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From: Commandant of the Marine Corps
To: Distribution List

Subj: RISK MANAGEMENT

Ref: (a) DoD Instruction 6055.1, DoD Safety and Occupational Health (SOH) Program, 19 Aug 1998
(b) MCI ORM 1-0
(c) MCO 5100.29B
(d) SECNAV M-5210.1

Encl: (1) Marine Corps Risk Management (RM)

1. Situation. The purpose of this Order is to publish policy, provide guidance, and assign responsibility concerning the implementation and standardization of Risk Management (RM), formerly known as Operational Risk Management, within the Marine Corps per the references. RM is an integral part of the decision making process for both Marine Corps military and civilian personnel. The RM process, together with safety and force preservation policies of reference (c), ensures maximum Marine Corps operational readiness and mission success.

2. Cancellation. MCO 3500.27B.

3. Mission. The focus of RM is to identify and mitigate risk in all activities, both on and off duty. Additionally, RM extends to risks associated with human factors in the workplace, behavioral healthcare, and behavioral lifestyles that can affect readiness. Successful implementation of RM increases mission effectiveness while minimizing loss of both personnel and materiel.

4. Execution

a. Commander's Intent and Concept of Operations

(1) Commander's Intent

(a) All Marine Corps activities and commands shall apply the RM process described herein for planning, training, exercises, operations, and non-operational activities to optimize mission success, operational capability, readiness, and safety. Commands may publish or update existing orders and standing operating procedures with command-specific RM applications and requirements, as appropriate.

(b) All Marines and Sailors shall apply RM concepts to identify and mitigate risks in all tasks, missions, operations, and personal activities whether forward deployed, in garrison, or on liberty no matter how

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routine these events become over time. All civilian personnel shall apply RM concepts while on duty and are highly encouraged to use these concepts while off duty.

(2) Concept of Operations

(a) The Safety Division (SD), Headquarters Marine Corps, shall provide policy for RM in the Marine Corps.

(b) The Inspector General of the Marine Corps shall evaluate the effectiveness of RM implementation and the completion of initial and annual RM training, as defined by this Order and reference (c), during inspections.

b. Subordinate Element Missions

(1) Major subordinate commands shall provide guidance as required to subordinate commands regarding RM policy implementation.

(2) Marine Corps Combat Development Command

(a) Establish policy for RM implementation and ensure RM is an integral part of orientation and indoctrination implemented at all points of accession.

(b) Incorporate the RM process into individual training standards, occupational standards, and the Marine Corps Combat Readiness Evaluation System. Incorporate RM concepts and applications into appropriate publications.

(c) Serve as technical advisor for RM curricula development.

(d) Maintain and update RM training courses in formal schools and courses as well as the web-based USMC RM Distance Learning Course modules, as required.

(e) Coordinate with the Marine Corps Center for Lessons Learned to maintain lessons learned safety products on the website as a resource in support of unit and individual RM.

(3) Unit Commanders

(a) All leaders shall ensure risk mitigation strategies are included in the planning and execution of all activities regardless of complexity or familiarity. Apply the RM process to all aspects of command operations and activities to include the following components of the RM strategy:

1. Educate and train Marines in the RM process.
2. Provide tools and information to help Marines use and apply RM.
3. Integrate RM into all operational and non-operational activities both on and off duty.
4. Integrate RM when assessing behaviors that may affect activities both on and off duty.

(b) Incorporate identified hazards, assessments, and controls into briefs, notices, and written plans.

(c) Conduct a thorough risk assessment for new or complex evolutions defining acceptable risk and possible contingencies for the evolution.

(d) Elevate risk decisions through the chain of command when unable to mitigate identified hazards to an acceptable level. The authority to approve, as acceptable, Risk Assessment Code (RAC) 1 and 2 hazards shall only be extended to lieutenant colonel or above level of command.

(e) Provide training every two years (biennial) on the RM process to all unit personnel. The level of training shall be commensurate with rank, experience, and leadership position. Training shall include material in references (a) through (c) of this Order. Biennial training may be accomplished by:

1. Completion of the appropriate module(s) of the USMC RM Distance Learning Course Curriculum. The website is <https://www.marinenet.usmc.mil>.

2. Classroom instruction or practical application exercises (i.e. small group, scenario-based, etc.) led by a designated RM Instructor (RMI).

(f) Designate in writing at least one command RMI. Consideration should be given to rank, experience, and credibility when choosing an RMI to ensure a robust and dynamic RM program. It is recommended commanders also designate an Assistant RMI. The RMI and Assistant RMI should hold significant leadership or supervisory positions within the command. RMI qualification shall be completed prior to, or within 30 days of, designation and can be earned by completing all of the modules of the USMC RM Distance Learning Course Curriculum or graduating from one of the following: the U.S. Army Combat Readiness Center Career Program (CP-12) course, the Ground Safety for Marines course, the Aviation Safety Officer course, or the Aviation Safety Command course. RMI/Assistant RMI duties include the following at a minimum:

1. Ensure biennial and "as required" RM training is conducted in the spirit and intent of this Order. This training, at a minimum, shall include scenarios encompassing unit specific practices and procedures as well as off duty activities.

2. As the unit's RM authority, assist unit personnel in conducting risk assessments.

3. Provide an RM overview for all military and civilian personnel during the check-in process. The level of training shall be commensurate with rank, experience, and leadership position.

4. Maintain RM lessons learned and best practices and forward them through the chain of command for dissemination.

(g) Marines and Sailors shall document RM training appropriately via the Training Management System. Civilian Marines who participate in RM

training should notify or submit certification/documentation to the applicable Human Resource Officer.

(4) Individuals. The Marine Corps is America's Expeditionary Force in Readiness - "always faithful" to answer the Nation's call. This requires every member of the Marine Corps Team to maintain a constant posture of readiness for whatever may come. Everyone must guard against reckless behavior at both the unit and individual level because it jeopardizes the health, safety, and combat readiness of the Corps. During leave and liberty periods, all individuals shall use the RM concepts and principles in order to formulate sound judgment and good decision-making. RM is a life skill that is applicable to every activity.

c. Coordinating Instructions. Submit recommendations concerning this Order to CMC (SD) via the chain of command.

5. Administration and Logistics

a. Commanders shall ensure adequate fiscal resources are provided to implement RM processes to meet the requirements of this Order and other applicable directives.


b. Commanders shall integrate RM strategies into all planning, orders, training and indoctrination programs, technical and tactical publications, checklists, and standard operating procedures.

c. Records created as a result of this Order shall include records management requirements to ensure the proper maintenance and use of records, regardless of format or medium, to promote accessibility and authorized retention per the approved records schedule and reference (d).

6. Command and Signal

a. Command. This Order is applicable to the Marine Corps Total Force.

b. Signal. This Order is effective the date signed.


J. M. PAXTON, JR.
Assistant Commandant
of the Marine Corps

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Marine Corps Risk Management (RM)

Chapter 1

Introduction to Risk Management (RM)

1. RM Overview. This chapter provides an explanation of the concepts, principles, levels, and process of RM. It outlines the foundation upon which to apply and integrate RM into tasks, missions, and operations both on and off duty.

2. Concept

a. RM Fundamentals. Force preservation does not have a single solution. However, every effort should be made to prevent a situation that will degrade mission capability rather than planning to deal with the situation after it occurs. Risk mitigation is central to the idea of readiness and must not be an afterthought in actions during combat, in training, and in garrison. RM is one of the best means available to eliminate senseless and needless loss of life, injury, and materiel damage. Active participation of every Marine in the RM process of identifying, assessing, and controlling risks arising from factors experienced on a daily basis such as uncertainty, ambiguity, and change will allow for informed decisions. This process is one in a range of tools to be used by personnel at all levels for minimizing risk to an acceptable level commensurate with completing the task at hand or accomplishing the mission.

b. Inherent Risk. Risk is inherent in every phase of tasking, missions, and operations due to today's complex and dynamic environment. Additionally, off duty activities present their own set of hazards and risks requiring the application of RM processes and principles. As hazards and risk are present both on and off duty, it is incumbent upon all Marines, both military and civilian, to understand how to assess and manage risk to achieve mission success and preserve combat readiness.

c. Key Aspects of RM

(1) RM enhances readiness by:

(a) Enhancing task or mission accomplishment by increasing the probability of success.

(b) Minimizing risk to acceptable levels commensurate with the benefit or value of mission or task accomplishment while providing a method to effectively manage resources.

(c) Enhancing decision making skills based on a systematic, reasoned, and repeatable process.

(d) Providing a systematic structure to perform risk assessments.

(e) Providing improved confidence for individuals to make informed risk decisions. Adequate risk analysis provides a clearer picture of the hazards and of unit capabilities.

(f) Preserving personnel and materiel by avoiding unnecessary risk, thus reducing mishaps and their associated costs.

(g) Providing an adaptive process for the continuous feedback through the planning, preparation, and execution phases of any evolution.

(h) Identifying feasible and effective control measures, particularly where specific standards do not exist.

(2) RM does not:

(a) Inhibit flexibility, initiative, or accountability.

(b) Remove risk altogether or support a "zero defect" mindset.

(c) Remove the necessity for practice, drills, rehearsals, and tactics, techniques, and procedures.

(d) Sanction or justify violating orders or the law.

3. Terms. See Chapter 3.

4. Principles of RM. There are four basic principles that provide the foundation for RM and the framework for implementing the RM process.

a. Accept Risk When Benefits Outweigh The Cost. Our Marine Corps tradition is built upon principles of seizing the initiative and taking decisive action. The goal of RM is not to eliminate risk, but to manage the risk so the mission can be accomplished with the minimum amount of loss. The process of weighing risks against the benefits and value of the task or mission helps maximize success. Balancing costs and benefits is a subjective process. Therefore, personnel with knowledge and experience of the mission or task must be engaged when making risk decisions.

b. Accept No Unnecessary Risk. An unnecessary risk is any risk that, if taken, will not contribute meaningfully to task or mission accomplishment or will needlessly jeopardize personnel or materiel. Risk is managed through relentless training, awareness of the risk being confronted, and a clear-eyed understanding of the mission at hand. Training and the confidence derived from it will directly result in increased performance and a better control of those risks that are an inescapable part of daily existence. The acceptance of risk does not equate to the imprudent willingness to gamble. Additionally, if all detectable hazards have not been identified then unnecessary risks are being accepted. The RM process, in conjunction with sound safety principles, identifies hazards that might otherwise go unidentified and provides tools to reduce or offset risk. End state: take only risks that are necessary to accomplish the task, activity, or mission.

c. Anticipate And Manage Risk By Planning. Integrating RM into planning at all levels, and as early as possible, provides the greatest opportunity to make well-informed risk decisions and to implement effective risk controls. This engaged approach enhances the overall effectiveness of RM by reducing mishaps, injuries, and costs. Hazards and controls that have been identified during reconnaissance and preplanning should be in the operations order.

d. Make Risk Decisions At The Right Level. RM decisions are made by the leader directly responsible for the operation. While anyone can make a risk decision, the appropriate decision level should reside whereby the leader can make decisions to accept, eliminate, or reduce the risk. Prudence,

experience, judgment, intuition, and situational awareness of leaders directly involved in the planning and execution of the mission are the critical elements in making effective RM decisions. When leaders responsible for executing a mission determine that the risk associated with that mission cannot be controlled at their level, or goes beyond the commander's stated intent, the risk decision shall be elevated within their chain of command to the first staff noncommissioned officer or officer within the unit. If unable to mitigate the risk at the unit level, the risk decision shall be elevated to the next commander in the chain of command.

5. Levels of RM. The RM process is applied on three levels: in-depth, deliberate, and time critical. While it is preferable to perform a deliberate or in-depth RM process for all evolutions, adequate time and resources will not always be available. The basic factor that differentiates each level is the amount of time available for the preparation and planning of tasks or missions. One of the objectives of RM training is to develop sufficient proficiency in applying the process so RM becomes an automatic or intuitive part of our decision making methodology. Figure 1-1 illustrates the three levels of the RM process and how they are related to each other. Note that there is no defined line when one level stops and the next begins. Additionally, this figure illustrates how RM controls are integrated into planning and execution.

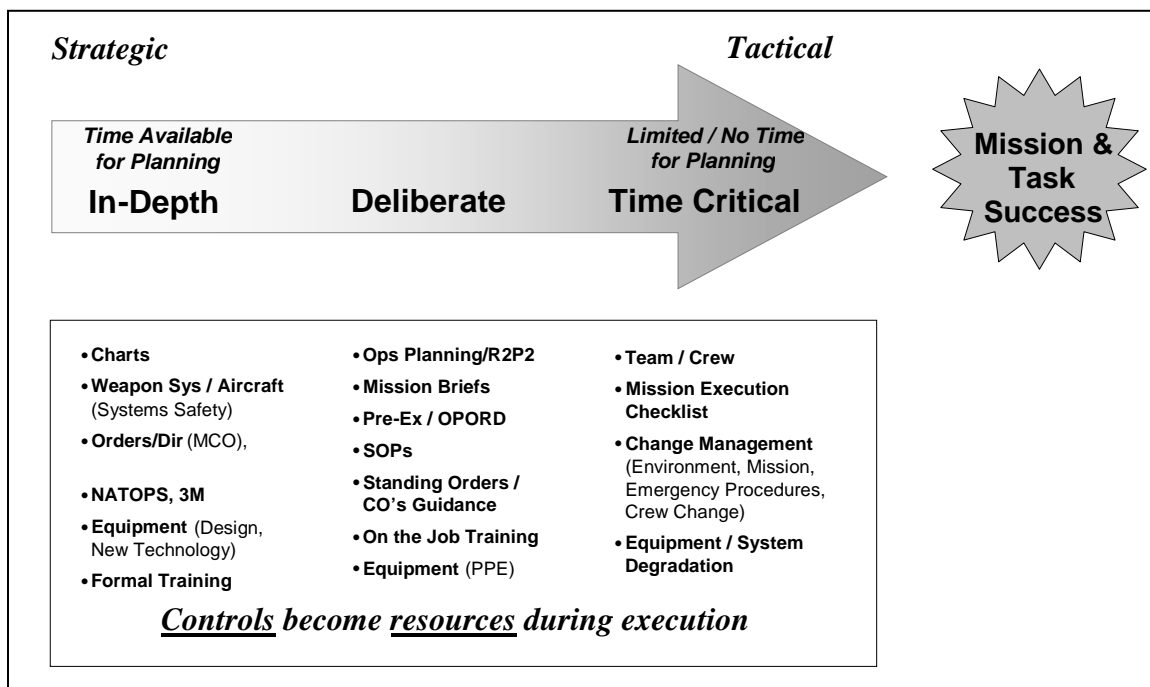


Figure 1-1. Relationship between RM Levels

a. In-depth. The in-depth level refers to situations when available time for planning is not a limiting factor and involves a very thorough risk assessment. Research of available tactical, engineering, and safety data, use of diagram and analysis tools, trends, formal testing, or long term tracking of the hazards associated with the operation or activity (sometimes with the assistance from technical experts) are some of the tools used to identify and assess hazards at this level. The in-depth level of RM is used to more thoroughly study the hazards and associated risk in a complex

operation or system, or one in which the hazards are not well understood. Examples of in-depth applications include long-term planning of complex operations; introduction of new equipment, materials, and missions; development of tactics and training curricula; and major system overhaul or repair.

b. Deliberate. The deliberate level refers to situations when there is ample time to apply the RM process to the mission planning evolution. This level uses primarily experienced personnel and brainstorming to identify hazards, review mishap trends, and develop controls. It is, therefore, most effective when done in a group. The USMC Rapid Response Planning Process (R2P2) is a good example of RM application integrated at the deliberate level. Other examples of deliberate applications include planning of upcoming operations; review of standard operating, maintenance, or training procedures; and the development of damage control and disaster/emergency response plans.

c. Time Critical. This is the level at which personnel operate on a daily basis both on and off duty. The time critical level is the normal RM level used during the execution phase of training or operations as well as in planning during crisis response scenarios. At this level, there is little or no time to make a plan resulting in an "on the spot" mental or verbal review of the situation. Since time is limited, the application of the formal RM process cannot be practically applied. As such, to facilitate use of RM at the time critical level, personnel are encouraged to use the Time Critical Risk Management (TCRM) ABCD Model as a tool to successfully mitigate time compressed decision making. The TCRM ABCD Model is described in detail in Chapter 2.

6. RM Process

a. Overview. The RM process consists of five basic steps and is a systematic, continuous, and repeatable approach in the decision making process. Figure 1-2 illustrates the five-step RM process. The first two steps encompass the risk assessment portion of RM providing enhanced awareness and understanding of a given situation. The remaining three steps provide actions to either eliminate the hazard or mitigate the risk involved in the task, activity, or mission. The five basic steps consist of the following:

- (1) Identify the hazards;
- (2) Assess the hazards;
- (3) Make risk decisions;
- (4) Implement controls;
- (5) Supervise.

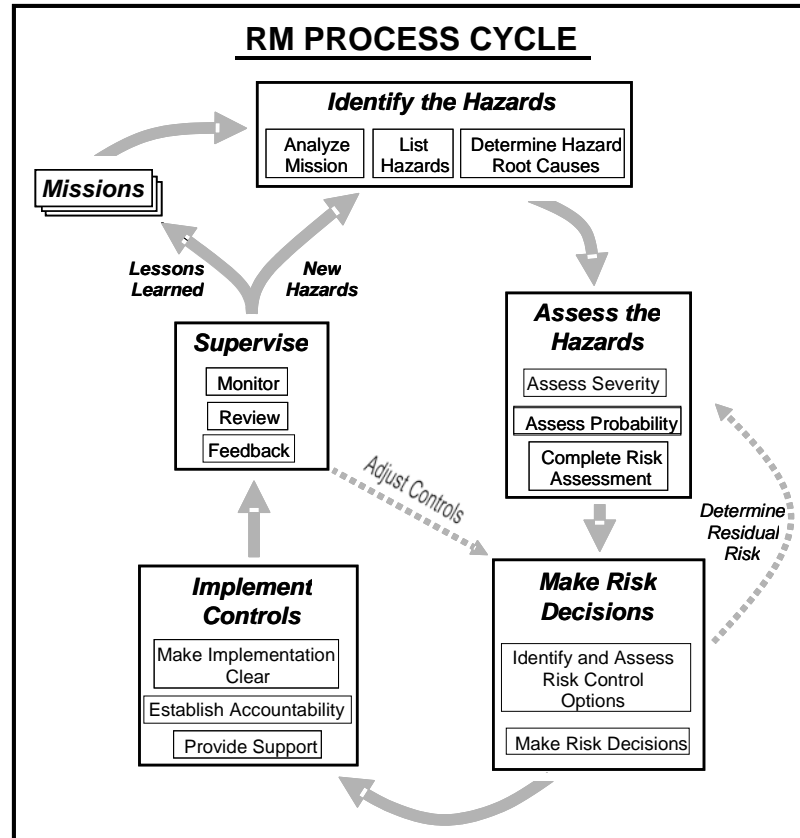


Figure 1-2. The Five Step Process

b. Process Application Guidelines. The following guidelines are provided to gain the maximum benefit and desired effect of the RM process.

(1) Apply the process in sequence. Each element is a building block for the next step.

(2) Maintain balance in the process. Every step and element of the process is important and should be afforded due diligence. The objective is to assess the time and resources available for RM and to allocate them accordingly in a manner most likely to produce the best result.

(3) Apply the process as a cycle. The RM process is not a one-way cycle (refer to Figure 1-2). The process contains elements requiring review and feedback allowing for a check and balance as well as the flexibility to make adjustments as the situation changes.

(4) Involve personnel. The RM process is effective only if the personnel exposed to the risks, and those who possess the subject matter expertise in the task or mission, are fully involved. These are the stakeholders who have a vested interest and will ensure the process is sound.

(5) Document the process. Documenting the results of the RM assessment assists the effort to organize ideas, to identify courses of action, and to brief and debrief the event. Documentation provides a valid reference to evaluate progress during the execution phase and a record for

future use capitalizing on lessons learned to improve performance and minimize repeat shortcomings.

7. The Five Steps of the RM Process

a. Identify Hazards (Step 1). A hazard is defined as any condition with the potential to negatively impact the task or mission. Hazards can also cause property damage, injury to personnel, or death, which highlights the importance of hazard identification as the foundation of the RM process. Personnel need to ensure a larger portion of available time is allotted to this step due to the fact that, if a hazard is not identified, it cannot be controlled. There are three actions to be completed in this step.

(1) Conduct an Operational Analysis. Begin with an outline or chart listing the major steps in the operation. Review plans, orders, and supporting documentation pertaining to the mission or tasking and the requirements needed for mission success. Next, break down the task or mission into manageable phases in chronological order providing a clear picture of expectations and potential sources of risk.

(2) Conduct a Preliminary Hazard Analysis (PHA). With the phases broken down into manageable events in sequential order, each event is reviewed for associated hazards. During the PHA, ensure a list is generated identifying these hazards for each event. Brainstorming and asking "what if" questions regarding what could go wrong throughout the task or mission could uncover additional hazards.

(3) Determine Root Causes of Hazards. For each identified hazard, make a list of the associated causes with emphasis on clearly identifying the root cause. Hazards may often have multiple causes, but the root cause is the first link in the safety chain of events potentially leading to mission degradation. With causes identified, risk controls can be applied to mitigate or minimize risk.

b. Assess Hazards (Step 2). For each hazard identified, determine the associated degree of risk in terms of probability and severity. The result of the risk assessment is a prioritized list of hazards ensuring controls are first identified for the most serious threat to task or mission success.

(1) Determine Severity. This is an assessment of the worst credible consequence that can occur as a result of a hazard. Severity is defined by potential degree of injury, illness, property damage, loss of assets, or effect on task or mission. Consideration must be given to the number of personnel and resources potentially exposed to a hazard when determining potential severity. The greater the number of resources exposed to a hazard, the greater the severity. Additionally, the combination of two or more hazards may increase the overall level of risk. Hazard severity categories are assigned as Roman numerals according to the criteria in Table 1-1.

Category	Description
I	Loss of the ability to accomplish the mission Death or permanent total disability Loss of a mission-critical system or equipment Major facility damage Severe environmental damage Mission-critical security failure Unacceptable collateral damage
II	Significantly degraded mission capability or unit readiness Permanent partial disability or severe injury or illness Extensive damage to equipment or systems Significant damage to property or the environment Security failure Significant collateral damage
III	Degraded mission capability or unit readiness Minor damage to equipment, systems, property, or the environment Minor injury or illness
IV	Little or no adverse impact on mission capability or unit readiness Minimal threat to personnel safety or health Slight equipment or systems damage, but fully functional and serviceable Little or no property or environmental damage

Table 1-1. Severity Categories

(2) Determine Probability. This is an assessment of the probability that a hazard will result in a mishap or loss and is defined by assessment of such factors as location, exposure (cycles or hours of operation), affected populations, experience, or previously established statistical information. Probability categories are assigned a letter according to the criteria in Table 1-2.

Category	Description
A	Likely to occur immediately or within a short period of time. Expected to occur frequently to an individual item or person Expected to occur continuously over a service life for a fleet, inventory of items, or group
B	Probably will occur in time Expected to occur several times to an individual item or person Expected to occur frequently over a service life for a fleet, inventory of items or group.
C	May occur in time Can reasonably be expected to occur sometime to an individual item or person Can reasonably be expected to occur several times over a service life for a fleet, inventory of items, or group
D	Unlikely to occur, but not impossible.

Table 1-2. Probability Categories

(3) Assign the Risk Assessment Code (RAC). The RAC is an expression of risk that combines the elements of hazard severity and mishap probability. The RAC is a level of risk for each hazard expressed as a single Arabic number as portrayed in the Basic Risk Assessment Matrix in Figure 1-3. Although not required, the matrix is helpful in identifying the RAC and in determining hazard abatement priorities. In some cases, the worst credible consequence of a hazard may not correspond to the highest RAC for that hazard. For example, one hazard may have two potential consequences. The severity of the worst consequence (I) may be unlikely (D), resulting in a RAC of 3. The severity of the lesser consequence (II) may be probable (B),

resulting in a RAC of 2. Therefore, it is important to consider less severe consequences of a hazard if they are more likely than the worst credible consequence since this combination may present a greater overall risk.

Risk Assessment Matrix		Probability			
		A	B	C	D
SEVERITY	I	1	1	2	3
	II	1	2	3	4
	III	2	3	4	5
	IV	3	4	5	5
Risk Assessment Codes 1-Critical 2-Serious 3-Moderate 4-Minor 5-Negligible					

Figure 1-3. Basic Risk Assessment Matrix

(4) Risk Assessment Pitfalls. The following pitfalls should be avoided during the assessment.

(a) Over optimism - not being totally honest or not looking for root causes.

(b) Misrepresentation - individual perspective may distort the data.

(c) Alarmism - worst case scenarios are used regardless of their possibility.

(d) Indiscrimination - all data is given equal weight.

(e) Prejudice - subjective or hidden agendas are used vice facts.

(f) Inaccuracy - bad or misunderstood data nullify accurate risk assessment.

(g) Enumeration - difficulty in assigning a numerical value to human behavior.

c. Make Risk Decisions (Step 3). Step 3 is accomplished in two sub-steps in order to make informed risk decisions: identifying and assessing risk control options and ultimately making risk decisions.

(1) Identify and Assess Risk Control Options. Starting with the most serious hazard, develop one or more control options that will either avoid the hazard or reduce the risk to an acceptable level consistent with task or mission accomplishment.

(a) There are myriad control options which can either reduce risk or avoid it altogether. These options include:

1. Reject the risk. If overall risk exceeds the benefit, then do not take the risk. This is a valid option when you do not have the

authority to apply proper or necessary controls and ensure risk is elevated to the proper level.

2. Avoid the Risk. It may be possible to avoid specific risks altogether or by conducting the task or mission in a different way. Be aware that conducting a mission by an alternate means may present new hazards to be considered.

3. Delay an Action. If there is not a hard timeline or other benefit to a quick accomplishment of a task or mission, it may be prudent to reduce the risk by delaying the action until favorable conditions present themselves.

4. Transfer the Risk. Risk may be reduced by transferring all or some portion of a particular task or mission. Transferring risk to another individual, unit, or platform that is better positioned to face the risk decreases the probability or severity of the risk to the total force.

5. Compensate for the Risk. Compensating for potential losses by assigning redundant capabilities ensures the success of critical tasks or missions.

(b) Types of Controls. Controls can take many forms but they fall into three basic categories:

1. Engineering Controls. These are controls that use engineering methods to reduce risks by design, material selection, or substitution when technically or economically feasible. An example is using an extension rod for cleaning rather than climbing a ladder.

2. Administrative Controls. These are controls that reduce risk through specific administrative actions such as providing suitable warnings, markings, placards, signs, and notices; establishing written policies, programs, instructions, and standard operating procedures; training personnel to recognize hazards and take appropriate precautionary measures; and limiting the exposure to a hazard. An example is limiting the number of alcohol beverages you consume.

3. Physical Controls. These are controls that take the form of barriers or guards to warn individuals and units that a hazard exists. Additionally, personal protective equipment (PPE) falls into this category. This is the least desirable control type to use. This control should be used only after engineering and administrative controls have been fully implemented. An example is wearing body armor and Kevlar helmets while traveling on a main supply route.

(c) Criteria for Evaluating the Effectiveness of Selected Controls. Examples of criteria for effective control options are listed in Table 1-3.

Control Criteria	Remarks
Suitability	Control removes the threat or mitigates (reduces) the risk to an acceptable level.
Feasibility	Has the capability to implement the control.
Acceptability	Benefit or value gained by implementing the control justifies the cost in resources and time.
Explicitness	Clearly specifies who, what, where, when, why, and how each control is to be used.
Support	Adequate personnel, equipment, supplies, and facilities necessary to implement a suitable control are available.
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 ready, willing, and able to enforce standards required to implement a control.
Individual	Individual personnel are sufficiently self-disciplined to implement a control.

Table 1-3. Criteria for Effective Controls

(2) Make Risk Decisions. With selected controls in place, decide if the residual risk is acceptable and the benefit outweighs the risk. This decision must be made at the right level and by the appropriate individual who can balance the risk against the task or mission and its potential benefit. If it is determined that the risk level is too high, then the development of additional controls, modification of the plan, or rejection of the course of action becomes necessary. Additionally, if risk outweighs the benefit or if assistance is required to implement controls, communication with higher authority in the chain of command is recommended.

d. Implement Controls (Step 4). The critical check for this step is to ensure that controls are converted into clear, simple execution orders understood at all levels. This requires that the plan is clearly communicated to all involved personnel, accountability is established, and the requisite support is provided.

e. Supervise (Step 5). Supervision involves conducting follow-up evaluations of the controls to ensure they remain in place and have the desired effect. Engaged supervision includes three basic actions: monitoring the effectiveness in the implementation of risk controls; conducting a continuous systematic review determining the need for further assessment of all or a portion of the task or mission due to unanticipated change; and ensuring a feedback system is established for capturing lessons learned, and identifying any new hazards that may arise or subsequent adjustments needed to previously established controls.

Marine Corps Risk Management (RM)

Chapter 2

Time Critical Risk Management (TCRM)

1. TCRM Overview. This chapter provides an explanation of Time Critical Risk Management (TCRM) concepts and fundamentals necessary for an understanding of the ABCD Model and its use as a personal RM tool.

2. Concept. TCRM refers to applying RM at the point of commencing or during execution of a task or mission when the methodology of applying the deliberate five step process has proven to be impractical. It is in the execution of the task or mission, where time and resources are most limited, that we must learn as an individual and organization to be proactive and responsive to ensure mission success. TCRM consists of the easy to remember mnemonic ABCD:

- A - Assess the situation
- B - Balance your resources
- C - Communicate to others
- D - Do and Debrief the event

3. Discussion

a. Experience is the result of all learning events. Therefore, everyone should have some experience upon which to draw when responding to an event or stimulus. The role of leadership is to marshal and coordinate the experience from all personnel involved in a task or mission. The ABCD Model establishes a structure for individuals, teams, squads, or crews to learn new or complex behaviors and skills or to gain understanding. Using the ABCD Model in a personal or professional application daily will result in deep memory of those learned qualities. When an individual executes a task, they have an expectation of a response consistent with their experience. Likewise, leadership and other teammates or crew will have an expectation of a response consistent with their experience. By recalling and communicating with the same ABCD Model, the ability to match a previous task or mission to a new experience provides uniform and consistent responses.

b. The ABCD Model provides common language and structure for a measured response when an individual, team, or crew is executing a routine task or when they are under duress from a more complex situation. These situations can range from additive conditions, time compression, personnel factors, or task loading. Training to the ABCD Model will embed a set of patterns that will help personnel recognize and recall a set of actions to counter risk even when distracted. This simple mnemonic provides individuals with a means to evaluate risks and formulate mitigation strategies on-the-run and can easily be applied in both on and off duty situations.

c. The nature of TCRM decisions includes an understanding that:

(1) Using the ABCD Model daily creates a habit and trains the brain to continue thinking under less than optimal conditions, duress, or stress.

(a) The model is designed to assist you when:

1. Working in a dynamic environment.

2. Monitoring a static or routine situation to capture errors.

3. Making a decision with partial information.

(b) In all three situations, it is necessary to develop habits that trigger the TCRM process to: Assess the situation; Balance your resources; Communicate to others; and Do and Debrief the event.

(c) Additionally, these situations require the continuous use of Assess, Balance, Communicate, Do and Debrief as necessary. An added benefit and value of the ABCD Model is the continuous improvement of skills and knowledge which occurs with self-assessment.

(2) Time critical decision making requires a unique set of skills which must be practiced.

(3) TCRM relies on the decision maker's previous experience, training, and availability to recall resources from in-depth or deliberate RM.

(4) Time critical decisions are based on pattern matching to past training and experience and the recall of resources in the ABCD Model format.

(5) Standardizing the communication structure in a time critical situation reduces conflicts and errors, and it improves the ability to manage risk and resources.

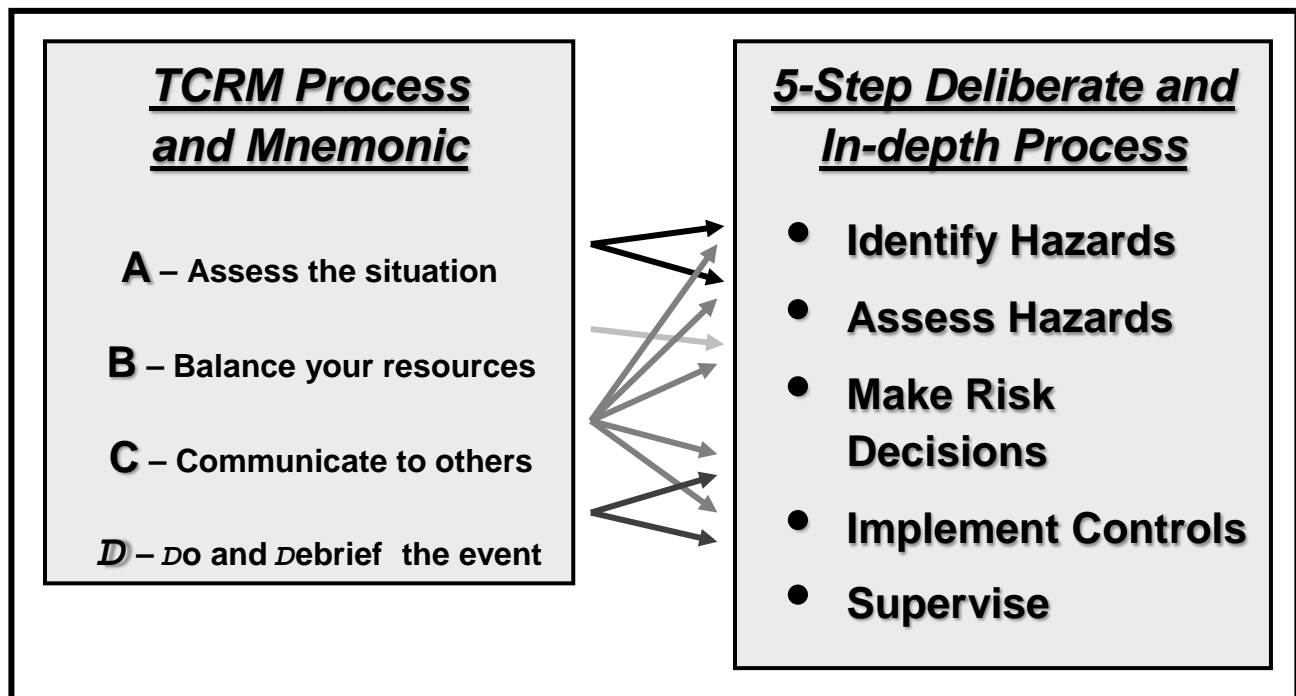


Figure 2-1. TCRM Link to the 5-Step RM Process

4. Process. The ABCD Model is not a replacement for the 5-step RM process or a different process of RM. It is the practical application of the 5-step process in an environment when time is limited and we are most susceptible to risk. Figure 2-1 identifies the relationship between the 5-step RM process and TCRM using the ABCD Model. The following breakdown explains each letter and expected action.

a. Assess the Situation: The "A" in the mnemonic combines the first two steps of the 5-step RM process. In a real-time situation, it is essential for individuals to consider the event in which they are engaged and choose the appropriate resources or controls to meet the hazards they identify. In a time critical situation, an assessment of the situation requires an accurate perception of what is happening in a relatively short time and projecting its effect. In other words, maintaining good situational awareness (SA) is key. In TCRM, where there is limited time to assess hazards, it is an individual's ability to quickly and effectively comprehend the situation and apply appropriate, available resources that can mean the difference between success and failure.

b. Balance Resources. The "B" in the mnemonic is specifically tied to making risk decisions (step 3 of the five step process) to mitigate risks. After assessing the situation, personnel must consider using the resources created for the task or mission. Thorough planning prior to an event will increase the availability of the appropriate resources to effectively mitigate hazards. For example, an understanding of the task or mission, proper training, PPE use, and recognition of personal limitations are all essential aspects of balancing resources.

c. Communicate to Others. Clear, concise, two-way communication is essential for effective mission execution. "C" is to remind us to explicitly communicate during the event, and it is tied to all steps of the 5-step process. Maintaining good SA of additive conditions, task loading, and crew factors is critical to communication because an individual's perception and communication skills deteriorate as they lose SA. As stress increases or events become more time constrained, communication tends to become limited or non-existent. Individuals who understand this relationship are better able to adjust and mitigate additional risk when they recognize a loss of SA. Although communicating intentions works best when multiple individuals are involved in the event, situations may occur where individuals must weigh decisions on their own. To insure positive and effective communications, it is critical that a continual internal assessment be conducted by asking relevant questions such as, "Who needs to know about the situation?", "Can this be done differently?", or "Who can help or assist?"

d. Do and Debrief. The "D" is italicized to emphasize the two parts: *Do* and *Debrief*. This mnemonic is tied to steps four and five of the 5-step process. Do the task or mission. However, to be successful in the event, the individual must select and use the appropriate resources while adjusting actions as required ensuring event success. A vital key to the process is ensuring that the feedback loop or "Debrief" aspect of the "D" is performed. It is beneficial for individuals to follow through and complete the ABCD loop by identifying what worked and what did not and to ensure lessons learned are disseminated. Debriefs will improve performance and mitigate risks in future activities. They are essential in completing the ABCD loop. To ensure future activities are improved and risks are reduced, ask questions during the debrief such as, "Was our assessment accurate?", "Were we lucky?", "How

well did we use our resources?", "Was communication effective?", and "What can we do to improve events in the future?"

5. Summary. The practical use of the ABCD Model to assist individuals during TCRM and decision making will sustain a responsive capability to effectively meet personal challenges or mission contingencies now and in the future.

Marine Corps Risk Management (RM)

Chapter 3

RM Glossary

1. Abbreviations and Acronyms

RM	Risk Management
RMI	Risk Management Instructor
PHA	Preliminary Hazard Analysis
PPE	Personal Protective Equipment
RAC	Risk Assessment Code
R2P2	Rapid Response Planning Process
SA	Situational Awareness
SD	Safety Division, Headquarters Marine Corps
SOP	Standard Operating Procedures
TCRM	Time Critical Risk Management

2. Terms and Definitions. The definitions provided are applicable in context with RM.

ABCD. The mnemonic for the four actions of Time Critical Risk Management as represented in Chapter 2.

Acceptable Risk. The portion of identified risk that is allowed to persist during the task or mission.

Additive Condition. Refers to all items that compete for an individual or crew's attention during the execution of a task or mission. Examples include equipment malfunctions, change in weather, multiple players, unpredictable information, and change to the mission. Additive conditions may increase task loading or uncertainty and lead to distraction or channelized focus.

Brainstorming. This technique guides a group in an interactive exchange of ideas deferring judgment until the end of the session. It is a good way to quickly generate many diverse ideas. This technique is particularly effective when participants feel free to offer their ideas without fear of criticism.

Consequential Error. An error that leads to undesired consequences to property, personnel, or mission (e.g., mishap, personal injury, mission failure, etc.).

Controls. Actions taken or measures put in place to eliminate a hazard or reduce the associated identified risk. The three types of controls are engineering controls, administrative controls, and physical controls.

Human Factors. Environmental, organizational, and job factors and human and individual characteristics which influence behavior in a way which can affect health and safety. This includes such things as attitudes, personalities, level of training, experience, fatigue, and physiological factors. Human factors which negatively affect the capabilities of the individual, crew, or team can increase the potential for errors.

Exposure. An expression that considers the frequency, length of time, and percentage of people or assets subjected to a hazard. Exposure is a component of risk, but is not directly used to assign a level of risk. Rather, it is a consideration in determining probability and severity.

Hazard. Any real or potential condition that can cause injury, illness, or death to personnel; damage to or loss of equipment or property; degradation of mission capability or impact to mission accomplishment; or damage to the environment. (Synonymous with the term "threat.")

Mishap. An unplanned event or series of events resulting in death, injury, occupational illness; damage to or loss of equipment or property; or damage to the environment.

Operational Analysis. A chronological or sequential list of the major events or elements in a task or mission. This is the complete picture of what is expected to happen and assures all elements of a mission or task are evaluated for all potential hazards.

Risk Management (RM). A process that assists organizations and individuals in making informed risk decisions in order to reduce or offset risk, thereby increasing operational effectiveness and the probability of mission success. It is a systematic, cyclical process of identifying hazards and assessing and controlling the associated risks. The process is applicable across the spectrum of tasks and missions, both on and off duty.

RM Instructor. Designated unit level individual, qualified in accordance with this Order, who is responsible for implementing risk manage principles, concepts, and policy within the unit.

Preliminary Hazard Analysis (PHA). A means to create an initial list of hazards that may exist in a task or mission. This builds on the operational analysis and entails listing hazards and associated causes.

Probability. A measure of the likelihood that a potential consequence will occur.

Residual Risk. Risk remaining after controls have been identified and selected.

Resource. In general, a resource is something that can be used to develop controls and includes the following: time, money, people, or equipment. With respect to TCRM, a resource is something used to prevent errors, speed up decision making, or improve team coordination. Resources are typically developed as controls at the in-depth or deliberate levels of risk management and are broadly grouped into the following categories: policies, procedures, and routines; checklists; automation; briefings and external resources; and knowledge, skills, and techniques.

Risk. An expression of possible loss, adverse outcome or negative consequence; such as injury, illness in terms of probability and severity.

Risk Assessment. A structured process to identify and assess hazards. Risk Assessment results in an expression of potential harm, described in terms of severity, probability, and exposure to hazards known. It is accomplished in the first two steps of the RM process.

Risk Assessment Code (RAC). An expression of the risk associated with a hazard that combines its severity and probability into a single Arabic numeral which can be used to help determine hazard abatement priorities. This is typically accomplished through risk assessment using a risk assessment matrix. The basic RACs are 1-Critical, 2-Serious, 3-Moderate, 4-Minor, and 5-Negligible.

Risk Decision. The decision to accept or not accept the risk(s) associated with an action made by the commander, leader, or individual responsible for performing that action.

Root Cause. Any basic cause that was not in turn a result of underlying causes. The root cause is the depth in the mishap chain of events where an intervention could reasonably be implemented to change performance and prevent an undesirable outcome. The analysis of a hazard may identify multiple causes; however, applying controls to the root cause is ultimately more effective than merely addressing an intermediate cause.

Severity. An assessment of the potential consequence intensity that can occur as a result of exposure to a hazard. It is defined by the degree of injury, illness, property damage, loss of asset (time, money, personnel), or task or mission impairing factors. When analyzing risk, it is based on the worst credible outcome.

Task Loading. The number of tasks to complete given a set period of time. Higher task loading increases the potential for error. Task loading can be reduced by either reducing the number of tasks or taking more time.

Threat. See hazard. With respect to RM, threat and hazard are considered synonymous.

Unnecessary Risk. The risk, when measured versus the benefit or value of the task or mission, that cannot be tolerated and must be eliminated or controlled.

Zero defect. A mindset whereby no mistakes are acceptable at whatever the cost. This mentality does not promote mission flexibility, adaptability, or improvisation, but rather mission stagnation for fear of repercussion if a mistake is made.