



# Civil Air Patrol Safety



## *Intermediate Risk Management*



# Intermediate Risk Management

- **Training Objectives**
  - Move on From “Basic” Knowledge of RM
  - Use RM in planning and execution of activities
  - Understand and perform a Risk Assessment
- **Additional Guidance**
  - This lesson will take you through each step of the RM process
  - Open up CAPF 160 to follow along with the steps
  - Refer to “Advanced RM” module for additional techniques



# Risk Management Review



- **Five Step Process**

- Identify - what can hurt you?
- Assess - how likely, and how badly?
- Controls - how can you prevent it?
- Implement - build controls into plan
- Evaluate - how well is plan working?

- **The Loop!**

- It's a continuous process
- Look for new/different hazards and risks
- Adjust your risk controls



# Personal Culture of Risk Management

- “The goal of the CAP Safety Program is for **each and every member** of Civil Air Patrol, as well as the organization itself, to **embrace and practice RM** as a core competency of Civil Air Patrol.” (CAPR 160-1, paragraph 1.2.4.)
- “ ... the diverse and localized aspects of CAP operations and activities demand that **individuals and groups** fully understand and **routinely apply safety RM** processes **as a matter of habit.**” (CAPR 160-1, paragraph 1.5.4.)

*Every CAP member is expected to use risk management practices “as a matter of habit” when engaged in any CAP activity. All activities come with hazards and risks ... individuals and groups must be committed to the same risk management processes.*



# Risk Management Principles

## 1. **Accept no unnecessary risk**

- Reduce risk As Low As Reasonably Possible (ALARP)
- Then determine if the risk is low enough to allow your mission or activity

## 2. **Make Risk Decisions at the appropriate level**

- The person in charge of the event usually determines if risk is acceptable
- Remember ... Only CAP/CC can approve if risk is “High” or “Extremely High”

## 3. **Integrate RM into ALL missions and activities**

- RM must be used in the planning and the execution of ALL CAP activities

## 4. **Apply RM continuously ... before, during, and after**

(See CAPR 160-1 for more information)



# Levels of Risk Management

- **Deliberate Risk Management**

- Full formal application of the RM steps
- Use the CAPF 160, *Deliberate Risk Assessment Worksheet*
- Used for large activities (e.g., NCSAs, Encampments, Flight Academies, etc.)  
(see CAPR 160-1 for guidance)

- **Real Time Risk Management**

- Smaller events and activities
- Reduced planning time, but same RM process
- Use the CAPF 160S, *Real Time Risk Assessment Worksheet*  
(see CAPR 160-1 for guidance)



# What is a “Risk Assessment?”

- **What it isn't ...**
  - It is NOT just a form to fill out or a square to fill
- **What it IS ...**
  - The IMPORTANT first three steps of the RM planning process
  - Identify hazards, assess risks, and develop risk controls
- Use CAPF 160 or CAPF 160S to guide the process
  - See CAPR 160-1 for CAPF 160 requirements
  - See Safety pages of [gocivilairpatrol.com](http://gocivilairpatrol.com) for CAPF 160 “how to” briefing



# Getting Started

- **Congratulations!** You've just been assigned to do a risk assessment (RA) for a big event at your squadron!
  - Don't worry, you're not alone
- **Form a team**
  - Moving airplanes? Get someone from DO staff on your team
  - Cadets involved? Get someone from the Cadet Programs staff
  - Vehicles? Get the Transportation Officer to help
  - Gather members from every mission area for variety of ideas

**Open a CAPF 160, and follow along for the rest of this briefing!**



# Identify Hazards

- Every activity is made up of numerous smaller activities
  - Look for hazards associated with the main activity
  - Examine each sub-activity for hazards
- Use blocks 4 and 5 of the CAPF 160 to list sub-activities and their hazards
- Look for hazards in all of the “5 Ms”
  - Unclear Guidance? Weather? Facilities? Member? Equipment? Tasks? Mission Intensity?
  - See “*Using the Five M’s*” guide on Risk Management webpage

4. SUB- ACTIVITY or SPECIFIC TASK	5. HAZARD
<p>Note: Each sub-activity or task will probably have multiple hazards/risks associated with it. Each one should be assessed.</p>	<p>Consider Hazards from each of the “5-M” categories in CAPP 163:</p> <ul style="list-style-type: none"><li>- Member</li><li>- Media</li><li>- Machine</li><li>- Mission/Activity</li><li>- Management</li></ul>



# Identify Hazards (continued)

- Gather your team
  - Brainstorm to think of all the hazards
  - What risk do they bring?
- Questions for each activity or task:
  - What can go wrong?
  - What can break?
  - How could someone get hurt?
- “What if ...”
  - Ask “what if” something went wrong with each part of the plan
- Have you done anything like this before?
  - What worked (and what didn’t) last time you did this?

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# Assess the Risk

- If a hazard can cause an injury, the risk level is determined based on:
  - The ***probability*** of the injury happening, and
  - The ***severity*** of the injury if it occurs
- Probability + Severity = Risk Level
- Use the Risk Matrix on page 3 of CAPF 160 to determine the risk level for each hazard

## 6. INITIAL RISK LEVEL

Use Risk Matrix on page 3.

Note all "EH" & "H" risks



# Assess the Risk

- For each hazard, use the definitions in the matrix to ...
  - Estimate the **Probability** of damage or injury occurring
  - Estimate the **Severity** of the damage or injury if it occurs
- Read across, and vertically, to see the level of risk (EH, H, M, or L)
  - Be honest with your estimates
  - Use worst-case scenario
  - Discuss with your team

Risk Assessment Matrix		Probability (expected frequency)				
		Frequent: Continuous, regular, or inevitable occurrences	Likely: Several or numerous occurrences	Occasional: Sporadic or intermittent occurrences	Seldom: Infrequent occurrences	Unlikely: Possible occurrences but improbable
Severity (expected consequence)		A	B	C	D	E
<b>Catastrophic:</b> Death, unacceptable loss or damage, mission failure, or unit readiness eliminated	I	EH	EH	H	H	M
<b>Critical:</b> Severe injury, illness, loss, or damage; significantly degraded unit readiness or mission capability	II	EH	H	H	M	L
<b>Moderate:</b> Minor injury, illness, loss, or damage; somewhat degraded unit readiness or mission capability	III	H	M	M	L	L
<b>Negligible:</b> Minimal injury, loss, or damage; little or no impact to unit readiness or mission capability	IV	M	L	L	L	L
<b>Legend:</b> EH – extremely high risk    H – high risk    M – medium risk    L – low risk						



# Develop Risk Controls

## Prioritizing Your Risk Controls

- Prioritize the Risks
  - Focus first on the hazards that bring the highest levels of risk
  - Try to completely eliminate that hazards that bring H or EH risk levels
- Prioritize the Risk Controls
  - There may be numerous ways of controlling each risk
  - Focus on the risk controls that have ...
    - ... the most benefit (the most effective at reducing risk) ...
    - ... balanced with the cost, effort, and available resources



# Develop the Risk Controls

## Reduce the probability      Reduce the severity

Ask yourself what is causing each risk ... target your risk controls at that cause

### A Few Options:

- **Eliminate** the risk: Is that event or that piece of equipment really needed?
- **Reduce** exposure to the hazard: Reduce your time in the sun?  
Reduce the number of people allowed on the flight line?
- **Train** people: ...how to avoid the hazard. ...how to perform the task correctly
- **Warn** people: Brief them ... Put up signs ... Rope off danger areas ... Supervise
- **Prepare** your members: Proper rest, nutrition, hydration, wingman, training
- **Improve** the design: Make it more efficient. Don't try to do "too much."
- **Supervise**: Assign spotters. Observe changing conditions. Call "knock it off"



# Develop the Risk Controls

## For each hazard you listed ...

- Use Blocks 7 & 8 on the CAPF 160 to enter the risk control you selected
- You may have more than one control for each hazard
- Describe HOW you will implement each control and how you will monitor it
- Enter the name of the person responsible for making sure the control is in place and working

7. RISK CONTROL	8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT
Describe the actual control being used to address the specific risk.  (If more space is needed, use the block directly below .)	Describe how the risk control will be implemented and monitored, and who is responsible.  (If more space is needed, use the block directly below .)



# Assess the Residual Risk

- With your risk controls in place (and working), each risk *should* be reduced
  - That reduced risk is the “Residual Risk”
- Use the Risk Matrix again to determine the Residual Risk *with your risk controls in place*
- Record the residual risk for each hazard using the dropdown menus in Block 9 of the CAPF 160

## 9. RESIDUAL RISK LEVEL

Use Risk Assessment Matrix on page 3 of form

### NOTE:

Refer to CAPR 160-1 for approval authority if ANY risk is High (H) or Extremely High (EH)



# Communication

- Everyone needs to know the plan!
  - Every activity is unique
  - Every risk management plan is also unique
- If done properly, the risk controls won't seem like an “add on”
  - They will be seamlessly integrated into the activity plan
  - Participants should understand the plan
  - Participants should understand their role in the plan (and risk management)



# Communication

- Well In advance:
  - Advise all participants of the plan to help them prepare
  - Offer training, advice on supplies, weather/heat considerations
  - Consider sharing the CAPF 160 or a summary of hazards and risk controls
- Immediately Before the activity:
  - Brief ALL the participants ... everyone needs to be on the same page
  - Review the basics of RM - refer to the Basic Risk Management briefing
    - Risk Management terminology, the use of “knock it off,” etc.
    - Review risk controls, and emphasize the items with the highest risk levels
  - Verify they are preparation ... Trained? Equipped? Hydrated? Rested?



# Real Time Risk Management

- Every large activity is made up of many smaller “sub-activities”
  - Treat each of these as a small separate event - that means a risk assessment!
- Gather the participants
  - Discuss the hazards ... ask “what can go wrong?”
  - Discuss risk controls ... ask “what can we do to decrease that risk?”
  - Make sure everyone knows their specific role in the activity
- Use CAPF 160S as a guide

**REMEMBER! Part of our CAP Safety Vision is to make sure every member understands and uses, risk management. This is the perfect time to reinforce that, especially with cadets.**



# The RM “Loop”

**One of the most important components of Risk Management is the Loop, signifying that RM must be a continuous process!**

- **Supervise and Evaluate**
  - Everyone must watch for new hazards, new risks, or controls that aren't effective
  - Risk Controls can (and should) be updated and improved
  - Consider a “knock it off” if big changes needed or new risks arise
- **After Action and Lessons Learned**
  - Gather your team
  - Discuss what controls worked and which didn't
  - Document your “lessons learned” using Block 14 of CAPF 160
    - you'll want to refer back to it next time you have an activity like this!



# Intermediate Risk Management

- By now you ...
  - ... have a deeper understanding of the risk assessment process
  - ... can lead a risk assessment for a CAP activity
  - ... can help you CAP team mates understand the RM process
- For more information on risk management, refer to the following
  - CAPR 160-1, *CAP Safety Program*
  - Safety pages of [gocivilairpatrol.com](http://gocivilairpatrol.com) website
  - The Advanced Risk Management training module
  - CAPF 160 and CAPF 160S



# Questions?



We need your help!

If you have any questions or suggestions about any CAP Safety Education, please

contact us at

[safety@capnhq.gov](mailto:safety@capnhq.gov)

Thanks!