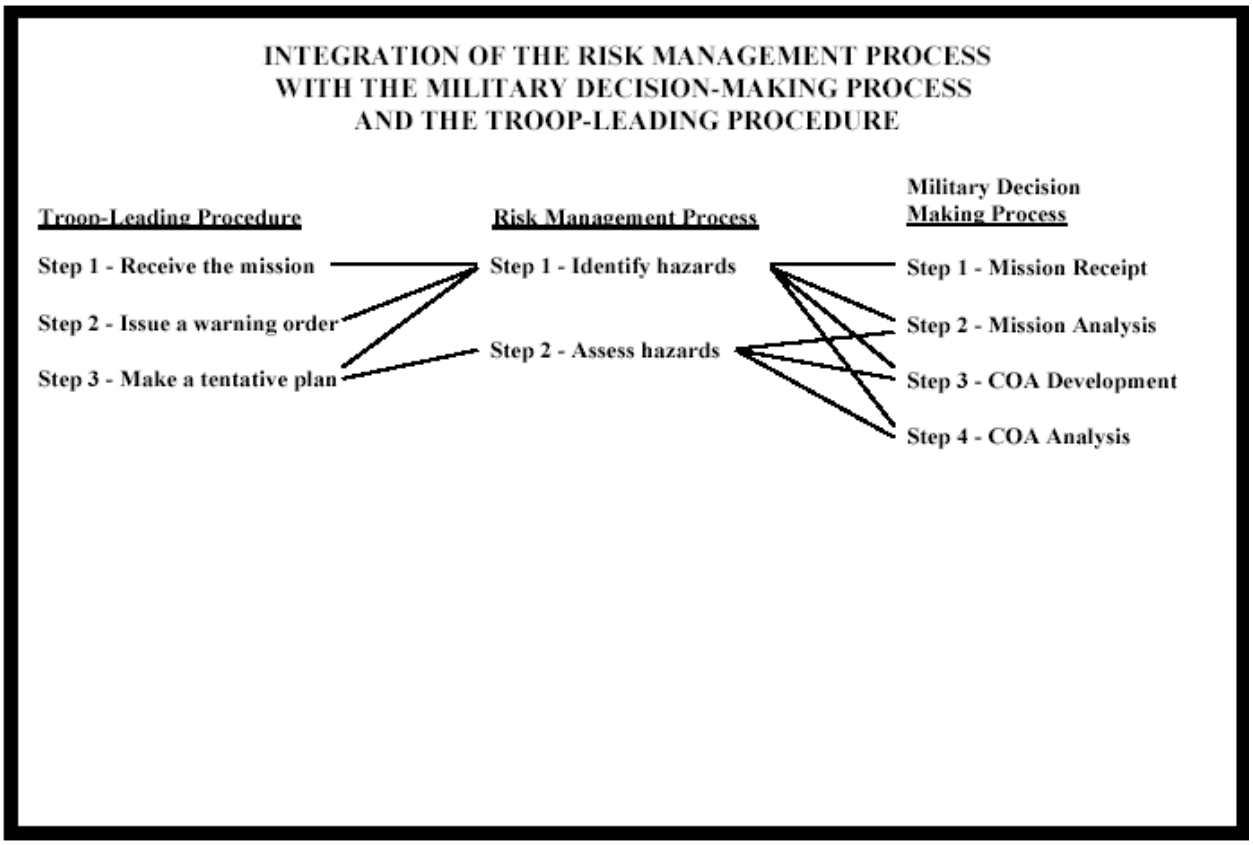
RISK LEVELS

E (Extremely High Risk) - Loss of ability to accomplish the mission.
H (High Risk) - Significantly degrades mission capabilities in terms of required mission standards.
M (Moderate Risk) - Degrades mission capabilities in terms of required mission standards.
L (Low Risk) - Little or no impact on accomplishment of the mission.

2) The risk assessment matrix is a tool, which may be used to help determine the risk level of a hazard. The matrix is entered from the probability column and severity row based on the user's knowledge of probability occurrence and severity of consequences once the occurrence happens.

NOTE: Example of how to use the matrix, for instance: an identified hazard has an estimated probability of *likely* and estimated severity of *critical*. The point where the probability column and severity row intersect defines the level of risk, which would be *high.*

b. **The initial overall risk for the mission or task is determined by using the hazard or event having the greatest risk. For instance, if three hazards have been identified and assessed risk levels of *low*, *moderate*, and *high*, the overall risk of the mission or task is *high.***



c. Assessing the hazards is conducted during three steps of the military decision-making process and step three of the troop-leading procedure.

Exercise (PE1): Go to Practical Exercise and complete practical exercise 1 - activity 1 and 2.

NOTE: Exercise (PE1): Have students complete practical exercise 1 - activity 3 on Practical Exercise

ENABLING LEARNING OBJECTIVE D: Identify ways to implement the controls.

Step 1 - Identify Hazards: Consider all aspects of current and future situations, environment, and known historical problem areas.

Step 2 - Assess Hazards: Assess hazards to determine their level of risk on the mission/task.

Step 3 - Develop Controls and Make Risk Decision: Develop control measures for each hazard, that will eliminate the hazard or reduce its risk. As control measures are developed, risks are reevaluated until all risks are reduced to an acceptable level or cannot be reduced further.

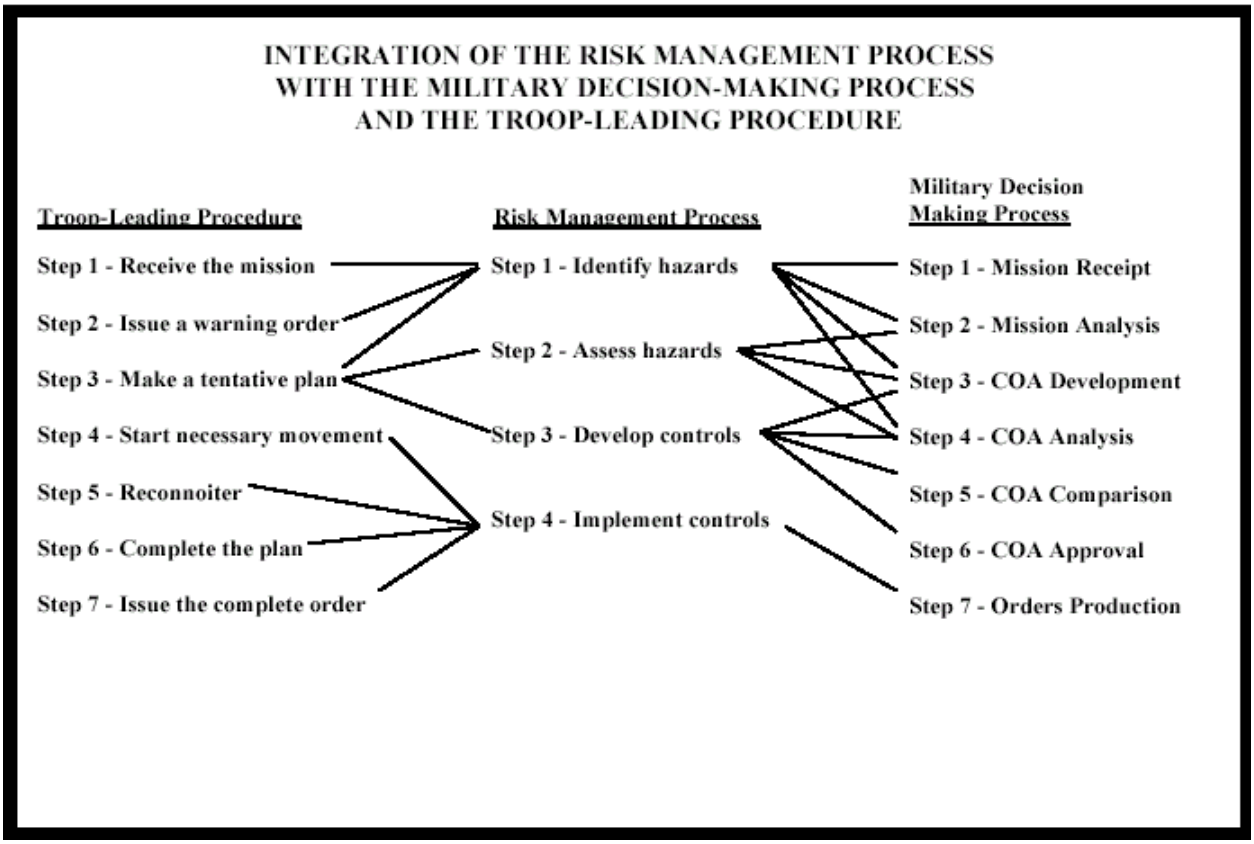
Step 4 - Implement Controls: Decide how each control will be put into effect or communicated. Implementing controls includes coordination and communication with superiors, subordinates, and individuals executing the mission/task.

Step 4 - Implement controls:

a. Step 4 of the risk management process is implementing the controls. Decide how each control will be put into effect and communicated to personnel who will make it happen. It's important to remember that until the controls are implemented, the risks from the hazard still exist.

b. Implementing controls includes coordination and communication with appropriate superior, adjacent, and subordinate units, and individuals executing the mission/task.

c. Leaders and staff must ensure that controls are integrated into SOPs (tactical, safety, garrison, etc.), written and verbal orders, mission briefings, and staff estimates. Implementation can include training schedules and rehearsals. The critical check for this step is to ensure that controls are converted into clear, simple execution orders understood at all levels.



d. Implementing controls is conducted during the last step of the military decision-making process and steps 4 through 7 of the troop-leading procedure.

ENABLING LEARNING OBJECTIVE E: Identify how to supervise and evaluate the controls

Step 1 - Identify Hazards: Consider all aspects of current and future situations, environment, and known historical problem areas.

Step 2 - Assess Hazards: Assess hazards to determine their level of risk on the mission/task.

Step 3 - Develop Controls and Make Risk Decision: Develop control measures for each hazard, that will eliminate the hazard or reduce its risk. As control measures are developed, risks are reevaluated until all risks are reduced to an acceptable level or cannot be reduced further.

Step 4 - Implement Controls: Decide how each control will be put into effect or communicated. Implementing controls includes coordination and communication with superiors, subordinates, and individuals executing the mission/task.

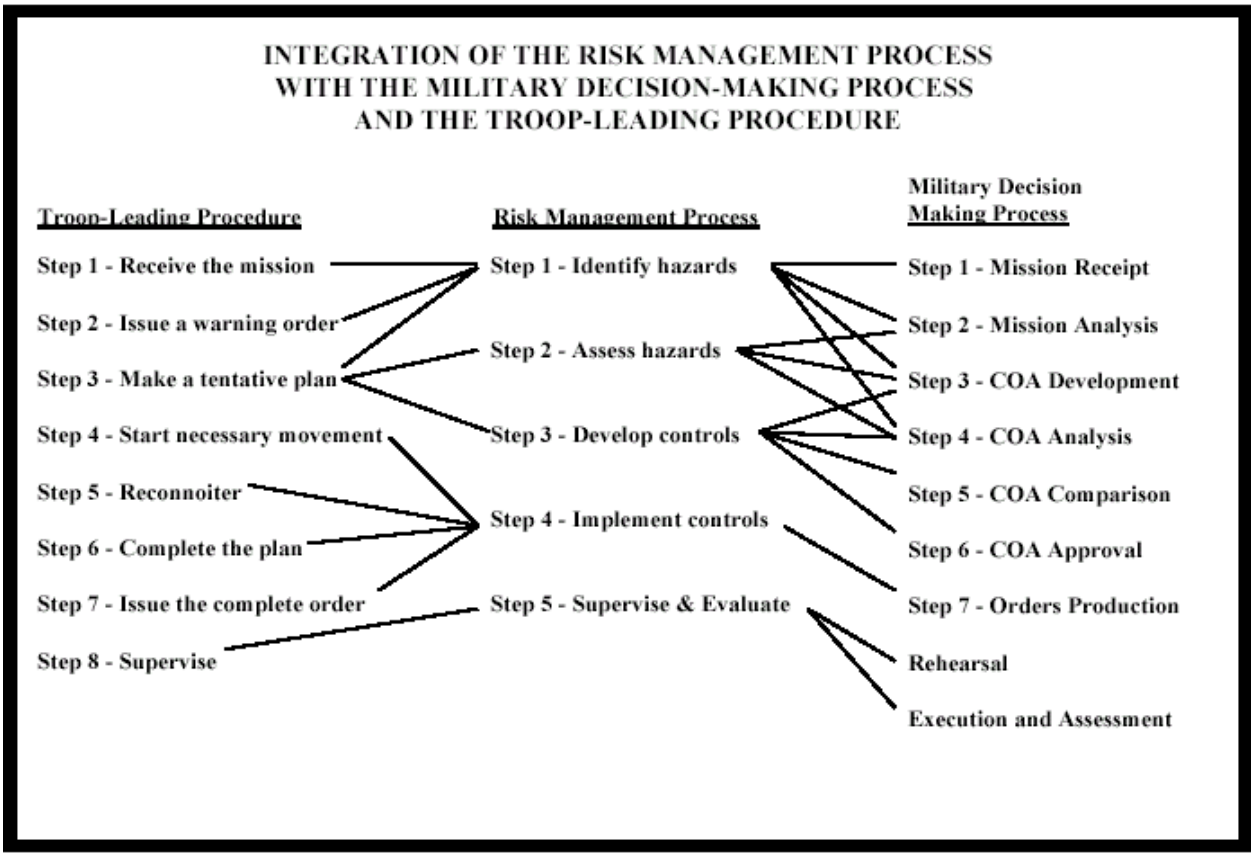
Step 5 - Supervise and Evaluate: Supervise and evaluate the controls to ensure they work. Revise or update as necessary.

a. **`Step 5 - Supervise and evaluate:`** Step 5 of the risk management process is to supervise and evaluate the controls to ensure they work. This is also the last step of the risk management process. Continuously monitoring the controls during the mission or task will help determine whether they are effective. Controls can be modified as necessary. Techniques for monitoring include:

(1) Spot-checks
(2) Inspections
(3) Situation reports and briefbacks
(4) Close supervision

b. After a mission, evaluate the effectiveness of each control in eliminating the hazard or reducing the risk. Conduct an After- Action Review . For ineffective controls, determine why and what should be done the next time the hazard is identified. For a recurring hazard identified in the next operation, there may be a need to change the control, develop a completely different control, or change how the control will be implemented. Some basic questions to ask are:

(1) Were the most likely hazards to result in mission degradation identified?
(2) Was the risk for hazard appropriately assessed in terms of probability and severity?
(3) Were the controls identified and developed for each hazard?
(4) Was the residual risk for each hazard appropriately assessed?



b. Supervising and monitoring the controls is conducted during the rehearsal, and the execution and assessment phase of the military decision-making process, and step eight of the troop-leading procedure.

End of Instruction:Finish Practical Exercise and turn in as Exam.