

# Safety

The purpose of this lesson is for students to comprehend the basic requirements for CAP safety management.

## Desired Learning Outcomes

1. Describe the three components of CAP's safety philosophy.
2. Explain the interplay between regulated procedures, Risk Management (RM), and individual responsibility.
3. Describe the application of regulated procedures, RM, and individual responsibility to CAP activities.

**Scheduled Lesson Time:** 30 minutes

## Introduction

In your Level I Orientation Course you received a basic orientation to the CAP safety program and how Risk Management (RM) provides a critically important tool for minimizing risks to our members in performing their volunteer duties. Now you are advancing and will be directly participating in accomplishing the CAP mission where you will be exposed to varying degrees of risk. Your training and participation opportunities will be many, and with them comes a very important responsibility for you to be actively engaged in the CAP Safety Program. It is through your active safety participation that you will help keep yourself, your fellow CAP members, and our valuable equipment in mission ready shape. In this lesson we will provide a very brief overview of the aspects of the formal CAP safety program, but more importantly introduce three very critical aspects of the practical safety program and how you, as a new CAP officer, will become a key part of accomplishing CAP missions while keeping risks to a minimum.

The formal CAP safety program is outlined in CAPR 62-1, *Civil Air Patrol Safety Responsibilities and Procedures*, and can be reviewed at your convenience. This regulation provides program specific guidance for running the safety program and is very important for commanders and safety officers. As an active member, you may already have benefited from participation in unit safety meetings or received a specialized safety briefing when attending certain CAP activities like encampments, field training exercises (FTX), or anywhere members face risk. These briefings are all part of the CAP formal safety program. Additionally CAPR 62-1 requires each member receive annual training on Risk Management (RM). The reason for this annual training is to emphasize the importance of using RM as our primary tool to reducing risks. Its use is truly part of the CAP safety culture and becomes one of the three components of a safety philosophy that keep our risk at an acceptable level.

## **1. Describe the three components of CAP's safety philosophy.**

The practical application of the CAP safety program is simply an extension of the formal safety program and relies on three integrated components. These components are regulated procedures, RM, and finally the individual CAP member's responsibility in carrying out the safety program in a continual and effective fashion. Let's address each of these separately.

### **REGULATED PROCEDURES**

Regulated procedures is an overarching term that includes all applicable laws (including federal, state and local) and also other publications (i.e. rules, regulations, manuals, and pamphlets). They directly impact how we do our business. In some cases they may identify and prohibit certain unsafe activities or actions. In other cases, they may set reasonable limits or parameters that must be adhered to in order to keep risks at an acceptable level when carrying out certain tasks. Speed limits on our roads, or how close a CAP pilot should fly to the terrain when searching for a missing airplane both provide examples of regulatory guidance that are meant to keep us safe.

Some members when first learning of certain regulatory guidance may consider it overly restrictive or limiting. What is important to understand is that much of the safety related regulatory guidance has developed over time and occurred from either near mishaps or actual mishaps that caused serious injury or significant property damage. The history leading up to the regulatory guidance isn't typically documented in that guidance, but is often stored in the mishap and investigation files. Needless to say, many people may have suffered greatly for the protection being established in the regulatory guidance that is now protecting our members and equipment.

### **RISK MANAGEMENT**

The second component is RM. From your Level I training you may recall RM is a systematic 6 step process to identify and manage risks. It is based on the premise that we must deal with hazards every day, and that by carefully analyzing them and reducing the resultant risks we can increase overall mission effectiveness. In the process of reducing risks, we also reduce the number and severity of mishaps. Mishap is a general term used by CAP that covers any unplanned event where injury or property damage occurs. It covers the full range in severity from something that is really minor up to a serious accident. CAP then categorizes each mishap as an "accident," "incident", or "minor mishap" depending on the dollars involved or the severity of the injuries. CAPR 62-2, Mishap Reporting and Investigation, provides all the details. Obviously mishaps hurt us in several ways. The pain, suffering and time to heal from even minor injuries can be quite high and while a member is recuperating we lose a valuable asset. Equipment that is ruined or damaged, like people, is a loss to the mission not to mention the actual cost for repair or replacement. Therefore every mishap, even the minor ones, take a negative toll on being able to complete our missions and need to be prevented.



Most people perform a level of unconscious RM every day without even realizing it. Evaluating the hazards of winter roads and buying snow tires or a four-wheel vehicle can be part of RM. Delaying travel when roads are icy and unsafe is also a form of RM. But to really reap the benefits of RM requires one to fully understand the details of each ORM step and allot adequate time to work good and complete risk mitigation measures. Therefore RM should be consciously applied in all CAP activities.

To enhance our members' understanding and application of RM, CAP offers RM courses. Completing these courses gives members a much better understanding of what is involved with each step and various risk control measure options that can be synergistically applied to lower risks.

While we won't duplicate the level of detail of the RM courses here, there are a few aspects of RM you should understand for this lesson. The first is that RM is based on four key principles.

- Accept no unnecessary risk
- Make risk decisions at the appropriate organizational level
- Accept risk when benefits outweigh cost
- Integrate RM at all levels.

Inherent in the principles is the realization that even after applying risk control measures there will still be some residual risk. At every point in the RM process, it is important to measure the benefit of completing the tasks with those remaining risks clearly outweighs the cost if something were to go wrong.

The second RM aspect worth mentioning is that RM can, and should, be accomplished in three levels:

- Strategic RM - long term planning of complex or large operations
- Deliberate RM - e.g. by an experienced group coming together and brainstorming
- Time Critical RM - done on the fly to deal with unplanned or quickly changing events

## INDIVIDUAL RESPONSIBILITY

The final component of our CAP Safety Philosophy is the responsibility of each and every member to actively engage in the safety program. Our team effort is comprised of individuals who understand how safety is carefully integrated into activities from early event planning all the way through post event review. No matter how well our regulatory guidance is developed or RM accomplished, the safety program hinges on individuals continually being alert to hazards and taking action to prevent mishaps. This includes each member understanding that they have the responsibility to stop or modify an unsafe act that can prevent a mishap from occurring. Each member comes into CAP with varied backgrounds, education and experience level. That background will continue to grow with experiences gained internal and external to CAP. Each member must then use their talents to the safety program for the benefit of themselves and their fellow volunteers. So even as new member to CAP you are expected to contribute to a positive safety culture within the organization.

### **2. Explain the interplay between Operational Risk Management, regulated procedures and individual responsibility.**

The three safety components all work together to ensure our members can accomplish their mission in a low risk environment. This section takes a closer look at some of the regulatory guidance that pertains to CAP and how the ORM process helps modify those procedures over time. Then it will look at how individual responsibility ties in to keep our members and equipment safe.

As previously presented, regulatory guidance comes both from outside CAP as well as internally. It provides the first level of safety oversight in guiding our members in CAP activities by providing information on what activities may be unacceptable or in some cases acceptable only under specific conditions. CAP, like all organizations and citizens, is required to follow federal, state and local laws. This includes the Federal Aviation Regulations (commonly called "FARs") for flight operations as well as state and local traffic laws. CAP also has its own set of regulatory guidance, commonly referred to as "publications" which guide us in planning and carrying out CAP activities. It is very appropriate to look at how these CAP publications impact our safety and how RM helps in the establishment and changes to the publications.

As safety is integrated throughout our CAP activities, it quickly becomes apparent that portions of different regulations pertain to items that reduce risk. There is no single document that covers everything safety related. Therefore to effectively understand all regulatory guidance when it comes to safety involves doing a little research into several different functional areas.

At first the number of publications may seem overwhelming to a new member, but once you learn that they are broken down by series and there are also indexes readily available, it is a little easier to navigate and find what you need. A publication series is simply a way of grouping related publications, like regulations and manuals, with a similar number scheme. From a safety perspective, there are a few key publications series that deal with higher risk activities and therefore potentially contain important safety related information. They are:

- Series 52...Cadet Programs
- Series 60...Operations
- Series 62...Safety
- Series 66...Aircraft Maintenance
- Series 77...Motor Vehicles
- Series 100..Communications

To apply these publications, CAP members need to know where to find them. National level publications can typically be found on-line in the members section at <http://members.gocivilairpatrol.com>. CAP publications are sometimes supplemented at lower levels and members need to check each echelon below National Headquarters to ensure compliance with all the publications. Using today's technology most regions and wings make these documents available via web sites or by other means, and they are equally important because they may address regional or local issues that are unique to the local area. Your unit administrative officer should be able to help you find specific publications.

To understand how RM interplays with regulatory guidance one must keep in mind that RM is a continual cycle, done at different levels, with the last step including a review of the success of the process. Sometimes even the best efforts in risk reduction don't succeed and we experience one or more mishaps. By tracking these mishaps at the national level, CAP can identify trends and conditions that may need attention at the regulatory level. In reality, tracking mishaps is performing the RM Step 6 at the strategic level. To help in this RM review process, the mishap reporting and investigation process covered in CAPR 62-2 comes into play. Even minor mishaps that don't require formal investigation are reported for statistical and trending purposes through an on-line reporting system. Through a process of gaining experience in certain activities and reviewing our successes (and occasional failures), our leadership can cycle through the RM process at the strategic level when necessary and consider if

changes to our regulatory guidance is in order. These changes can then be introduced in existing publications or possibly formed in new ones.

A presentation of safety and regulatory guidance would not be complete without considering the possibilities of different regulatory guidance that may exist in different sources. From time to time, there may be more than one piece of regulatory guidance that pertains to a certain activity. One regulation may be more stringent than another, or occasionally two pieces of guidance may actually conflict. From a safety perspective, the normal procedure is to consider all the applicable guidance and take the course of action with the safest outcome or lowest risk. This follows the RM concept of reducing risks to the lowest possible level and the RM principle of accepting no unnecessary risk.

A perfect example of two regulations applying at the same time is the Federal Aviation Regulation Part 91.151 and CAPR 60-1, CAP Flight Management. Part 91.151 prohibits a pilot from starting a day, visual flight rule flight unless they have at least 30 minutes of extra fuel on board. Our current CAP flight regulation that has evolved over time requires CAP pilots to plan and fly a flight so that there is one hour of fuel remaining at landing. Not only has CAP required additional fuel reserve based on time, but also slightly changed the FAA concept by requiring CAP pilots to adjust a flight when necessary to land with the right amount of fuel reserve. Obviously the CAP regulatory guidance is more restrictive (and includes a safer margin of fuel reserve) than the minimum requirements set by the FAA. It is therefore incumbent on CAP pilots in this case to use the more restrictive CAP requirements over the FAA requirement. Most of the time CAP regulatory guidance will be at least as restrictive as federal, state and local laws; but if for some reason it is not, our members are expected to follow the most restrictive and safest guidance.

Recall that two principles of RM included making risk decisions at the appropriate level and then to ensure the benefits of taking the risk clearly outweigh the cost if a mishap occurs. The principle is sound, but occasionally the practical answer of "what is the right level" may not be clear. When possible, the decision making level, including the introduction and approval of risk mitigation and acceptance of residual risk is pushed down to the lowest practical level. This may be down to an Incident Commander or encampment commander. However, regulatory guidance on occasion specifically establishes the lowest acceptable level certain risk decisions can be made.

An example of that is found in CAPR 52-16, Cadet Program Management, paragraph 1-4 that covers Safety Policies Related to the Cadet Program when it comes to rappelling. By regulation, cadets are normally only allowed to rappel on DoD installations, using DoD equipment and under direct supervision of current and qualified DoD rappelling masters. However the regulation also allows region commanders to authorize the use of commercial instructors, facilities, and/or equipment, if they give a waiver in writing prior to the activity and after being satisfied that all aspects of the activity (installation, instructors, equipment, etc.) meet or exceed established DoD standards. Regulatory guidance in this case requires the RM approval level for a non-DoD rappelling activity

be presented by a CAP staff officer identifying whether the benefits exceed the residual risk.

While RM feeds into the regulatory guidance process, the regulatory guidance process then frequently feeds back into the local RM process by providing certain minimum levels of risk mitigation. Early on in event planning a check of appropriate regulatory guidance is critical because it may set certain parameters or require obtaining a certain level of approval to meet safety guidelines. By design, CAP regulations try and set the minimum guidance necessary for effective management, and that also means they provide only the uppermost level of safety protection. For example, national level publications may be somewhat general in nature and may not take into account all the local hazards faced by a particular wing or local unit in different parts of the country. Therefore, it is always important to follow a regulatory guidance check with a full RM process to meet the full principles of RM. Just because regulatory guidance was established at the strategic RM level it does not mean higher echelons did a complete RM review and take into account every hazard that could apply. It is only after one or more full RM cycles has been done that we can be reasonably assured that an activity has been properly risk analyzed.

CAP places great inherent responsibility on you, as a CAP officer/NCO, to work all regulatory guidance and RM into your activities, regardless of your formal position. Even as a relatively new member of the CAP team, you need to take this responsibility seriously and begin both a formal and informal training program to live up to it. For starters, early in your CAP career is a good time to begin reading and understanding various CAP publications that pertain to high risk areas where you will be participating. When reading them, look for regulatory guidance where CAP has introduced risk reduction measures.

Keep in mind that the regulations should become a reference tool for you. You don't have to memorize every detail, but instead should gain a working knowledge of what generally is in them and where to find detail when needed. After, spend an hour to complete the on-line RM basic course. Certain activities in the future may require this course, and the sooner you get it completed the sooner you will better contribute to fully applying RM to your activities.

Another area to consider is your participation in unit and event safety training and education. While the unit commander and activity safety officer may have the overall responsibility to ensure this training is done, they may not always have the most experience in specific hazards or techniques to get the message across in a lively and practical manner. Safety involves a significant amount of human involvement to work, and we get results through continued formal and informal leadership. As a CAP officer/NCO you are expected to both follow and lead. When you demonstrate good safety practices and reject unsafe actions, you are leading by example. As you are placed in various leadership roles, you can also provide your own safety "briefs" as required. Safety briefings don't always need to be formally prepared and structured. An unplanned situation may provide the opportunity for a quick safety review or training

session that may involve only one or two people and last as short as 30 seconds. This is especially true when dealing with young adults (cadets) where the safety education transferred may have a very long and positive impact.

An optional (unless you are a safety officer) on-line course you may want to take is the Basic Safety Officer Course and open-book exam. Even if you don't plan to be a safety officer, there is information that may benefit you while participating in CAP activities.

Most important of all is to NOT underestimate the important responsibility you have to stop an unsafe act; regardless of the role you are formally assigned. Every CAP member in essence is a pseudo safety officer when it comes to preventing a mishap and therefore should be continually running through the time critical RM cycle. Sometimes all it takes when observing an unsafe act or identifying a new hazard is to say, "that looks really unsafe" or "we shouldn't do that." It's amazing how people may quickly agree and change their actions to prevent a mishap. Sitting back and passively letting an unsafe activity progress without interceding is NOT acceptable in any CAP activity.

Another tie between individual responsibility and RM is the appreciation that using experienced or specially trained people is often a risk reduction tool that can be applied during the RM process. The more experience and training you achieve in relation to the activities you'll be involved with can actually make you more valuable in completing these activities in both a safe and professional manner. For example using current, qualified and proficient instrument rated flight crew when the weather is marginal (marginal VFR for the pilot types) may be an RM risk control measure. CAP cadets take an oath which in part reads "advance my education and training rapidly to prepare myself to be of service to my community, state and nation." That same preparation is no less important for our CAP officers/NCOs and the enhanced education and training in some areas can and will contribute to the overall safety of CAP activities.

At this point you can see the three components of regulated policy, RM and personal responsibility all interplay in keeping our programs and activities safe. Each piece alone is not enough. It is the active combination of all three that allows us to prosecute our missions without undue risk.

### **3. Describe the application of regulated procedures, ORM and individual responsibility during CAP activities**

At this point you should have a fairly good understanding of the three safety components. It is through their carefully orchestrated application we achieve positive results.

Since regulated procedures can provide the first level safety protection every CAP staff officer facing a new situation should allot some time to research any publications that may impact the upcoming activity. This is especially important if the CAP officer/NCO



is responsible for the overall planning of the activity. Keep in mind that more than one regulation or pamphlet may pertain.

For example if you are planning an outdoor cadet field activity it may include using both CAP vehicles and communications equipment. Guidance from 52, 77, and 100 series publications may all apply. Don't be afraid to ask questions and receive input from other unit staff specialists, but also make sure they are providing the most recent and current guidance. Your research should also include any supplements published by your region, wing, group or unit. As you gain more familiarity with the publications they will become easier to apply and the time required to check them out goes down.

Armed with current and accurate knowledge of regulated procedures, the application of deliberate RM during the planning process is appropriate. The sooner RM is started during the planning process, the more time risk reduction options can be explored and implemented. An indicator of poor planning is waiting until most (or all) of the event decisions are made AND THEN beginning to consider risks and risk reduction. When RM is worked in concert with planning, risk mitigation actions can be developed in parallel and prevent having to rework portions of the original plan. And don't forget the team approach. While you have individual responsibilities, that does not mean you have all the answers and have to do everything on your own. Safety is a teamwork activity and getting help, whether in the form of advice, resources and/or people, may be just what is needed in turning a high risk activity into one with relatively low risk.

Finally, don't forget that RM is a continuous cycle and can operate at the strategic, deliberate and time critical levels. Regulatory guidance can take months or years to effectively develop, and is often done at the strategic level. In contrast, time critical RM can be done in seconds when needed. Even as the activity is underway, every individual has a responsibility to keep cycling through the 6 step RM process and take real time action to lower risks. A member may not always have time or immediate access to reference regulatory publications at that point, but there is always time to apply common sense life experience to intervene with an unsafe activity.

### **Lesson Summary and Closure**

Through the integration of regulated procedures, RM and personal involvement CAP is able to complete its missions in a relatively safe environment. Regulatory guidance often provides the first level of risk reduction that is then further enhanced by application of deliberate and time critical RM by our dedicated members. This is effectively accomplished by dedicated members integrating safety at all levels by actively applying the 4 principles of RM and actively cycling through the 6 Step RM process.

### **Work Cited:**

CAPR 62-1, *CAP Safety Responsibilities and Procedures*, 19 Dec 2012