

Composite Risk Management Process



Five Step Composite Risk Management Process

Step 1: Identify hazards to the force. Consider all aspects of current and future situations, environments, and known historical problem areas.

Step 2: Assess hazards to determine risks. Assess the impact of each hazard in terms of potential loss and cost based on probability and severity.

Step 3: Develop controls and make risk decisions. Develop control measures that eliminate the hazard or reduce its risk. As control measures are developed, risks are re-evaluated until the residual risk is at a level where the benefits outweigh the cost. The appropriate decision authority then makes the decision.

Step 4: Implement controls that eliminate the hazards or reduce their risks. Ensure the controls are communicated to all involved.

Step 5: Supervise and evaluate. Enforce standards and controls. Evaluate the effectiveness of controls and adjust/update as necessary. Ensure lessons learned are fed back into the system for future planning. Levels of Risk Management

Composite Risk Management (CRM) is designed to help you in your decision-making process. It's not intended to be a time-consuming effort. Therefore, use only the amount of risk management necessary for the task. There are three levels of risk management:

Time Critical

Used when there is little time, little complexity, or low risk. Often used during the execution phase of an operation where an unplanned change occurs and must be managed. It's easily applied to off-duty situations.

Deliberate

Used in the majority of workplace applications where experience in a group setting will produce the best results.

Strategic

Used in high priority or high visibility situations, strategic CRM generally requires use of more thorough hazard identification and risk assessment tools. Generally reserved for the more complex and riskier efforts, as it may be time consuming.

CRM Principles

CRM has four key principles that govern its application. These underlying principles should be considered before, during, and after every application of the Five-Step Process.

Accept No Unnecessary Risk.

Of course, all ARMY missions and daily routines involve risk. You must accept necessary risk required to successfully complete the mission or task. Unnecessary risk comes without a corresponding return, in terms of real benefits or available opportunities. CRM is dedicated to exposing and avoiding unnecessary risks.

Make Risk Decisions at the Appropriate Level.

Those accountable for the success or failure of the mission must be included in the risk-decision process. This establishes clear accountability. Commanders must ensure that subordinates know how much risk they may accept and when they must elevate the decision to a higher level.

Accept the Risk When the Benefits Outweigh the Costs.

Even high-risk endeavors may be undertaken when there is a clear knowledge that the sum of the benefits exceeds the sum of the costs. CRM is about controlling risk, not avoiding all risk.

Integrate CRM into Doctrine and Planning at all Levels.

Integrating risk management into planning as early as possible provides the decision-maker the greatest opportunity to apply CRM principles. Usually, it reduces costs and enhances CRM's overall effectiveness too.

Risk Assessment Matrix

Once exposure, severity, and probability have been determined, you can now complete the last action of risk assessment. Combine the severity and probability estimates to form a **Risk Assessment Matrix** as show in the figure below. For example, if you have a hazard whose severity is judged to be **critical** but is **unlikely** to happen, the risk level is **low**.

Remember the Risk Assessment Matrix doesn't directly consider exposure levels. You must factor any exposure considerations into the judgment of severity and probability. For example, a normally seldom occurrence of equipment failure may be increased to occasional if the exposure rate is high, thus making the overall risk level medium.

Risk Priority List

The output of Risk Assessment is a prioritization of risk. You need to list the risks in order from the most serious risk to the least serious risk of any consequence. This ensures that controls are first identified for the most serious threat to mission accomplishment. All steps in the risk assessment process should be fully documented for future reference.

Components of Risk:

Exposure

Exposure is the first action in assessing risk. Remember that exposure is the number of resources (personnel or equipment) affected by a given event or by repeated events over time. Exposure can be expressed in the following terms:

- **Time** - how long resources are exposed to the hazard?
- **Proximity** - how close to resources would the hazard occur?
- **Volume** - the number of resources affected by the hazard?
- **Repetition** - the frequency with which the hazard would recur?

Although exposure is a component of risk, it is not used directly in assigning a level of risk. However, you should consider the exposure potential when assigning levels of probability and severity.

RISK ASSESSMENT MATRIX

		PROBABILITY				
		Frequent	Likely	Occasional	Seldom	Unlikely
		A	B	C	D	E
S E V E R I T Y	Catastrophic I	Extremely High		High		Moderate
	Critical II	High		Moderate	Low	Negligible
	Marginal III	Moderate	Low		Negligible	
	Negligible IV	Low		Negligible		

Severity

The severity assessment should be based on the worst possible outcome that can be expected. It's expressed in terms of the impact on mission, people, materiel, facilities, and environment. Rank hazard severity using the following standard categories:

S E V E R I T Y	Catastrophic	Death or permanent total disability, system loss, major property damage.
	Critical	Permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage.
	Marginal	Minor injury, lost workday accident, compensable injury or illness, minor system damage, minor property damage.
	Negligible	First aid or minor supportive medical treatment, minor system impairment.

Probability

Next, estimate the probability of the hazard. Probability tells you how often the hazard will affect some operation within the mission. If you have reliable data available, you can also express probability as a number, in terms of a ratio or as a percentage. Express the level of probability by using the following ranking levels:

Keep in mind the **cumulative probability** of the causes listed for the hazard. For example, if there are four causes for a single hazard, the probability of its occurrence will be greater than if there were only one cause. For future reference, document your supporting rationale for assigning a probability to each hazard.

FREQUENT	LIKELY	OCCASIONAL	SELDOM	UNLIKELY
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- **Frequent** - Occurs often, continuously experienced
- **Likely** - Occurs several times
- **Occasional** - Occurs sporadically
- **Seldom** - Unlikely, but could occur at some time
- **Unlikely** - Can assume it will not occur