



# WILLARD MARINE TRAINING

## OPERATIONAL RISK MANAGEMENT(ORM)



What is risk?



# RISK

- The possibility that something bad or unpleasant (such as an injury or a loss) will happen
- Someone or something that may cause something bad or unpleasant to happen
- To put (something) in a situation in which it could be lost, damaged, etc.
- To do something that could result in (something bad or unpleasant)
- To do (something that may have harmful or bad results)



# What is Operational Risk Management/ Assessment?

- The term **Operational Risk Management** (ORM) is defined as a continual cyclic process which includes risk assessment, risk decision making, and implementation of risk controls, which results in acceptance, mitigation, or avoidance of risk. ORM is the oversight of operational risk, including the risk of loss resulting from inadequate or failed internal processes and systems; human factors; or external events.



## **The U.S Department of Defense summarizes the principles of ORM as follows:**

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



# GAR Risk Assessment/Management Tool

**G**REEN

**A**MBER

**R**ED



The **GAR** MODEL is just one example of the tools available to assist you in making decisions when not only faced with emergency situations but it can be applied to everyday life. Use what works!

The Application of the **GAR** Model doesn't stop after initial evaluation or use, it should be constantly repeated throughout your mission or operation as the situation develops or conditions change.

The **GAR** Model should be used to help you make Operational **GO/NO GO** decisions.

## • Step #1 Risk Assessment

Review the questions and determine the associated risk for each of the below areas. Once completed, consider risk management options from Step #2 and determine risk vs. gain. Re-assess risk factors continuously as needed throughout the response.

**Planning:** Thoroughness of planning. Factors that increase risk: Status of response assets, Lack of appropriate SOP's, Use of other response assets (other agencies that can step in and allow you time to prepare) TIME IS YOUR ENEMY.

Adequate

Minimal

None

1

2

3

4

5

**Event:** Refers to complexity surrounding event and/or guidance/doctrine available. Factors that increase risk: non-specific details, non-standard mission profile (TRAINING).

Clear Guidance

Complex/Innovation Required

1

2

3

4

5



## Step #1 Cont.

## Risk Assessment

**Asset:** Selection of appropriate resource. Factors that affect risk: time at unit, familiarity of area, fatigue, underway time, crew rest, crew selection, adequate supervision. (IS IT THE RIGHT CREW AND MORE IMPORTANTLY, ARE THEY READY?)

**Crew:**      Excellent                      Adequate                      Marginal  
                    1            2            3            4            5

**Boat/Resource:** Right craft for the event?

Fully mission capable                      Partially mission capable  
                    1            2            3            4            5

**Communications:** Ability to maintain communications throughout the response to the event. Factors: internal w/command, external w/ assisting agencies (Boat to boat and boat to shore)

Adequate                      Marginal                      None  
                    1            2            3            4            5

## Step #1 cont.

## Risk Assessment

**Environment:** External condition surrounding event: weather, time of day/night, water conditions, water temp, air temp, visibility.

Benign

Marginal

Hazardous

1

2

3

4

5

6

7

8

9

10

**Add the values for each Risk Assessment and plot the final Risk Assessment on graph below (include re-assessment from Step 2).**

**TOTAL SCORE** – Add the values for each risk category and plot the final assessment below: (minimum = 0, maximum = 35)

(Circle your score for each boat movement)

**Low**

**Medium**

**High**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35

**Green**

**Amber**

**Red**

## Step #2 Risk Management

**Risk Management is the decision to identify and reduce hazards. Below are *Control Options* to assist in risk control or reduction. Review the options and re-assess the risks as appropriate.**

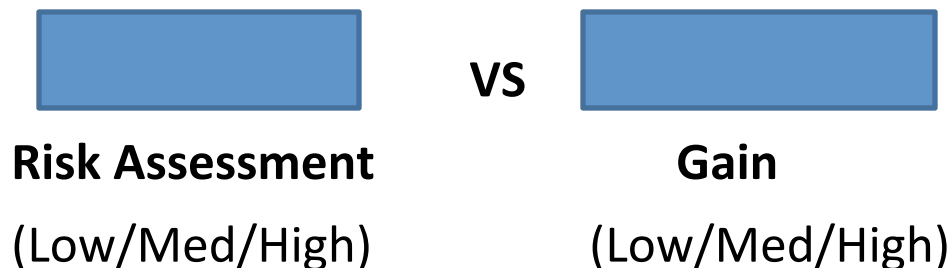
- **Spread-out** – Disperse the risk by increasing the time between events or using additional assets.
- **Transfer** – If practical, locate a better-suited asset to respond to the event (i.e., different type of asset or crew).
- **Avoid** – Circumvent hazard: Wait for risk to subside (i.e., wait until daylight or weather passes).
- **Accept** – In some cases, the benefit might justify the assumption of risk. In these cases, a decision to accept risk may be made with the stipulation that risk is re-evaluated as the event evolves. (No adjustment to Risk Assessment)
- **Reduce** – Reduce or limit risk exposure, use of Personal Protective Equipment (PPE.)

## Step #3 Risk vs. Gain

**Low Gain** – Situation with intangible benefits or low probability for providing concrete results. Examples include passenger transports, non-critical logistics missions, and public affairs demonstrations.

**Medium Gain** – Situation that provides immediate, tangible benefits. Examples include saving property, protecting the environment, deterring illegal operations.

**High Gain** – Situation that provides immediate, tangible benefits that if ignored, could result in loss of life. Examples include SAR and MEDEVACs.





## Personal Protective Equipment(PPE) Considerations for Underway Operations

- Proper PPE is required to be worn at all times while underway
- PPE includes but is not limited to the following:

Dry suits or anti exposure coveralls

Thermal undergarments

Lifejacket

Proper footwear/headgear/gloves/eyewear

Sunscreen

Use the following slides and chart as guidance in selecting appropriate PPE.

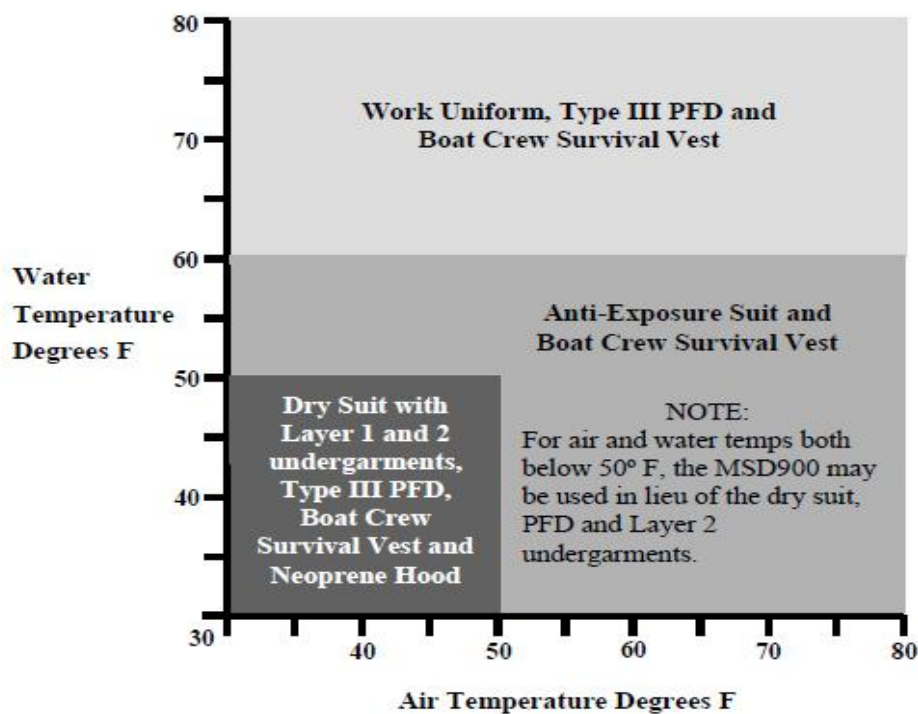


All CG personnel that operate in or are carried by shore or cutter based boats shall wear hypothermia protection and survival equipment indicated in the table (also referred to as the “50/50 box”) on the next slide. The table reflects the minimum required equipment. Additional protection may be worn at the crewmembers discretion. Use the table as follows:

- Draw a horizontal line across the table that is equal to the water temperature for the mission.
- Draw a vertical line up the table that is equal to the air temperature for the mission.
- Don the equipment identified in the shaded area where the lines intersect.



**B.1.b**  
**50/50 Box**



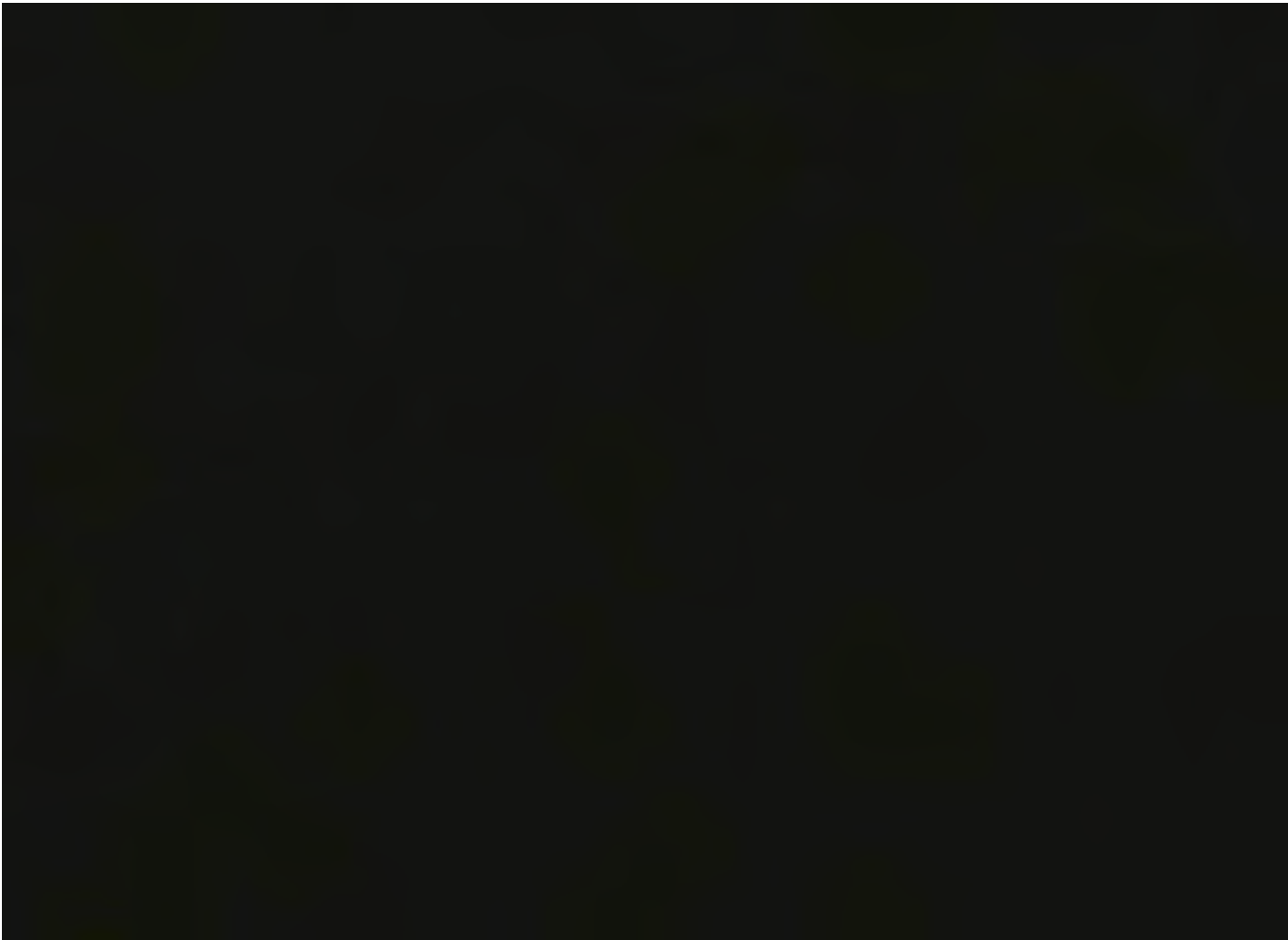
**Figure 3-1: 50/50 Box**



# Risk Assessment GAR Model

## Middle Cove Mishap

- Mission – Person in the water : condition of the victim is unknown
- Seas – 6 to 8 foot ocean swell with 8 to 10 foot breaking surf near scene you are responding to.
- Water temp. – 48 degrees
- Air Temp. – 56 degrees
- Boat Crew Experience:           Operator – 5 yrs.  
  Crewmember #1 – 3 months
- Crewmember #2 – 2 days
- Boat Type – 24 foot Rigid Hulled Inflatable Boat (RHIB) w/single jet drive
- Survival gear for rescue personnel – Correct for conditions
- Fire department is on station at location but has no ability to communicate with you and vice versa
- Back up rescue boat on scene that you have communication with
- Meteorological visibility (clear visibility, middle of the day)
- Person has been in water for unknown length of time
- Response time to location is 10 minutes





# Reconsider GAR Model

- All three rescuers in the primary boat perished in this rescue attempt!
- What can we learn from this mishap?
- Reconsider GAR Model



## **Risk Assessment Gar Model for Middle Cove Mishap**

### Discussion Points:

- What would you have done differently?
- Was the proper resource used in the rescue?
- What other resource(s) could have been used?
- Communications adequate?
- Overall crew skill level only as strong as the weakest member of the crew?
- Did the Public Presence interfere with the rescue effort?
- How/Why did your GAR model numbers change before and after viewing the video?