The "5 M's"

A "cheat sheet" for mishap reviews

CAPR 160-2, and CAPP 163, discuss the use of the 5 M's as a guide to make sure you are exploring all the areas that may have been factors in a mishap. This will provide you an overview of using the 5 M's in mishap reviews. At the end, it will give you a discussion starter you can use to explain, and practice, the process with your fellow members.

"**5 M's."** It is easy to look at the mishap itself, and what might have happened right before it, but how do we know what to look for when we are considering all the factors and processes and circumstances and policies that might have influenced the mishap? The "5 M's" will be used to guide the reviewer through that process. The "M's" stand for **M**ember, **M**edia, **M**achine, **M**ission, and **M**anagement. Let's take a look at how these "M's" can lead you through the review process:

Member: Take a look at all the information about the person themselves. A few examples:

- Was the member trained for the mission or activity?
- Were they physically able to perform the task?
- Were there human factors like fatigue, dehydration, or illness that might have been a factor?

Media: This refers to the environment at the time of the mishap and what effect it might have.

- What was the weather and what effect did that have on the mishap? Heat? Cold? Rain?
- How about the terrain? Was the "playing surface" appropriate for the activity?
- What was the lighting? Was it noisy? Distractions? Anything else about the "conditions?"

Machine: This looks at the airplane, the vehicle, PPE, and ALL the equipment that might have been used.

- Was the equipment well-suited to the task or mission?
- Was the equipment well-maintained? Well designed? What "broke" and why?

Mission: This refers to how the actual mission or activity was planned and executed.

- Was the activity well-planned?
- Was a Risk Assessment accomplished before the activity and were risk controls actively used?
  - -- Were there risk controls that addressed the specific mishap occurrence?
- What happened during the activity, and what decisions were made?
- Was the mission or activity too complex for the members involved?
- What was the chain of events that led to the mishap; what went wrong?

Management: This refers to the organizational factors that influence our activities and missions.

- What do the regulations and written guidance say about the activity?
  - -- Are they clear? Easy to understand? Were they followed?
- Is there any other informal guidance or local standards or "the way we've always done it?"
- Who was in charge? Was there adequate supervision?
- Did the plan define everyone's role, and did everyone perform that role?

What next? Hopefully, by using the "5 M" approach, you were able to take a close look at all the things that might have played a role in the mishap. But what do you do with that information?

In most cases, you ask the question, "why?"

For example, you might look at the "Member" and see that the member wasn't trained to drive that kind of vehicle. If the training is a risk control meant to prevent this type of mishap, then asking "why" can help you find out where things went wrong. "Why" did the member feel the need to drive the vehicle if they weren't trained? "Why" weren't they trained?

Another common example can be seen when we look at "Management." No risk assessment done before the activity? "Why?" No clear guidance on the right way to do this task? "Why?" Did this cadet activity lack the proper supervision? "Why?"

You get the idea. Don't be satisfied that you found "the cause." Take the time to find out what allowed that "cause" (there may be several) to happen, and then you can figure out what changes can be made to control the risk(s) that you've identified.

NFWOD? A term you will be hearing more of is "Non-Factor Worthy of Discussion" (NFWOD). As you look through all the factors that influenced the mishap, you might find other issues that are worth looking into. They might not have anything to do with the actual mishap, but they are "worthy of discussion." You might find some outdated guidance. You might witness an inconsistency in the way members are interpreting a certain regulation. You might even find a stairway railing that needs to be replaced. Those might not have influenced this mishap, but they are worth noting and letting the appropriate leadership know what you found so it can be addressed/fixed/improved.

LET'S PRACTICE!

Using the "5 M's" is something all safety officers and commanders should be comfortable with. It would be a great topic for a monthly safety meeting discussion!

1) Pick a mishap that happened in your squadron, or one that you heard about in the wing or read about in the Beacon.

2) If you want to make it more interesting, add a few more details and a few more "factors" that your members can help uncover.

3) Begin the discussion. Lead the members through the "5 M's" so they get used to looking at all the things that can lead to a mishap. Prompt them to ask questions like "why" and "how can we fix that?"

4) Do it for real! If you have an actual mishap in your unit, get the people involved to help you thrugh the process. This will work great if you get a team of cadets on the job! Learning all the things that can lead to a mishap, will help grow your appreciation of how mishaps may be prevented!