CLICK IT OR TICKET

THE SENTINEL

OFFICIAL SAFETY NEWSLETTER OF CIVIL AIR PATROL

You Drink & Drive. YOU LOSE

Two Aircraft Accidents In November

Last month was a tragic month due to two flight accidents - the first fatally injured two of our members. On 21 Nov 03, about 2200 Pacific standard time, a Piper PA-28-180, N7292W, collided with mountainous terrain 9 miles east of Big Bear City Airport, Big Bear City, California. The member-furnished airplane was being operated on an authorized training mission. The 68 year-old commercial pilot / CFII and the 67 year-old scanner sustained fatal injuries; the airplane was destroyed. Visual meteorological conditions prevailed and a visual flight plan had not been filed. The flight originated at the CAP mission base at Palm Springs Airport, Palm Springs, California, at 2028.

The CAP mission Incident Commander for the planned Search and Rescue Exercise (SAREX) told the Safety Board investigator that the two members decided to return to their home base at Big Bear City the evening of 21 November after attending a CAP training class held at the Palm Springs Airport. CAP notified the Federal Aviation Administration (FAA) when the aircrew could not be located the following morning. A San Bernardino County Sheriff Air Support helicopter located the airplane wreckage on the northwestern slope of Tip Top Mountain, at an elevation of 6,900 feet msl, about 1700 Saturday, 22 November, and reported that there were no survivors. CAP search and rescue ground teams located and secured the accident site about 2200.

The Safety Board investigator and San Bernardino Sheriff Department search and rescue crews arrived at the accident site at 0930, 23 November. Examination of the accident site revealed that the airplane had been consumed by fire, and was located on a 30-degree mountain slope sparsely populated by shrubs and small cedar-like pine trees. Local pilots reported that the Big Bear vicinity was experiencing winds between 30 and 50 knots from the west on the evening of 21 November.

CAPs second accident occurred the very next day. On 22 Nov 03 at 1310 Central standard time, a Wisconsin C-182, N323KW, was involved in a hard landing, which resulted in substantial damage. The flight was a CAPF 5 checkride at Wausau Downtown Airport (AUW) involving a 45 year-old private pilot and a 71 year-old CFI check pilot - neither was injured. Weather was reported to be 2200 broken with 5 miles visibility. Winds were 050/09. The mishap landing occurred on runway 12 (4950x100) while simulating a forced landing. The airspeed suddenly decayed and the aircraft landed hard, bounced and turned left into the wind. The check pilot took the yoke and kept the aircraft on the runway. The check pilot stated that the he had trouble stopping the aircraft and speculates that power may have been added during the high sink rate and not reduced after landing.

The National Transportation Safety Board (NTSB), along with the associated wings are investigating both of these accidents.

Carburetor Icing

While carburetor icing can occur almost anytime, there's no time like the present to review this insidious hazard. Carburetor icing is the number-one cause of icing accidents. Close monitoring of engine instruments and quick corrective measures are the keys to coping with this threat.

As air is drawn into the small throat of a carburetor, the venturi effect accelerates the air

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and cools it. It cools even further when mixed with vaporized fuel. When this moist air reaches the freezing point of 32°F, ice particles that begin to form deposit themselves on the throttle plate. The carburetor can then become choked by ice to the point that the engine receives less air than is required for full power. The once explosive air/fuel mixture becomes so rich from excess fuel that the engine ceases to fire. What conditions are conducive for carburetor icing? It's possible for carburetor ice to form even when the skies are clear and the outside air temperature is as high as 90°F, if the relative humidity is 50% or more - especially when operating at reduced power settings. The envelope for the most severe buildups of carburetor ice is between 65 and 100% relative humidity and 25 to 65°F. In other words, carbureted engines are susceptible to icing almost anytime.

Now, let's look at how to detect carburetor icing. On the ground during engine run-up, ice is easy to positively identify and remove. On a Cessna, for example, at 1,700 rpm the carburetor heat control is pulled out fully to the hottest position. Because air entering the carburetor after application of carb heat is warm (from the engine compartment) and less dense, you will notice an rpm decrease of 100 to 300 rpm, and the rpm should remain low until the carburetor heat control is pushed all the way back in. However, if the rpm decrease is noted, but slowly begins to increase so that when the carb heat control is pushed back in and the rpm reads more than the original 1,700 rpm, you had carb ice.

There are two opportunities to detect the subtle indication of developing carb ice while airborne. The subtlety is a gradual, small drop in RPM on a fixed-pitch prop aircraft, even though the pilot did not retard the throttle. On a constant-speed prop aircraft, a gradual, small drop in manifold pressure (MP) indicates carb ice while in flight. If detected early and dealt with correctly you can easily prevent an untimely engine stoppage. The bottom line in carb ice prevention is to use carb heat:

- during the before takeoff check (as required by your aircraft POH), but not during takeoff.
- when conditions are conducive for icing.
- when operating at reduced power settings.
- in the full-on position. Don't use partial carb heat settings.

CAP Safety Metrics

	FY03	FY04
Aircraft Accidents	***5***	***2***
Aircraft Incidents	***38***	***4***
Fatalities	***2***	***2***
Vehicle Mishaps	***16***	***0***
Bodily Injuries	***13***	***3***
Serious Injuries	***2***	***1***

Defensive Holiday Driving

More than 41,000 people lose their lives in motor vehicle crashes each year and over two million more suffer disabling injuries, according to the National Safety Council. The triple threat of high speeds, impaired or careless driving and not using occupant restraints threatens every driver - regardless of how careful or how skilled.

Driving defensively means not only taking responsibility for yourself and your actions but also keeping an eye on "the other guy." The National Safety Council suggests the following guidelines to help reduce your risks on the road:

- Don't start the engine without securing each passenger in the car. Safety belts save thousands of lives each year!
- Remember that driving too fast or too slow can increase the likelihood of collisions.
- If you plan to drink, designate a driver who won't drink. Alcohol is a factor in almost half of all fatal motor vehicle crashes.
- Be alert! If you notice that a car is straddling the center line, weaving, making wide turns, stopping abruptly or responding slowly to traffic signals, the driver may be impaired.
- Notify the police immediately after seeing a motorist who is driving suspiciously.
- Don't contest the "right of way" or try to race another car during a merge. Be respectful of other motorists.
- Be cautious, aware and responsible.
- Have a safe Holiday Season!

Other Safety Meeting Topics

- **Winter Weather Info For Pilots**
http://www.asy.faa.gov/safety_products/WinterBrochure.htm
- **Cell Phones And Driving Performance**
http://www.nsc.org/issues/idrive/inincell.htm
- **Hypothermia Prevention, Recognition & Treatment**
http://www.hypothermia.org/
- **Teen Safety**
http://www.safekids.com/safeteens/