Risk Management

A guide to help you implement Risk Management in your organization

"The person who risks nothing, does nothing,
has nothing, and is nothing."
Janet Rand

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Chapter 1 **Introduction**

The Who, What, When, Where and Why of Risk Management

Who is directing the use of Risk Management?

Direction to use Risk Management is coming directly from the top. In July of 1995 General Reimer, Chief of Staff of the Army wrote a letter stating the goal of the Army is "*to make risk management a routine part of planning and executing operational missions. Risk management helps us preserve combat power and...is a combat multiplier...*"

In May of 1997 Togo West, the Secretary of the Army signed a letter which directed the integration of Risk Management. In his letter he states "*Risk management is the principal risk reduction process...*"

What is Risk Management?

Risk Management is a decision making process aimed at reducing the number of losses of people, equipment and material due to accidents. It is a pro-active approach to accident reduction which has been proven on the battlefield as well as in private sector companies. Risk Management works.

Risk management applies to both to war and to peace time operations. In war the commander may be forced to assume greater risks than they normally would in peace time training. In training the injury of one soldier is an unacceptable risk. Commanders must:

1. Take ownership of workplace safety
2. Cancel operations if they are taking too many casualties
3. Minimize casualties and losses of equipment
4. Ensure that no one is injured in a peace time mission.

Risk Management is just what the doctor ordered!!

When should you conduct a Risk Management Assessment?

Ideally, Risk Management should be considered well in advance of the operation, when the operation is still in the planning stages. If you are planning six months out, you can use a variety of Risk Management techniques to identify and control the hazards your people will encounter. On the other hand, if you have just been handed a mission to be conducted in the next few hours, a hasty risk management assessment may be all that you have time to do.

Where can I find Risk Management Guidance? (*Hint, look in the Operations Shop*!)

Field Manuals and regulations are being rewritten to reflect the changes directed by Reimer and West. The ultimate goal is to integrate Risk Management into all training events, mobilization exercises, deployment missions to hostile area's, as well as day to day activities of our soldiers and civilian work force.

You can find Risk Management in a wide variety of places. Your local safety office can help you with job aids, training films and classes on Risk Management.

FM 100-14, entitled "Risk Management", and other manuals will reflect that Risk Management is the way of doing things.

FM 101-5 Staff Organization and Operations identifies risk assessment as step #7 in the mission analysis. The FM includes a small annex on Risk Management (Annex J, Risk Management). FM 101-5 specifies that "every staff officer must integrate risk management into the planning and execution of training and operational missions."

Some examples of risk management in action that the staff officer must use are:

Applying risk management during the decision making process of completed staff work.

Developing and implementing controls for the commander that support the mission by avoiding risk and loss of combat power.

Providing support and establishing standards and procedures that are clear for each specified and implied task.

Why is Risk Management important? It is impossible to completely eliminate all risk. We must learn to control hazards in order to reduce the amount of risk that we are exposed to.

On Army installations, a typical organization will have about 300 safety "accidents" in a year. These accidents range from first aid injuries to hospitalization of workers.

Of these 300 "OOPS" probably 48 will turn into situations where the worker is unable to perform his job and has to miss a day or more of work. This results in lost productivity, personal suffering and medical expense to the organization. For each lost day of work, the organization pays about $371 in continued wages for an on the job injury. Medical costs run about $709. So each time an employee is injured on the job and can't return to work the next day, it costs the organization $1,080 on an average.

Remember those 48 workers who got hurt? They averaged into a total of 296 days of lost time!!! It cost the organization $332,000, almost a third of a million dollars!

On the military tactical side the results of an accident are just as devastating. During Desert Storm/Desert Shield only about 20% of our casualties were the result of enemy action. 75% of the casualties were the result of accidents! It has been estimated that we injured enough soldiers BEFORE the operation began to fill a platoon!

In one single accident (after the shooting stopped), a single "OOPS" at Doha left 2 people dead; 58 injured; destroyed 4 tanks, 7 FAASV's, one battery of artillery, 27 trucks and 450 TONS of ammunition!

Chapter 2 **How to do a Risk Assessment**

The process fits very well with "go to war" missions and Force Protection missions. In the private sector Risk Management is even used in the business world during company buy outs and labor negotiations! (It really is a neat process that can fit into anything you do!) In the Army it fits nicely into Force Development, Force Projection and Force Sustainment!

Risk Management is a methodical system that leaves very little to chance. It walks the leader towards the development of an informed decision about a particular task or operation. The process involves the user and empowers the user to make decision to assure a safe operation at the save time. It is very simple the decision making process. Remember, the name of the game here is to MANAGE THE RISK! There's no way that we can eliminate all of the risks entirely, so we have to accept some risk and learn to manage it.

Risk Management is being integrated into Army Doctrine at all levels. It is being taught at our NCO Academies, War College and the Officer Candidate Schools. The principles of Risk Management are as follows:

1. Integrate Risk Management into planning
2. Accept no unnecessary risk
3. Make risk decisions at the appropriate level
4. Accept risks only when the benefits outweigh the costs

The Risk Management process consists of 5 simple steps:

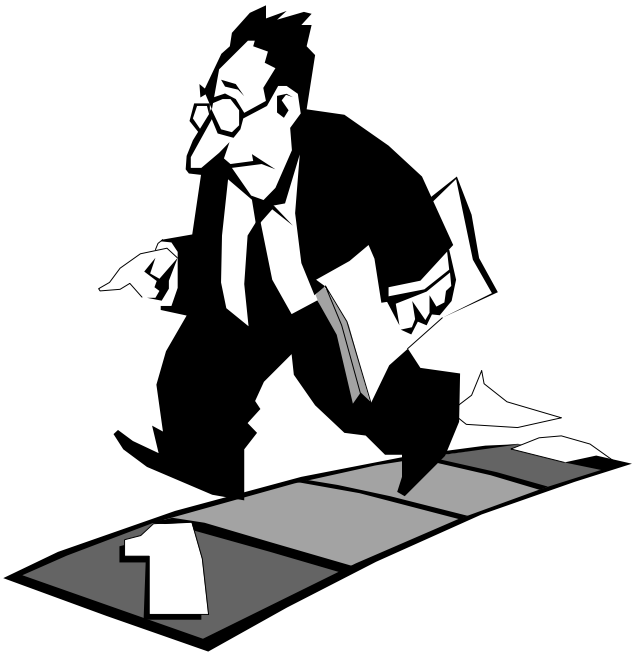
Identification of Hazards

Assessment of Hazards

Developing Controls of the Hazards

Implementing the Controls

Evaluating the Process



Identifying the Hazards

Let's say that your unit is going to Annual Training, a field exercise at the National Training Center. In order to be prepared, you want to find out all that you can about the hazards associated with that area or that operation. Get all of your smart folks together and spend some time just Identifying the Hazards.

Insect and vermin that you don't normally encounter are waiting to bite you.
There may be an enemy force out there.
You will be moving by rail car and your folks could get crushed.
Vehicles have been known to roll over and kill people during training.
Weather can change and affect your mission (and the list goes on and on.....)

Assess the Identified Hazards

Once you have exhausted the list of hazards, you must **Assess Severity of the Hazards** so you can concentrate on the most important ones! Those hazards that could kill or maim or make your unit combat ineffective should be taken care of first. But which ones are they? If your unit is crossing a river, non swimmers could be your largest hazard. On the other hand, if you will be rappelling into a training area, perhaps the hazards of falling out of a helicopter is the greatest hazard that you should consider protecting your soldiers from.

We measure risk in the Army in terms of SEVERITY of outcome and the PROBABILITY that an incident will occur. For example, the probability of an injury such as a non swimmer getting into trouble during a river crossing may be **likely**, and the severity of the outcome could be **catastrophic**. The overall risk would be considered **extremely high**. On the other hand, if there is no water in the training area, the probability of a soldier drowning is unlikely. We can change the probability of a catastrophic event by a number of means. We could not allow the non swimmer in the water during the training exercise, or assign a buddy to help him cross, or use a rope bridge in the water to help the non swimmer get across the river. By changing the probability of the event occurring, we can reduce the overall risk to a medium risk.

Probability of a hazard occurring can be broken into five different categories:

Frequent-	Experienced continuously during the operation, occurs often
Likely-	Experienced often, occurs several times during the operation
Occasional-	Experienced sometimes, occurs sometimes
Seldom-	Possibly experienced, occurrence is remote
Unlikely-	Improbable, not expected to occur

We break hazard severity into four outcome categories:

Catastrophic-	Death or permanent disability, major equipment damage
Critical-	Permanent partial disability, significant equipment damage
Moderate-	Minor injury, lost workday, minor equipment damage
Negligible-	First aid, little equipment damage

Using the table at the back of this book, you can look at each hazard you've identified and determine how serious the outcome. Then, looking across the top of the table examine the probability of the accident occurring. Where the two areas intersect in the chart you will find the risk assessment category, ranging from Extremely High to Low.

This is your initial hazard assessment. Don't worry about what you are going to do to protect your folks. Just take all of the hazards and assess them. There is a form in the back of this book to help you do that.

Develop Controls and Make Decisions

The third step is to develop controls and make decisions for the hazards that you have identified. Your goal is to reduce the probability of a hazard turning into an accident and to limit the consequences of an accident if one occurs. You can do this by using controls to either reduce the severity of the injury (use Personal Protective Equipment, Guards, Inoculations) or reduce the probability of the event occurring (Use Air Force gun ships, artillery, take a different route, use a different piece of equipment).

Implementing Controls

The fourth step is to implement the controls that you've decided to use. By implementation, we mean making some one be responsible for ensuring the control is used correctly. If possible, identify the soldier who will implement the control by name. For example, make SGT Jones responsible for insuring that his team has had their shots or to check the vehicles for PMCS and fire extinguishers prior to departing. Use the chain of command to check on SGT Jones to make sure that he's doing his part, or the entire process just turns into a paper drill.

Evaluate your risk management success

Finally, after the operation is finished, you will want to Evaluate the Process to see if it all worked out. If the process helped ensure the mission was a success, with less difficulty than it would have been had you not used Risk Management, let the Operations Section know what went well. If you missed something that should have been looked at, let them know that, too. They should keep a file of successes and failures so the next time an operation of this type is conducted the unit can be better prepared.

General Reimer has stated:

“accept no unnecessary risks”.

And if the risk cannot be managed or controlled, perhaps we don’t want to assume that risk!

So if the mission can be done by some one else with less risk exposure, let them do it. (Why send infantry in to fight a platoon in the open when the Air Force has bombers on station????)

Why should we integrate Risk Management into our operations?

In order to be successful, everyone must be thinking along the same lines. If the Brigade, Battalion commanders are saying that no training injury is acceptable and the B Battery commander is saying "Mission First, Safety Second".... you have a problem. The commander may be confused by his superiors orders or attitude, or he may view safety as the role for the safety professional (Installation/Unit Safety Officer) to handle.

Evidence from the National Training Center indicates that the Observer/Controller teams made hundreds of safety corrections to units who trained in the desert. When the Observer/Controllers stopped making these corrections the units began to experience a vast increase in accidents. The units had come to rely on an the observers to ensure the safety of their personnel.

Some installations have assigned their safety professionals to Brigade levels to attend field exercises and train with that brigade. This type of forward support is beneficial to both sides, as the unit gains safety expertise while the installation safety office gains field experience. But that safety officer cannot be everywhere throughout the Brigade. He must ensure that Risk Management is integrated into the operations plan, into the SOP's and day to day life of the leaders and their soldiers. In order to do this, Risk Management has become an OPERATIONS responsibility!!!!

That's right, it is the responsibility of the S3, the G3, the officers and non commissioned officers to integrate Risk Management. No longer can we simply say "That sounds like a problem for the Safety Office". As the NCO Academy says, *"If you walk by a safety deficiency, you've just endorsed it!"*

What happens to the safety professionals at your local safety office? They don't just sail away. They are another tool for the leaders to use to "preach the Risk Management gospel". To date there are over 26 different Risk Management tools at your disposal. The Safety Office knows them all and can help you to select the ones that best fit your unit, your command and your personality! When you run into leaders who may balk at Risk Management, the Safety Officers are the ones to contact so that they can sell Risk Management to the leaders.

Chapter 3 **Implementation**
(A scenario for a quick start)

Here is a scenario that you can use to get your unit up and running fairly quickly. We'll assume that the concept or Risk Management is new to your unit and you have come to the safety office asking for guidance on how to integrate a Risk Management Program into your routine operations.

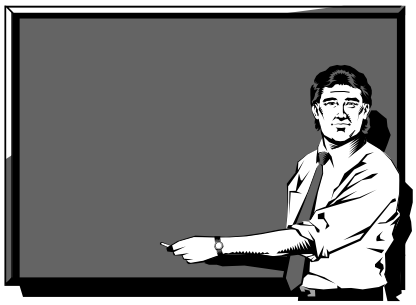
First, motivate your people to incorporate risk management into the operations of your organization! You need to keep the motivated personnel that you have, but remember that personnel turbulence is a fact of life! You have to find new and continual means to keep your people motivated! Talk to your commander and make sure that he shares your feelings about Risk Management.

Devise a method to keep the your safety program running even though people will rotate through the organization. Document your program. A good idea is to find a three ring binder and label it Risk Management. Use a three hole punch and put all your notes, comments, SOP's, etc. about Risk Management in that book so that you can find it on the shelf when you need it!

At this point, your commander is on your side. You have found a few folks who have heard about Risk Management and sort of believe in it. You have started your file system in a binder. What to do next?

1. **Publish a letter** under your commander's signature similar to General Reimer's. This letter should indicate that he believes in Risk Management and expects everyone in his command
to get on board. In the letter he should specify that the responsibility for Risk Management Integration is the Operations personnel, and that the Safety Professionals will provide assistance and training.

2**. Develop a Risk Management SOP**. Don't just publish it in a vacuum!! Make a draft copy and hand it out to your platoon leaders, NCO's, Directors, etc. Ask them to review and make comments about it and give it back to you. When you get all of their comments back, you can modify your original (we've put one in the back of this document for you to start with) and publish a final draft for their comments. Give them a short suspense, such as two weeks to make their notes on the SOP and get it back to you. In this way you've let them buy into Risk Management and they will feel that they've contributed to the process.



3. **Begin a training program** to develop your leaders and Operations personnel first. Eventually you will have to train everyone, but a good start is to use Non Commissioned Officer Professional Development and Officer Professional Development classes to get the word out. Dress up the training so that it doesn't become boring. Use colorful slides, movies, enlargements and lots of activity. There is NOTHING as boring as a poor safety class! Contact different Safety Offices (they are there to help you, remember?) and ask them if you can borrow their slides, training aids. Begin training unit leaders while your SOP is being reviewed by them. If they don't understand the process they won't be able to evaluate the SOP effectively!!

4. **Publish your SOP**. Paper is relatively inexpensive, so make lots of copies and get copies down to the final user.

5. **Evaluate the use of Risk Management** at every chance. Incorporate it into your after action report format. When the 1st Armored Division redeployed from Desert Shield/Desert Storm, a portion of their after action report was devoted to Risk Management. They discussed the hazards which had been identified at the beginning of the exercise, the countermeasures that were utilized, and whether the countermeasures had been effective.

During operations briefings Risk Management should be discussed to ensure that all participants are aware of the countermeasures as well as to remind the staff that Risk Management is alive and well.

6. **Sell Risk Management** to your audience! Your soldiers and leaders are going to have to buy into this and believe that it works! And it does work! You must instill confidence in the system by promoting its use, and advertising the usefulness of it. When something goes right that could be attributed to Risk Management, get the news to the local paper, to the commander so he can mention it at staff call. Write a note to the person responsible letting them know that they've done well!

Explain to units how they can use Risk Management to increase their training possibilities. Risk Management allows the commander to identify the hazards and accept the necessary risks to enhance training. This allows the soldiers and workers to become more creative in their solutions as to how to manage the risk's associated with their tasks. For example, artillery units at one time were required to occupy a specific spot on the ground when they fired during training. By using risk management techniques the battery commanders can now accept the risks associated with firing cannons from a position area instead of a point on the ground. This allows for more realistic training, while maintaining a safe firing element.

The leaders are empowered to accept the risks, and responsibility for the risks they accept. You may want to remind them of the Khobar Towers incident where the General Officer accepted the risk which lead to the deaths of military personnel. His acceptance of that high risk on his own kept him from being promoted!

Make it easy to use and adopt the principles we've discussed. Offer classes to the soldiers at their convenience (evenings/weekends) and train soldiers whenever you get the chance. Freely distribute any information that you have that your audience can use to make it easy to integrate the principles of Risk Management.

Use posters, fact sheets and memo's to promote the use of Risk Management. If you have Email capability, send an Email note from time to time reminding folks to Identify and Assess Hazards, Make Decisions about those hazards, Implement those Decisions and then check and supervise the controls that have been decided upon.

You can get some neat publications from the US Army Center. Just sent a note to Publications, US ARMY Center, Fort Rucker, Alabama 36362-5363 and ask for:

Chief of Staff Letter on Risk Management
RM Training Support Package- Leaders
RM Training Support Package- Soldiers
Risk Management for Brigades/Battalions
Leaders Guide to Force Protection through RM
Next Accident Assessment for Leaders or Individuals
NTC Force Protection (Safety)Study Guide (Ground OPNS)
And more!!! Ask them for a list of their pubs!
(DSN 558-2062)

Chapter 4 **Deployment/Mobilization**

Don't forget about Risk Management when you move out to the field or head off to the war!!! When you use Risk Management techniques there is hardly any difference in the actual analysis of the operation. Moving people and equipment from point A to point B has similar challenges, regardless of whether you are going to war to going to a company picnic. (Hopefully things will be less risky at your company picnic than they will be if you are going to fight war)

If you are going to Grafenwhor, the National Training Center or Annual Training at Fort McCoy, take Risk Management along with you! Find out about the local hazards and incorporate them into your risk management planning. At Fort McCoy in Wisconsin there are a lot of vehicle accidents caused by deer crossing the highway, while at Grafenwhor Germany the problem is the boar hogs that cross the tank trails! In Oklahoma you may encounter rattle snakes and tarantula spiders. Each training center has its own special safety challenges!

For example, in the Desert Shield mobilization effort we found these problems that would have been identified if a proper Risk Management Process had been adhered to:

Soldiers worked 36-48 hours without sleep, became ineffective and had accidents that were induced by fatigue.

Shipping containers were mislabeled and MRE's were shipped on the same pallet as pesticides.

Vehicles were shipped with Master Switches ON, did not have the correct tie down equipment, equipment was not stored correctly inside vehicles. This lead to incidents during shipping which damaged Army equipment and our capability to put Hussein in his place!

Chapter 5 Tools

This chapter has some tools to help you to integrate Risk Management into your operations. Consider this a tool box full of stuff you can use to make your life easier!! You will find such things as a definition card, a Risk Assessment Matrix and a Hazard Assessment Form that you can use, change, modify etc. There is also a short discussion of some Risk Management techniques that you can easily put to work for you, along with a Sample SOP that you can copy and use for your unit.

DEFINITIONS

SEVERITY OF EFFECTS

CATASTROPHIC	Death or permanent total disability, total equipment loss, or major property damage
CRITICAL	Permanent partial disability, Temporary Total Disability in excess of 3 months, major equipment damage, or significant property damage
MODERATE	Minor injury, lost workday accident, Compensable injury or illness, minor equipment damage, or minor property damage
NEGLIGIBLE	First aid or minor medical treatment, minor impairment to equipment or system

PROBABILITY AN INCIDENT WILL OCCUR

FREQUENT	Continuously experienced by a unit, soldier, or during the equipment's service life...Occurs often
LIKELY	Often experienced by a unit, an individual soldier, or during the equipment's service life...Occurs several times
OCCASIONAL	Sometimes experienced by a unit, an individual soldier, or during the equipment's service life...Occurs sometimes
SELDOM	Possible that it will be experienced by a unit, soldier, or during the equipment's service life...Occurrence is remote
UNLIKELY	Possible, but improbable, that it will be experienced by a unit, a soldier, or during the equipment's service life...Not expected

RISK EFFECTS ON THE MISSION, IF HAZARDS ARE NOT REDUCED

EXTREMELY HIGH	***Complete loss of ability to accomplish the mission***
HIGH	*Will not accomplish all parts of the mission, or will not be accomplished to standard*
MEDIUM	*Will have reduced mission capability*
LOW	*Little or no impact on mission accomplishment*

"Protecting the force is every leader's responsibility; we owe it to the sons and daughters of a grateful nation."

-Togo D. West Jr.
Secretary of the Army

RISK ASSESSMENT MATRIX

(Read right and up)			PROBABILITY AN INCIDENT WILL OCCUR				
			Frequent	**Likely**	**Occasional**	**Seldom**	**Unlikely**
			A	B	C	D	E
SEVERITY	**Catastrophic**	I	**EXTREMELY HIGH**				MEDIUM
	Critical	II			**HIGH**	MEDIUM	
	Moderate	III	**HIGH**	MEDIUM			
	Negligible	IV	MEDIUM			**LOW**	

"I expect commanders to create an environment in which the lives and well-being of our soldiers are an integral part of the accomplishment of the mission."

Gen. Dennis J. Reimer
Chief of Staff, US Army

Risk Management Deliberate Planning Form

Use this form for deliberate planning operations.

Maintain the form for future operations of a similar type.

1. Organization and Station			2. Page _____ of _____.
3. Mission/Task: 6. Date prepared	4. DTG Begin	5. DTG End	
7. Standards, SOPs, References used to implement Mission/Task Control Options and Countermeasures for Hazards:			
8. Prepared by: (Name/Rank/Duty Position)			

9. Identified Hazards:	10. Initial Risk Level				11. Control Options & Countermeasures	12. Remaining Risk Level				13. Supervisor (buddy/ SSG X)	14. AAR
	L	M	H	E		L	M	H	E		

15. Remaining Risk Level After Countermeasures (Initial Highest Remaining Risk Level	LOW	MEDIUM	HIGH	EXTREMELY HIGH

16. RISK DECISION AUTHORITY: (Approval Authority & Signature Block)

COMMANDER	STAFF
1. Issue Mission 2. Issue guidance	1. Receive Mission 2. Gather and consider information 3. Complete Mission Analysis, restate mission, and issue planning guidance 4. Complete staff estimates • Develop/analyze/compare/ wargame Courses of Action (COAs) • Do Risk Assessment for each COA (Using Hasty Risk Assessment Card or Risk Management Worksheet) • Use Risk Level for each COA as a decision criterion 5. Recommend COA
1. Analyze Courses of Action 2. Make Decision (Select COA) 3. Make Risk Decision for selected COA 4. Accept Risk Level or elevate for decision 5. Issue final orders based on accepted Risk Level or Higher Decision on Risk	1. Make Risk Decision for Selected COA 2. Develop Concept of the Operation • Identify controls for hazards • Select best controls for hazards • Incorporate into Coordinating Instructions and tasks for subordinate units • Integrate controls into OPORD Paragraphs and Graphics 3. Prepare, approve, and issue Plans/Orders
1. Lead the Operation 2. Monitor and enforce controls **COMMANDER** 3. Supervise execution of the orders to established standards 4. Make changes to plan as required after contact with the enemy or	1. Monitor Progress 2. Collect Data on results 3. Act to correct deficiencies **STAFF** 4. Assess Risk Impact of Changes to plan in progress (Using Hasty Risk Management) 5. Collect Lessons Learned

operation start	

Assess Results	Assess Results

METT-T

MISSION	• Complexity and preparation for mission • Familiarity with mission type • OPTEMPO (Available time for dry/blank fire rehearsals) • Equipment condition (Weapons, maintenance, etc.) • Equipment types (Hauling Troops, Hazardous Cargo, etc.) • Day versus Night Mission and Conditions • Communications/Coordination • Rules of Engagement (Counter-Fratricide Measures) • Hazardous Material (Ammo Types, etc.) • Quality of Supervision (O/Cs, Untrained Observers, etc.)

ENEMY	• Anticipated Enemy Actions • Known obstacles or hazards • Weather Conditions • Target Placement • Target Bypass Criteria (Method of successful engagement) • Obstacles to water crossings

TROOPS	• Fatigue • Morale • Training Proficiency • Number of Personnel • Protective Equipment

TERRAIN	• Ricochets from frozen ground • Wet/Slippery roads, or walking surfaces • Weather effects on terrain (impassable roads, creeks, etc.)

TIME	• Time allowed for mission preparation • Time for rehearsals • Time for delivery of supplies, replacements, etc.

Risk Management Techniques

The What If Technique is one of six hazard analysis options from OSHA's Process Safety Standard. You start with a specific segment of the system and ask a "what if" type of question. It may be helpful to use a map or a draw the operation on a sheet of paper for all participants to view when discussing the operation.

For example, during a wheeled vehicle convoy operation the segments may be broken down to:
1. Staging Area
2. Movement
3. Refuel/Maintain during convoy
4. Arrival at Destination

In each of these segments you could ask:

What if the enemy attacked?
What if a vehicle caught fire?
What if a vehicle malfunctioned? (Didn't start, wouldn't run)

By obtaining all the available input from those concerned with this operation, you can develop countermeasures to the hazards and make some contingency plans. You've let your people buy into the process to develop the countermeasures, so they won't be so hesitant to counter the hazards by using perimeter guards or air guards, checking fire extinguishers and making sure that PMCS has been conducted.

The Next Accident Assessment is a tool that can be used by individuals and leaders to identify personnel who are at an increased risk of having an accident. The system can be easily used at any time before or during a major operation. It requires little training.

Prior to an operation, get your people together and ask them who is the individual who is most likely to cause the next accident? Explain that you are looking for causes of accidents which normally occur as a result of the human element of the weapon system malfunctioning. (The soldier/worker makes a mistake for whatever reason!) Look for the cause!!

Using the above scenario of a convoy movement over a two day operation:

Look for lack of sleep (because SGT Jones can't sleep during the day, or insects bite him)

Vehicle Malfunctions (because CPL Smith never checks his oil!!)

Inattention to driving (because SGT Jacobs wife just asked for a divorce and he is preoccupied!)

This is the time to be blunt and frank with your workers as you informally discuss the upcoming operation. "OK, Who's going to cause the next accident and why?"

Sample Installation Risk Management SOP

SAFETY
RISK MANAGEMENT

Summary. This regulation establishes the requirements and procedures for integrating basic principles of Risk Management within all operational activities of XXXXX .

Applicability. This regulation applies to all military and civilian personnel assigned, attached, under the operational control of, or working in support of XXXXX.

Suggestions or Recommendations for Improvement. Comments or suggestions are encouraged and should be sent to the attention of the XXXXX Safety Office at Building XXXX, Fort XXXX, State, ZIP, ATTN: AFRC-XX-SO.

CHAPTER 1
GENERAL

1-1 PURPOSE. Risk management is smart operational decision making. It focuses on mission accomplishment while minimizing the potential effects of hazards that could cause loss of our soldiers and equipment and impact the mission. Leaders at all levels must integrate a safety awareness that facilitates realistic and safe training. This regulation provides leaders guidance on integrating the risk management approach into unit activities and establishes risk assessment requirements for XXXXX units.

1-2 REFERENCES.

a. FM 22-100, Military Leadership.

b. FM 25-100, Training The Force.

c. FM 25-101, Battle Focused Training.

d. FM 100-5, Operations.

e. FM 101-5, Command and Control for Commanders and Staff.

f. FM 100-14, Risk Management

g. AR 5-1, Army Management Philosophy.

h. AR 385-10, The Army Safety Program.

i. US Army Safety Center, Risk Management for Brigades and Battalions.

j. US Army Safety Center, Leaders Guide to Force Protection and Risk Management.

1-3 POLICY. The nature of our missions requires our soldiers and civilians to routinely participate in training events and operations which , by their very nature, contain risks**.** Convoy movement, range qualification/familiarization, night exercises, helicopter operations, refueling operations and other activities which our soldiers perform on a daily/monthly basis each contain elements of risk -- elements which tend to be compounded by variables such as weather, terrain, and visibility. Historical data tells us that the risk which our soldiers encounter during the conduct of their activities tends to be cumulative in nature. The risk associated with the separate and discrete phases of a particular operation may appear to be low, however, when viewed in its entirety the cumulative risk level may be very high indeed. For this reason, it is imperative commanders and leaders at all levels understand the basic principles of risk management; conduct risk assessments for all training activities; and empower all soldiers with the authority to call a halt to a ongoing training activity when the level of risk encountered exceeds that planned for the training event. 1-4 RESPONSIBILITIES.

a. The XXXXX Safety Manager serves as the principal safety advisor to the Commander and his staff by ensuring the following actions are accomplished:

(1) Publish the Commanders Safety Philosophy.

(2) Provide for a continuous and comprehensive accident prevention effort compatible with the mission.

(3) Review accident experience trends and provide an analysis to appropriate staffs and organizations.

(4) Conduct safety surveys to review operating and training procedures and unit implemented risk countermeasures. Recommend actions necessary to eliminate inherent or accident producing hazards.

b. Directors are responsible for the actions indicated below:

(1) Publish Directorate Safety Philosophy, to include Risk Level Acceptance.

(2) Incorporate and enforce risk management in all activities.

(3) Ensure all activities are performed according to published standards, policies and regulations.

(4) Incorporate the "crawl, walk, run" principle into all activities based on the commander's training and risk assessments.

(5) Approve or disapprove the risk assessment factors assigned by the Directorate collateral duty safety officer using the Risk Management Worksheet (Appendix B).

(6) Maintain signed copies of Risk Management Worksheets for all Extremely High or High Risk training for one calendar year after the event; these are inspectable as part of the Command Inspection Program.

(7) Establish and use the buddy system in all training events.

(8) Establish and use sleep plans. Fatigue causes accidents. Soldiers and leaders are militarily ineffective after 36-48 hours without sleep.

c. Supervisors and Operations Officers/S-3 are responsible for the actions indicated below:

(1) Assist and advise the commander on all matters pertaining to safety.

(2) Review mission risk assessment with personnel involved in mission planning.

(3) Assist in establishing and implementing basic safety policies, plans and procedures toward a proactive Accident Prevention Plan in support of the mission.

d. Team Leaders Responsibilities (to include both civilian and military team leaders)

(1) Be totally committed to mission accomplishment and the welfare of subordinates.

(2) Consistently apply effective risk management methods to operations they lead.

(3) Report risk issues beyond their control or authority, to superiors for resolution.

e. Additional Duty Safety Personnel are responsible for the actions indicated below:

(1) Coordinate with operations, maintenance, and other sections to ensure safety practices are integrated for accident prevention.

(2) Monitor policies, develop standards, establish procedures.

(3) Advise the commander of the Risk Assessment Factor formulated for the assigned mission using Appendixes A through C information.

(4) Maintain accident record files in support of trends and provide an analysis of accident experience.

f. Training Officers/NCOs at each level of command are responsible for the actions indicated below:

(1) Ensure Risk Assessment Worksheet is attached to the training schedule for any training event or any portion of the training event.

(2) Ensure all risks are reduced to the lowest risk level possible with well thought out, specific countermeasures.

(3) Ensure Risk Assessments are approved at the level required in Chapter 2, para 2-6 and risk approval signature is obtained.

CHAPTER 2
RISK MANAGEMENT PROCESS

2-1 RISK MANAGEMENT VERSUS RISK ASSESSMENT.

a. Risk management is a tool that helps leaders make sound decisions in a logical manner. It enables leaders at all levels to do exactly what the term implies - manage risks. Operational risk management is a specific type of risk management.

b. Operational risk management is a five-step process (see this chapter paragraph 2-2d) that is easily integrated into the decision-making process using the factors of METT-T.

c. Risk assessment is only one part of risk management. It can range from simple to complex. A risk assessment causes leaders to identify hazards and threats and place them in perspective relative to the mission or task at hand.

2-2 RISK MANAGEMENT.

a. Philosophy. Risk is managed by the same disciplined, organized, logical thought processes that govern all other aspects of military endeavors. In all cases, risk management and safety are chain of command issues that must enjoy the same priority for the commander's attention as do training and tactical employment of the force. In fact, force protection and tactical employment of forces are inseparable. The intent of risk management is to increase operational efficiency and effectiveness by:

(1) Minimizing exposure of the force to risk.

(2) Executing missions with boldness and audacity through prudent risk taking.

(3) Improving operational readiness, planning, and communications.

b. Guidance. One of the most basic techniques applied to training is the "crawl, walk, run" concept. In accordance with this concept, soldiers are trained on incremental portions of a task before being expected to integrate all portions of the task and perform it under full mission profile conditions. This technique is directly applicable to risk management and is the cornerstone of our methodology. The unit commander responsible for the training will determine the type and level of rehearsal required to safely execute training. The level of training of the unit and identified risks must also be considered. For instance, each phase of a night full mission profile training event will normally be rehearsed both in daylight and at night prior to the integration of the parts into the whole. However, the commander's assessment of the unit's level of training and other factors may indicate a particular phase need only be rehearsed at night. Similarly, the commander may conclude that portions of the training event require multiple daylight and night rehearsals prior to execution in a full mission profile scenario.

c. Rules. Three rules guide the risk management process:

(1) ACCEPT NO UNNECESSARY RISKS. The leader who has the authority to accept a risk has the responsibility to protect his soldiers from unnecessary risks. **An unnecessary risk is one that ,if eliminated, still allows mission accomplishment!**

(2) MAKE RISK DECISIONS AT THE APPROPRIATE LEVEL. The level of risk will be approved by the appropriate commander, see Chapter 2, para 2-6.

(3) ACCEPT RISKS IF BENEFITS OUTWEIGH THE COST. Leaders must take necessary risks to accomplish the mission. Leaders must understand that risk-taking requires a decision-making process that balances mission benefits with cost.

d. Process. There are five steps to the risk management process, which commanders and staff must do. These five steps are illustrated below:

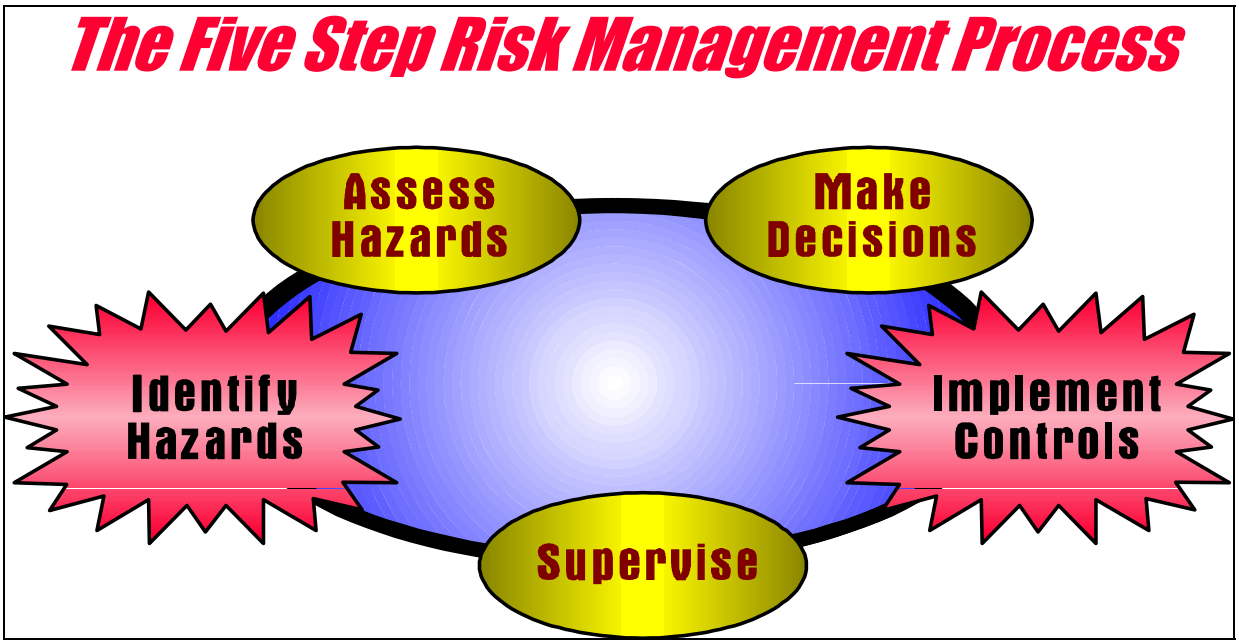


Figure 2-1

(1) Identify risk/hazards. During mission analysis, identify specific risks associated with all specified and implied tasks. Determine the hazards causing these risks. Consideration of METT-T factors (Mission, Enemy, troops, Terrain, and Time) helps identify risks and is crucial to the second step of assessing risks. For example: A river crossing is anticipated while conducting a foot patrol. Some of the environmental factors that define the hazards are water depth, current speed, water temperature, obstacles on and under water, and changes in weather. Some of the human factors are swimming ability of the soldiers and fatigue (See Appendix E). Checklists of hazards specific to the task being performed are helpful for quickly identifying the bulk of the mission hazards.

(2) Assess risk/evaluate hazards. METT-T provides an excellent guideline of factors to consider in the risk assessment. The **E**nemy equates to specific hazards identified. Consider the following aspects of other elements: **M**ission complexity and difficulty; **T**errain, all aspects of the physical environment, including weather and visibility; **T**roops, supervision, experience, training, morale, endurance, and equipment; **T**ime available for planning, preparation, and execution. Based on the above analysis, use the Risk Assessment Matrix in paragraph 2-3 below develop an estimate of injury, equipment loss, property damage and the likelihood of a hazard occurring. The matrix is explained in more detail at Appendix A.

(3) Make decisions and develop controls. Make risk acceptance decisions by balancing risk benefits against risk assessments, and eliminate unnecessary risks. Reduce the magnitude of mission-essential risks through the application of controls. Be sure controls do not jeopardize mission accomplishment. Involve the chain of command if necessary risk controls will prevent assigned mission requirements. Think about basic standards of the task, this thought process will help develop controls.

(4) Implement controls. Integrate specific controls into plans, orders, SOPs, training performance standards, and rehearsal. Knowledge of controls down to the individual soldier is essential. In the river-crossing scenario, the leader would brief his subordinates on specific safety requirements. Then each subordinate would brief back the requirements to ensure that everyone understands. Drivers operating both military or POV equipment require mandatory sleep time prior to movement, the Buddy System makes one soldier responsible for another.

(5) Supervise. Enforce controls and standards. Evaluate mission progress and changes to mission, enemy, terrain, troops and time available (METT-T), then begin appropriate corrective actions. After mission completion, evaluate risk decisions and controls for inclusion in lessons learned.

e. Integration techniques. Two techniques are critical to maintaining unit battle focus, Hasty Risk Management at the company level and below, and Deliberate/In-Depth Risk Management at the battalion level and higher.

(1) **Hasty Risk Management** Individual/Leader Risk Management (focuses on individual through company-level command thought process to recognize hazards and take action to reduce risk). Use FM 22-100: Military Leadership problem solving, decision making and planning process. Identify the problem (hazard), gather information, develop courses of action, analyze and compare actions, make a decision, develop a plan, and implement the plan. Memory aids such as METT-T and checklists help promote consistency.

(2) **Deliberate and In-Depth Risk Management**. Command echelons at the battalion and higher use deliberate and In-Depth risk management and the decision-making process to integrate safety and risk assessment into planning and operations. The commander directs the staff to identify necessary risks and risk controls as "considerations affecting the possible courses of action." Staff officers use the Risk Management Worksheet, (Appendix B), and memory aids such as METT-T to promote consistency. The final commander's estimate and concept addresses significant risk, risk acceptance, elimination and controls. These decisions must be integrated directly into MOIs, OPORDERS, OPLANs, FRAGOs, SOPs, etc. Hazards should be identified in the Enemy paragraph and annexes of military orders. Controls and

Countermeasures can be integrated into the Execution paragraph in the coordinating instructions or as tasks to subordinate units. Commanders must ensure dissemination and enforcement of risk decisions, controls, and countermeasures down to the soldier level.

f. Key definitions in Risk Management.

(1) RISK MANAGEMENT - The process of identifying and controlling hazards to protect The Force.

(2) HAZARD - Any real or potential condition that can cause injury, illness or death of a soldier, or loss or damage to equipment and property.

(3) RISK - Chance of a hazard or bad consequences, such as exposure to injury or loss, which could affect the mission. Risk level is expressed in terms of hazard probability and severity.

(4) EXPOSURE - The frequency and length of time subjected to a hazard.

(5) SEVERITY - The expected consequence of an event, in terms of degree of injury, property damage, or other mission impairing factors (loss of combat power, adverse publicity, etc.) that could occur.

(6) PROBABILITY - The likelihood that an event will occur.

(7) CONTROLS - Actions taken to eliminate hazards or reduce their risks.

(8) COUNTERMEASURES - Actions taken to counteract danger, threat or hazards.

(9) RISK DECISION - The decision to accept or not accept the risks associated with an action made by the individual responsible for performing that action.

(10) RISK ASSESSMENT - The first two steps of the Risk Management Process.

(11) GAMBLING - the process of making risk decisions without using the risk management process

2-3 RISK ASSESSMENT.

a. General. The unit commander and staff will perform a risk assessment for all training activities to prevent the unnecessary loss of soldiers and/or equipment. The risk assessment procedure is a problem-solving method which identifies areas presenting the highest risk to force protection. **The commander and staff will conduct risk assessments following the detection of hazards with the objective of determining the potential impact of a hazard on the mission.** There are two major considerations. The first is severity-if the hazard does cause a loss, how severe is that loss likely to be? The second is probability-how likely is the hazard to occur? The commander can then make rational decisions about how to deal with that hazard.

b. Determining the level of risk.

(1) The immediate unit commander and his staff will conduct an informal risk assessment for any training event by initially developing a preliminary hazard analysis. Specifically, the pre-hazard analysis systematically considers the hazards of all phases of the training event. Hazards are the raw materials from which "risks" are determined. The analysis is conducted by the staff identifying, reviewing, and assessing the list of hazards involving any significant risk. By assessing hazards, the staff will:

(a) Determine the potential magnitude of risk caused by the hazard.

(b) Determine where and when control measures are appropriate to protect the force.

(c) How to implement.

(d) How to supervise.

(2) The immediate unit commander staff will conduct the risk assessment process by determining the potential severity of a hazard and the probability that it will occur by utilizing the simple matrix at Figure 2-2 below. Using the matrix, a risk level of extremely high, high, medium., or low is determined and assigned to each identified hazard prior to identifying/implementing controls. When using this risk assessment matrix, the risk assessor must:

(a) Use the matrix to analyze risk and target areas of concern for risk-reducing techniques, worst first.

(b) Review individual areas of concern before recommending options.

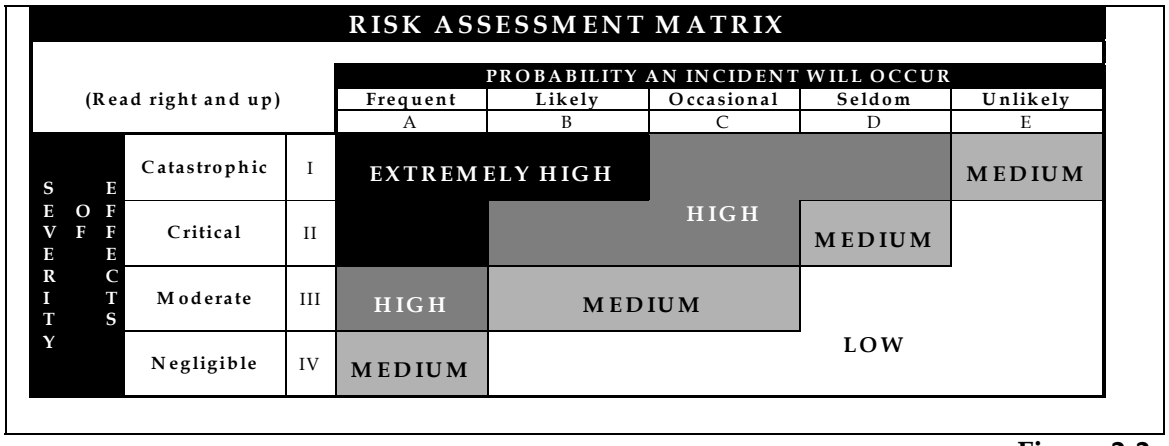


Figure 2-2

(3) Following the risk assessment, the commander and staff will develop and implement control options for each hazard which will reduce or eliminate risks. The risk control options selected should have the maximum focus on mission accomplishment and the least possible adverse impact on realism. After all appropriate controls have been implemented to reduce or eliminate risks, the remaining risk will be determined using the matrix at Appendix A. An overall risk level will be assigned to the particular training event based on the most serious risk.

2-4 RISK MANAGEMENT LEVELS. There are three levels of Risk Management in FORT MCCOY all controlled by the time available prior to the event.

a. **Hasty Risk Management** - Normally used for squad or section training or for any unplanned, unforeseen, imminent crisis or training event. Using the Risk Assessment Matrix (Appendix A) and the Hasty Risk Management Card (Appendix C). The METT-T concept is also used in Hasty Risk Management as a memory aide (Appendix E). Identify the hazards, assess the hazards, and develop controls. The approval of the controls is the senior individual responsible for the mission. The Hasty Risk Management Card can also be used to provide input from the soldier/squad/platoon level to the commander as a thought process for the Risk Management Worksheet (Appendix B).

b. **Deliberate Risk Management** - Added time and techniques the Risk Assessment Matrix (Appendix A) and the Risk Management Worksheet (Appendix B) will be utilized for the planning and execution of military training, deployment, sustainment or operations **to include all Mission Essential Task List (METL) tasks.**

c. **In-Depth Risk Management** - Added time, techniques and professionals, (such as safety officers instructor pilots, technical inspectors, and maintenance officers) the Risk Assessment Matrix (Appendix A) and the Risk Management Worksheet (Appendix B) will be utilized to conduct a full operational hazard analysis. Working group application of more detailed qualitative and quantitative techniques, especially in the hazard identification, hazard assessment and risk control options phases. May include testing, scale models, simulation and rehearsals to ensure hazards are identified and controlled.

2-5. COMMANDER'S VALUES. Soldiers have an uncanny sense for determining the values of their leaders. If a commander is concerned about his soldiers, they will sense it. They also know if that commander is concerned only about career-progression, covering tracks, or putting on a good show. When the commander says that safety is a top priority, but becomes more concerned about "crossing that release point on time, no matter what...." Soldiers see the behavior and ignore the words. Thus, soldiers see a conflict between "stated" and "actual" behavior. Soldiers infer from "actual" behavior what is really important!

2-6. APPROVING RISK. **The greater the risk the more senior the final decision maker will be. Each commander at the MACOM Level will have a policy of risk approval**. A suggested policy of risk level is:

a. MACOM Commanders approve Extremely High Risk missions,

b. Battalion Commanders approve High Risk missions,

c. Company, Troop, or Battery Commanders approve Medium Risk missions, and

d. Platoon Leaders approve Low Risk missions.

When in the Extremely High or High Risk Zone, everyone from the commander to the individual must be aware of the risk implication. All risk variations that can be controlled, will

be controlled. By the book disciplined operations are mandatory. The risk level for the operation is the remaining assessment of risk, after controls are in place. Approving authority for the risk must revert back to the initial risk level.

Risk Management Guide

“Only a person who risks is free”
Janet Rand