

Winter Flying Tips



Winter is a time when many RC modelers take a break from flying and retreat to the comfort of home. But some RC pilots adapt to the winter conditions and enjoy the challenge of snow flying, helping to maintain their piloting skills year-round. If you've ever considered changing wheels for skis or flying your amphibious or floatplane off the snow but were put off at the thought of dealing with the harsh Ottawa winter, read on to gain insight into some tips and tricks of the trade.

Preparation

- ✓ Arriving at the field well rested and hydrated will be a great start!
- ✓ Dress warmly: good winter boots with thermal socks, winter jacket, toque, neck warmer, long underwear, snow pants and extra sweaters. Dress in layers; remove layers of clothing if needed.
- ✓ A transmitter mitt gives excellent cold and wind protection, allowing you to go bare handed when flying. This gives a better feel for your fingers on the sticks (technically, better proprioception).
- ✓ Consider wearing cycling gloves that have open fingers. Otherwise gloves for flying MUST be thin and flexible (e.g., knit, one-size, stretchy).
- ✓ Have warm gloves for in-between flights (also to carry your friend's airplane to and from the flight line).
- ✓ Wear sunscreen when it is sunny and bright.
- ✓ Wear good quality wraparound sunglasses when flying on snow. Glare is present, even when cloudy.
- ✓ Bring a hot drink and a snack.



Aircraft Setup for Snow Flying

- ✓ Skis should be of ample size (e.g., DuBro skis for up to 2 kg model).
- ✓ Skis should pivot about 20° up and 10° down. They must return to about 5° up.
- ✓ Make sure skis can't flip up or down in flight. If needed, install limiters or straps to prevent this.
- ✓ Conventional gear is usually preferable to tricycle skis.
- ✓ Floats make a viable alternative to skis. Remove water rudders and protect the bottom with tape.
- ✓ Don't put a warm plane with metal skis onto cold snow!
- ✓ Installing skis or floats will likely require a change in elevator trim. Be ready for this on the first flight.
- ✓ Precheck your airplane at home.
- ✓ Finally, don't try to fly off snow using wheels (it doesn't work, and retrieval spoils the snow for others).



Batteries and Fuel

- ✓ Keep your batteries warm. Below about 10°C internal temperature they drastically lose performance.
- ✓ Store and transport at room temperature (or at least 15°C).
- ✓ Use an insulated carrier. In really cold weather, add a hand warmer or other heat source.
- ✓ Only remove battery from warm storage when ready to install in model.
- ✓ Don't charge batteries when cold (below about 15°C).
- ✓ When flying gas, return fuel to vehicle after filling up (to help prevent high oil viscosity).
- ✓ For nitro engines use a few drops of Ronson Lighter Fluid as a primer.

Weather and Visibility

- ✓ Check the weather forecast beforehand for temperature, wind, visibility, and snowfall.
- ✓ Ideal conditions are about -8° to +2°, sunny and calm or with light wind (wind chill is a big factor).
- ✓ During your time at the field the weather may change (e.g., snow squall).
- ✓ Always make sure that you have a **Visual Line of Sight** when flying.
- ✓ **Most important, you must be able to see and avoid full size aircraft.**
- ✓ Consider yellow glasses for low contrast conditions: grey sky, white snow, white plane!
- ✓ Wear sunglasses in sunny and bright conditions.
- ✓ Add high contrast colours (fluorescent orange, red, black) to a white plane.
- ✓ If your radio setup has SAFE, know how to use it if you have problems. It can be a plane-saver!

Safety

- ✓ Arrange to fly with a friend. It's not only safer but it ensures that you do get out of the house!
- ✓ Knowing your physical limits is vital (e.g. avoid shoveling snow if you have a health limitation).
- ✓ Wearing snowshoes helps to maintain balance.
- ✓ Grippers/micro spikes are helpful for walking on ice and compact snow.
- ✓ When walking with an electric powered aircraft, ensure that the motor is disarmed (i.e., use throttle cut).
- ✓ If using an engine starter that has a metal housing, wear gloves to avoid a cold burn.
- ✓ Use extreme caution when walking with a running glow or gas engine. Watch your footsteps carefully.
- ✓ Be aware of shivering and check each other for frostbite (which can happen quickly).
- ✓ Use the winter shelter to warm up.
- ✓ Keep hydrated by bringing a water bottle or a warm drink.
- ✓ First aid kit, blankets and fire extinguisher are in the winter shelter.
- ✓ Bring your cell phone.

Pre-flight checks

- ✓ Before the first flight of the day, conduct a reduced power range check (for each model).
- ✓ Check the propellor and undercarriage for damage before each flight.
- ✓ Check all controls before takeoff.
- ✓ ***Be sure to follow all applicable MAAC and Transport Canada requirements.***

Runway

- ✓ Visually inspect the runway before takeoff to avoid ruts and holes.
- ✓ Bring an extra propellor especially if the runway is wavy and the snow is crusty.
- ✓ Taxing may require full up elevator to keep the nose up. Ease elevator pressure as the aircraft accelerates.

Airfield Etiquette

- ✓ ***All the usual rules apply (e.g., call your intentions, communicate with fellow flyers).***
- ✓ Avoid making footprints on the runway whenever possible!
- ✓ Use snowshoes to retrieve models, or at least take a path to minimize damage to the snow surface.
- ✓ Fill in holes on the runway where they might impede operations.
- ✓ Clear around tables and out to the runway (shovel located in winter shelter).
- ✓ Use the heater as needed, but please do not leave it on unnecessarily.
- ✓ Using the roller provided, clean off the snow on the top of the shelter (from the inside).
- ✓ Do not bring internal combustion powered aircraft or fuel into the winter shelter.
- ✓ Take home everything you brought to the field, including coffee cups, etc.

Happy Winter Flying!

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