



DEPARTMENT OF THE NAVY
COMMANDER TRAINING AIR WING ONE
101 FULLER ROAD SUITE 250
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COMTRAWINGONEINST 3500.1E
N9
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COMTRAWINGONE INSTRUCTION 3500.1E

From: Commander, Training Air Wing ONE

Subj: OPERATIONAL RISK MANAGEMENT

Ref: (a) OPNAVINST 3500.39C
(b) CNATRAININST 3058.1A

Encl: (1) Risk Assessment Matrix
(2) High-Risk Recreational Activity Guide
(3) Counseling Guide
(4) Training Air Wing ONE (TW-1) Operational Risk Management Worksheet
(5) TW-1 ORM Flight/Cross Country Briefing Guide

1. Purpose. To establish Operational Risk Management (ORM) as an integral part of TW-1 operations, training and planning at all levels in order to optimize capabilities, readiness and safety. This instruction is a complete revision and should be reviewed in its entirety.

2. Cancellation. COMTRAWINGONEINST 3500.1D

3. Background. Operational Risk Management is an effective tool for maintaining readiness. This instruction is part of an initiative to integrate this process throughout TW-1. It provides a means to help define risk and control it where possible, thereby assisting Commanders in choosing the best course of action for an identified mission creating a safe environment in which to operate.

4. Operational Risk Management Terms

a. Control – A method for reducing risk for an identified hazard by lowering the probability of occurrence, decreasing potential severity or both.

b. Hazard – A condition with the potential to cause personal injury or death, property damage or mission degradation.

c. Risk – An expression of possible loss in terms of severity and probability.

d. Risk Assessment – The process of detecting hazards and assessing the associated risks.

e. Operation Risk Management (ORM) – The process of dealing with the risk associated with military operations, which includes risk assessment, risk decision making and implementation of effective risk controls.

- f. Probability – The likelihood that a hazard will result in a mishap or loss.
- g. Severity – The worst credible consequence which can occur as a result of a hazard.

5. Operational Risk Management (ORM) Process

- a. Identify Hazards – Determine hazards associated with the operational mission or event.
- b. Assess Hazards – For each hazard identified, determine the associated degree of risk in terms of probability and severity.
- c. Make Risk Decisions – Develop risk control options and determine which control options are available and which options will minimize or eliminate the associated risk.
- d. Implement Controls – Implement the controls at the right command level. Lower risks may be handled at the individual level, where higher risks may be forwarded to higher levels in the command.

(1) Administrative Controls:

- (a) Provide suitable warnings, markings, placards, signs and notices.
- (b) Establish written policies, programs, instructions and standard operating procedures (SOP).
- (c) Train personnel to recognize hazards and take appropriate precautionary measures.
- (d) Limit the exposure to a hazard.
- (e) Supervise – Conduct follow-up evaluations of the controls to ensure they remain current and effective. Take corrective action when necessary.

(2) Engineering Controls - Controls that use engineering methods to reduce risks by design, material selection and manufacturing.

- e. Supervise – Conduct follow-up evaluations of the control measures to ensure the desired effect. Adjust as necessary.

6. Principles of ORM. When conducting the five-step ORM process, the following four principles need to be followed.

- a. Accept the risk when the benefits outweigh the cost.
- b. Accept no unnecessary risk.
- c. Anticipate and manage risk by planning.
- d. Make risk decisions at the right level.

7. Levels of ORM. Individuals select the level of ORM based upon the mission, the situation, the time available, the proficiency level of personnel and assets available. Levels of ORM are as follows:

a. Time-Critical – An “on-the-run” mental or oral review of the ORM five step process.

b. Deliberate – Application of the complete five-step process in planning the operation or evaluating procedures.

c. In-Depth – A deliberate process which uses a more thorough risk assessment which involves research of available data, tools, formal testing and long term tracking.

8. Risk Assessment Teams (RAT). Squadrons should utilize RAT during the deliberate and in-depth ORM process. The purpose of the RAT is to conduct the ORM process for identified missions or hazards within the command. Hazards should be referred to the command Safety Department via hazard report, anonymous report, or any other similar reporting device. A RAT will be formed whenever the command deems necessary to analyze a specific mission or hazard. A RAT shall consist of a team leader and, at a minimum, one other member of the command. For aviation related matters, the command Aviation Safety Officer shall act as the team leader. For detachment (DET) specific matters, the DET Officer in Charge (OIC) will act as Team Leader, ensuring a proper ORM assessment is performed and included in the Letter of Instruction preceding each DET. For Carrier Qualification DETs, the Wing Landing Signal Officer (LSO) is the primary RAT Leader. For all other matters, the command Ground Safety Officer shall act as team leader. Team leaders will select team members who will assist in identifying controls to minimize the risk for the mission or hazard. Team leaders may utilize enclosures (1) and (2) to document the hazards, risks and identify potential controls for the command. Controls should be implemented at the Safety Department level or referred to the Commanding Officer via the chain of command for moderate to high-risk issues.

9. Action. All personnel assigned to TW-1 shall comply with the program described in references (a) and (b). Enclosures (1) through (5) of this instruction provide additional guidance. Specific responsibilities include:

a. The Commander, Training Air Wing One shall:

(1) Implement ORM within the Training Wing.

(2) Act as approval authority for high-risk missions which are referred from TW-1 squadrons.

b. Aviation Safety Officer, Training Air Wing One shall:

(1) Assist Squadron Safety Officers in providing ORM training to their squadron.

(2) Monitor this instruction and implement changes when necessary.

(3) Act as the point of contact for TW-1 during all matters pertaining to ORM.

(4) Act as Risk Assessment Team (RAT) Leader for TW-1.

(5) Ensure Det OIC's conduct proper ORM assessments prior to every detachment.

c. Squadron Commanding Officers shall:

(1) Ensure new aviation students receive or have received ORM training.

(2) Implement ORM within the command.

(3) Act as the approval authority for all high-risk missions and high-risk activities within the command.

d. Squadron Safety Officers shall:

(1) Manage the ORM process within the command.

(2) Conduct ORM training within the command.

(3) Solicit topics for the RAT.

(4) Participate in RAT meetings when available.

(5) Review RAT results. Implement controls when necessary.

(6) Ensure high risk screening form is completed and notify the Commanding Officer of all high risk activities.

e. Squadron Operations Officers shall:

(1) Conduct ORM training within the Operations Department.

(2) Provide RAT members when appropriate.

(3) Act as the approval authority for all moderate risk missions.

f. Squadron Department Heads shall:

(1) Implement ORM within their respective department.

(2) Provide RAT members when appropriate.

(3) Act as the approval authority for all moderate risk missions.

g. Squadron Ground Safety Officer shall:

(1) Act as RAT leader for all non-aviation related matters within the command.

5 Mar 14

h. Pilot-in-Command shall:

(1) Conduct the ORM process prior to each mission. Enclosure (5) may be utilized to identify potential hazards prior to flight.

(2) Obtain approval authority up the chain of command when the mission entails moderate to high-risk.


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FOUR PRINCIPLES OF ORM

- ① Accept risk when benefits outweigh cost
- ② Accept no unnecessary risk
- ③ Anticipate and manage risk by planning
- ④ Make risk decisions at the right level

FIVE STEPS OF ORM

- ① Identify hazards
- ② Assess hazards
- ③ Make risk decisions
- ④ Implement controls
- ⑤ Supervise

CATEGORY I - The hazard may cause death, loss of facility/asset or result in grave damage to national interests.

CATEGORY II - The hazard may cause severe injury, illness, property damage, damage to national or service interests or degradation to efficient use of assets.

CATEGORY III - The hazard may cause minor injury, illness, property damage, damage to national, service or command interests or degradation to efficient use of assets.

CATEGORY IV - The hazard presents a minimal threat to personnel safety or health, property, national, service or command interests or efficient use of assets.

Hazard Probability Categories

- A** - Likely to occur immediately or within a short period of time.
- B** - Probably will occur in time.
- C** - May occur in time
- D** - Unlikely to occur.

| | | Probability of Occurrence | | | |
|----------|---------|---------------------------|----------|-----|----------|
| | | Likely | Probably | May | Unlikely |
| | | A | B | C | D |
| SEVERITY | Cat I | 1 | 1 | 2 | 3 |
| | Cat II | 1 | 2 | 3 | 4 |
| | Cat III | 2 | 3 | 4 | 5 |
| | Cat IV | 3 | 4 | 5 | 5 |
| | | Risk Levels | | | |

Risk Assessment Code

- 1 = Critical**
- 2 = Serious**
- 3 = Moderate**
- 4 = Minor**
- 5 = Negligible**

High-Risk Recreational Activity Guide

1. High-risk recreational activities include activities involving:

a. Operation of a motorized vehicle on unprepared terrain at high speeds (e.g. dirt-biking, all-terrain vehicles, snowmobiling).

b. Racing a motorized vehicle (e.g. auto/motorcycle/boat racing)

c. Operation of powered/unpowered aircraft for recreational flight (e.g. flying, gliding).

d. Operation of powered watercraft (e.g. boating, water-skiing, jet-skiing). Passengers of fishing/pleasure boats are exempted.

e. Discharge of firearms (e.g. hunting). Target/range shooting in a controlled indoor/outdoor range is exempted.

f. Gravity sports involving the use of a parachute, strap or sled to glide or arrest momentum (e.g. parasailing, skydiving, bungee jumping, street luge). Supervised theme park rides are exempted.

g. Other activities in which height, depth or speed involved pose a significant risk of injury or death (e.g. scuba diving, rock/mountain climbing, ski jumping).

2. For activities not specifically mentioned, unit Commanding Officers shall determine if the activity is high-risk and falls under the purview of this instruction.

Counseling Guide

1. Does the activity require licensing, certification or qualifications? (Copies of all certificates must accompany the ORM assessment worksheet submitted for approval)
2. Is formal training for the activity available? Has it been completed? (Copies of training certificates required)
3. Is a commercial outfit running the activity? Are they certified/licensed/insured?
4. How much experience does the individual have in the activity?
5. Where will the activity be performed? What time of day?
6. Is the individual familiar with the area in which the activity will be performed? What are the terrain hazards? Are there potentially hidden obstructions/pits/fences/wires? Is a guide needed?
7. Is the individual familiar with local laws and safety regulations that may govern the activity?
8. Does the individual possess or will the individual obtain appropriate personal protective equipment?
9. Is the individual participating alone or in a group? If alone, who knows the individual's whereabouts and return time?
10. Has a safety check of the vehicle/equipment been performed? Is it in good working order? When was it last used? Is a tool kit or first aid kit available?
11. Does the individual have a radio or signaling device? What are the local emergency numbers?

Operational Risk Management (ORM) Risk Assessment Worksheet

Instructions: Submit this completed worksheet to your command to request to participate in a high-risk recreational activity. This worksheet must be approved prior to participation. See CNATRAINST 3058.1A for additional information. Contact your Ground Safety Officer if you need help.

Name of requestor:

Date Worksheet Prepared:

Requested Activity:

| Step 1. Identify Hazards | | Step 2. Assess Hazards | Step 3. Make Risk Decisions | | Step 4. Implement Controls | Step 5. Supervise |
|-----------------------------|-----------------------|---------------------------|--|---------------------------------|--------------------------------------|--|
| Major steps of the activity | What are the hazards? | Initial RAC* | What controls (safeguards) will counter the hazard?*** | Residual RAC (controls applied) | How will you implement the controls? | How will you ensure the controls are used? |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Reviewed by:

Approved: YES NO
Ongoing participation approved (blanket approval): YES NO

* RAC - Risk Assessment Code. Use an ORM Risk Matrix to determine the RAC (see CNATRAINST 3058.1A enclosure (1)).
** Controls may include use of protective equipment, buddy system, safety check of equipment, training, etc...

NOTE: Attach copies of all training/licenses/certifications

TW-1 ORM FLIGHT/CROSS COUNTRY BRIEFING GUIDE

Pre-brief Guide:

- (1) Human factors
- (2) Read and initial board current?
- (3) Is SNA eligible for a mandatory or optional warm-up?
- (4) If SNA is scheduled for more than one flight:
 - Second and subsequent flights cancelled if SNA is marginal in stage.
 - If SNA is procedurally below average on first flight, then second and subsequent flights shall be cancelled.
- (5) Will flight violate crew rest or crew day?

Cross Country Preflight/Postflight checklist.

- (1) Request approved by CO/XO/Ops Officer?
- (2) ODO notification of deviation due to Weather.
- (3) Fuel Packet.
- (4) Current FLIP pubs/charts.
- (5) Post static display inspection:
 - FOD walkdown
 - Tape removal if used on exterior emergency egress devices.
 - Thorough pre-flight for spectator induced FOD.
- (6) Current weather brief.
- (7) ODO notified at destination.
- (8) Aircraft properly secured. (Landing Gear pinned, Hard/soft covers installed, canopy closed)