



## UNITED STATES MARINE CORPS

HEADQUARTERS MARINE CORPS AIR STATION MIRAMAR  
PO BOX 482000  
SAN DIEGO CA 92145-2000

StaO 3500.1

Safety

29 JUN 1999

### STATION ORDER 3500.1

From: Commanding General  
To: Distribution List

Subj: OPERATIONAL RISK MANAGEMENT (ORM) PROGRAM

Ref: (a) MCO 3500.27  
(b) ALMAR 210/97

Encl: (1) Risk Assessment Worksheet (RAWS)  
(2) Risk Assessment Matrix

1. Purpose. To establish and implement an effective Operational Risk Management (ORM) Program at Marine Corps Air Station (MCAS) Miramar that complies with the guidance contained in the references.

2. Discussion. ORM is a systematic decision-making process used by people at all levels to increase operational effectiveness by anticipating hazards and reducing the potential for loss, thereby increasing the probability of a successful mission. ORM increases our ability to make informed decisions by providing the best baseline of knowledge and experience available. It also minimizes risk to acceptable levels, commensurate with mission accomplishment.

3. Guidance. Incorporate ORM in all levels of planning, scheduling and execution of work or recreation performed by MCAS Miramar personnel. Develop and maintain enclosure (1) for each existing operation, and for new operations before implementation. Use the worksheet as the primary risk assessment tool throughout the ORM process in establishing a quantifiable level of risk.

#### 4. ORM Principles

a. Accept risk when benefits outweigh the cost. The ORM goal is not to eliminate risk, but manage the risk so that the mission can be accomplished with the minimum amount of loss.

b. Accept no unnecessary risk. Take only risks that are necessary to accomplish the mission.

c. Anticipate and manage risk by planning. Risks can be easily controlled when identified early in the planning process.

29 JUN 1999

d. Make risk decisions at the right level. The leader directly responsible for the operation makes the risk management decisions. If the leader determines the risk associated with a mission is too high or goes beyond the commanders stated intent, they should seek additional guidance.

## 5. ORM Process

a. Identify Hazards. Begin with an outline or chart of the major steps in the operation (operational analysis). Next, conduct a preliminary hazard analysis by listing all hazards associated with each step in the operational analysis along with possible causes for these hazards.

b. Assess Hazards. For each hazard identified, determine the associated degree of risk in terms of probability and severity. Although not required, the use of a matrix (enclosure (2)) may be helpful in assessing hazards.

c. Make Risk Decisions. First, develop risk control options. Start with the most serious risk first and select controls that will reduce the risk to a minimum consistent with mission accomplishment. With selected controls in place, decide if the benefit of the operation outweighs the risk. If risk outweighs the benefit or if assistance is required to implement controls, communicate with higher authority in the chain of command.

d. Implement Controls. Use the following measures to eliminate hazards or reduce the degree of risk. These are listed by order of preference:

(1) Engineering Controls. Controls using engineering methods to reduce risks by design, material selection or substitution when technically or economically feasible.

(2) Administrative Controls. Controls to reduce risks through specific administrative actions, such as:

(a) Provide suitable warnings, markings, placards, signs, and notices.

(b) Establish written policies, programs, instructions and standard operating procedures (SOPs).

(c) Train personnel to recognize hazards and take appropriate precautionary training.

(d) Limit exposure to hazards by reducing the number of personnel/assets or the length of exposure time.

(3) Personnel Protective Equipment (PPE). Serves as a barrier between personnel and a hazard. Use when other controls do not reduce the hazard to an acceptable level.

e. Supervise. Conduct follow-up control evaluations to ensure they remain in place and have the desired effect. Monitor for changes that may require further ORM and take corrective action when necessary.

6. Action. Department heads shall:

a. Ensure ORM is integrated in operational planning and execution, to include all necessary training.

b. Ensure personnel are aware of the ORM program and complete the appropriate level of ORM training.

c. Incorporate ORM principals into regular training efforts, mission planning and execution, and recreational activities.

d. Develop task specific ORM orders and procedures.

  
E. A. CAUGHLAN  
Chief of Staff

Distribution: A

RISK ASSESSMENT WORKSHEET (RAWS)

Location \_\_\_\_\_ Date \_\_\_\_\_

Identify Hazard

---

---

---

---

Assess Hazard

---

---

---

---

Make Risk Decision

---

---

---

---

Implement Controls

---

---

---

---

Supervise

---

---

---

---

Diagram/Sketch:

Submitted by: \_\_\_\_\_  
Phone/E-mail \_\_\_\_\_

ENCLOSURE (1)

RISK ASSESSMENT MATRIX

SEVERITY

**Catastrophic** (Category I) - Hazard may cause death, loss of facility/asset or result in grave damage to national interests.

**Critical** (Category II) - Hazard may cause sever injury, illness, property damage, damage to national or service interests or degradation to use of assets.

**Moderate** (Category III) - Hazard may cause minor injury, illness, property damage to national, service or command interests or degradation to efficient use of assets.

**Negligible** (Category IV) - Hazard presents a minimal threat to personnel safety or health, property, national, service or command interests or efficient use of assets.

RISK ASSESSMENT MATRIX		PROBABILITY			
		LIKELY	OCCASIONAL	SELDOM	UNLIKELY
		A	B	C	D
S E V E R I T Y	CATASTROPHIC (CATEGORY I)	1	EXTREMELY HIGH	HIGH	
	CRITICAL (CATEGORY II)	2	HIGH		
	MODERATE (CATEGORY III)	3	MEDIUM		
	NEGLECTIBLE (CATEGORY IV)	4			LOW

PROBABILITY

**Likely** (A) - Likely to occur immediately or within a short period of time. Expected to occur frequently to an individual item or person or continuously to a fleet inventory or group.

**Occasional** (B) - Probably will occur in time. Expected to occur several times to an individual item or person or frequently to a fleet, inventory or group.

**Seldom** (C) - May occur in time. Can reasonably be expected to occur some time to an individual item or person, or several times to a fleet, inventory or group.

**Unlikely** (D) - Unlikely to occur.

RISK LEVELS

**Extremely High** - Loss of ability to accomplish mission.

**High** - Significantly degrades mission capabilities in items of required mission standards.

**Medium** - Degrades mission capabilities in terms of required mission.

**Low** - Little or no impact on mission accomplishment.