



Safety Beacon



Official Safety Newsletter Of The Civil Air Patrol

February 2012

BEACON NEWSLETTER TEAM

LT COL SHARON WILLIAMS

LT COL VAN DON WILLIAMS

MAJOR JAMES RIDLEY, Sr.

MAJOR MANUEL CEJA

Inside this issue

Republished Articles

	Page
Emergency Management and the Use of Social Media	1
Asthma Flare-Ups	2
Angle of Attack	3
Cold Weather Operations	4-7
A Safer Pilot	8
Safer Skies Through Education	9

CAP Article

A Safety Message	10
Region Safety Officers	11

Col Robert Diduch CAP/SE
safety@capnhq.gov

Col Robert Alex
Asst CAP/SE Ground
safety@capnhq.gov

Lt Col Bruce Brown
Asst CAP/SE Aircraft
safety@capnhq.gov

Mr. Frank Jirik
Safety, NHQ/SE
safety@capnhq.gov

Emergency Management and the Use of Social Media



Release Date: January 5, 2012
Release Number: 4042-024

MIDLOTHIAN, Va. -- Survivors of the Aug 23 earthquake from the City of Fredericksburg, and the counties of Culpeper, Fluvanna, Goochland, Orange, Spotsylvania and Louisa are eligible for Individual Assistance (IA). How can people in these locations find the information they need? One way is through social media.

The Virginia Department of Emergency Management (VDEM) and the Federal Emergency Management Agency (FEMA) maintain Facebook, Twitter and YouTube sites. These sites contain updates in the form of news, information and videos on disaster recovery and information on preparing for the next time disaster strikes.

"Events worldwide have demonstrated how quickly social media can connect people and allow them to share information and help one another," said Federal Coordinating Officer Don Keldsen. "We have been able to reach the survivors of disasters through our continued posting to social media websites such as twitter and facebook."

"When the earthquake hit on Aug 23, cell phone service was not available," said State Coordinating Officer Michael Cline. "Many turned to facebook and twitter to communicate with their family and friends."

VDEM and FEMA want to encourage anyone who uses personal computers or smartphones to stay up to date by accessing the following social media sites:

- www.facebook.com/vaemergency
- www.facebook.com/fema
- Twitter: @VDEM
- Twitter: @FEMA
- Youtube.com/vaemergency
- Youtube.com/fema

FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.

Asthma Flare-Ups

During an asthma flare-up or attack, the airways in a child's lungs become more irritated and swollen, making breathing more difficult. While some flare-ups are mild, others can be life threatening, so it's important to deal with them right away.



Signs and Symptoms

Signs of an asthma flare-up include:

- wheezing
- coughing
- chest tightness
- shortness of breath

Signs of a **severe** asthma flare-up may include:

- trouble breathing even when sitting still
- difficulty speaking without pausing
- feeling tired or drowsy
- blueness around the lips
- the areas below the child's ribs, between the ribs, and in the neck sink in with each attempt to inhale



What to Do:

If the child is having an asthma flare-up, be sure to follow his or her specific asthma treatment guidelines. Many doctors provide a detailed asthma action plan for their patients. Because each child's experience with asthma is different, each action plan will be too.

Seek Emergency Medical Care or Call 911 if the Child:

- begins to show signs of a severe flare-up
- has a flare-up that enters the danger zone (red zone) of his or her action plan



Think Prevention!

Help prevent flare-ups by taking these steps:

- Encourage and help the child to avoid substances that you know trigger flare-ups.
- Make sure the child takes the controller medicine as directed by the doctor – even if the child is feeling better.
- Make sure the child gets a flu shot every year.
- Work with the child's doctor to follow an asthma action plan.
- Make sure the child never runs out of the prescribed medications.
- Ensure that the child takes the medications to school and on trips.

TOM HOFFMANN

Angle of Attack



Stay the Safety Course

Exploring and Preventing What Causes GA Accidents

Starting in 2010, the FAA Safety Team (FAAS-Team) began holding an annual safety standdown in April to start off the busy spring/summer flying season with a strong focus on safety. This year's 3rd Annual FAAS-Team Safety Standdown will focus on three core topic areas:

- Loss of control
- Aeronautical decision-making (ADM)
- Proper preflight

The first of these two topics have been identified as causal factors in a majority of GA accidents within the last ten years, according to data from the General Aviation Safety Joint Steering Committee (GAJSC). Driven by a goal of preventing GA accidents, the Safety Standdown will help educate and raise awareness of these topics through a series of interactive presentations and special events held nationwide during April. This year's Standdown will be kicked off at the 2012 Sun 'n Fun International Fly-In & Expo in Lakeland, Fla.

Despite only a slight decline in the overall GA fatal accident rate, General Aviation and Commercial Division Manager Mel Cintron is optimistic about the efforts of an ongoing safety outreach program. "We've seen some tremendous support from the GA community," says Cintron. "But we must continue to stay the course to obtain the results we all seek – a significant downward trend in the accident rate."

A critical component of the plan is the Safety Standdown. "We're excited to once again host this unique event designed to arm pilots with practical information on topics that surface all too often in accident reports," says National FAAS-Team Operations Lead Kevin Clover. We hope to see pilots taking advantage of this opportunity to help them become safer and proactive in these target areas."

Clover added that loss-of-control issues are of particular concern since, from 2001-2010, loss-of-control while in-flight accounted for 1,259 fatal GA accidents. A majority of those occurred during the maneuvering, approach, and enroute phases of flight.

In addition to reviewing practical stick and rudder skills needed to properly recover from loss-of-control situations, the Standdown will also stress the decision-making skills that can help pilots avoid them in the first place. "We often see that pilots are excellent problem solvers when it comes to a physical cause-and-effect issue, like calculating a correct airspeed or a landing distance requirement," says Clover. "However, sometimes pilots tend to overlook some of the softer skill sets, like human factors and decision-making skills, which when not properly addressed can just as easily lead to a fatal error."

The final component of the Safety Standdown will address a pilot's preflight skills. Here pilots will have a chance to review the importance of a thorough walk-around inspection as well as fine-tune their aircraft systems skills and their ability to detect signs of an impending mechanical problem.

"As the educational and safety outreach arm of the FAA, the FAAS-Team is committed to serving the GA community and making our skies even safer," says National FAAS-Team Manager Michael Costa. "The Safety Standdown is just one more valuable tool airmen can use to make a stand against error."

For more information on the Standdown topics, check out the online courses on [FAASafety.gov](http://faasafety.gov) (see Learn More below) as well as the Safety Standdown website (<http://faasafety.gov/standdown/>) where you can scope out the location of the nearly 100 Standdown events scheduled this April. Your local FAAS-Team representative can also help find a Standdown event near you.

Tom Hoffmann is associate editor of FAA Safety Briefing. He is a commercial pilot and holds an A&P certificate.

Learn More

FAA Safety Team Course ALC-34, Maneuvering: Approach and Landing

https://www.faasafety.gov/gslac/ALC/course_content.aspx?cID=34&slID=161&searchresults=true&preview=true

Cold Weather Operations Checklist for VFR Flights

COLD WEATHER OPERATIONS

Aircraft and their components are designed to operate within certain temperature ranges. If information about these ranges is not available, operators should consult the manufacturer as to precautions to be taken in extremely cold weather operations. Also the advice of operators and mechanics permanently located in the area of operation is of great value.

1. Aircraft Preparation For Cold Weather Operations

- a) in extremely cold temperatures all oil lines, oil pressure lines and tanks, in aircraft with reciprocating engines, should be inspected for proper insulation to preclude the possibility of oil congealing. Insulations must be fireproof and accomplished by an experienced mechanic.
- b) baffles, winter fronts and oil cooler covers are recommended by some manufacturers (check for manufacturer's approval)
- c) check if oil and grease grades are as those specified by the manufacturer
- d) special care is recommended during the preflight to assure that the crankcase breather system (reciprocating engines) is free of ice. Check if modification of the system is necessary and if yes, if it is approved.
- e) inspect all hose lines, tubings, seals for any deterioration. Check all clamps and fittings.
- f) inspect the cabin heater system to eliminate the possibility of carbon monoxide entering the cockpit/cabin.
- g) check all control cables
- h) remember that feathering of oil pressure controlled propellers, in extreme cold, may lead to the situation where congealed oil will not allow to unfeather the propeller.
- i) if the airplane must be parked outside, wet cell batteries should be either kept fully charged or removed from the aircraft to prevent loss of power cause by cold temperatures. Dry cell batteries are resistant to power loss by freezing.
- j) Look out for any mud or slush which thrown into wheel wells, during taxi and takeoff, may freeze in flight and cause landing gear operational problems. If possible, avoid surfaces covered with mud or slush and remove wheel pants (fixed-gear aircraft) to prevent the possibility of frozen substance locking the wheels/brakes.

2. Preflight Actions

- a) even in low temperatures, when conditions urge to hurry the preflight phase, conduct full preflight inspection
- b) check for fuel contamination very likely to happen when the aircraft was parked warm with half full tanks as this leads to water condensation in tanks. To check for contamination use all installed fuel sumps.
- c) check for fuel source, use the best fuel available, from modern fueling facilities. If not available – filter the fuel as it goes into the tanks. Use good, commercial filter.
- d) preheat the engine and cabin to avoid changes in the viscosity of oils, effectiveness of batteries or situations when instruments stick.
- e) to make preheating safe follow these precautions:
 - preheat the aircraft by storing in a heated hangar,
 - use only heaters in good condition and do not refuel the heater when it is operating,
 - do not leave the aircraft unattended during the heating process.
- f) keep a fire extinguisher handy (fire extinguisher with CO2 should be fully charged)
- g) do not place heat ducting so it will blow hot air directly on combustible parts of the aircraft
- h) when using a “fire pot” use a wire mesh in the ducting to prevent flaming pieces of carbon from entering the aircraft or engine compartment.
- i) remove all frost, ice and snow from all airfoil and control surfaces and around the static system sensing point.
- j) if an aircraft is parked in an area of blowing snow, put special attention to openings in the aircraft where snow can enter, freeze and then obstruct operations. These openings are:
 - pitot tubes and static system sensing ports,
 - fuel vents,
 - heater intakes, carburetor intakes,
 - wheel wells,
 - tail wheel area (check for any frozen snow around the elevator and rudder controls).
- k) in ski operation check all safety cables and shock cords.
if You are to fly over big areas, sparsely populated, consider carrying appropriate survival kits and proper clothing. It may save Your life in case of forced landing.

3. Engine Start

- a) in moderate cold an engine may be started without preheat. Use care as it may be difficult due oil being partially congealed.
- b) avoid the tendency to overprime. It may lead to cylinder walls scoring, poor compression and hard starting. It may also be a cause of engine fire.
- c) the reason for hard starting may be icing over sparkplug electrodes. To avoid it heating is necessary and is not available than the plugs should be removed and heated to the point where more moisture is present.
- d) remember that during prolonged idling of the engine it may stop as insufficient heat is produced to keep the plugs from fouling out. When engine stops after long idling check plugs for icing.
- e) remember that turbine engines can accumulate internal ice overnight and resist rotation when starting is attempted. Therefore with any indication of locked rotor, unusual noise or low RPM – discontinue the start.

4. Taxiing

- a) in ski operation: exercise caution during downwind/crosswind taxiing and turning, especially when skis have no brakes.
- b) in deep snow or on packed snow or ice, during wheel operation, braking action is poor.
- c) avoid snow banks along the sides of runways as they may be frozen solid.

5. Takeoff

- a) do not overboost supercharged or turbine engines. Use power charts for the pressure altitude and temperature to determine appropriate manifold pressure and engine pressure ratio.
- b) remember that on multiengine aircraft the critical engine-out minimum control speed (V_{mc}) will be higher than the published figure.
- c) with reciprocating engines use carburetor heat as required. On some occasions, in extremely cold weather, it may be advisable to use carburetor heat on takeoff.
- d) use anti-ice and deice equipment as outlined in Flight Manual. In turbine powered aircraft remember that use of bleed air will, in most cases, affect aircraft's performance.

6. Climb

- a) in aircraft equipped with reciprocating engines, keep a close watch on cylinder head temperature. If the head temperature nears the critical stage, increase the airspeed or open the cowl flaps or both

7. Enroute

- a) if You are to fly into snow shower be prepared to go in instruments since visual reference may be lost.
- b) if a “white out” (a condition in which there are no contrasting ground features in pilot’s visibility range) occurs - immediately shift to instrument flight.
- c) in icing conditions use anti-ice equipment in the manner for which it was designed (anti-ice equipment is to prevent ice formation, not to eliminate which has already built-up)

8. Descent and Approach

- a) during descent there may be a problem of keeping the engine warm enough. So it may be desirable to use more power than normal, which may require extension of gear or/and flaps to keep the airspeed within limits. Also carburetor heat may be necessary to help vaporize fuel and enrich the mixture.
- b) keep in mind that two conditions are commonly associated with clear en-route weather: blowing snow and ice fog. Check the forecast carefully as these conditions are hazardous and may require alternate actions.

9. Landing

- a) remember about snow banks on the sides of the runways
- b) try to obtain runway surface conditions prior to Your landing decision. If such information is not readily available take Your time to hold and wait for it.
- c) remember that the use of reversible propellers or thrust reverses may reduce Your forward visibility by blowing snow.

10. After the Flight

- a) during reciprocating engine shutdown a good practice is to turn off the fuel and run the carburetor dry. This lessens the fire hazard during preheat before next flight.
- b) fill the tanks with the proper grade of fuel, especially if the aircraft is going to be parked in a heated hangar. Do it as soon as possible after the landing.
- c) if the aircraft is to be left outside install engine and pitot tubes covers.
- d) if snow or “clear and colder” conditions are forecasted – install wing covers if available.
- e) use control locks and tie down the aircraft if it is to be let outside.
- f) check for manufacturer’s recommendations for engine oil dilution.

A Safer Pilot

A host of Web resources to make you a safer pilot

Dedicated to making general aviation flying easier and safer, the AOPA Air Safety Foundation offers a number of safety education resources free of charge to all pilots. Here are some helpful Web links: Learn more in less time with [interactive online courses](#); test your knowledge with [instantly scored quizzes](#); search [the accident database](#); check the schedule for [safety seminars](#) coming to your area; and print [publications](#) from the library. After you've had a chance to review these popular resources, show your support for the foundation [by donating](#).

For those unit safety officers looking for alternate means for pilots who miss their monthly safety meetings, try these from [AOPA ASF](#).

<http://www.aopa.org/asf/>



FAA Safety Team | Safer Skies Through Education

Notice Number:
NOTC3434

Special Safety Tip

Here we have an excellent example of an accident that did not happen!

While an alert IA (or mechanic) discovered the discrepancy, it appears multiple mechanics and IAs missed "seeing" the incorrect installation. Initially, someone made the incorrect installation, and an Inspector missed it! This example can serve as a reminder that mechanics and Inspectors need to be diligent in performing their work.

As pilots and owners, we need to encourage mechanics not to shortcut any inspections! Our very lives may depend upon it!

You can review this December Maintenance Alert here:

https://www.faasafety.gov/files/notices/2012/Jan/2011_12_Alert_BonanzaCableCutterbrief.pdf

You can see pictures here: https://www.faasafety.gov/files/notices/2012/Jan/V35A_Pictures.pdf

While the Editor's comment in the GA Alert seems to praise the IA who discovered this one, the photos clearly demonstrate a failure to have the cable installed properly in the first place. It is possible there were many repeated inspections on this V35A over a number of years without anyone noticing the slow sawing action through the primary control tube. (Investigation revealed this particular airplane did not fly very often.)

We need to ask ourselves what we are relying on as the basis for the GA Quality Assurance program, as it relates to qualifications, training, recurrency, following directions, and performing proper inspections. This is a systemic challenge for maintenance facilities and individual mechanics alike.

If you are aware of other examples we can share, please forward the details to Airmen@FAASafety.gov; we would be especially interested in any photographs you may have.

A Safety Message

Night Time Safety

Night time activities are when you must be more aware of your surroundings than during any other time of the day. The reason for this is that due to many factors people are less aware of their surroundings and are not able to react as quickly as during the day. So since this is the case how does one protect themselves from any hazards that may occur? The best and most obvious solution is to be visible, do all you can to make sure you are seen.

Studies have shown that at night if you are wearing all black you are visible at 55 feet, wearing white 180 feet, and wearing reliable retro-reflective materials can be seen by an individual well over 500 feet away.

How can you make sure you are visible, well it depends on the activity you are participating in.

Emergency Services/Camping/Hiking Safety

Carry a flashlight with at least 2 sets of extra batteries, as long as the flashlight works it doesn't have to be a super bright illumination, as long as you have some visible light. Wear required reflective vest or belts, the American National Safety Institute (ANSI) Class II or Class III vests are recommended but any retro-reflective color, yellow, orange, white will work.

Pedestrian/Jogging Safety

Always cross at crosswalks and wait for the signal to turn green, never jay walk. Look both directions before crossing. If you must be on the road make sure you wear some sort of retro-reflective material.

Extra tips for when using a flashlight, use a red or blue lens if applicable to help prevent night blindness for other individuals. Studies have shown that once your night vision has been compromised it takes around 10 minutes for 10% of the vision to come back, 30-45 minutes for 80% of the vision and could be days until your night vision is at 100%. If you only have the simple white light do your best not to directly point it at others as it will affect their night blindness for at least an hour. How does one protect themselves at night? Well be visible of course, do all you can to stay visible in order to protect your self and others. We are all one team, and we must do all we can to keep the team safe and moving toward our goal.

Major Kirk Thirtyacre Deputy Director of Safety, Illinois Wing CAP

The Official Safety Newsletter of the Civil Air Patrol-February 2012

VISIT US ON THE WEB
WWW.GOCIVILAIRPATROL.COM

Discover, report, stop, share, listen, and learn. The things we have read about in this issue already have happened, so you are not allowed to experience these for yourself.

Remember to "Knock It Off" and slow down. For streaming dialogues on some subjects, remember CAP Safety is on Facebook and Twitter.

SUMMARY

CAP's safety awareness and program management has significantly improved with the addition of NHQ safety staff working in conjunction with the National Safety Team (NST). The NST is comprised of the National Safety Officer and volunteer assistants assigned as subject matter experts for flight and ground safety. Region and Wing Commanders are moving away from a punitive safety program towards a behavior-based safety program that has shown significant improvement in using safety mishaps as an educational opportunity to raise awareness and prevent risk exposure.

Got a great safety article that you would like to see in a future Beacon newsletter? Please send it to Lt Col Sharon Williams at safetybeacon@capnhq.gov.

Region Safety Officers



<p>Col Charles Greenwood GLR/SE cgreenwo@bsu.edu</p>	<p>Col Robert Castle SWR/SE rcastle@cox.net</p>	<p>Lt Col Bill Woody SER/SE wawoody@att.net</p>
<p>Col Charles Glass MER/SE csglass@juno.com</p>	<p>Lt Col Paul Mondoux NER/SE paul@nhplm.org</p>	<p>Maj Alex Kay PCR/SE bcat417@aol.com</p>
<p>Col Harold D. Brown NCR/SE hbrown9425@aol.com</p>	<p>Lt Col Donald Johanson RMR/SE johansondon@msn.com</p>	