

Experimental Aircraft Association

CHAPTER
35



SAN ANTONIO
TEXAS

"HEAR NOW, HEAR NOW"

- The Occasion.....Chapter 35's Annual Christmas Get-Together
The Place.....Valley Forge Club and Party House, 6018 Hopes Ferry
(Check the map and directions)
The Date.....Saturday, the 11th of December 1982
The Time.....Attitude Adjustment from 7:00 P.M. (the bar opens) Begin
Serving Dinner at 8:00 P.M.
The Libations.....B.Y.O.B. There will be bar setups, ice and cups
The Menu.....Smoked Turkey with Dressing & Cranberry Sauce
Smoked Ham
Candied Yams and Scalloped Potatoes
Peas with Pearl Onions
Vegetable and Fruit Salads
Assorted Pies
Coffee and Tea
(Each couple or individual coming to the Get-Together has
been asked to bring something for dinner)
The Cost.....Two Dollars per person, pay at the door
Reservations.....If you haven't called yet, please contact Nancy Mason at
674-7854 as soon as possible.

Directions: To get to the Valley Forge Club and Party House:

- Drive Northeast on Interstate 35 towards Austin to the O'Conner Road off ramp.
- Turn Northwest on O'Conner Road, drive 4/10 of a mile to the entrance to the Valley Forge subdivision. Look for a U-TOTE-M convenience store on the right.
- Turn Northeast into Valley Forge on Independence, drive 6/10 of a mile to Hopes Ferry. Look for a Swimming Pool and Tennis Courts on the right.
- Turn right on Hopes Ferry for 100 yards and you are there.
- If you are coming from Nacogdoches, turn Southeast on O'Conner Road and Drive 1-6/10 miles to the Valley Forge entrance.

For those who won't be able to join us at Valley Forge — A Happy Holiday Season and a Successful New Year.

Julius Braun	President	494-5907
Lewis Mason	Vice President	674-7854
Carolyn Smith	Secretary	680-7751
Denver Barr	Treasurer	623-5460
Daniel Cerna	Editor	433-7408

KEEP IT SAFE!



TIPS ON WINTER FLYING

Most pilots are familiar with winter conditions in their particular area; however, often a distance of a few miles may change the environment enough to present new problems to an inexperienced pilot. There are certain precautions that are significant to winter flying. Flight planning during winter months will require special knowledge in order to protect the aircraft as well as the pilot. Extra precautions should be used.

AIRCRAFT PREPARATION

If your home base is located in a warm climate area, you may not have familiarized yourself with the aircraft manufacturer's recommendations for winterizing your aircraft. Most mechanical equipment, including aircraft and their components, are designed by manufacturers to operate within certain temperature extremes. Manufacturers generally can predict their product's performance in temperature extremes and outline precautions to be taken to prevent premature failures.

Baffling and winter covers—Baffles are recommended by some manufacturers to be used in augments tubes. Winter fronts and oil cooler covers are also added to some engine installations.

Engine Oil—The oil is extremely important in low temperatures. Check your aircraft manual for proper weight oil to be used in low temperature ranges.

Oil Breather—The crankcase breather deserves special consideration in cold weather preparation. A number of engine failures have resulted from a frozen crankcase breather line which caused pressure to build up, sometimes blowing the oil filler cap off or rupturing a case seal, which caused the loss of the oil supply.

Hose Clamps, Hoses, Hydraulic Fittings and Seals—An important phase of cold weather preparation is inspection of all hose lines, flexible tubing, and seals for deterioration.

Cabin Heater—Many aircraft are equipped with cabin heater shrouds which enclose the muffler or portions of the exhaust system. It is imperative that a thorough inspection of the heater system be made to eliminate the possibility of carbon monoxide entering the cockpit or cabin area.

Control Cables—Because of contraction and expansion caused by temperature changes, control cables should be properly adjusted to compensate for the temperature changes encountered.

Fuel Vents—Fuel tank vents should be checked before each flight. A vent plugged by ice or snow can cause engine stoppage, collapse of the tank, and possibly very expensive damage.

Taxiing—A pilot should keep in mind that braking action on ice or snow is generally poor. Short turns and quick stops should be avoided.

Oil Pressure Controlled Propellers—Propeller control difficulties can be encountered due to congealed oil. The installation of a recirculating oil system for the propeller and feathering system has proved helpful in the extremely cold climates.

Care of Batteries—Wet cell batteries require some special consideration during cold weather. It is recommended that they be kept fully charged or removed from the aircraft when parked outside to prevent loss of power caused by cold temperatures and the possibility of freezing.

Wheel wells and Wheel Pants—During thawing conditions, mud and slush can be thrown into wheel wells during taxiing and takeoff. If frozen during flight, this mud and slush could create landing gear problems.

OPERATION OF AIRCRAFT

The thoroughness of a preflight inspection is important in temperature extremes. It is natural to hurry over the preflight of the aircraft and equipment, particularly when the aircraft is outside in the cold. However, this is the time you should do your best preflight inspection.

Fuel Contamination—Fuel contamination is always a possibility in cold climates.

Aircraft Fuel Filters and Sumps—Fuel filters and sumps (including each tank sump) should be equipped with quick drains. Sufficient fuel should be drawn off into a transparent container to see if the fuel is free of contaminants. Extra care should be taken during changes in temperature, particularly when it nears the freezing level. Ice may be in the tanks which may turn to water when the temperature rises, and may filter down into the carburetor causing engine failure. During freeze-up in the fall, water can freeze in lines and filters causing stoppage. If fuel does not drain freely from sumps, this would indicate a line or sump is obstructed by sediment or ice.

Removal of Ice, Snow, and Frost—A common winter accident is trying to take off with frost on the wing surface. It is recommended that all frost, snow, and ice be removed before attempting flight. It is best to place the aircraft in a heated hangar. If so, make sure the water does not run into the control surface hinges or crevices and freeze when the aircraft is taken outside. Don't count on the snow blowing off on the takeoff roll. There is often frost adhering to the wing surface below the snow.

TAKEOFF

Takeoffs in cold weather offer some distinct advantages, but they also offer some special problems. A few points to remember are as follows:

1. Do not overboost supercharged engines. This is easy to do because at very low density altitude, the engine "thinks" it is operating as much as 8,000 feet below sea level in certain situations.
2. If the temperature rises, do not expect the same performance from your aircraft as when it was operated at the lower density altitudes of cold weather.
3. Use carburetor heat as required. In some cases, it is necessary to use heat to vaporize the fuel. Gasoline does not vaporize readily at very cold temperatures. Do not use carburetor heat in such a manner that it raises the mixture temperature barely to freezing or just a little below. In such cases, it may be inducing carburetor icing. An accurate mixture temperature gauge is a good investment for cold weather operation. It may be best to use carburetor heat on takeoff in very cold weather in extreme cases.

If your aircraft is equipped with a heated pitot tube, turn it on prior to takeoff. It is wise to anticipate the loss of an airspeed indicator or most any other instrument during a cold weather takeoff—especially if the cabin section has not been preheated.

En Route

Weather—Weather conditions vary considerably in cold climates. In the more remote sections of the world weather reporting stations are generally few and far between and reliance must be placed on pilot reports. However, don't be lured into adverse weather by a good pilot report. Winter weather is often very changeable; one pilot may give a good report and five or ten minutes later VFR may not be possible. Remember, mountain flying and bad weather don't mix. Set yourself some limits and stick to them.

Letdown

Engine Operation—During letdown there may be a problem of keeping the engine warm enough for high power operation if needed. It may be desirable to use more power than normal, which may require extension of landing gear or flaps to keep the airspeed within limits. Carburetor heat may also be necessary to help vaporize fuel and enrich the mixture.

LANDING

A landing surface can be very treacherous in cold weather operations. In addition, caution is advised regarding other hazards such as snow banks on the sides of the runways and poorly marked runways. Advance information about the current conditions of the runway surface should be obtained. If it is not readily available, take the time to circle the field before landing to look for drifts or other obstacles. Be aware that tracks in the snow on a runway do not ensure safe landing conditions.

POST FLIGHT

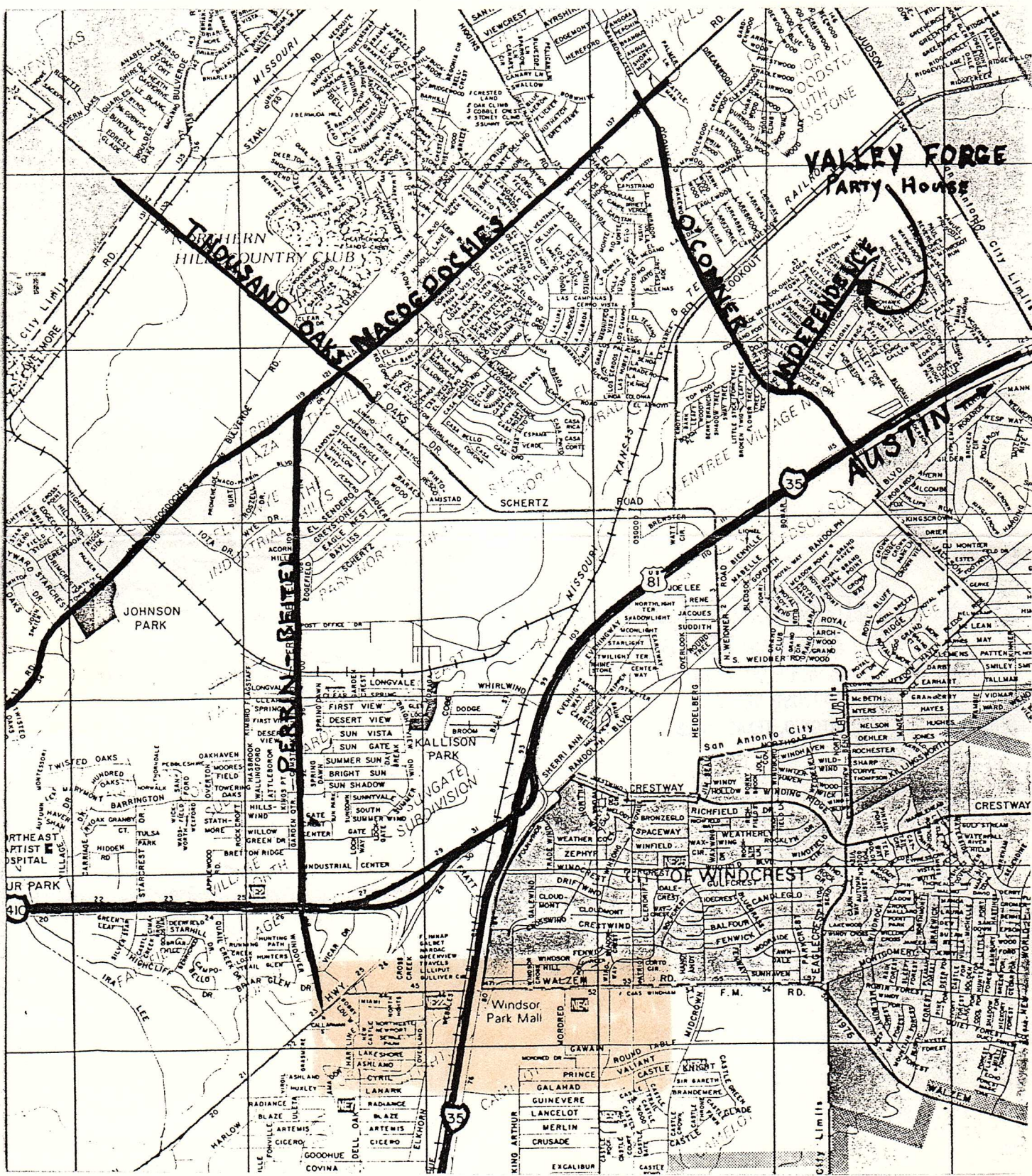
The following are a few items to consider before leaving the aircraft after the flight:

1. As soon as possible fill the tanks with the proper grade of clean aviation fuel, even if the aircraft is going into a heated hangar.
2. If the aircraft is to be left outside, put on engine covers and pitot covers.
3. If the weather forecast is for snow or "clear and colder," put on rotor or wing covers and save yourself from a snow or frost removal job in the morning.
4. Control locks or tied controls are suggested if the aircraft is left outside, and there is a chance of high wind conditions. Tie downs are, of course, also suggested in high winds.
5. If the aircraft is equipped with an oil dilution system, consider the advisability of dilution of the engine oil. If it is decided to dilute, manufacturer's recommendations should be carefully followed commensurate with the temperature expected.
6. During engine shutdown, a good practice is to turn off the fuel and run the carburetor dry. This lessens the fire hazard during preheat the next morning.

"KEEP IT SAFE"

BILL HASKELL

ACCIDENT PREVENTION COUNSELOR



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VALLEY FORGE PARTY HOUSE

VALLEY FORGE PARTY HOUSE

VALLEY FORGE PARTY HOUSE

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KALLISON PARK

WINDSOR PARK MALL

CITY OF WINDCREST

SAN ANTONIO CITY

ARTHEAST SPITAL

UR PARK

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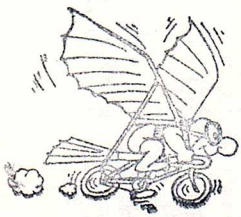
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NEWSLETTER
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